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

PHILIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

CATHERINE R. McCABE
Commissioner

Air Pollution Control Operating Permit
Administrative Amendment

Permit Activity Number: BOP190001 **Program Interest Number: 07736**

Mailing Address	Plant Location
DAVID BLACKMORE FACILITY MANAGER COVANTA ESSEX CO 183 RAYMOND BLVD Newark, NJ 07105	COVANTA ESSEX CO 183 Raymond Blvd Newark Essex County

Initial Operating Permit Approval Date: **July 8, 2004**

Operating Permit Approval Date: **October 18, 2019**

Operating Permit Expiration Date: **October 27, 2018 (Operating under Application Shield)**

AUTHORITY AND APPLICABILITY

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

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

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

PERMIT SHIELD

Equipment at the facility referenced by this modification **is not covered by** the permit shield, pursuant to the provisions of N.J.A.C. 7:27-22.17.

COMPLIANCE SCHEDULES

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

COMPLIANCE CERTIFICATIONS AND DEVIATION REPORTS

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

ACCESSING PERMITS

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

HELPLINE

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

RENEWING YOUR OPERATING PERMIT AND APPLICATION SHIELD

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

COMPLIANCE ASSURANCE MONITORING

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

ADMINISTRATIVE HEARING REQUEST

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

If you have any questions regarding this permit approval, please call Ted Chleboski at (609) 777-0129.

Approved by:

Yaso Sivaganesh

Enclosure

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

Facility Name: COVANTA ESSEX CO
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Section A

Facility Name: COVANTA ESSEX CO
Program Interest Number: 07736
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POLLUTANT EMISSIONS SUMMARY

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

Facility's Potential Emissions from all Significant Source Operations (tons per year)										
Source Categories	VOC (total)	NO_x	CO	SO_2	TSP (total)	PM_{10} (total)	$PM_{2.5}$[2] (total)	Pb	HAPs* (total)	CO_2e[3]
Emission Units Summary	83	1260	1260	996	136	134	304	NA	307	
Batch Process Summary	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Group Summary	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Emissions	83	1260	1260	996	136	134	304	NA	307	378,000

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

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

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

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

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

Section A

Facility Name: COVANTA ESSEX CO
Program Interest Number: 07736
Permit Activity Number: BOP190001

POLLUTANT EMISSIONS SUMMARY

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

HAP	TPY
Arsenic	0.067
Beryllium	0.003
Cadmium	0.565
Chromium	0.158
Dioxin TCDD (2,3,7,8)	0.000131
Hydrogen Chloride	284
Hydrogen Fluoride	10.8
Lead	6.57
Mercury	0.14
Nickel	0.043
Polycyclic Organic Matter	3.81

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

Other Air Contaminant	TPY
Ammonia	133

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

Section B

Facility Name: COVANTA ESSEX CO
Program Interest Number: 07736
Permit Activity Number: BOP190001

GENERAL PROVISIONS AND AUTHORITIES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

10. The Department and its authorized representatives shall have the right to enter and inspect any facility 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]

11. 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]

12. 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)]

13. 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)]

14. 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 contacting the Emission Measurement Section to determine the need for recertification and/or to initiate the recertification process. 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)]

15. 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]

16. 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)]

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. 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)]

19. 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.

20. 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.

21. 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).

22. The operating permit renewal application consists of a RADIUS application and the application attachment available at the Department's website http://www.nj.gov/dep/aqpp/applying.html (Attachment to the RADIUS Operating Permit Renewal Application). Both the RADIUS application and the Application Attachment, along with any other supporting documents must be submitted using the Department's Portal at: http://njdeponline.com/. The application is considered timely if it is received at least 12 months before the expiration date of the operating permit. To be deemed administratively complete, the renewal application shall include all information required by the application form for the renewal and the information required pursuant to N.J.A.C. 7:27-22.30(d). However, consistent with N.J.A.C. 7:27-22.30(c), the permittee is encouraged to submit the renewal application at least 15 months prior to expiration of the operating permit, so that any deficiencies can be identified and addressed to ensure that the application is administratively complete by the renewal deadline. Only renewal applications which are timely and administratively complete are eligible for an application shield.

23. Except as allowed in Technical Manual 1005, or otherwise allowed by the Department in this permit or in written guidelines/ procedures issued or approved by the Department, process monitors required by the Compliance Plan included in this permit must be operated at all times when the associated process equipment is operating. The permittee must keep a service log to document any outage.

24. 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.

25. 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.

26. 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]

27. 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).

Section C

Facility Name: COVANTA ESSEX CO
Program Interest Number: 07736
Permit Activity Number: BOP190001

STATE-ONLY APPLICABLE REQUIREMENTS

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

STATE-ONLY APPLICABLE REQUIREMENTS

The following applicable requirements are not federally enforceable:

SECTION	SUBJECT ITEM	ITEM #	REF. #
B	---	1	---
B	---	13b	---
D	FC	---	3
D	FC	---	9

Section D

Facility Name: COVANTA ESSEX CO
Program Interest Number: 07736
Permit Activity Number: BOP190001

FACILITY SPECIFIC REQUIREMENTS AND INVENTORIES

FACILITY SPECIFIC REQUIREMENTS PAGE INDEX

COVANTA ESSEX CO (07736)
BOP190001

Date: 10/18/201

New Jersey Department of Environmental Protection
Reason for Application

Permit Being Modified

Permit Class: BOP **Number:** 90003

Description of Modifications: This application is being submitted to change the facility manager designation to David Blackmore and to request that the Mailing Address information on the front page of the Title V permit be revised to reflect the new Facility Manager and Responsible Official for Covanta Essex Company, David Blackmore.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Subject Item: **FC**

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

New Jersey Department of Environmental Protection
Facility Specific Requirements

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

New Jersey Department of Environmental Protection
Facility Specific Requirements

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

New Jersey Department of Environmental Protection
Facility Specific Requirements

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

New Jersey Department of Environmental Protection
Facility Specific Requirements

Subject Item: **IS1 No. 2 Fuel Oil Tanks (<10,000 Gallons Capacity)**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Sulfur Content in Fuel <= 2,000 ppmw (0.2 % by weight) for Zone 4 (Essex County). Effective through June 30, 2014. [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	Sulfur Content in Fuel <= 500 ppmw (0.05% by weight). Effective July 1, 2014 through June 30, 2016. [N.J.A.C. 7:27-9.2(b)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	None.
3	Sulfur Content in Fuel <= 15 ppmw (0.0015% by weight). Effective July 1, 2016. [N.J.A.C. 7:27- 9.2(b)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	None.
4	Fuel stored in New Jersey that met the applicable maximum sulfur content standard of Tables 1A or 1B of N.J.A.C. 7:27-9.2 at the time it was stored in New Jersey may be used in New Jersey after the operative date of the applicable standard in Table 1B. [N.J.A.C. 7:27- 9.2(b)]	None.	None.	None.
5	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.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Subject Item: **IS2 Fuel Oil Tank (>10,000 Gallons Capacity)**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Sulfur Content in Fuel <= 2,000 ppmw (0.2 % by weight) for Zone 4 (Essex County). Effective through June 30, 2014. [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	Sulfur Content in Fuel <= 500 ppmw (0.05% by weight). Effective July 1, 2014 through June 30, 2016. [N.J.A.C. 7:27-9.2(b)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	None.
3	Sulfur Content in Fuel <= 15 ppmw (0.0015% by weight). Effective July 1, 2016. [N.J.A.C. 7:27- 9.2(b)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	None.
4	Fuel stored in New Jersey that met the applicable maximum sulfur content standard of Tables 1A or 1B of N.J.A.C. 7:27-9.2 at the time it was stored in New Jersey may be used in New Jersey after the operative date of the applicable standard in Table 1B. [N.J.A.C. 7:27- 9.2(b)]	None.	None.	None.
5	The operating temperature shall not be greater than 350 degrees F. [N.J.A.C. 7:27-22.1]	None.	None.	None.
6	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.
7	The tank or vessel shall have no visible emissions, exclusive of water vapor, to the outdoor atmosphere. [N.J.A.C. 7:27-22.1]	None.	None.	None.
8	The tank or vessel shall not emit any air contaminants which may cause an odor detectable outside the property boundaries of the facility. [N.J.A.C. 7:27-22.1]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
9	The tank or vessel shall not be subject to any NESHAPS, MACT, or NSPS air pollution control standards, excluding the NSPS requirements to maintain a record of the contents of the tank or vessel, the period of storage of these contents, and the maximum true vapor pressure of the liquid stored. [N.J.A.C. 7:27-22.1]	None.	None.	None.
10	The tank's or vessel's potential to emit each TXS and each HAP does not exceed the de minimus reporting thresholds as specified in N.J.A.C. 7:27-22, Appendix. [N.J.A.C. 7:27-22.1]	None.	None.	None.
11	The percentage by weight of all HAPs collectively in the raw material stored in the tank, or mixed or blended in the vessel, is less than 1.0 percent. [N.J.A.C. 7:27-22.1]	None.	None.	None.
12	The owner or operator shall have readily available upon Department request a statement certified in accordance with N.J.A.C. 7-27-1.39, signed by the responsible official, as defined at N.J.A.C. 7:27-1.4, that: (1) specifies the contents of the tank; (2) affirms that the tank or vessel meets the applicable requirement and (3) attests that the tank or vessel is in compliance with all other applicable State or federal air pollution requirements. [N.J.A.C. 7:27-22.1]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Subject Item: **GR1 Equipment Subject to Federal NSPS Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	For equipment subject to NSPS (E1, E2, E3, E16 and E17), all requests, reports, applications, submittals, and other communications to the Administrator pursuant to Part 60 shall be submitted in duplicate to the Regional Office of US Environmental Protection Agency. Submit information to: Region II, Director, Air and Waste Management Division, US Environmental Protection Agency, 21st Floor, 290 Broadway, New York, NY 10007. [40 CFR 60.4(a)]	None.	None.	Submit a report: As per the approved schedule to EPA Region II as required by 40 CFR 60. [40 CFR 60.4(a)]
2	For equipment E1, E2, E3, E16 and E17, 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)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	The owner or operator subject to the provisions of 40 CFR Part 60 (equipment E1, E2, E3, E16 and E17) shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in section 60.14(e). The notification shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of facility before and after the change and the expected completion date of the change. Notification shall be postmarked within 60 days or as soon as practicable before any change is commenced. The Administrator may request additional relevant information subsequent to this notice. [40 CFR 60.7(a)(4)]	None.	None.	Submit notification: Upon occurrence of event to EPA Region II and the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60.7 [40 CFR 60.7(a)(4)]
4	For equipment E1, E2, E3, E16 and E17, 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 data acquisition system (DAS) / electronic data storage upon occurrence of event , or manually in a permanently bound logbook. The records should be kept in a permanent form suitable for inspections. [40 CFR 60.7(b)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	For equipment E1, E2 and E3, each owner or operator required to install a continuous monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form (see section 60.7(d)) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. [40 CFR 60.7(c)]	None.	Other: Written records of excess emissions shall include the following information: (1) The magnitude of excess emissions computed in accordance with section 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period and excess emissions. The process operating time during the reporting period. (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted. (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments. (4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.[40 CFR 60.7(c)].	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Semi-annually on January 31 and July 31 of each year. Additionally, the report shall be submitted to the EPA Region II Administrator and be in the format specified at 40 CFR 60.7(c) and 40 CFR 60.7(d). Written reports of excess emissions shall include all the information included in the written records listed under recordkeeping requirement of this applicable requirement. [40 CFR 60.7(c)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
6	For equipment subject to NSPS CMS requirements (E1, E2 and E3): Each owner or operator required to install a continuous monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form (see section 60.7(d)) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. [40 CFR 60.7(c)]	None.	Other: Written records of excess emissions shall include the following information: (1) The magnitude of excess emissions computed in accordance with section 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period and excess emissions. The process operating time during the reporting period. (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted. (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments. (4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.[40 CFR 60.7(c)].	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Semi-annually beginning on the 30th day of the 6th month following initial performance tests. The report shall be postmarked by the 30th day following the end of each six-month period. The report shall be submitted to the EPA Region II Administrator and the 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). Written reports of excess emissions shall include all the information included in the written records listed under recordkeeping requirement of this applicable requirement. [40 CFR 60.7(c)]
7	For equipment E1, E2 and E3, the owner or operator shall conduct performance tests and data reduction 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.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	For equipment E1, E2 and E3, 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 be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [40 CFR 60.8(c)]	None.	None.	None.
9	For equipment E1, E2 and E3, 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.
10	For equipment E1, E2 and E3, 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.
11	For equipment E1, E2 and E3, compliance with NSPS standards specified in this permit, other than opacity, shall be determined only by performance tests established by 40 CFR 60.8, unless otherwise specified in NSPS. [40 CFR 60.11(a)]	None.	None.	None.
12	For equipment subject to the NSPS COM requirement (E1, E2, and E3), the owner or operator shall demonstrate compliance with NSPS opacity standards specified in 40 CFR Part 60. [40 CFR 60.11(b)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
13	For equipment required to conduct visual opacity tests (E16 and E17): The owner or operator shall demonstrate compliance with NSPS opacity standards specified in 40 CFR Part 60, unless otherwise specified and approved by the Administrator. [40 CFR 60.11(b)]	Monitored by visual determination annually, based on 6 minute blocks. Compliance with fugitive ash emission limits shall be based on a series of three one hour observations, performed annually, using EPA Reference Method 22. This is based on the requirement at 40 CFR 60.58b(k). [40 CFR 60.39b(d)]&. [40 CFR 60.11(b)]	Recordkeeping by data acquisition system (DAS) / electronic data storage annually , or manually in a permanently bound logbook. The owner or operator shall maintain records of opacity of emissions based on Method 9 observations. [40 CFR 60.13(h)]	Submit a report: Annually. The owner or operator shall submit results of Method 9 observation data to the Administrator. [40 CFR 60.11(e)(2)]
14	For equipment E1, E2, E3, E16 and E17, the NSPS opacity standard shall apply at all times except during periods of startup, shutdown, malfunctions and as otherwise specified in this permit. [40 CFR 60.11(c)]	None.	None.	None.
15	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 (equipment E1, E2, and E3), 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.
16	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.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
17	Opacity: For equipment E1, E2, and E3, the owners and operators of a COMS installed in accordance with the provisions of 40 CFR 60, must automatically, intrinsic to the opacity monitor, check the zero and upscale (span) calibration drifts at least once daily. For a particular COMS, the acceptable range of zero and upscale calibration materials is as defined in the applicable version of PS-1 in appendix B of this part. For a COMS, the optical surfaces, exposed to the effluent gases, must be cleaned before performing the zero and upscale drift adjustments, except for systems using automatic zero adjustments. The optical surfaces must be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity. [40 CFR 60.13(d)(1)]	None.	Other: Maintain records in accordance with 40 CFR 60.7(f).[40 CFR 60.13(d)].	None.
18	Opacity: Unless otherwise approved by the Administrator, the following procedures must be followed for a COMS. Minimum procedures must include an automated method for producing a simulated zero opacity condition and an upscale opacity condition using a certified neutral density filter or other related technique to produce a known obstruction of the light beam. Such procedures must provide a system check of all active analyzer internal optics with power or curvature, all active electronic circuitry including the light source and photodetector assembly, and electronic or electro-mechanical systems and hardware and or software used during normal measurement operation. [40 CFR 60.13(d)(2)]	None.	Other: Maintain records in accordance with 40 CFR 60.7(f).[40 CFR 60.13(d)].	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
19	Except for system breakdowns, repairs, calibration checks, and zero and span adjustments, all continuous opacity monitoring systems shall be in continuous operation for equipment E1, E2, and E3. They shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period. [40 CFR 60.13(e)(1)]	Other: See Applicable Requirement. [40 CFR 60.13(e)(1)].	Other: See Applicable Requirement. [40 CFR 60.13(e)(1)].	None.
20	Except for system breakdowns, repairs, calibration checks, and zero and span adjustments, all continuous monitoring systems measuring emissions except opacity shall be in continuous operation for equipment E1, E2, and E3. They shall complete a minimum of one cycle of operation (sampling, analyzing and data recording) for each successive 15-minute period. [40 CFR 60.13(e)(2)]	Other: See Applicable Requirement. [40 CFR 60.13(e)(2)].	Other: See Applicable Requirement. [40 CFR 60.13(e)(2)].	None.
21	All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility (equipment E1, E2, and E3) are obtained. Procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of Appendix B of 40 CFR Part 60 shall be used. [40 CFR 60.13(f)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
22	For equipment E1, E2, and E3, the owner or operator shall reduce all continuous monitoring systems for measuring opacity data to 6-minute averages which shall be calculated from 36 or more data points equally spaced over each 6-minute period. Data recorded during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph. For owners and operators complying with the requirements in 40 CFR 60.7(f)(1) or (2), data averages must include any data recorded during periods of monitor breakdown or malfunction. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O2 or ng of pollutant per J of heat input). All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in subparts. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the applicable subparts to specify the emission limit (e.g. rounded to the nearest 1 percent opacity). [40 CFR 60.13(h)]	None.	Other: See Applicable Requirement. [40 CFR 60.13(h)].	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
23	For equipment E1, E2, and E3, the owner or operator shall reduce all continuous monitoring systems (other than opacity) data to 1-hour averages which shall be computed from four or more data points equally spaced over each 1-hour period. Data recorded during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph. For owners and operators complying with the requirements in 40 CFR 60.7(f)(1) or (2), data averages must include any data recorded during periods of monitor breakdown or malfunction. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O2 or ng of pollutant per J of heat input). All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in subparts. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the applicable subparts to specify the emission limit (e.g. rounded to the nearest 1 percent opacity). [40 CFR 60.13(h)]	None.	Other: See Applicable Requirement. [40 CFR 60.13(h)].	None.
24	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.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U1 MWC #1, 2, 3 Municipal Waste Combustors (E1, E2, and E3)**
Operating Scenario: **OS Summary**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	STACK TESTING SUMMARY The permittee shall conduct stack tests using an approved protocol to demonstrate compliance with emission limits for pollutants named and at the frequency specified in the following applicable requirements. Testing must be conducted at worst-case permitted operating conditions with regard to meeting the applicable emission standards, but without creating an unsafe condition. The permittee may propose, in the stack test protocol, to use CEMS data to satisfy the stack testing requirements, for NOx, CO or SO2, with BTS approval. In order for BTS 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)]	Other: Monitoring as required by this OS Summary or under the applicable operating scenario(s).[N.J.A.C. 7:27-22.16(o)].	Recordkeeping by stack test results upon occurrence of event. Recordkeeping as required by this OS Summary or under the applicable operating scenario(s). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule , i.e., as required by the OS Summary or Operating Scenario conditions elsewhere in this permit. [N.J.A.C. 7:27-22.16(o)]
2	STACK TESTING REQUIREMENTS: For facilities demonstrating compliance with 40 CFR 62, Subpart FFF standards, the owner or operator shall conduct annual performance tests no less than 9 calendar months and no more than 15 calendar months following the previous performance test; and must complete 5 performance tests in each 5-year calendar period. From BOP090003. [40 CFR 62.14109(a)] & [40 CFR 60.58(b)]	Monitored by stack emission testing annually, based on each of three Department validated stack test runs. [40 CFR 60.58(b)(c)]	Recordkeeping by stack test results annually. [40 CFR 60.59(b)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule Stack test report must be submitted within 60 days afterperforming the test. [40 CFR 60.58(b)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	STACK TESTING REQUIREMENTS: Conduct annual stack tests on each municipal solid waste combustor to demonstrate compliance with the lead and cadmium emission limits. Stack testing is as required at 40 CFR 60.58b(d). [N.J.A.C. 7:27-22.16 (o)], [40 CFR 60.39b(d) & (f)] & [40 CFR 62.14109(b)]	Monitored by stack emission testing annually, based on the average of three tests (as a minimum.) Stack testing for lead and cadmium (using EPA Method 29) shall be as required at 40 CFR 60.58b(d)(1). [N.J.A.C. 22.16(o)], [40 CFR 60.39b(d) & (f)] &. [40 CFR 62.14109(b)]	Recordkeeping by stack test results upon occurrence of event. All records shall be maintained onsite in either paper copy or computer-readable format. This is as indicated in 40 CFR 60.59b(d)(9)(i) and 40 CFR 60.59b(d)(k). [N.J.A.C. 7:27-22.16(o)], [40 CFR 60.39b(d) & (f)] &. [40 CFR 62.14109(a)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. For all tests, the permittee must contact BTS at 609-530-4041 to schedule a mutually acceptable test date which shall be no later than 15 months after the previous test. Stack test reports must be submitted to BTS within 60 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. Test results shall report lbs/hour, lbs/MM Btu, ppm (as needed). As indicated in 40 CFR 59b(g)(1), a list of the emission levels achieved during performance tests shall be included in the semi annual report submitted pursuant to 40 CFR 60.39b(d), 40 CFR 60.39b(f), and 40 CFR 14109(a). [N.J.A.C. 7:27-22.18(e)], [N.J.A.C. 7:27-22.18(h)], [40 CFR 60.39b(d) & (f)], &. [40 CFR 62.14109(a)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	STACK TESTING REQUIREMENTS: Conduct annual stack tests on each municipal solid waste combustor to determine compliance with HCl emission limits. [N.J.A.C. 7:27-22.16(e)], [40 CFR 60.39b(f)] & [40 CFR 62.14109(b)]	Monitored by stack emission testing annually, based on the average of three Department validated stack test runs to determine compliance with emission limits pursuant to N.J.A.C. 7:27-22.16(e), and the average of a mimimum of three tests to determine compliance with emission limits pursuant to 40 CFR 60.39b(f) and 40 CFR 62.14103(b)(2). Stack testing for HCl (using EPA Method 26 or 26A) shall satisfy the requirements at 40 CFR 60.58b(f). [N.J.A.C. 7:27-22.16(e)], 40 CFR 60.39b(f), &. [40 CFR 62.14109(b)]	Recordkeeping by stack test results upon occurrence of event. All records shall be maintained onsite in either paper copy or computer-readable format. This is as indicated in 40 CFR 60.59b(d)(9)(i) and 40 CFR 60.59b(d)(k). [N.J.A.C. 7:27-22.16(o)], [40 CFR 60.39b(f)] &. [40 CFR 62.14109(a)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. For all tests, the permittee must contact BTS at 609-530-4041 to schedule a mutually acceptable test date which shall be no later than 15 months after the previous test. A full stack test report must be submitted to BTS and a certified summary test report, as described in the protocol, must be submitted to the Regional Enforcement Office within 60 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. Test results shall report lbs/hour, lbs/MM Btu, ppm (as needed). As indicated in 40 CFR 59b(g)(1), a list of the emission levels achieved during performance tests shall be included in the semi annual report submitted pursuant to 40 CFR 60.39b(f) and 40 CFR 14109(a). [N.J.A.C. 7:27-22.18(e)], [N.J.A.C. 7:27-22.18(h)], [40 CFR 60.39b(f)], &. [40 CFR 62.14109(a)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	STACK TESTING REQUIREMENTS: Conduct annual stack tests for dioxins/furans. Total polychlorinated dibenzodioxins emissions and total polychlorinated dibenzofurans (dioxins/furans) must be measured using EPA Reference Method 23. This is as indicated at 40 CFR 60.59b(g)(3). [N.J.A.C. 7:27-22.16(o)], [40 CFR 60.39b(d)]& [40 CFR 62.14109(b)]	Monitored by stack emission testing annually, based on the average of three tests. Minumum sample time shall be 4 hours per run, using EPA Test Method 23 specified at 40 CFR 60.58b(g)(3) & (5), except that: Where all performance tests over a 2-year period indicate that dioxin/furan emissions are <= 15 ng/dscm corrected to 7% O2 (total mass) for all units, the facility may elect to conduct annual performance tests in one unit per year. At a minimum, a performance test for dioxin/furan emissions shall be conducted annually (no more than 12 months following the previous performance test) on one unit. Each year a different unit shall be tested, and the units shall be tested in sequence (e.g., unit 1, unit 2, unit 3) as long as each test indicates an emission level less than or equal to 15 ng/dscm (total mass). If test indicates a dioxin/furan emission level greater than 15 ng/dscm corrected to 7% O2 (total mass), performance tests thereafter shall be conducted annually on all units until and unless all annual performance tests for all units over a 2-year period indicate a dioxin/furan emission level less than or equal to 15 ng/dscm corrected to 7% O2 (total mass). [N.J.A.C. 7:27-22.16(o)], [40 CFR 60.39b(d)], [40 CFR 62.14109(b)] &. [40 CFR 62.14109(d)(1)]	Recordkeeping by stack test results upon occurrence of event. All records shall be maintained onsite in either paper copy or computer-readable format. This is as specified at 40 CFR 60.59b(d)(9)(i) and 40 CFR 60.59b(k). [N.J.A.C. 22.16(o)], [40 CFR 60.39b(d)] &. [40 CFR 62.14109(a)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. For all tests, the permittee must contact BTS at 609-530-4041 to schedule a mutually acceptable test date which shall be no later than 15 months after the previous test. A full stack test report must be submitted to BTS and a certified summary test report, as described in the protocol, must be submitted to the Regional Enforcement Office within 60 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. Test results shall report lbs/hour, lbs/MM Btu, ppm, ng/dscm (as needed). Emission rates of each congener which contains 4 or more chlorine atoms shall be reported. As indicated in 40 CFR 59b(g)(1), a list of the emission levels achieved during performance tests shall be included in the semi annual report submitted pursuant to 40 CFR 60.39b(d), 40 CFR 60.39b(f), and 40 CFR 14109(a). [N.J.A.C. 7:27-22.16(o)], [N.J.A.C. 7:27-22.18(e)], [N.J.A.C. 7:27-22.18(h)], [40 CFR 60.39b(d)], [40 CFR 60.39b(f)], &. [40 CFR 62.14109(a)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
6	STACK TESTING REQUIREMENTS: Conduct annual stack tests on each municipal solid waste combustor to demonstrate compliance with the particulate emission limits, by: i. Three test runs to determine TSP; ii. Three test runs for PM-10 and PM 2.5 (including back half condensibles). [N.J.A.C. 7:27-22.16(a)], [N.J.A.C. 7:27-22.16(e)], [40 CFR 60.39b(d)]& [40 CFR 62.14109(b)]	Monitored by stack emission testing annually, based on the average of three Department validated stack test runs conducted successively. Compliance with all TSP emission limits (except for the limit which stipuates boiler soot blowing) pursuant to N.J.A.C. 7:27-22.16(e) and 40 CFR 62.14103(a)(1) shall be determined by each of three EPA Method 5 test runs indicated in (i) of the applicable requirement, as required in the preconstruction permit and 40 CFR 60.58b(c). Compliance with the emission limit pusuant to N.J.A.C. 7:27-11 shall be determined from the worst-case run indicated in (ii) of the applicable requirement. Compliance with the PM-10 limits stipulated under N.J.A.C. 7:27-22.16(e) will be determined from the front and back-half of the PM-10 train by the average of the three EPA method 201A and 202 test runs indicated in (iii) of the applicable requirement. PM 2.5 shall be determined with the same methods. [N.J.A.C. 7:27-22.16(o)], [N.J.A.C. 7:27-22.16(e)], [40 CFR 60.39b(d)] and. [40 CFR 62.14109(b)]	Recordkeeping by stack test results upon occurrence of event. All records shall be maintained onsite in either paper copy or computer-readable format. This is as specified at 40 CFR 60.59b(d)(9)(i) and 40 CFR 60.59b(k). [N.J.A.C. 22.16(e)], [40 CFR 60.39b(d)] and. [40 CFR 62.14109(a)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. For all tests, the permittee must contact BTS at 609-530-4041 to schedule a mutually acceptable test date which shall be no later than 15 months after the previous test. Stack test reports must be submitted to BTS within 60 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 New Jersey licensed professional engineer or certified industrial hygienist. Test results shall report lbs/hour, gr/dscf, ppm (as needed). As indicated in 40 CFR 60.59b(g)(1), a list of the emission levels achieved during performance tests shall be included in the semi annual report submitted pursuant to 40 CFR 60.39b(d), 40 CFR 60.39b(f), and 40 CFR 14109(a). [N.J.A.C. 7:27-22.16(o)], [N.J.A.C. 7:27-22.18(e)], [N.J.A.C. 7:27-22.18(h)], [40 CFR 60.39b(d)], [40 CFR 60.39b(f)], and. [40 CFR 62.14109(a)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
7	STACK TESTING REQUIREMENTS: The permittee shall conduct annual stack emission testing for mercury on each municipal solid waste combustor at the inlet and outlet simultaneously to satisfy the requirements under N.J.A.C. 7:27-22.16(e), N.J.A.C. 7:27-27.4 and 40 CFR 60.58b(d)(2). [N.J.A.C. 7:27-22.16(e)], [N.J.A.C. 7:27-27.4], [40 CFR 60.39b(d)], & [40 CFR 62.14109(b)]	Monitored by stack emission testing annually, based on the average of three Department validated stack test runs using EPA Reference Method 29. The tests for mercury shall consist of a minimum of three source emission tests to measure mercury in the gas stream at the inlet of the air pollution control apparatus serving each combustion unit, and simultaneously perform three source emission tests to measure mercury in the gas stream at the exit of the control apparatus. If source emission testing fails to demonstrate compliance with the applicable requirement, then the frequency of source testing shall increase to three source emission tests quarterly. In this case, there shall be at least a 45 calendar day interval between the testing performed for a given quarter and the testing performed for the preceding quarter, unless a shorter period is approved by the Department. If compliance with the applicable requirement is then achieved and maintained during two consecutive years, the permittee may again reduce the frequency of source emission testing from three source emission tests performed quarterly to three source emission tests performed annually, not necessarily in the first quarter of each calendar year (from modification BOP080002.) Testing shall also satisfy the requirements at 40 CFR 60. 58b(d)(2), which requires annual testing. [N.J.A.C. 7:27-27.4(c)], [40 CFR 60.39b(d)]&. [40 CFR 62.14109(b)]	Recordkeeping by stack test results upon occurrence of event. All records shall be maintained onsite in either paper copy or computer-readable format. This is as indicated in 40 CFR 60.59b(d)(9)(i) and 40 CFR 60.59b(d)(k). [N.J.A.C. 7:27-22.16(o)], [40 CFR 60.39b(d)], [40 CFR 60.39b(f)] &. [40 CFR 62.14109(a)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. For all tests, the permittee must contact BTS at 609-530-4041 to schedule a mutually acceptable test date which shall be no later than 15 months after the previous test. A full stack test report must be submitted to BTS and a certified summary test report, as described in the protocol, must be submitted to the Regional Enforcement Office within 60 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. Test results shall report lbs/hour, ug/dscm, as needed. As indicated in 40 CFR 59b(g)(1), a list of the emission levels achieved during performance tests shall be included in the semi annual report submitted pursuant to 40 CFR 60.39b(d), 40 CFR 60.39b(f), and 40 CFR 14109(a). [N.J.A.C. 7:27-22.16(o)], [N.J.A.C. 7:27-22.18(e)], [N.J.A.C. 7:27-22.18(h)], [40 CFR 60.39b(d)], [40 CFR 60.39b(f)], &. [N.J.A.C. 7:27-27.4(f)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	STACK TESTING REQUIREMENTS: The permittee shall conduct stack tests on each municipal solid waste combustor using an approved protocol within one year prior to the expiration of the renewed operating permit to demonstrate compliance with the SO2, nitrogen oxides, SO3 + H2SO4 (as converted and expressed as H2SO4), Volatile Organic Compounds (VOC), Arsenic, Beryllium, Chromium, Nickel, Ammonia, and TCDD (2,3,7,8-) emission limits. In addition, tests for polycyclic aromatic hydrocarbons (or polycyclic organic matter), Benzo (A) Pyrene, carbon tetrachloride, formaldehyde, perchloroethylene (tetrachloroethylene), trichloroethylene and vinyl chloride emissions must be conducted. [From modification BOP080002.] [N.J.A.C. 7:27-22.16(a)]	Monitored by stack emission testing prior to permit renewal, based on the average of three Department validated stack test runs. Stack test shall be conducted for SO2, nitrogen oxides, SO3+H2SO4 (as converted and expressed as H2SO4), VOC, Ammonia, Arsenic, Beryllium, Chromium, Nickel, and TCDD (2,3,7,8-) emission limits. In addition, tests for polycyclic aromatic hydrocarbons (or polycyclic organic matter), Benzo (A) Pyrene, carbon tetrachloride, formaldehyde, perchloroethylene (tetrachloroethylene), trichloroethylene and vinyl chloride emissions must be conducted. This is based on the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	Recordkeeping by stack test results upon occurrence of event based on the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (before one year prior to renewal of this operating permit.) Stack testing shall be performed using approved protocols. For all tests, the permittee must contact BTS at 609-530-4041 to schedule a mutually acceptable test date which shall be no later than five years after the previous test. A full stack test report must be submitted to BTS and a certified summary test report, as described in the protocol, must be submitted to the Regional Enforcement Office within 60 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. Test results shall report lbs/hour, lbs/MM Btu, ppm (as needed) [N.J.A.C. 7:27-22.18(e)] &. [N.J.A.C. 7:27-22.18(h)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
9	STACK TESTING REQUIREMENTS: The permittee shall conduct stack tests on each municipal solid waste combustor using an approved protocol within one year prior to the expiration of the renewed operating permit to demonstrate compliance with the 1-hour CO and HF emission limits. [From modification BOP080002.] [N.J.A.C. 7:27-22.16(a)]	Monitored by stack emission testing prior to permit expiration date, based on each of three Department validated stack test runs using EPA Method 10 for CO and EPA Method 13A for HF, or methods approved by the Department and EPA, based on the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	Recordkeeping by stack test results upon occurrence of event based on the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (before one year prior to renewal of this operating permit.) Stack testing shall be performed using approved protocols. For all tests, the permittee must contact BTS at 609-530-4041 to schedule a mutually acceptable test date which shall be no later than five years after the previous test. A full stack test report must be submitted to BTS and a certified summary test report, as described in the protocol, must be submitted to the Regional Enforcement Office within 60 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. Test results shall report lbs/hour, lbs/MM Btu, ppm (as needed) [N.J.A.C. 7:27-22.18(e)] &. [N.J.A.C. 7:27-22.18(h)]
10	These municipal waste incinerators are each subject to the 40 CFR 60 Subpart Cb Emission Guidelines and Compliance Times for Large Municipal Waste Combustors that were Constructed on or Before September 20, 1994. Compliance with all applicable portions of this regulation is required. [40 CFR 60.32(b)]	None.	None.	None.
11	The operating practices in this OP shall be at least as protective as those requirements listed in 40 CFR 60.53b(b) and (c) of subpart Eb [40 CFR 60.35b]	None.	None.	None.
12	The municipal waste combustor operator training and certification shal be at least as protective as those requirements listed in 40 CFR 60.54b of subpart Eb. The compliance with these requirements shall be according to the schedule specified in 40 CFR 60.39b(c)(4). [40 CFR 60.35b]	None.	None.	None.

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13	Municipal waste combustor fugitive ash emissions shall be at least as protective as those requirements listed in 40 CFR 60.55b of subpart Eb. [40 CFR 60.36b]	None.	None.	None.
14	This OP shall include performance testing methods listed in 40 CFR 60.58b subpart Eb, as applicable, except as provided for under 40 CFR 60.24(b)(2) of subpart B and paragraphs 38b(b). Reporting and recordkeeping provisions listed in 40 CFR 60.59b of subpart Eb, as applicable, except for the siting requirements under 40 CFR 60.59b(a), (b)(5), and (d)(11) of subpart Eb. [40 CFR 60.38b(a)]	None.	None.	None.
15	This OP shall continue to require meeting the revised April 28, 2009 emission limits in 40 CFR 60.33b(a), (c), and (d) and the revised testing provisions in 40 CFR 60.38b(b) [Where all performance tests over a 2-year period indicate that dioxin/furan emissions are less than or equal to 15 nanograms per dry standard cubic meter (total mass) for all affected facilities located within a municipal waste combustor plant] [40 CFR 60.39b(g)]	None.	None.	None.
16	The facility is not subject to the nitrogen oxide standards in the NSPS for industrial boilers (40 CFR, Part 60, Subpart Db) since any facility covered by an EPA approved State or Federal section 111(d)/129 plan implementing Subpart Cb or subpart BBBB of this part is not covered by subpart Db. [40 CFR 60.40b(l)]	None.	None.	None.

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17	These municipal waste incinerators meeting the applicability requirements under section 40 CFR 60.32b are not subject to subpart E of 40 CFR 60 in accordance with the final rule (Subpart Cb) dated May 10, 2006 (at 71 FR 27333.) [40 CFR 60.32b(n)]	None.	None.	None.
18	The facility is not subject to the NESHAP for beryllium (40 CFR Part 61, Subpart C), and shall not accept any beryllium containing waste as defined in 40 CFR 61.31(g). [N.J.A.C. 7:27-22.16(e)]	Other: Waste contents. Per delivery. [N.J.A.C. 7:27-22.16(a)].	Other: Waste manifests. Per Delivery. [N.J.A.C. 7:27-22.16(o)].	None.
19	The three municipal solid waste units are subject to the emission guidelines codified at 40 CFR 62 Subpart FFF, Federal Plan Requirements for Large Municipal Waste Combustors Constructed on or Before September 20, 1994. Compliance with all applicable portions of these Subparts is required. [40 CFR 62.14100]	None.	None.	None.
20	Particulate Emissions <= 42.3 lb/hr. Maximum emission rate for each MWC from the table at N.J.A.C. 7:27-4.2(a), based on the Maximum Gross Heat input. Emission limit applies at all times, including startup and shutdown. [N.J.A.C. 7:27-4.2(a)]	None.	None.	None.
21	SO2 <= 2,000 ppmv at standard conditions. Emission limit applies at all times, including startup and shutdown. [N.J.A.C. 7:27-7.2(b)1]	None.	None.	None.
22	SO2 <= 1,100 lb/hr for each MWC (in any 60-minute period), based on the calculation procedure at N.J.A.C. 7:27-7.2(r). Emission limit applies at all times, including startup and shutdown. [N.J.A.C. 7:27- 7.2(b)2]	None.	None.	None.
23	SO2 <= 2,200 lb/hr for each MWC at any instant, based on the calculation procedure at N.J.A.C. 7:27-7.2(r). Emission limit applies at all times, including startup and shutdown. [N.J.A.C. 7:27- 7.2(b)2]	None.	None.	None.

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24	SO3 and H2SO4, as converted and expressed as H2SO4 <= 10 mg/ft^3 at standard conditions. Emission limit applies for each MWC at all times, including startup and shutdown. [N.J.A.C. 7:27- 7.2(g)1]	None.	None.	None.
25	SO3 and H2SO4, as converted and expressed as H2SO4 <= 260 lb/hr in any 60-minute period, based on the calculation procedure at N.J.A.C. 7:27-7.2(r). Emission limit applies at all times, including startup and shutdown. [N.J.A.C. 7:27- 7.2(g)2]	None.	None.	None.
26	SO3 and H2SO4, as converted and expressed as H2SO4 <= 520 lb/hr at any instant, based on the calculation procedure at N.J.A.C. 7:27-7.2(r). Emission limit applies at all times for each MWC, including startup and shutdown. [N.J.A.C. 7:27- 7.2(g)2]	None.	None.	None.
27	SO2 <= 1.2 lb/MMBTU gross heat input determined as a 30-day rolling average. No person shall expand or reconstruct an existing solid fuel-fired steam generating unit or construct a new solid fuel-fired steam generating unit having a rated hourly capacity that exceeds, or would exceed, as a result of expansion, construction, and/or reconstruction, 250,000,000 British Thermal Units (BTU) gross heat input unless the sulfur dioxide emissions, if the unit is a resource recovery facility, do not exceed the above limit. This limit applies to eligible resource recovery units. Emission limit applies for each MWC at all times, including startup and shutdown. [N.J.A.C. 7:27-10.3(a)3]	SO2: Monitored by continuous emission monitoring system continuously, based on a 1 hour block average. Stack test shall demonstrate that standard is assured by continuous emission monitoring of SO2 in ppmvd. [From Renewal BOP0800001.] Compliance with the standard shall be determined in accordance with the provisions of 40 CFR Part 60 Subpart Da, noted below: For affected facilities for which construction, modification, or reconstruction commenced before May 4, 2011, compliance with applicable 30-boiler operating day rolling average SO2 emissions limits is determined by calculating the arithmetic average of all hourly emission rates for SO2 for the 30 successive boiler operating days, except for data obtained during startup, shutdown, or malfunction. [40 CFR 60.48Da(d)] &. [N.J.A.C. 7:27-10.3(b)]	SO2: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously for daily compliance and by stack test records upon occurrence of event. [N.J.A.C. 7:27-22.16(o)]	None.

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28	Particulate Emissions <= 0.1 gr/dscf @ 12% CO2 (including ash, excluding the contribution of auxiliary fuel). Emission limit applies for each MWC at all times, including startup and shutdown. [N.J.A.C. 7:27-11.3(a)4]	Particulate Emissions: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Particulate Emissions: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS0. [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 U1 OS0. [N.J.A.C. 7:27-22.16(o)]
29	Opacity <= 1 Ringlemann Smoke Chart. Emission limit applies for each MWC at all times, including startup and shutdown. [N.J.A.C. 7:27-11.3(b)2ii]	Opacity: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-11.3]	Opacity: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-11.3]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-11.3]
30	The provisions of 7:27-11.3(b)(2) shall not apply to: 1. Smoke emitted during the building of a new fire, the shade or appearance of which is not greater than Number 2 of the Ringelmann smoke chart for a period of three consecutive minutes; or ii. Emissions of such opacity within a stack or chimney to a degree greater than the emission designated as Number 2 of the Ringelmann smoke chart for a period not greater than three consecutive minutes. [N.J.A.C. 7:27-11.3(b)3]	None.	None.	None.
31	No person shall cause, suffer, allow or permit the emission of particles of unburned waste or ash from any common incinerator or from any special incinerator which are individually large enough to be visible while suspended in the atmosphere. Emission limit applies at all times, including startup and shutdown. [N.J.A.C. 7:27-11.3(c)]	None.	None.	None.
32	Odor: No person shall construct, install, use or cause to be used any common incinerator or any special incinerator which will result in odors being detectable by sense of smell in any area of human use or occupancy. Emission limit applies at all times, including startup and shutdown. [N.J.A.C. 7:27-11.3(d)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
33	Any person responsible for the use of an incinerator shall when ordered by the Department, provide the facilities and necessary equipment for determining the density of smoke being discharged from a stack or chimney and shall conduct such smoke tests using methods approved by the Department. Emission limit applies at all times, including startup and shutdown. [N.J.A.C. 7:27-11.3(e)1]	None.	Other: All smoke test data shall be recorded in a permanent log at such time intervals as specified by the Department. Data shall be maintained for a period of not less than one year and shall be available for review by the Department.[N.J.A.C. 7:27-11.3(e)1].	None.
34	Any person responsible for the use of an existing incinerator shall upon request of the Department provide such sampling facilities and testing facilities exclusive of instruments and sensing devices as may be necessary for the Department to determine the nature and quantity of emissions from such incinerators and shall during such testing operate the incinerator at a charging rate of waste no less than the designed capacity of the incinerator using materials representative of the types of wastes normally burned. Emission limit applies at all times, including startup and shutdown. [N.J.A.C. 7:27-11.3(e)]	None.	None.	None.
35	No person shall use or cause to be used any incinerator unless all components connected, or attached to, or serving the incinerator, including control apparatus are functioning properly and are in use, in accordance with the permit to construct, and the certificate to operate. Emission limit applies at all times, including startup and shutdown. [N.J.A.C. 7:27-11.5(c)]	None.	None.	None.
36	VOC (Total) <= 82.8 tons/yr based on Preconstruction Permits (Total for three MWCs). [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
37	NOx (Total) <= 1,248 tons/yr based on Preconstruction Permits (Total for three MWCs). [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
38	CO <= 1,656 tons/yr based on Preconstruction Permits (Total for three MWCs). [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
39	SO2 <= 996 tons/yr based on Preconstruction Permits (Total for three MWCs). [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
40	TSP <= 129 tons/yr based on Preconstruction Permits (Total for three MWCs). Upon completion of the baghouse project, TSP shall be less than or equal to 53 TPY (from modification BOP090003), based on concentration limit of 12 mg/dscm @ 7% O2. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
41	PM-10 (Total) <= 299 tons/yr based on modification BOP090001 (Total for three MWCs). Upon completion of the baghouse project, PM-10 shall be less than or equal to 203 TPY (from modification BOP090003). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
42	PM-2.5 (Total) <= 203 tons/yr from renewal/modification BOP090003, total for three MWCs upon completion of the baghouse project. PM-2.5 is assumed by the facility to be equal to PM-10. PM-2.5 limit prior to completion shall be equal to PM-10 limit above. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
43	No person shall cause, suffer, allow, or permit the emission of particles of unburned waste or ash which are individually large enough to be visible while suspended in the atmosphere. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
44	HAPs (Total) <= 306 tons/yr from Preconstruction Permits (Total for three MWCs). Upon completion of the baghouse project, modification BOP090003, Total HAPs shall be <= 299 TPY. [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
45	Arsenic compounds <= 0.067 tons/yr from Preconstruction Permits (Total for three MWCs). Upon completion of the baghouse project, modification BOP090003, Arsenic emissions shall be <= 0.044 TPY. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
46	Beryllium compounds <= 0.003 tons/yr from Preconstruction Permits (Total for three MWCs). [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
47	Cadmium compounds <= 0.565 tons/yr from Preconstruction Permits (Total for three MWCs). Upon completion of the baghouse project, modification BOP090003, Cadmium emissions shall be <= 0.044 TPY based on concentration limit of 10 ug/dscm @ 7% O2. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
48	Chromium compounds <= 0.143 tons/yr (Total for three MWCs) from modification BOP090003. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
49	HCl Emissions <= 284 tons/yr from Preconstruction Permit (Total for three MWCs). [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
50	Hydrogen fluoride <= 10.8 tons/yr from Preconstruction Permits (Total for three MWCs). [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
51	Lead compounds <= 6.57 tons/yr from Preconstruction Permits (Total for three MWCs). Upon completion of the baghouse project, modification BOP090003, Lead emissions shall be <= 0.44 TPY based on concentration limit of 100 ug/dscm @ 7% O2. [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
52	Mercury compounds <= 0.14 tons per calendar year (Total for three MWCs), or the facility shall have demonstrated during the calendar year that a minimum of 95% removal (revised by OP modification BOP090003) of mercury compounds had been achieved for each quarterly average of all stack tests conducted for each combustor required in this Subject Item U1, OS Summary. This limit is based on the concentration limit specified in N.J.A.C. 7:27-27.4(a). Upon completion of the baghouse project, modification BOP090003, mercury emissions shall be <= 0.12 TPY based on concentration limit of 28 ug/dscm @ 7% O2. [N.J.A.C. 7:27-22.16(a)]	Mercury compounds: Monitored by calculations at the approved frequency using the following formula (using EPA F-Factor 14,389 dscf @ 7% O2): Hg (tons per year) = X times 1 m3/35.3 ft3 x 14389 dscf/MMBTU x 423 10E6 Btu/hr/unit x 8760 hrs/yr x (1 gram/10E6 ug) x (1 lb/454 grams) x 1 ton/2000 lb x 3 (for 3 MWCs), where X equals the average of all stack test results for the calendar year expressed in ug/dscm. [N.J.A.C. 7:27-22.16(o)]	Mercury compounds: Recordkeeping by manual logging of parameter annually or quarterly (as appropriate.) Record calculations each quarter and/or annually, showing the running total for each calendar year. [N.J.A.C. 7:27-22.16(o)]	None.
53	Nickel compounds <= 0.043 tons/yr (Total for three MWCs.) Upon completion of the baghouse project, modification BOP090003, nickel emissions shall be <= 0.039 TPY from modification BOP090003. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
54	Polycyclic organic matter <= 3.81 tons/yr from Preconstruction Permits (Total for three MWCs). [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
55	Dioxins/Furans (Total) <= 0.00013 tons/yr upon completion of the baghouse project, modification BOP090003, for three MWCs based on lower federal concentration limit of 30 ng/dscm @ 7% O2 for a baghouse. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
56	TCDD Emissions (2,3,7,8-) <= 0.000131 tons/yr from Preconstruction Permits (Total for three MWCs.) Upon completion of the baghouse project, modification BOP090003, TCDD emissions shall be <= 0.000119 TPY. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
57	Ammonia <= 133 tons/yr based on Preconstruction Permits (Total for three MWCs). [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
58	Maximum Gross Heat Input <= 423 MMBTU/hr (HHV) (each combustor) while firing municipal solid waste (MSW) and <= 109 MMBTU/hr while firing No. 2 fuel oil. [N.J.A.C. 7:27-22.16(a)]	Maximum Gross Heat Input: Monitored by calculations once initially. Calculations contained in letter dated October 30, 2001. [N.J.A.C. 7:27-22.16(e)]	Other: Retain calculations in permanent file.[N.J.A.C. 7:27-22.16(o)].	None.
59	The permitted maximum steam production rate for each boiler is 247,500 pounds per hour at 650 psia and 752 degrees F (nominal). [N.J.A.C. 7:27-22.16(e)]	Monitored by integrated steam flow monitor continuously , based on a 4 hour block average. [N.J.A.C. 7:27-22.16(e)]	Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(e)]	None.
60	The emission limits specified in PSD permit and included herein at Subject Item U1, OS Summary, Refs #36-40, 45-54 & 56-57 and at OS1 & 10, Refs #2-6, 8-17 & #20-32 shall remain not applicable during the start-up period. Clarification by modification BOP090003. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
61	Start-up Period: commences when the affected incinerator begins the combustion of municipal waste, including continuous, semicontinuous, or batch feeding of municipal solid waste to the furnace. The start-up period does not include any warm-up period when the affected unit is combusting only auxiliary fuel (fuel oil) and no municipal solid waste is being combusted. The duration of exemption from emission limits during the start-up period shall not exceed three hours. [N.J.A.C. 7:27-22.16(e)]	Start-up Period: Monitored by waste feed/charge rate monitoring (solid) continuously. [N.J.A.C. 7:27-22.16(o)]	Start-up Period: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.
62	To obtain start-up allowances, the facility must: a. Maintain the equipment; b. Operate the equipment properly; c. Take steps to minimize emissions during start-up periods. [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
63	Start-up Period: Any visible emissions caused by start-up shall not exceed an average of 10% opacity in any 6 minute block period. [N.J.A.C. 7:27-22.16(e)]	Start-up Period: Monitored by continuous opacity monitoring system continuously, based on 6 minute blocks , using USEPA referenced Method 9, or an equivalent method approved by USEPA and the Department. [N.J.A.C. 7:27-22.16(e)]	Start-up Period: Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(e)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]
64	The owner or operator shall develop a QA/QC plan for all CEMS/COMS required by this permit prepared in accordance with the NJDEP Technical Manual 1005 posted on the AQPP webpage at http://www.state.nj.us/dep/aqpp. [N.J.A.C. 7:27-22.16(a)]	Other: The QA/QC coordinator shall be responsible for reviewing the QA/QC plan on an annual basis. [N.J.A.C. 7:27-22.16(o)].	Other: Maintain readily accessible records of the QA/QC plan including QA date and quarterly reports. [N.J.A.C. 7:27-22.16(o)].	None.
65	Shutdown Period: commences when the feeding of municipal solid waste to the hopper is terminated as a result of a scheduled shutdown or malfunction. The shutdown period ends when municipal solid waste is no longer combusting on the grate. The duration of exemption from emission limits during the shutdown period shall not exceed three hours. Malfunction resulting in shutdown of a unit shall be considered a shutdown, unless operation of the affected unit is resumed before the shutdown is complete. Resuming the operation of a unit before shutdown is completed, if the shutdown is the result of malfunction, shall be considered a malfunction. [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
66	To obtain shutdown allowances, the facility must: a. Maintain the equipment; b. Operate the equipment properly; c. Take steps to minimize emissions during shutdown periods. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
67	Shutdown Period: Any visible emissions caused by shutdown shall not exceed an average of 10% opacity in any 6 minute block period. [N.J.A.C. 7:27-22.16(e)]	Shutdown Period: Monitored by continuous opacity monitoring system continuously, based on 6 minute blocks , using USEPA Referenced Method 9, or an equivalent method approved by USEPA and the Department. [N.J.A.C. 7:27-22.16(e)]	Shutdown Period: Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(e)]	Submit a report: As per the approved schedule. [N.J.A.C. 7:27-22.16(e)]
68	Temperature in the Exit Gas Stream: Upon start-up of a unit, no solid waste may be introduced into the furnace unless the temperature 0.3 seconds downstream of secondary air injection is 938 degrees F as recorded by the permanent thermocouples located at the 116' 4" elevation. [N.J.A.C. 7:27-22.16(e)]	Temperature in the Exit Gas Stream: Monitored by temperature instrument upon occurrence of event. [N.J.A.C. 7:27-22.16(e)]	Temperature in the Exit Gas Stream: Recordkeeping by strip chart or data acquisition (DAS) system continuously or by manual logging upon occurrence of event. [N.J.A.C. 7:27-22.16(e)]	None.
69	Temperature in the Exit Gas Stream: Within one hour after waste has been introduced into any furnace, the temperature one second downstream of secondary air injection must be no less than 1,136 degrees F as recorded by the permanent thermocouples located at 116' 4" elevation. [N.J.A.C. 7:27-22.16(e)]	Temperature in the Exit Gas Stream: Monitored by temperature instrument continuously. [N.J.A.C. 7:27-22.16(e)]	Temperature in the Exit Gas Stream: Recordkeeping by strip chart or data acquisition (DAS) system continuously or by manual logging.upon occurrence of event. [N.J.A.C. 7:27-22.16(e)]	None.
70	Temperature in the Exit Gas Stream >= 1,212 degrees F. The temperature one second downstream of secondary air injection at which each furnace must operate at least 90% of the time when waste is being burned, must be no less than 1,212 degrees F as recorded by the permanent thermocouples located at the 116' 4" elevation. [N.J.A.C. 7:27-22.16(e)]	Temperature in the Exit Gas Stream: Monitored by temperature instrument continuously. Operator shall ensure compliance with operation time at or above minimum temperature limit >= 90% at least quarterly. [BOP090003.]. [N.J.A.C. 7:27-22.16(e)]	Temperature in the Exit Gas Stream: Recordkeeping by strip chart or data acquisition (DAS) system continuously or by manual logging.upon occurrence of event. [N.J.A.C. 7:27-22.16(e)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
71	Temperature in the Exit Gas Stream: The auxilliary burner shall be placed into position and operated if the temperature one second downstream of secondary air injection in any furnace drops below 1,212 degrees F on a 4-hour block average basis as recorded by the permanent thermocouples located at the 116' 4" elevation during the combustion of waste. [N.J.A.C. 7:27-22.16(a)]	Temperature in the Exit Gas Stream: Monitored by temperature instrument continuously. [N.J.A.C. 7:27-22.16(e)]	Temperature in the Exit Gas Stream: Recordkeeping by strip chart or data acquisition (DAS) system continuously or by manual logging.upon occurrence of event. [N.J.A.C. 7:27-22.16(e)]	None.
72	Oxygen: The average concentration of oxygen in the flue gas at each furnace's exit shall not be less than 3% by volume measured on a dry basis (3.5% by volume measured on a wet basis). [N.J.A.C. 7:27-22.16(e)]	Oxygen: Monitored by continuous emission monitor continuously based on any 5 minute averaging period. [N.J.A.C. 7:27-22.16(e)]	Oxygen: Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(e)]	None.
73	If the five (5) minute average oxygen concentration in the flue gas at any furnace's exit drops below 3.0% by volume on a dry basis (3.5% on a wet basis), waste charging to the affected furnace shall cease within thirty (30) minutes from the determination of the low oxygen level. [N.J.A.C. 7:27-22.16(a)]	Monitored by waste feed/charge rate monitoring (solid) continuously. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(o)]	None.
74	The Permittee shall monitor incoming waste trucks to determine whether they contain large quantities of easily discernible yard wastes, such as grass clippings, leaves, tree trimmings, bushes and shrubs and prevent bulk quantity of these wastes from being charged to the incinerators. {PSD permit, Attachment 1, Section J.) [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
75	Each unit shall be equipped with continuous monitors and continuous recorders which shall be operated to accurately maintain the following operating records: a. temperature at the top of radiation section (elevation 116' 4") b. scrubber slurry flow rate; c. secondary voltage, secondary current and spark rate for each field of each electrostatic precipitator; and d. steam prodution rate/flow, steam pressure and steam temperature of each boiler. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
76	Operating Log: Log books shall be kept for each unit to accurately maintain records. [N.J.A.C. 7:27-22.16(e)]	None.	Recordkeeping by manual logging of parameter or storing data in a computer data system daily. For each unit, maintain the following records: a. the specific times of operation of each furnace; b. the specific times of operation of the auxiliary burners; c. incidents of low oxygen concentration (below 3%) as specified in this permit; d. incidents of malfunctions (failures) of electrostatic precipitator, scrubber or SNCR system; e. failure to maintain at least 1136 degress F at the 116' 4" elevation, and f. exceedances of emission standards determined by continuous monitoring. [N.J.A.C. 7:27-22.16(a)]	None.
77	MERCURY CONTROL SYSTEM: The permittee shall install and operate mercury emissions control apparatus (activated carbon injection system) designed to reduce at a minimum 80 percent of the emissions of mercury from each MSW incinerator. [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
78	Mercury Emissions<=28 ug/dscm, based on an annual average and with each test run corrected to seven percent oxygen, as tested in accordance with a test protocol approved pursuant to N.J.A.C. 7:27-27.8 (a) and (b), or: The reduction efficiency for control of mercury emissions of the air pollution control apparatus of any MSW incinerator shall be at least 95 percent on and after January 3, 2012 based on the annual average of all valid tests performed for each four consecutive quarters (from N.J.A.C. 7:27-27.4(a)(2)(iii)) . [From modification BOP090003.] The company must meet 28 ug/m3 or 95% control and also never exceed 464 lbs per year. [N.J.A.C. 7:27-27.4(a)]	Other: See stack testing requirements in U1 OS0.[N.J.A.C. 7:27-27.4(c)].	Other: See stack testing requirements in U1 OS0.[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 U1 OS0. [N.J.A.C. 7:27-27.8(a)]
79	The owner or operator of a MSW incinerator served by a control apparatus shall perform compliance testing every quarter to measure mercury in the gas stream at the inlet of the air pollution control apparatus serving each incinerator and simultaneously perform compliance testing every quarter to measure mercury in the gas stream at the exit of the control device. There shall be at least a 45 calendar day interval between the testing performed for a given quarter and the testing performed for the preceding quarter unless otherwise approved by the Department. [N.J.A.C. 7:27-27.4(b)]	Other: See stack testing requirements in U1 OS0.[N.J.A.C. 7:27-27.4(d)].	Other: See stack testing requirements in U1 OS0.[N.J.A.C. 7:27-27.4(d)].	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-27.4(a)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
80	Any person who achieves and maintains compliance with the preceding mercury testing requirements during two consecutive years may reduce the frequency of mercury testing from each quarter to compliance testing performed only once per year, not necessarily in the first quarter of each year. Testing shall be not less than 9 months nor more than 15 months after previous test test and at "worst case" conditions (See Ref #1.) Also facility shall conduct no less than 5 tests during 5-year permit term. [From modification BOP080002.] However if subsequent testing fails to demonstrate compliance with the mercury testing requirements, then the frequency of mercury testing shall revert back to the quarterly requirement. [N.J.A.C. 7:27-22.16(a), (e)] & [N.J.A.C. 7:27-27.4(c)]	Monitored by stack emission testing annually not less than 9 months nor more than 15 months after previous test. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-27.4(c)]	Recordkeeping by stack test results annually. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-27.9(c)]	Submit a stack test report: Within 60 days of stack testing or by February 28 of the following calendar year to the Northern regional enforcement office and to the Chief, Bureau of Technical Services. Report of stack emission testing, including all test runs, shall be reviewed prior to submission and certified by a licensed professional engineer or an industrial hygienist certified by the American Board of Industrial Hygiene. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-27.9(c) &. [N.J.A.C. 7:27-27.9(d)]
81	Mercury Emissions: The owner or operator of any MSW incinerator that has a reagent based mercury emision control system shall operate each MSW incinerator at, or above, the optimized reagent feed rate established in the optimization tests and approved by the Department. [N.J.A.C. 7:27-27.8(d)]	None.	None.	None.
82	Any owner or operator of a MSW incinerator that submits to the Department a report of compliance testing, including all test runs for a MSW incinerator shall have such report reviewed prior to submission and certified by a registered professional engineer or an industrial hygenist certified by the American Board of Industrial Hygiene. [N.J.A.C. 7:27-27.9(d)]	None.	None.	None.
83	Any owner or operator of a MSW incinerator who submits to the Department a report of compliance testing, including all test runs, shall certify that report. [N.J.A.C. 7:27-27.9(f)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
84	The owner or operator shall make any record made pursuant to N.J.A.C. 7:27-27.9 (e), i.e. the required mercury stack test records, available to the Department, or its authorized representatives, for inspection for a period of five years after the date the record is made. [N.J.A.C. 7:27-27.9(g)]	None.	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator shall make any record made available to the Department, or its authorized representatives, for inspection for a period of five years after the date the record is made. [N.J.A.C. 7:27-22.16(o)]	None.
85	The carbon injection system shall be operated and maintained in accordance with the facilitiy's Air Pollution Control Maintenance Plan and the manufacturer's recommendations. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
86	The Permittee shall, in accordance with N.J.A.C. 7:27-27.8(d), conduct optimization tests on any single unit to determine the optimized activated carbon feed rate for mercury emission control. The resultant optimum feed rate from the optimization test shall be applied to all three of the carbon injection units. The Permittee shall set the optimum carbon feed rate at a level, above which, there will be no appreciable reduction in mercury emissions relative to the amount of activated carbon added. The Permittee shall operate each carbon injection unit at, or above, the optimized carbon feed rate approved by the Department. The carbon injection mercury control system shall be operated at all times while solid waste is being combusted in the incinerator. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
87	The rate of carbon injection, from the operating permit application, through CD1010, 1011 & 1012 shall be greater than or equal to 34 lb/hr in accordance with the approval letter dated March 8, 2001. [N.J.A.C. 7:27-22.16(e)]	Other: Carbon feed auger shall be continuously monitored. In addition, Hopper Fill Cycle Rate shall be 2.0 hours or less and shall also be continuously monitored.[N.J.A.C. 7:27-22.16(e)].	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. All alarms indicating problems with auger operation and/or speed, or with Hopper Fill Cycle Rate shall be recorded. [N.J.A.C. 7:27-22.16(e)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
88	The actual total quantity of carbon used at the facility must equal or exceed the minimum required quarterly carbon usage (Qmin = R, carbon pounds per hour, multiplied by the total hours of waste feed to all three units during a calendar quarter.) [N.J.A.C. 7:27-22.16(e)]	Monitored by material balance quarterly: once per quarter; quarters shall begin on January 1, April 1, July 1, and October 1 of each year. Material balance shall be based on bulk deliveries of carbon and storage silo inventories. As an alternative, hopper fills, which are recorded during each shift, may be used to determine quarterly carbon usage. [From modification BOP080002.]. [N.J.A.C. 7:27-22.16(a)]	Recordkeeping by data acquisition system (DAS) / electronic data storage each month during operation , or manually in a permanently bound logbook to include the total hours of waste feed to each unit, the total combined hours, total minimum combined quantity of carbon required, and total combined amount of carbon actually used per quarter. Hopper fills also may be recorded. [N.J.A.C. 7:27-22.16(o)]	Submit a report: On or before every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]
89	The carbon feed auger speed for each consecutive three hour period (12 to 3, 3 to 6, etc) must be maintained at or above the speed that has been determined, by actual measurement during calibration, to deliver the minimum required carbon feed rate. If the auger or M-drive malfunctions where carbon is not being recorded by the DCS, hopper fills may be used to demonstrate compliance with continuous carbon feed. [From modification BOP080002.] [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
90	The operation below the minimum allowable carbon feed rate as indicated by the auger speed is a permit violation unless within three hours the condition that causes the excursion is corrected, the proper rate is restored, or the waste charging to the hopper of the affected furnace must cease until carbon feed is again at the minimum allowable rate. As an alternate, hopper fills may be used to demonstrate that the minimum allowable carbon feed is being maintained. [From modification BOP080002.] The total time of all such excursions for each unit in a calendar quarter must not exceed 2% of the total operating time for the quarter. [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
91	The carbon feed auger speed, versus actual carbon delivery rate, shall be calibrated at least once per quarter by actual measurements (collecting and weighing the carbon delivered by the feeder) for each unit. a. The maximum time between calibrations shall not be more than 120 days. b. The date and time of each calibration and the results of the actual carbon delivery rates must be recorded and must be made available upon request by the Department personnel. c. Temporary diversions of carbon during calibrations of carbon feed auger speeds, or calibrations of the carbon feed hoppers, for up to one (1) hour in any calendar day, do not apply to the preceding condition in accordance with the approval letter dated November 18, 1998. [N.J.A.C. 7:27-22.16(e)]	Other: Conduct weigh-out test on carbon injection auger for one combustor every 120 days.[N.J.A.C. 7:27-22.16(e)].	Other: Retain records of carbon weigh-out procedure. Upon occurence of event. [N.J.A.C. 7:27-22.16(e)].	None.
92	During operation, the carbon injection system operating parameter(s) that are the primary indicator(s) of the carbon mass feed rate (e.g., screw feeder setting) must equal or exceed the level established during performance tests for mercury emissions. This is as required by 40 CFR 60.58b(m)(2). [40 CFR 60.39b(d)] & [40 CFR 62.14109(b)]	Other: Monitored by carbon feed rate, as required at 40 CFR 60.58b(m)(2). [40 CFR 60.39b(d)]&[40 CFR 62.14109(b)].	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously The facility shall record the average carbon mass feed rate (in kg/hr or lb/hr) estimated for each hour of operation. This is as required at 40 CFR 60.59b(d)(4)(iii). Also, as required at 40 CFR 60.59b(d)(15), the facility shall record the dates where the carbon feed rate is less than the levels established by the performance tests for mercury and dioxins/furans. [40 CFR 60.39b(d)] &. [40 CFR 62.14109(a)]	None.
93	ACID GAS SCRUBBER: Each scrubber shall be operated and maintained in accordance with the facility's Air Pollution Control Maintenance Plan and the manufacturer's recommendations. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
94	Lime slurry shall be used as scrubbing chemical additive. [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
95	SO2 <= 94 ppmvd corrected to 7% O2 concentration in the flue gas , average SO2 concentration in the stack gas or SO2 reduced to <= 30% of the concentration (ppmvd @ 7% O2) at the inlet of the scrubber. The limit of 94 ppmvd shall not apply for 1-hour block periods during which the average concentration of SO2 (ppmvd @ 7% O2) in the stack gas is less than 30% of the average concentration of SO2 (ppmvd @ 7% O2) at the inlet to the acid gas control equipment. [N.J.A.C. 7:27-22.16(e)]	SO2: Monitored by continuous emission monitoring system continuously, based on a 1 hour block average , beginning and ending on the hour. Monitor shall assure that acid gas absorber system is operating correctly. [N.J.A.C. 7:27-22.16(a)]	SO2: Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(e)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]
96	Hydrogen chloride <= 47 ppmvd @ 7% O2 , average HCl concentration in the stack gas or reduced to <= 10% of the HCl concentration (ppmvd @ 7% O2) at the inlet of the scrubber. The limit of 47 ppmvd shall not apply for 1-hour block periods during which the average concentration of HCl (ppmvd @ 7% O2) in the stack gas is less than 10% of the average concentration of HCl (ppmvd @ 7% O2) at the inlet to the acid gas control equipment. [N.J.A.C. 7:27-22.16(a)]	Hydrogen chloride: Monitored by stack emission testing annually, based on the average of three 1-hour tests. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(e)]	Hydrogen chloride: Recordkeeping by stack test results annually. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(e)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(e)]
97	ELECTROSTATIC PRECIPITATOR: The electrostatic precipitator shall be operated and maintained in accordance with the facility's Air Pollution Control Maintenance Plan and the manufacturer's recommendations. [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
98	The permittee shall continue to conduct performance improvement and maintenance activities on the electrostatic precipitators (ESPs) of each of the three Boiler/Incinerator Units during each calendar year and submit a report detailing actions taken and their results. This annual report shall include the information regarding the Electrostatic Precipitator Performance Activities detailed below. AIRFLOW PATTERNS 1) Inspect and verify the uniform and consistent gas flow through the ESP. 2) Inspect grids and plates to insure optimal functionality and that they are clean. 3) Inspect grids and plates to insure no gaps were apparent that would allow gas flow to pass around the plates. 4) Inspect and clean ducts leading to ESP to insure that material is not built up that could restrict airflow. 5) Study gas flow into the ESP to minimize re-entrainment of particulate and to maximize adherence to the collector plates. [N.J.A.C. 7:27-22.16(a)]	None.	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. Keep records of all maintenance activities and include in the annual report. [N.J.A.C. 7:27-22.16(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
99	(Continued from previous requirement) MECHANICAL and ELECTRICAL SYSTEMS 1) Inspect bolts (repair or replace) that secure the electrodes. 2) Inspect bolts (repair or replace) that secure the collector plates. 3) Inspect (repair or replace) worn rapper boots. 4) Inspect (repair or replace) worn rapper insulators. 5) Inspect (repair or replace) worn transformer-rectifier bushings. 6) Review rapping and voltage regulation (controls collector plate rapper sequencing and field voltage). 7) Review Automatic Voltage Controller for improvements during unsteady conditions when arcing co-occurs. 8) Study various different voltages and rapping sequences on ESP performance to find optimal combination to maximize ESPs removal efficiency. SEALS 1) Inspect seals at all connection points along gas flow path and all access doors to the ESP. 2) Repair, replace or adjust the seals that prevent infiltration of moisture and atmospheric air. PERIODIC MAINTENANCE Provide information on the periodic maintenance that is performed on the ESP to insure that their performance does not deteriorate. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
100	The permittee shall continuously monitor and record the secondary voltage, secondary current and spark rate for each field of each ESP. [N.J.A.C. 7:27-22.16(e)]	None.	Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(e)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
101	The temperature at the particulate control device inlet shall not exceed the maximum demonstrated particulate matter control device temperature as defined in 40 CFR 60.51b by more than 17 degrees Celsius (or 31 degrees Fahrenheit), except: (1) During the annual dioxin/furan performance test the 2 weeks preceding the annual dioxin/furan performance test, no particulate matter control device temperature limitations are applicable; (2) The particulate matter control device temperature limits may be waived in accordance with permission granted by the Administrator or delegated State regulatory authority for the purpose of evaluation system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of the-art for controlling facility emissions. This is based on the requirement at 40 CFR 60.53b(c). [40 CFR 60.39b(d)] & [40 CFR 62.14104(b)]	Monitored by temperature instrument continuously, based on a 1 hour block average which shall be used to calculate 4-hour block arthithmetic avarages, based on the requirement at 40 CFR 60.58b(i)(7). [40 CFR 60.39b(d)] &. [40 CFR 62.14109(b)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. All 4-hour block arithmetic temperature averages shall be computed and recorded and be available for submittal to the Administrator or review onsite by an inspector. This is as stated at 40 CFR 60.59b(d)(2)(ii). [40 CFR 60.39b(d)] &. [40 CFR 62.14109(a)]	None.
102	BAGHOUSE SYSTEM Temperature of the flue gas at the inlet of the particulate control device, shall not exceed 30 degrees F above the maximum four-hour block average temperature during the most recent dioxin/furan compliance stack emission tests. [40 CFR 60.51a] & [40 CFR 60.56a(c)]	Monitored by temperature instrument continuously, based on a 4 hour rolling average based on a 1 hour block average. [40 CFR 60.58a(h)(7)]	Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(o)]	None.
103	Particulates Control Efficiency >= 99 %. Minimum control efficiency for each baghouse (CD1023, CD1024 and CD1025) from the operating permit modification application. [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
104	The permittee shall conduct bag cleaning, maintenance and replacement in each baghouse 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)]	Monitored by visual determination annually during the annual boiler outage and at other times necessary to achieve the required particulate matter removal efficiency based on baghouse differential pressure and COMS data to determine the condition of each bag. [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. Maintain all baghouse maintenance and replacement records. [N.J.A.C. 7:27-22.16(o)]	None.
105	Baghouse construction schedule The proposed baghouses will be installed in accordance with a phased construction schedule as indicated in the modification application BOP090003, as follows: construction of the first baghouse to commence in 2014, and all three (3) baghouses shall be installed and operational by December 31, 2016. [N.J.A.C. 7:27-22.16(a)]	None.	Other: Maintain documentation of construction.[N.J.A.C. 7:27-22.16(o)].	None.
106	Upon completion of the baghouse project, BOP090003, each unit shall be equipped with continuous monitors and continuous recorders which shall be operated to accurately maintain the following operating records: a. Scrubber slurry flow rate; b. Steam production rate/flow, steam pressure and steam temperature of each boiler; and c. Temperature at the baghouse inlet. [Modification BOP090003] [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
107	THERMAL DeNOx SYSTEM: The SNCR shall be operated and maintained in accordance with the facility's Air Pollution Control Maintenance Plan and the manufacturer's recommendations. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
108	See GR1 for applicable requirements from NSPS Subpart A, General Provisions. [40 CFR 60]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
109	The facility is not subject to the nitrogen oxide standards in the NSPS for industrial boilers (40 CFR 60, Subpart Db) as revised June 13, 2007, restated below: (k) Any affected facility that meets the applicability requirements and is subject to an EPA approved State or Federal section 111(d)/129 plan implementing subpart Cb or subpart BBBB of this part is not covered by this subpart. [40 CFR 60.40b(k)]	None.	None.	None.
110	The standards under 40 CFR 62, Subpart FFF apply at all times except during periods of startup, shutdown, or malfunction. Duration of startup, shutdown, or malfunction periods are limited to 3 hours per occurrence. The startup period commences when the affected facility begins the continuous burning of municipal solid waste and does not include any warmup period when the affected facility is combusting fossil fuel or other nonmunicipal solid waste fuel, and no municipal solid waste is being fed to the combustor. Continuous burning is the continuous, semicontinuous, or batch feeding of municipal solid waste for purposes of waste disposal, energy production, or providing heat to the combustion system in preparation for waste disposal or energy production. The use of municipal solid waste solely to provide thermal protection of the grate or hearth during the startup period when municipal solid waste is not being fed to the grate is not considered to be continuous burning. This is based on the requirement at 40 CFR 60.58b(a)(1). 40 CFR 60.39b(d) & [40 CFR 62.14109(b)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
111	Opacity <= 10 % (6-minute average), emission limit for opacity exhibited by the gases discharged to the atmosphere from a designated facility except during periods of startup, shutdown, and malfunction. Startup, shutdown, and malfunction exception is specified by 40 CFR 62.14109(b) and 40 CFR 60.58b(a)(1). [40 CFR 60.33b(a)(1)(iii)] &. [40 CFR 62.14103(a)(1)]	Opacity: Monitored by continuous opacity monitoring system continuously, based on 6 minute blocks. The continuous opacity monitoring system shall conform to Perormance Specification 1 in 40 CFR 60, appendix B. This is as required at 40 CFR 60.58b(c)(8). See stack testing requirements in U1 OS0. 40 CFR 60.58b(c)(11). [40 CFR 62.14109(b)]	Opacity: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. All 6-minute opacity levels shall be available for submittal or review onsite by an inspector, as required at 40 CFR 60.59b(d)(i)(A). . See stack testing requirements in U1 OS0. Recordkeeping for stack testing is as required at 40 CFR 60.59b(d)(9). [40 CFR 62.14109(a)]	None.
112	Particulate Emissions <= 25 mg/dscm @ 7% O2 from each MWC on and after April 28, 2009, except during periods of startup, shutdown, and malfunction. Startup, shutdown, and malfunction exception is specified by 40 CFR 62.14109(b). [40 CFR 60.33b(a)(1)(i)] &. [40 CFR 62.14103(a)(1)]	Particulate Emissions: Monitored by stack emission testing annually, based on the average of three 1-hour tests. See stack testing requirements in U1 OS0. Monitoring is based on the requirements at 40 CFR 60.58b(c)(9). [40 CFR 62.14109(b)]	Particulate Emissions: Recordkeeping by stack test results annually. See stack testing requirements in U1 OS0. Recordkeeping is based on the requirements at 40 CFR 60.59b(d)(9). [40 CFR 62.14109(a)]	None.
113	Nitrogen oxides (NOx) <= 205 ppmvd @ 7% O2 , 24-hour daily arithmetic average (midnight to midnight) from each MWC except during periods of startup, shutdown, and malfunction. Startup, shutdown, and malfunction exception is specified by 40 CFR 62.14109(b). 40 CFR 60.33b(d) &. [40 CFR 62.14103(d)]	Nitrogen oxides (NOx): Monitored by continuous emission monitoring system continuously, based on a 1 hour block average. Monitor as specified at 40 CFR 60.58b(h)(5). EPA Reference Method 19, section 4.1, shall be used for determining the 24-hour daily arithmetic average nitrogen oxides emission concentration. [40 CFR 62.14109(b)]	Nitrogen oxides (NOx): Recordkeeping by strip chart or data acquisition (DAS) system continuously. All 1-hour average nitrogen oxide concentrations shall be recorded and be available for submittal or review onsite by an inspector. This is as specified at 40 CFR 60.59b(d)(2)(i)(C). [40 CFR 62.15109(a)]	None.
114	CO <= 100 ppmvd @ 7% O2 from each MWC except during periods of startup, shutdown, and malfunction. Startup, shutdown, and malfunction exception is specified by 40 CFR 62.14109(b), 40 CFR 60.34b(a) and 40 CFR 60.58b(a)(1). [40 CFR 62.14104(a)]	CO: Monitored by continuous emission monitoring system continuously, based on a 1 hour block average which shall be used to calcuate a 4-hour block average. The continuous emission monitoring system shall be operated according to Performance Specification 4A in 40 CFR 60, appendix B. Monitoring is as specified at 40 CFR 60.58b(i)(1), 40 CFR 60.58b(i)(3), and 40 CFR 60.58b(i)(4). [40 CFR 62.14109(b)]	CO: Recordkeeping by strip chart or data acquisition (DAS) system continuously. All 1-hour average CO concentrations shall be recorded and available for submittal to the administrator or review onsite by an inspector. This is as stated at 40 CFR 60.59b(d)(2)(i)(D). [40 CFR 62.14109(a)(1)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
115	Lead Emissions <= 0.4 mg/dscm @ 7% O2 from each MWC on and after April 28, 2009, except during periods of startup, shutdown, and malfunction. Startup, shutdown, and malfunction exception is specified by 40 CFR 62.14109(b). 40 CFR 60.33b(a)(4) &. [40 CFR 62.14103(a)(2)]	Lead Emissions: Monitored by stack emission testing annually, based on the average of three 1-hour tests. See stack testing requirements in U1 OS0. Monitoring is based on the Method 29 requirements at 40 CFR 60.58b(d)(1). [40 CFR 62.14109(b)]	Lead Emissions: Recordkeeping by stack test results annually. See stack testing requirements in U1 OS0. Recordkeeping is based on the requirements at 40 CFR 60.59b(d)(9). [40 CFR 62.14109(a)]	None.
116	Cadmium Emissions <= 0.035 mg/dscm @ 7% O2 from each MWC on and after April 28, 2009 except during periods of startup, shutdown, and malfunction. Startup, shutdown, and malfunction exception is specified by 40 CFR 62.14109(b). [40 CFR 60.33b(a)(2)(i) &. [40 CFR 62.14103(a)(2)]	Cadmium Emissions: Monitored by stack emission testing annually, based on the average of three 1-hour tests. See stack testing requirements in U1 OS0. Monitoring requirements are based on the requirements at 40 CFR 60.58b(d)(1). [40 CFR 62.14109(b)]	Cadmium Emissions: Recordkeeping by stack test results annually. See stack testing requirements in U1 OS0. Recordkeeping is based on the requirements at 40 CFR 60.59b(d)(9). [40 CFR 62.14109(a)]	None.
117	Mercury Emissions <= 0.05 mg/dscm @ 7% O2 or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7% oxygen, whichever is less stringent, from each MWC on and after April 28, 2009 except during periods of startup, shutdown, and malfunction. Startup, shutdown, and malfunction exception is specified by 40 CFR 62.14109(b). [40 CFR 60.33b(a)(3)] &. [40 CFR 62.14103(a)(3)]	Mercury Emissions: Monitored by stack emission testing annually, based on the average of three 1-hour tests. See stack testing requirements in U1 OS0. Monitoring is based on the requirements of 40 CFR 60.58b(d)(2). [40 CFR 62.14109(b)]	Mercury Emissions: Recordkeeping by stack test results annually. See stack testing requirements in U1 OS0.. Recordkeeping is based on the requirements at 40 CFR 60.59b(d)(9)(i). [40 CFR 62.14109(a)]	None.
118	SO2 <= 29 ppmvd @ 7% O2 , or 25% of the potential sulfur dioxide emission concentration (75 percent reduction by weight or volume) whichever is less stringent, from each MWC except during periods of startup, shutdown, and malfunction. Startup, shutdown, and malfunction exception is specified by 40 CFR 62.14109(b). Compliance with this emission limit is based on a 24-hour daily geometric mean. [40 CFR 60.33b(b)(3)(i)] &. [40 CFR 62.14103(b)(1)]	SO2: Monitored by continuous emission monitoring system continuously, based on a daily average (a 24-hour daily geometric average), or a daily geometric average percent reduction using EPA Reference Method 19. This is based on the requirement at 40 CFR 60.58b(e)(4). [40 CFR 62.14109(b)]	SO2: Recordkeeping by strip chart or data acquisition (DAS) system continuously. The owner or operator shall maintain records of all 1-hour average sulfur dioxide emission concentrations. This is as specified at 40 CFR 60.59b(d)(2)(i)(B). [40 CFR 61.14109(a)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
119	HCl Emissions <= 29 ppmvd @ 7% O2 or 5% of the potential hydrogen chloride emission concentration (95 percent reduction by weight or volume) whichever is less stringent, from each MWC except during periods of startup, shutdown, and malfunction. Startup, shutdown, and malfunction exception is specified by 40 CFR 62.14109(b). [40 CFR 60.33b(b)(3)(i)] &. [40 CFR 62.14103(b)(2)]	HCl Emissions: Monitored by stack emission testing annually, based on the average of three 1-hour tests. See stack testing requirements in U1 OS0. Monitoring, including detemining % reduction, is based on the requirements at 40 CFR 60.58b(f). [40 CFR 62.14109(b)]	HCl Emissions: Recordkeeping by stack test results annually. See stack testing requirements in U1 OS0. Recordkeeping is based on the requirements at 40 CFR 60.59b(d)(9). [40 CFR 62.14109(a)]	None.
120	Dioxins/Furans (Total) <= 35 ng/dscm @ 7% O2. On and after April 28, 2009, the emission limit for designated facilities that employ an electrostatic precipitator-based emission control system is 35 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen. [40 CFR 60.33b(c)(1)(ii)]	Dioxins/Furans (Total): Monitored by stack emission testing annually, based on the average of three 1-hour tests. See stack testing requirements in U1 OS0. Monitoring is as required at 40 CFR 60.58b(h)(5), except as specified at 40 CFR 62.14109(d)(1). [40 CFR 62.14109(b)] &. [40 CFR 62.14109(d)(1)]	Dioxins/Furans (Total): Recordkeeping by stack test results annually. See stack testing requirements in U1 OS0. This is as specified at 40 CFR 60.59b(d)(9)(i). [40 CFR 62.14109(a)]	None.
121	Dioxins/Furans (Total) <= 30 ng/dscm @ 7% O2 , except during periods of start-up, shutdown, and malfunction. Startup, shutdown, and malfunction exception is specified by 40 CFR 62.14109(b) and 40 CFR 60.58b(a)(1). This limitation applies after completion of the baghouse project, modification BOP090003. 40 CFR 60.39b(d), 40 CFR 60.53a(b) &. [40 CFR 62.14103(c)(2)]	Dioxins/Furans (Total): Monitored by stack emission testing annually, based on the average of three 1-hour tests. See stack testing requirements in U1 OS0. Monitoring is as required at 40 CFR 60.58b(h)(5), except as specified at 40 CFR 62.14109(d)(1). [40 CFR 62.14109(b)] &. [40 CFR 62.14109(d)(1)]	Dioxins/Furans (Total): Recordkeeping by stack test results annually. See stack testing requirements in U1 OS0. This is as specified at 40 CFR 60.59b(d)(9)(i). [40 CFR 62.14109(a)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
122	No owner or operator of an affected facility shall cause it to operate at a load level greater than 110 percent of the maximum demonstrated municipal waste combustor unit load as defined in 40 CFR 60.51b, except: (1) During he annual dioxin/furan performance test and the 2 weeks preceding that test, no municipal waste combustor unit load limit is applicable; (2)The municipal waste combustor unit load limit may be waived in accordance with permission granted by the Administrator or delegated State regulatory authority for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the art for controlling facility emissions. This is as stated at 40 CFR 60.53b(b). [40 CFR 60.39b(d)]& [40 CFR 62.14104(b)]	Other: The owner or operator shall operate a steam or feedwater flow meter on a continuous basis, as required at 40 CFR 60.58(i)(6)(i). Steam (or feed water flow) flow calculations as required under 40 CFR 60.58(i)(6)(i) shall be in accordance with ASME PTC 4.1-1964 (Reaffirmed 1991), Power test codes : Test Code for Steam Generating Units (with 1968 and 1969 Addenda). For design, construction, installation, calibration, and use of nozzles and orifices required in 40 CFR 60.58(i)(6)(ii), proceed in accordance with the recommendations in ASME Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th Edition (1971). Measurement devices such as flow nozzles and orifices are not required to be recalibrated after they are installed, as stipulated at 40 CFR 58b(i)(6)(iii). Also, as stipulated at 40 CFR 58b(i)(6)(iv), all signal conversion elements associated with steam (or feedwater flow) measurements must be calibrated according to the manufacturer's instructions before each dioxin/furan performance test, and at least once per year. [40 CFR 60.39b(d)] &[40 CFR 62.14104(b)].	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously based on the requirment at 40 CFR 60.58(i)(6)(i). [40 CFR 60.39b(d)] &. [40 CFR 62.14104(b)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
123	Each chief facility operator and shift supervisor must obtain and maintain a current provisional operator certification from either the American Society of Mechanical Engineers (QRO-1-1994) or a State certification program. [40 CFR 60.35b, 40 CFR 60.39b(d), 40 CFR 60.54b] & [40 CFR 62.14105(a)]	None.	Other: The facility shall maintain the following records for a period of five years: Records showing the names of the municipal waste combustor chief facility operator, shift supervisors and control room operators who have been fully certified or who are provisionally certified by the American Society of Mechanical Engineers (ASME) or an equivalent State approved certification program, including the dates of initial and renewal certifications and documentation of current certification. Records showing the names of the municipal waste combustor chief facility operator, shift supervisors and control room operators who have completed the EPA municipal waste combustor operator training course or a State approved equivalent course including documentation of training completion. This is based on the recordkeeping requirements at 40 CFR 60.59b(d)(12) [40 CFR 62.14105(a)].	None.
124	Each chief facility operator and shift supervisor must complete full certification or must have scheduled a full certification exam with either the American Society of Mechanical Engineers (QRO-1-1994) or a State certification program. 40 CFR 60.39b(d)& [40 CFR 62.14105(b)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
125	The facility must not be operated unless one of the following persons is on duty: - a fully certified chief facility operator; - a provisionally certified chief facility operator who is scheduled to take the full certification exam no later than 12 months after the effective date of 40 CFR 62 Subpart FFF; - a fully certified shift supervisor; or - a provisionally certified shift supervisor who is scheduled to take the full certification exam no later than 12 months after the effective date of 40 CFR 62 Subpart FFF. If one of the persons listed above must leave the facility during their operating shift, a provisionally certified control room operator who is onsite may fulfill this requirement. [40 CFR 60.39b(d), 40 CFR 60.54b(i)] & [40 CFR 62.14105(c)]	None.	None.	None.
126	As further clarification to the preceding "Stand-in" Provisions, a provisionally certified control room operator can stand-in for a certified plant or shift supervisor when they are off site for periods of up to eight hours without notification of EPA, for periods up to two weeks if EPA is notified in writing, and case by case with enforcement discretion for periods longer than two weeks if EPA is notified in writing with adequate detail of the reasons for the situation and if the MWC owner demonstrates to EPA that a good faith effort is being made to correct the problem. [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
127	Each chief facility operator, shift supervisor and control room operator at an affected facility must complete the EPA municipal waste combustor operator training course or the State municipal waste operator training course, except for chief facility operators, shift supervisors, and control room operators who have obtained full certification from the ASME on or before the effective date of 40 CFR 62 Subpart FFF. [40 CFR 60.39b(d), 40 CFR 60.54b] &. [40 CFR 62.14105(d)]	None.	None.	None.
128	OPERATING MANUAL: The facility must develop and update on a yearly basis a manual that must, at a minimum, address the following elements of municipal waste combustor unit operation: - A summary of the applicable standards of 40 CFR 62 Subpart FFF; - A description of basic combustion theory applicable to a MWC unit; - Procedures for receiving, handling and feeding MSW; - Procedures for MWC unit startup, shutdown and malfunction; - Procedures for maintaining proper combustion air supply levels; - Procedures for operating the MWC unit within the standards established under 40 CFR 62 Subpart FFF; - Procedures for responding to periodic upset or off-specification conditions; - Procedures for minimizing particulate matter carryover; - Procedures for handling ash; - Procedures for monitoring MWC unit emissions; - Reporting and Recordkeeping procedures. [40 CFR 60.39b(d), 40 CFR 60.54b(e)] & [40 CFR 62.14105(e)]	None.	Other: The operating manual and records of training must be available for inspection by USEPA or the Department upon request. [40 CFR 60.39b(d)] &[40 CFR 62.14105(g)].	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
129	TRAINING FOR OPERATING MANUAL REVIEW: - The facility must establish a training program to review the operating manual according to the schedule specified below with each person who has responsibilities affecting the operation of the facility, including but not limited to, chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel and crane/load handlers. Each person undergoing the manual review training shall do so no later than the dates specified below, whichever is later: - The date prior to the day the person assumes responsibilities affecting MWC unit operation; or - The date 12 months after the effective date of 40 CFR 62 Subpart FFF; or - Annually following the initial review. ACCESS TO OPERATING MANUAL: The operating manual must be kept in a location readily accessible to each person required to undergo training. [40 CFR 60.39b(d), 40 CFR 60.54b(f) & (g)] & [40 CFR 62.14105(f)]	None.	Other: The facility shall maintain records showing the names of persons who have completed a review of the operating manual including the date of initial review and subsequent annual reviews. This is based on the recordkeeping requirement at 40 CFR 50.59b(d)(13). [40 CFR 60.39b(d)] &[40 CFR 62.14105(a)].	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
130	SEMI-ANNUAL REPORT: The facility shall submit a semi-annual report which shall include the following: - Information recorded which indicates the average sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, particulate matter control device inlet temperature or opacity data were above the applicable limits with reasons for such exceedances and a description of the corrective action taken. - A copy of the annual test report documenting the emissions level and the corrective action taken if the test report indicates any particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride or fugitive ash emission levels that were above applicable pollutant limits. - Identification of the calendar dates when the average hourly carbon feed rate was below the required feed rate with reasons for such occurrences and a description of corrective action taken. - Identification of the calendar dates when the average hourly carbon feed rate is not operational, with reasons for such occurrences and a description of corrective action taken. This is as stated at 40 CFR 60.59b(h). [40 CFR 60.39b(d)] & [40 CFR 62.14109(a)]	None.	Other: All semi-annual reports must be maintained on site as a paper copy for a minimum of 5 years. This is as stated at 40 CFR 60.59b(j). [40 CFR 60.39b(d)] &[40 CFR 62.14109(a)].	Submit a report: As per the approved schedule that follows to EPA Region II and the appropriate Regional Enforcement Office of NJDEP. The report for the first half of the calendar year must be submitted by August 1 of the same year. The report for the second half of the calendar year must be submitted by February 1 of the following year. This is as stated at 40 CFR 50.59(h). [40 CFR 60.39b(d)] &. [40 CFR 62.14109(a)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
131	SEMI-ANNUAL REPORT (continued): Upon issuance of the operating permit, the semi-annual report shall include the following: - A list of the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride and fugitive ash emission levels achieved during performance tests - A list of the highest emission level recorded for sulfur dioxide, nitrogen dioxides, carbon monoxide, municipal waste combustor load level and particulate matter control device inlet temperature. - A list of the highest opacity level measured - The total number of days that the minimum number of hours of data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level and particulate matter control device inlet temperature were not obtained for the calculation of the average emissions concentrations or parameters. - The total number of hours that data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load and particulate matter control device inlet temperature were excluded from the calculation of average emissions concentrations or parameters. This is based on the requirements of 40 CFR 59b(g)(1). [40 CFR 60.39b(d)] & [40 CFR 62.14109(a)]	None.	Other: All semi-annual reports must be maintained on site as a paper copy for a minimum of 5 years. This is as stated at 40 CFR 60.59b(j). [40 CFR 60.39b(d)] &[40 CFR 62.14109(a)].	Submit a report: As per the approved schedule that follows to EPA Region II and the appropriate Regional Enforcement Office of NJDEP. The report for the first half of the calendar year must be submitted by August 1 of the same year. The report for the second half of the calendar year must be submitted by February 1 of the following year. This is based on the requirments at 40 CFR 60.59b(g). [40 CFR 60.39b(d)] &. [40 CFR 62.14109(a)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
132	SEMI-ANNUAL REPORT (continued): -The facility shall also provide a summary report with the same data specified in the semi-annual reports for the preceding year in order to provide the Administrator with a summary of the performance of the facility over a 2 year period. This summary report shall highlight any emission or parameter level that did not achieve the required emission or parameter limits. - The facility will also include a notification of intent to begin reduced dioxin/furan performance testing schedule as allowed in 40 CFR 60.58(g)(5)(iii), i.e. NSPS Subpart Eb. These are based on the requirements of 40 CFR 60.59b(g). [40 CFR 60.39b(d)] & [40 CFR 62.14109(a)]	None.	Other: All semi-annual reports must be maintained on site as a paper copy for a minimum of 5 years. This is as stated at 40 CFR 60.59b(j). [40 CFR 60.39b(d)] &[40 CFR 62.14109(a)].	Submit a report: As per the approved schedule that follows to EPA Region II and the appropriate Regional Enforcement Office of NJDEP. The report for the first half of the calendar year must be submitted by August 1 of the same year. The report for the second half of the calendar year must be submitted by February 1 of the following year. This is based on the requrements at 40 CFR 60.59b(g). [40 CFR 60.39b(d)] &. [40 CFR 62.14109(a)]
133	REPORTING/RECORDKEEPING: The facility shall maintain the following records for a period of at least five years: Identification of the calendar dates when any of the average emission concentrations, percent reductions, operating parameters or opacity levels are above applicable limits, with reasons for such exceedances and a description of corrective action taken. This is as stated at 40 CFR 60.59b(d)(3). [40 CFR 60.39b(d)]& [40 CFR 62.14109(a)]	None.	Other: Maintain records on paper copy or a computer readable format for a period of at least 5 years from the date of record. This is as stated at 40 CFR 60.59b(d) and 40 CFR 60.59b(k). [40 CFR 60.39b(d)] &[40 CFR 62.14109].	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
134	REPORTING/RECORDKEEPING: The facility shall maintain the following records for a period of at least five years: Identification of the calendar dates for which the minimum number of hours of the data specified below have not been obtained and the reasons for not obtaining sufficient data and a description of the corrective action taken: - Sulfur Dioxide emissions data - Nitrogen Oxides emissions data - Carbon Monoxide emissions data - Municipal waste combustor unit load data - Particulate matter control device temperature data This is as stated at 40 CFR 60.59b(d)(6). [40 CFR 60.39b(d)] & [40 CFR 62.14109(a)]	None.	Other: Maintain records on paper copy or a computer readable format for a period of at least 5 years from the date of record. This is as stated at 40 CFR 60.59b(d) and 40 CFR 60.59b(k). [40 CFR 60.39b(d)] &[40 CFR 62.14109(a)].	None.
135	REPORTING/RECORDKEEPING: The facility shall maintain the following records for a period of at least five years: Identification of each occurrence that sulfur dioxide emissions data, nitrogen oxides emissions data or operational data (i.e. carbon monoxide emissions, unit load and particulate matter control device temperature) have been excluded from the calculation of average emission concentration or parameters, and the reasons for excluding the data. This is as stated at 40 CFR 60.59b(d)(7). [40 CFR 60.39b(d)] & [40 CFR 62.14109(a)]	None.	Other: Maintain records on paper copy or a computer readable format for a period of at least 5 years from the date of record. This is as stated at 40 CFR 60.59b(d) and 40 CFR 60.59b(k). [40 CFR 60.39b(d)] &[40 CFR 62.14109(a)].	None.
136	REPORTING/RECORDKEEPING: The facility shall maintain the following records for a period of at least five years: The results of daily drift test and quarterly accuracy determinations for sulfur dioxide, nitrogen oxides and carbon monoxide continuous emission monitoring systems as required under 40 CFR Part 60 Appendix F, Procedure 1. This is based on the requirements at 40 CFR 60.59b(d)(8). [40 CFR 60.39b(d)] & [40 CFR 62.14109(a)]	None.	Other: Maintain records on paper copy or a computer readable format for a period of at least 5 years from the date of record. This is as stated at 40 CFR 60.59b(d) and 40 CFR 60.59b(k). [40 CFR 60.39b(d)] &[40 CFR 62.14109(a)].	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
137	REPORTING/RECORDKEEPING OF ANNUAL PERFORMANCE TESTS: The facility shall maintain the following records for a period of at least five years: The test reports documenting the results of all annual performance tests shall be recorded along with supporting calculations specifically as follows: - The results of all annual performance tests conducted to determine compliance with particulate matter, opacity, cadmium, lead, dioxin/furans, hydrogen chloride and fugitive ash emission limits. - The maximum demonstrated municipal waste combustor unit load and maximum demonstrated particulate matter control device temperature during dioxin/furan performance tests. This condition is based on the requirements at 40 CFR 60.59b(d)(9). [40 CFR 60.39b(d)] & [40 CFR 62.14109(a)]	None.	Other: Maintain records for a period of at least 5 years from the date of record. [40 CFR 60.39b(d)] &[40 CFR 62.14109(a)].	None.

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Emission Unit: **U1 MWC #1, 2, 3 Municipal Waste Combustors (E1, E2, and E3)**

Operating Scenario: **OS1 Operation of MWC #1 at Maximum Input (423 MMBtu/hr)., OS3 Operation of MWC #2 at Maximum Input (423 MMBtu/hr) , OS5 Operation of MWC #3 at Maximum Input (423 MMBtu/hr)**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Unless otherwise specified, the emission limits specified under this operating scenario shall apply at all times, except for start-up and shutdown periods. These shall remain in force until the ESP has been replaced by a new control (Baghouse filter.) See operating scenario applicable to baghouse operation. [From modification BOP090003.] [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
2	Maximum emission rate of Non-Methane Hydrocarbons as Methane, VOC (Total) <= 6.3 lb/hr. [N.J.A.C. 7:27-22.16(e)]	VOC (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS0. [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 U1 OS0. [N.J.A.C. 7:27-22.16(e)]
3	Maximum concentration of Non-Methane Hydrocarbons as Methane, VOC (Total) <= 66 ppmvd @ 7% O2. [N.J.A.C. 7:27-22.16(e)]	VOC (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS0. [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 U1 OS0. [N.J.A.C. 7:27-22.16(e)]
4	NOx (Total) <= 95 lb/hr from preconstruction permit. The emission limitations shall apply at all times when MSW is being combusted, except during start-up and shutdown as defined in this operating permit. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three 1-hour tests. Three test runs must be conducted on each unit, with ammonia injection, to determine compliance. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Recordkeeping by stack test results every 5 years. [N.J.A.C. 7:27-22.16(e)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(e)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	NOx (Total) <= 300 ppmvd @ 7% O2. The emission limitation shall apply at all times when MSW is being combusted, except during start-up and shutdown as defined in this operating permit. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Monitored by continuous emission monitor continuously, based on a 1 hour block average , beginning and ending on the hour. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(e)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal . [N.J.A.C. 7:27-22.16(o)]
6	NOx (Total) <= 155 ppmvd @ 7% O2. The emission limitation shall apply at all times when MSW is being combusted, except during start-up and shutdown as defined in this operating permit. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Monitored by continuous emission monitor continuously, based on a 24 hour period block, beginning and ending at midnight. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(e)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]
7	NOx (Total) <= 150 ppmvd @ 7% O2. The owner or operator of a MSW incinerator of any size shall cause it to emit NOx at a maximum allowable emission concentration of 150 ppmvd at seven percent oxygen based on a calendar day average. [N.J.A.C. 7:27-19.12(a)1]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on one calendar day based on 1-hour block averages. The owner or operator shall install a NOx continuous emissions monitoring (CEM) system on the MSW incinerator satisfying the requirements of N.J.A.C. 7:27-19.18 and shall demonstrate compliance using the NOx CEM. [N.J.A.C. 7:27-19.12(c)]	NOx (Total): Recordkeeping by strip chart or data acquisition (DAS) system continuously and calculating the average each calendar day. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]
8	CO <= 126 lb/hr from preconstruction permit. The emission limitations shall apply at all times when MSW is being combusted, except during start-up and shutdown as defined in this operating permit. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by stack emission testing prior to permit expiration date, based on each of three Department validated stack test runs. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS0. [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 U1 OS0. [N.J.A.C. 7:27-22.16(o)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
9	CO <= 400 ppmvd @ 7% O2. The emission limitation shall apply at all times when MSW is being combusted, except during start-up and shutdown as defined in this operating permit. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by continuous emission monitor continuously, based on a 1 hour block average , beginning and ending on the hour. [N.J.A.C. 7:27-22.16(e)]	CO: Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(e)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]
10	CO <= 100 ppmvd @ 7% O2. The emission limitation shall apply at all times when MSW is being combusted, except during start-up and shutdown as defined in this operating permit. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by continuous emission monitor continuously, based on a 96 hour rolling average based on a 1 hour block average beginning and ending on the hour. [N.J.A.C. 7:27-22.16(e)]	CO: Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(e)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(e)]
11	The CO and NOx emission limits specified in permit condition, for normal steady state operation shall not apply during periods, including warm-up periods, when no waste is burned and fossil fuel is being combusted. Only auxiliary fuel (fuel oil) shall be combusted during warm-up periods, and no municipal solid waste shall combusted. The warm-up period begins upon initiation of auxiliary fuel (fuel oil) combustion in the furnace. The duration of exemption from emission limits during these periods shall not exceed 10 consecutive hours per warm-up period. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
12	SO2 <= 75.8 lb/hr. [N.J.A.C. 7:27-22.16(e)]	SO2: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs [From BOP080001.]. [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by stack test results upon occurrence of event [From BOP080001.]. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
13	SO3 and H2SO4, as converted and expressed as H2SO4 <= 4 lb/hr. [N.J.A.C. 7:27-22.16(e)]	SO3 and H2SO4, as converted and expressed as H2SO4: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	SO3 and H2SO4, as converted and expressed as H2SO4: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(e)]
14	Particulate Emissions <= 9.8 lb/hr from preconstruction permit. The emission limitations shall apply at all times when MSW is being combusted, except during start-up and shutdown as defined in this operating permit. [N.J.A.C. 7:27-22.16(e)]	Particulate Emissions: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Particulate Emissions: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(e)]
15	Particulate Emissions <= 0.014 gr/dscf @ 7% O2. [N.J.A.C. 7:27-22.16(e)]	Particulate Emissions: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Particulate Emissions: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(e)]
16	Particulate Emissions <= 0.028 gr/dscf @ 7% O2 for each individual test run during which soot blowing is performed. [N.J.A.C. 7:27-22.16(e)]	Particulate Emissions: Monitored by stack emission testing annually based on a Department validated stack run. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Particulate Emissions: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(e)]
17	PM-10 (Total) <= 22.8 lb/hr Hourly emission rate established from stack test(s) results. [Modification BOP090001]. [N.J.A.C. 7:27-22.16(a)]	PM-10 (Total): Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]
18	PM-2.5 (Total) <= 22.8 lb/hr Hourly emission rate established from stack test(s) results. PM-2.5 is assumed by the facility to be equal to PM-10. [Modification BOP090003]. [N.J.A.C. 7:27-22.16(a)]	PM-2.5 (Total): Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	PM-2.5 (Total): Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS0. [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 U1 OS0. [N.J.A.C. 7:27-22.16(o)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
19	Any visible emissions shall not exceed an average Opacity <= 10 %. [N.J.A.C. 7:27-22.16(e)]	Opacity: Monitored by continuous opacity monitoring system continuously, based on 6 minute blocks. The discrete block average will begin on the hour. [N.J.A.C. 7:27-22.16(e)]	Opacity: Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(e)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]
20	Arsenic compounds <= 0.0051 lb/hr. [N.J.A.C. 7:27-22.16(e)]	Arsenic compounds: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Arsenic compounds: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(e)]
21	Beryllium Compounds <= 0.00025 lb/hr. [N.J.A.C. 7:27-22.16(e)]	Beryllium compounds: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Beryllium compounds: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(e)]
22	Cadmium compounds <= 0.043 lb/hr. [N.J.A.C. 7:27-22.16(e)]	Cadmium compounds: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Cadmium compounds: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(e)]
23	Chromium compounds <= 0.012 lb/hr. [N.J.A.C. 7:27-22.16(e)]	Chromium compounds: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Chromium compounds: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(e)]
24	HCl Emissions <= 21.6 lb/hr. [N.J.A.C. 7:27-22.16(e)]	HCl Emissions: Monitored by stack emission testing annually, based on each of three Department validated stack test runs. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	HCl Emissions: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(e)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
25	Hydrogen fluoride <= 0.82 lb/hr. [N.J.A.C. 7:27-22.16(e)]	Hydrogen fluoride: Monitored by stack emission testing prior to permit expiration date, based on each of three Department validated stack test runs. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Hydrogen fluoride: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(e)]
26	Lead compounds <= 0.5 lb/hr. [N.J.A.C. 7:27-22.16(e)]	Lead compounds: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Lead compounds: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(e)]
27	Mercury compounds <= 0.053 lb/hr in accordance with the July 27, 1997 preconstruction permit and confirming letter dated August 27, 2002. [N.J.A.C. 7:27-22.16(e)]	Mercury compounds: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Mercury compounds: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(e)]
28	Nickel compounds <= 0.0033 lb/hr. [N.J.A.C. 7:27-22.16(e)]	Nickel compounds: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Nickel compounds: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(e)]
29	TCDD Emissions (2,3,7,8-) <= 0.00001 lb/hr. [N.J.A.C. 7:27-22.16(e)]	TCDD Emissions (2,3,7,8-): Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	TCDD Emissions (2,3,7,8-): Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(e)]
30	Polycyclic aromatic hydrocarbons, or Polycyclic organic matter <= 0.29 lb/hr. [N.J.A.C. 7:27-22.16(a)]	Polycyclic organic matter: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Polycyclic organic matter: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(e)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
31	Emissions of benzo(a) pyrene, carbon tetrachloride, formaldehyde, perchloroethylene (tetrachloroethylene), trichloroethylene and vinyl chloride shall be below the reporting threshold of N.J.A.C. 7:27-22, Tables A & B and must be measured using methods approved by DEP. [N.J.A.C. 7:27-22.16(e)]	Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(e)]
32	Ammonia <= 10.1 lb/hr. [N.J.A.C. 7:27-22.16(e)]	Ammonia: Monitored by stack emission testing prior to permit expiration date, based on each of three Department validated stack test runs. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Ammonia: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16(e)]
33	Operating Control Efficiency >= 70 % control. Permittee shall equip and operate the facility with a vapor control system that reduces the total acid gas emissions to the outdoor atmosphere by no less than 70 percent by weight. This equipment shall be in operation at any time waste is being charged to the combustor. [N.J.A.C. 7:27-22.16(e)]	Operating Control Efficiency: Monitored by stack emission testing upon request of the Department, based on the average of three 1-hour tests. [N.J.A.C. 7:27-22.16(o)]	Operating Control Efficiency: Recordkeeping by stack test results upon occurrence of event. [N.J.A.C. 7:27-22.16(e)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. Refer to stack testing requirements specified in this permit. [N.J.A.C. 7:27-22.16(o)]
34	Scrubbing Medium Inlet Pressure <= 3,600 inches. [N.J.A.C. 7:27-22.16(a)]	Scrubbing Medium Inlet Pressure: Monitored by pressure measurement device each week during operation when in operation. [N.J.A.C. 7:27-22.16(o)]	Scrubbing Medium Inlet Pressure: Recordkeeping by manual logging of parameter daily. Records shall be kept in a permanently bound logbook or in readily available computer files. [N.J.A.C. 7:27-22.16(o)]	None.
35	SO2: monitor shall assure that acid gas absorber system is operating correctly. [N.J.A.C. 7:27-22.16(a)]	SO2: Monitored by continuous emission monitoring system continuously. [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by manual logging of parameter or storing data in a computer data system each week during operation. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
36	Particulate Emissions: Continuous opacity monitor shall assure that electrostatic precipitator system is operating correctly. [N.J.A.C. 7:27-22.16(a)]	Particulate Emissions: Monitored by continuous opacity monitoring system continuously. [N.J.A.C. 7:27-22.16(o)]	Particulate Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system each week during operation. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U1 MWC #1, 2, 3 Municipal Waste Combustors (E1, E2, and E3)**

Operating Scenario: **OS2 Operation of MWC #1 under Malfunction conditions, OS4 Operation of MWC #2 under Malfunction conditions, OS6 Operation of MWC #3 under Malfunction conditions**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	EMERGENCY MALFUNCTION: An emergency malfunction means any sudden and unavoidable failure to the equipment or control apparatus to operate in a normal manner. Malfunctions that are caused entirely or in part by improperly designed equipment, lack of preventative maintenance, careless or improper operation, operator error, or any preventable upset condition or preventable equipment or control apparatus breakdown shall not be considered emergency malfunctions. In any enforcement proceeding the Permittee seeking to establish the occurrence of an emergency malfunction has the burden of proof. [N.J.A.C. 7:27-22.16(e)]	None.	None.	Submit a report: As per the approved schedule. For a permittee to claim an emission limit exceedance is due to an emergency malfunction the Permittee must submit a written written preliminary notice to the Department by 5:00 pm of the second full working day following the incident. This preliminary notice must include: A description of the malfunction and how it resulted in a contravention. A description of the measures taken to correct the conditions causing the contravention. A description of the measures taken to minimize the excess emissions including curtailment or shutdown of the combustor. This provision does not relieve the Permittee from immediately notifying the Department of any release of air contaminants in a quantity or concentration which poses a potential threat to public health.wealth, or the environment, or which might result in citizen complaints, pursuant to N.J.S.A. 26:2C-19(e). [N.J.A.C. 7:27-22.16(e)]
2	EMERGENCY MALFUNCTION: The Department will review the Emergency Malfunction asserted by the facility. If the Department deems that any Emergency Malfuntion was asserted incorrectly, the Department will reject the claim and take appropriate enforcement action. [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
3	EMERGENCY MALFUNCTION: To obtain malfunction allowances, the facility must: a. Maintain the equipment; b. Operate the equipment properly; c. Take steps to minimize emissions during malfunction periods; d. Identify and take steps to prevent malfunctions from occuring in future; and e. Report malfunctions in accordance with the reporting requirements of this permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
4	EMERGENCY MALFUNCTION: Within thirty days of an emergency malfunction, the Permittee shall submit to the Department certified information which identifies the contravention and includes the following: Copies of relevant operating data including but not limited to continuous monitoring data or portions of logbooks that show the malfunction to be sudden and unavoidable. Relevant data shall include at a minimum data recorded one hour before, during, and one hour after the malfunction. List of the actions taken to prevent the potential for the malfunction from occuring in the future. Certification in accordance with N.J.A.C. 7:27-1.39 that the malfunction did not occur as a result of: improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error, and certification that the information contained in the preliminary notice is correct. If the information submitted in the preliminary notice is inaccurate, a certified revision of the notice shall be submitted. [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	EMERGENCY MALFUNCTION: The duration of emission excursions caused by malfunctions shall not exceed the following limits per occurence and percent of operating time: SO2 180min. 2% CO 60min 0.2% NOx 180min 2% [N.J.A.C. 7:27-22.16(e)]	Monitored by continuous emission monitor upon occurrence of event (and hour time monitor). [N.J.A.C. 7:27-22.16(e)]	Recordkeeping by data acquisition system (DAS) / electronic data storage upon occurrence of event. Data may be periodically printed and maintained reliably in a log book on site. [N.J.A.C. 7:27-22.16(o)]	None.
6	EMERGENCY MALFUNCTION: The duration of operating requirement excursions caused by malfunctions shall not exceed the following limits per occurence and percent of operating time: Temperature 60min. 0.1% [N.J.A.C. 7:27-22.16(e)]	Monitored by parametric monitoring system upon occurrence of event (temperature monitor and hour time monitor). [N.J.A.C. 7:27-22.16(e)]	Recordkeeping by data acquisition system (DAS) / electronic data storage upon occurrence of event. Data may be periodically printed and maintained reliably in a log book on site. [N.J.A.C. 7:27-22.16(o)]	None.
7	EMERGENCY MALFUNCTION: Neither the time , nor the emissions, during the periods of emergency malfunctions meeting the above criteria shall be used in the calculation of emission levels for comparison to allowable emission limits. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
8	EMERGENCY MALFUNCTION: Malfunctions resulting in an excursion of an emission limit with an averaging time of less than or equal to one hour shall be deemed to have occured during the entire applicable averaging time of that emission limit. Malfunction resulting in an excursion of an emission limit with an averaging time of greater than one hour shall be deemed to have occured only during the hours of the malfunction. [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
9	EMERGENCY MALFUNCTION: Any visible emission caused by a malfunction shall not exceed an average of 10% opacity in any 6 minute block period, as determined by the continuous emission monitoring equipment or USEPA Reference Method 9. [N.J.A.C. 7:27-22.16(e)]	Monitored by continuous opacity monitor upon occurrence of event, based on 6 minute blocks. [N.J.A.C. 7:27-22.16(e)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(e)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U1 MWC #1, 2, 3 Municipal Waste Combustors (E1, E2, and E3)**

Operating Scenario: **OS10 Operation of MWC #1 at Maximum Input (423 MMBtu/hr) with Baghouse, OS11 Operation of MWC #2 at Maximum Input (423 MMBtu/hr) with Baghouse, OS12 Operation of MWC #3 at Maximum Input (423 MMBtu/hr) with Baghouse**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Unless otherwise specified, the emission limits specified under this operating scenario shall apply at all times, except for start-up and shutdown periods. Requirements in this operating scenario are applicable after installation of the baghouse controlling this emission unit (MWC) [From modification BOP090003, Construction period 2014 to 2016.] [N.J.A.C. 7:27-22.16(a)]	None.	None.	Submit the required air permit application(s): Upon occurrence of event (i.e., after installation of baghouse for this emission unit.) Application shall request removal of conditions in the operating scenarios for which use of ESPs is required and removal of all inventory data related to them. From modification BOP090003. [N.J.A.C. 7:27-22.16(o)]
2	Maximum emission rate of Non-Methane Hydrocarbons as Methane, Non-Methane Hydrocarbons <= 6.3 lb/hr. [N.J.A.C. 7:27-22.16(a)]	Non-Methane Hydrocarbons: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Non-Methane Hydrocarbons: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(e)]
3	Maximum concentration of Non-Methane Hydrocarbons as Methane, VOC (Total) <= 66 ppmvd @ 7% O2. [N.J.A.C. 7:27-22.16(e)]	VOC (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]
4	NOx (Total) <= 95 lb/hr from preconstruction permit. The emission limitations shall apply at all times when MSW is being combusted, except during start-up and shutdown as defined in this operating permit. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three 1-hour tests. Three test runs must be conducted on each unit, with ammonia injection, to determine compliance. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results prior to permit expiration date. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	NOx (Total) <= 300 ppmvd @ 7% O2. The emission limitation shall apply at all times when MSW is being combusted, except during start-up and shutdown as defined in this operating permit. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 1 hour block average , beginning and ending on the hour. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): 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 quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]
6	NOx (Total) <= 155 ppmvd @ 7% O2. The emission limitation shall apply at all times when MSW is being combusted, except during start-up and shutdown as defined in this operating permit. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 24 hour period block, beginning and ending at midnight. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): 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 quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]
7	NOx (Total) <= 150 ppmvd @ 7% O2. The owner or operator of a MSW incinerator of any size shall cause it to emit NOx at a maximum allowable emission concentration of 150 ppmvd at seven percent oxygen based on a calendar day average. [N.J.A.C. 7:27-19.12(a)1]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on one calendar day based on 1-hour block averages. The owner or operator shall install a NOx continuous emissions monitoring (CEM) system on the MSW incinerator satisfying the requirements of N.J.A.C. 7:27-19.18 and shall demonstrate compliance using the NOx CEM. [N.J.A.C. 7:27-19.12(c)]	NOx (Total): Recordkeeping by strip chart or data acquisition (DAS) system continuously and calculating the average each calendar day. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]
8	CO <= 126 lb/hr from preconstruction permit. The emission limitations shall apply at all times when MSW is being combusted, except during start-up and shutdown as defined in this operating permit. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by stack emission testing prior to permit expiration date, based on each of three Department validated stack test runs. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
9	CO <= 400 ppmvd @ 7% O2. The emission limitation shall apply at all times when MSW is being combusted, except during start-up and shutdown as defined in this operating permit. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by continuous emission monitoring system continuously, based on a 1 hour block average , beginning and ending on the hour. [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 quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]
10	CO <= 100 ppmvd @ 7% O2. The emission limitation shall apply at all times when MSW is being combusted, except during start-up and shutdown as defined in this operating permit. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by continuous emission monitoring system continuously, based on a 96 hour rolling average based on a 1 hour block average beginning and ending on the hour. [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 quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]
11	The CO and NOx emission limits specified in permit condition, for normal steady state operation shall not apply during periods, including warm-up periods, when no waste is burned and fossil fuel is being combusted. Only auxiliary fuel (fuel oil) shall be combusted during warm-up periods, and no municipal solid waste shall be combusted. The warm-up period begins upon initiation of auxiliary fuel (fuel oil) combustion in the furnace. The duration of exemption from emission limits during these periods shall not exceed 10 consecutive hours per warm-up period. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
12	SO2 <= 75.8 lb/hr. [N.J.A.C. 7:27-22.16(e)]	SO2: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS Summary. [From BOP080001]. [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS Summary. [From BOP080001]. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
13	SO3 and H2SO4, as converted and expressed as H2SO4 <= 4 lb/hr. [N.J.A.C. 7:27-22.16(e)]	SO3 and H2SO4, as converted and expressed as H2SO4: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	SO3 and H2SO4, as converted and expressed as H2SO4: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]
14	TSP <= 4.4 lb/hr from modification application BOP120003. The emission limitations shall apply at all times when MSW is being combusted, except during start-up and shutdown as defined in this operating permit. [N.J.A.C. 7:27-22.16(a)]	TSP: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]
15	Particulate Emissions <= 12 mg/dscm @ 7% O2. [From modification BOP090003]. [N.J.A.C. 7:27-22.16(a)]	Particulate Emissions: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Particulate Emissions: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]
16	Particulate Emissions <= 12 mg/dscm @ 7% O2 for average of 3 individual test runs when including a test run during which soot blowing is performed. [From modification BOP090003]. [N.J.A.C. 7:27-22.16(a)]	Particulate Emissions: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Particulate Emissions: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]
17	PM-10 (Total) <= 17 lb/hr. [From modification BOP090003]. [N.J.A.C. 7:27-22.16(a)]	PM-10 (Total): Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]
18	PM-2.5 (Total) <= 17 lb/hr. [From modification BOP090003]. [N.J.A.C. 7:27-22.16(a)]	PM-2.5 (Total): Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	PM-2.5 (Total): Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
19	Any visible emissions shall not exceed an average Opacity <= 10 %. [N.J.A.C. 7:27-22.16(e)]	Opacity: Monitored by continuous opacity monitoring system continuously, based on 6 minute blocks. The discrete block average will begin on the hour. [N.J.A.C. 7:27-22.16(e)]	Opacity: Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(e)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. Any non-compliance shall be reported. [N.J.A.C. 7:27-22.16(o)]
20	Arsenic compounds <= 0.0037 lb/hr. [From modification BOP090003]. [N.J.A.C. 7:27-22.16(a)]	Arsenic compounds: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Arsenic compounds: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]
21	Beryllium compounds <= 0.00025 lb/hr. [N.J.A.C. 7:27-22.16(a)]	Beryllium compounds: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Beryllium compounds: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]
22	Cadmium compounds <= 0.0037 lb/hr. [From modification BOP090003]. [N.J.A.C. 7:27-22.16(a)]	Cadmium compounds: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Cadmium compounds: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]
23	Chromium compounds <= 0.012 lb/hr. [N.J.A.C. 7:27-22.16(a)]	Chromium compounds: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Chromium compounds: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]
24	HCl Emissions <= 21.6 lb/hr. [N.J.A.C. 7:27-22.16(e)]	HCl Emissions: Monitored by stack emission testing annually, based on each of three Department validated stack test runs. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	HCl Emissions: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
25	Hydrogen fluoride <= 0.82 lb/hr. [N.J.A.C. 7:27-22.16(e)]	Hydrogen fluoride: Monitored by stack emission testing prior to permit expiration date, based on each of three Department validated stack test runs. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Hydrogen fluoride: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]
26	Lead compounds <= 0.037 lb/hr. [From modification BOP090003]. [N.J.A.C. 7:27-22.16(a)]	Lead compounds: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Lead compounds: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]
27	Mercury compounds <= 0.01 lb/hr based on concentration limit of 28 ugms/dscm. [From modification BOP090003]. [N.J.A.C. 7:27-22.16(a)]	Mercury compounds: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Mercury compounds: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]
28	Nickel compounds <= 0.0033 lb/hr. [N.J.A.C. 7:27-22.16(a)]	Nickel compounds: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Nickel compounds: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]
29	Dioxins/Furans (Total) <= 0.000011 lb/hr from modification BOP090003, based on federal concentration limit of 30 ng/dscm @ 7% O2. [N.J.A.C. 7:27-22.16(a)]	Dioxins/Furans (Total): Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Dioxins/Furans (Total): Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]
30	TCDD Emissions (2,3,7,8-) <= 0.00001 lb/hr. [N.J.A.C. 7:27-22.16(e)]	TCDD Emissions (2,3,7,8-): Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	TCDD Emissions (2,3,7,8-): Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]
31	Polycyclic aromatic hydrocarbons, or Polycyclic organic matter <= 0.29 lb/hr. [N.J.A.C. 7:27-22.16(a)]	Polycyclic organic matter: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Polycyclic organic matter: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
32	Emissions of benzo(a) pyrene, carbon tetrachloride, formaldehyde, perchloroethylene (tetrachloroethylene), trichloroethylene and vinyl chloride shall be below the reporting threshold of N.J.A.C. 7:27-22, Tables A & B and must be measured using methods approved by DEP. [N.J.A.C. 7:27-22.16(e)]	Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]
33	Ammonia <= 10.1 lb/hr. [N.J.A.C. 7:27-22.16(e)]	Ammonia: Monitored by stack emission testing prior to permit expiration date, based on each of three Department validated stack test runs. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Ammonia: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]
34	Operating Control Efficiency >= 70 % control. Permittee shall equip and operate the facility with a vapor control system that reduces the total acid gas emissions to the outdoor atmosphere by no less than 70 percent by weight. This equipment shall be in operation at any time waste is being charged to the combustor. [N.J.A.C. 7:27-22.16(e)]	Operating Control Efficiency: Monitored by stack emission testing upon request of the Department, based on the average of three 1-hour tests. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Operating Control Efficiency: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Upon occurrence of event. See stack testing requirements in U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]
35	Scrubbing Medium Inlet Pressure <= 3,600 inches. [N.J.A.C. 7:27-22.16(a)]	Scrubbing Medium Inlet Pressure: Monitored by pressure measurement device daily when in operation. [N.J.A.C. 7:27-22.16(o)]	Scrubbing Medium Inlet Pressure: Recordkeeping by manual logging of parameter or storing data in a computer data system daily. Records shall be kept in a logbook or in readily available computer files. [N.J.A.C. 7:27-22.16(o)]	None.
36	SO2: monitor shall assure that acid gas absorber system is operating correctly. [N.J.A.C. 7:27-22.16(a)]	SO2: Monitored by continuous emission monitoring system continuously. [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by manual logging of parameter or storing data in a computer data system each week during operation. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
37	Particulate Emissions: Continuous opacity monitor shall assure that the baghouse is operating correctly. [N.J.A.C. 7:27-22.16(a)]	Particulate Emissions: Monitored by continuous opacity monitoring system continuously. [N.J.A.C. 7:27-22.16(o)]	Particulate Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system each week during operation. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U6 Lime Storage Silo A (E4), U7 Lime Storage Silo B (E5), U8 Lime Storage Silo C (E6)**
Operating Scenario: **OS Summary**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Maximum allowable particulate emission rate from PT4 based on 0.02 grains per SCF. Particulate Emissions <= 0.5 lb/hr. [N.J.A.C. 7:27- 6.2(a)]	None.	None.	None.
2	The owner or operator shall not use this emission unit in a manner which will cause visible emissions greater than 20 percent opacity, exclusive of condensed water vapor, for a period longer than three minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-6.2(d)] and [N.J.A.C. 7:27-6.2(e)]	None.	None.	None.
3	The permittee shall not use the equipment in a manner which will cause visible emissions, exclusive of condensed water vapor. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
4	Annual emission limit from the preconstruction permit. TSP <= 0.876 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
5	Annual emission limit from the operating permit. application. PM-10 (Total) <= 0.876 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	Maximum emission rate imposed from preconstruction permit. TSP <= 0.2 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
7	PM-10 (Total) <= 0.2 lb/hr Maximum emission rate from operating permit application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	All particulate emissions from each emission unit shall be exhausted through a dust collector (CD1013, CD1014, or CD1015, as appropriate.) [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
9	The owner or operator shall inspect and maintain the dust collector and replace the filter media on a schedule necessary to achieve the required particulate control effeciency as specified by the manufacturer. [N.J.A.C. 7:27-22.16(a)]	Monitored by visual determination once every 2 weeks. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by data acquisition system (DAS) / electronic data storage upon occurrence of event , or manually in a permanently bound logbook. Record each inspection and maintenance event in a permanently bound logbook or readily accessible computer memory. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U9 Lime Slaker Vent A (E9), U10 Lime Slaker Vent B (E10)**
Operating Scenario: **OS Summary**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Maximum allowable particulate emission rate from PT9 based on 0.02 grains per SCF. Particulate Emissions <= 0.5 lb/hr. [N.J.A.C. 7:27- 6.2(a)]	None.	None.	None.
2	The owner or operator shall not use this emission unit in a manner which will cause visible emissions greater than 20 percent opacity, exclusive of condensed water vapor, for a period longer than three minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-6.2(d)] and [N.J.A.C. 7:27-6.2(e)]	None.	None.	None.
3	The permittee shall not use the equipment in a manner which will cause visible emissions, exclusive of condensed water vapor. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
4	Annual emission limit from the preconstruction permit. TSP <= 0.027 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
5	Annual emission limit from the operating permit. application. PM-10 (Total) <= 0.027 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	Maximum emission rate imposed from preconstruction permit. Particulate Emissions <= 0.0063 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
7	PM-10 (Total) <= 0.0063 lb/hr Maximum emission rate from operating permit application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U11 Activated Carbon Storage Silo (E14)**
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 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 three minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-6.2(d)] and [N.J.A.C. 7:27-6.2(e)]	None.	None.	None.
3	The permittee shall not use the equipment in a manner which will cause visible emissions, exclusive of condensed water vapor. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
4	Annual emission limit from the preconstruction permit. TSP <= 0.9 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
5	Annual emission limit from the operating permit. application. PM-10 (Total) <= 0.9 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	Maximum emission rate imposed from preconstruction permit. TSP <= 0.2 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
7	Maximum emission rate from operating permit application. PM-10 (Total) <= 0.2 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	All particulate emissions from this emission unit shall be exhausted through a dust collector (CD1020). [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
9	The owner or operator shall inspect and maintain the dust collector and replace the filter media on a schedule necessary to achieve the required particulate control effeciency as specified by the manufacturer. [N.J.A.C. 7:27-22.16(a)]	Monitored by visual determination once every 2 weeks. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by data acquisition system (DAS) / electronic data storage upon occurrence of event , or manually in a permanently bound logbook. Record each inspection and maintenance event. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U12 Flyash Conditioning Room (E12,E13)**
Operating Scenario: **OS Summary**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Maximum allowable particulate emission rate from source emission point based on 99% efficiency of collection or based on 0.02 grains per SCF of stack gas flow as determined in the Table at N.J.A.C. 7:27-6.2(a). Particulate Emissions <= 0.5 lb/hr. [N.J.A.C. 7:27- 6.2(a)]	None.	None.	None.
2	The owner or operator shall not use this emission unit in a manner which will cause visible emissions greater than 20 percent opacity, exclusive of condensed water vapor, for a period longer than three minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-6.2(d)] and [N.J.A.C. 7:27-6.2(e)]	None.	None.	None.
3	Annual emission limit from the preconstruction permit. TSP <= 0.131 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
4	Annual emission limit from the operating permit. application. PM-10 (Total) <= 0.15 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	Maximum emission rate imposed from preconstruction permit. Particulate Emissions <= 0.015 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
6	PM-10 (Total) <= 0.015 lb/hr Maximum emission rate from operating permit application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	All particulate emissions from this emission unit shall be exhausted through dust collectors CD1017 or CD1018 and then exhaust the building through CD1019. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	The owner or operator shall inspect and maintain the dust collectors and replace the filter media on a schedule necessary to achieve the required particulate control effeciency as specified by the manufacturer. [N.J.A.C. 7:27-22.16(a)]	Monitored by visual determination once every 2 weeks. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter upon occurrence of event. Record each inspection and maintenance event in a permanently bound logbook or readily accessible computer memory. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U13 7.4 MMBtu/hr, 740 KW Diesel Engine-Driven Emergency Generator (E7)**
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 <= 4.2 lb/hr. Particulate emission limit from the combustion of fuel based on rated heat input of source. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
3	Sulfur Content in Fuel <= 2,000 ppmw (0.2 % by weight) for Zone 4 (Essex County). Effective through June 30, 2014. [N.J.A.C. 7:27- 9.2(b)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	None.
4	Sulfur Content in Fuel <= 500 ppmw (0.05% by weight). Effective July 1, 2014 through June 30, 2016. [N.J.A.C. 7:27-9.2(b)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	None.
5	Sulfur Content in Fuel <= 15 ppmw (0.0015% by weight). Effective July 1, 2016. [N.J.A.C. 7:27- 9.2(b)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	None.
6	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.
7	Generator fuel limited to natural gas, # 2 fuel oil or diesel fuel. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	Each emergency generator shall be located at the facility and produce mechanical or thermal energy, or electrical power exclusively for use at the facility. Each emergency generator shall be operated only: 1. During the performance of normal testing and maintenance procedures, as recommended in writing by the manufacturer and/or as required in writing by a Federal or State law or regulation, 2. When there is power outage or the primary source of mechanical or thermal energy fails because of an emergency, or 3. When there is a voltage reduction issued by PJM and posted on the PJM internet website (www.pjm.com) under the "emergency procedures" menu. [N.J.A.C. 7:27-19.1]	Monitored by hour/time monitor continuously. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. The owner or operator shall maintain on site and record in a logbook or computer data system, the following information: 1. Once per month, the total operating time from the generator's hour meter. 2. For each time the emergency generator is specifically operated for testing or maintenance: i. The reason for its operation; ii. The date(s) of operation and the start up and shut down time; iii. The total operating time for testing or maintenance based on the generator's hour meter; and iv. The name of the operator; and 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. The owner or operator of an emergency generator shall maintain the above records for a period no less than five years after the record was made and shall make the records readily available to the Department or the EPA upon request. [N.J.A.C. 7:27-19.11(a)] and [N.J.A.C. 7:27-19.11(b)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
9	This emergency generator shall not be used: 1. For normal testing and maintenance on days when the Department forecasts air quality anywhere in New Jersey to be "unhealthy for sensitive groups," "unhealthy," or "very unhealthy" as defined in the EPA's Air Quality Index at http://airnow.gov/, as supplemented or amended and incorporated herein by reference, unless required in writing by a Federal or State law or regulation. Procedures for determining the air quality forecasts for New Jersey are available at the Department's air quality permitting web site at http://www.state.nj.us/dep/aqpp/aqforecast; and 2. As a source of energy or power after the primary energy or power source has become operable again. If the primary energy or power source is under the control of the owner or operator of the emergency generator, the owner or operator shall make a reasonable, timely effort to repair the primary energy or power source. [N.J.A.C. 7:27-19.2(d)]	None.	None.	None.
10	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 each month during operation. The owner or operator shall maintain onsite and record in a logbook or computer data system the total operating time for testing and maintenance from the generator's hour meter. The total hours of operation limit shall be for purposes of establishing potential to emit. [N.J.A.C. 7:27-19.11]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
11	Hours of Operation <= 400 hr/yr for emergency operation only. [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 each month during operation. The owner or operator shall calculate hours for emergency operation by deducting hours for testing and maintenance from the total operating time from the generator's hour meter. The total hours of operation limit shall be for purposes of establishing potential to emit. [N.J.A.C. 7:27-19.11]	Submit notification: Upon occurrence of event. The Permittee shall contact the Regional Enforcement Office (REO) if the actual hours of emergency operation exceed the total time allowed for emergencies under this permit. The Permittee shall call the appropriate REO within 24 hours of the occurrence of excess emergency operation and submit written notification of the excess emergency operation within 72 hours of the occurrence and may request additional operational hours for situations meeting the definition of an emergency as defined at N.J.A.C. 7:27-22. [N.J.A.C. 7:27-22.16(o)]
12	Maximum Gross Heat Input <= 7.4 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(a)]	Other: Engine Rated Capacity. [N.J.A.C. 7:27-22.16(o)].	None.	None.
13	VOC (Total) <= 0.183 tons/yr. Annual emission limit based on total permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
14	NOx (Total) <= 6.53 tons/yr. Annual emission limit based on total permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
15	CO <= 1.7 tons/yr. Annual emission limit based on total permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
16	SO2 <= 0.392 tons/yr. Annual emission limit based on total permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
17	TSP <= 0.653 tons/yr. Annual emission limit based on total permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
18	PM-10 (Total) <= 0.653 tons/yr. Annual emission limit based on total permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U14 1.59 MMBtu/hr Emergency Diesel Engine-Driven Fire Pump (E8)**
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 <= 4.2 lb/hr. Particulate emission limit from the combustion of fuel based on rated heat input of source. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
3	Sulfur Content in Fuel <= 2,000 ppmw (0.2 % by weight) for Zone 4 (Essex County). Effective through June 30, 2014. [N.J.A.C. 7:27- 9.2(b)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	None.
4	Sulfur Content in Fuel <= 500 ppmw (0.05% by weight). Effective July 1, 2014 through June 30, 2016. [N.J.A.C. 7:27-9.2(b)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	None.
5	Sulfur Content in Fuel <= 15 ppmw (0.0015% by weight). Effective July 1, 2016. [N.J.A.C. 7:27- 9.2(b)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	None.
6	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.
7	Generator fuel limited to natural gas, # 2 fuel oil or diesel fuel. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	Each emergency generator shall be located at the facility and produce mechanical or thermal energy, or electrical power exclusively for use at the facility. Each emergency generator shall be operated only: 1. During the performance of normal testing and maintenance procedures, including other fire protection equipment, as recommended in writing by the fire pump or fire protection system manufacturer and/or as required in writing by a Federal or State law or regulation, 2. When there is power outage or the primary source of mechanical or thermal energy fails because of an emergency, or 3. When there is a voltage reduction issued by PJM and posted on the PJM internet website (www.pjm.com) under the "emergency procedures" menu. [N.J.A.C. 7:27-22.16(a)] and [N.J.A.C. 7:27-19.1]	Monitored by hour/time monitor continuously. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. The owner or operator shall maintain on site and record in a logbook or computer data system, the following information: 1. Once per month, the total operating time from the generator's hour meter. 2. For each time the emergency generator is specifically operated for testing or maintenance: i. The reason for its operation; ii. The date(s) of operation and the start up and shut down time; iii. The total operating time for testing or maintenance based on the generator's hour meter; and iv. The name of the operator; and 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. The owner or operator of an emergency generator shall maintain the above records for a period no less than five years after the record was made and shall make the records readily available to the Department or the EPA upon request. [N.J.A.C. 7:27-19.11(a)] and [N.J.A.C. 7:27-19.11(b)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
9	This emergency generator shall not be used: 1. For normal testing and maintenance on days when the Department forecasts air quality anywhere in New Jersey to be "unhealthy for sensitive groups," "unhealthy," or "very unhealthy" as defined in the EPA's Air Quality Index at http://airnow.gov/, as supplemented or amended and incorporated herein by reference, unless required in writing by a Federal or State law or regulation. Procedures for determining the air quality forecasts for New Jersey are available at the Department's air quality permitting web site at http://www.state.nj.us/dep/aqpp/aqforecast; and 2. As a source of energy or power after the primary energy or power source has become operable again. If the primary energy or power source is under the control of the owner or operator of the emergency generator, the owner or operator shall make a reasonable, timely effort to repair the primary energy or power source. [N.J.A.C. 7:27-19.2(d)]	None.	None.	None.
10	Hours of Operation <= 50 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 each month during operation. The owner or operator shall maintain onsite and record in a logbook or computer data system the total operating time for testing and maintenance from the generator's hour meter. The total hours of operation limit shall be for purposes of establishing potential to emit. [N.J.A.C. 7:27-19.11]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
11	Hours of Operation <= 450 hr/yr for emergency operation only. [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 each month during operation. The owner or operator shall calculate hours for emergency operation by deducting hours for testing and maintenance from the total operating time from the generator's hour meter. The total hours of operation limit shall be for purposes of establishing potential to emit. [N.J.A.C. 7:27-19.11]	Submit notification: Upon occurrence of event. The Permittee shall contact the Regional Enforcement Office (REO) if the actual hours of emergency operation exceed the total time allowed for emergencies under this permit. The Permittee shall call the appropriate REO within 24 hours of the occurrence of excess emergency operation and submit written notification of the excess emergency operation within 72 hours of the occurrence and may request additional operational hours for situations meeting the definition of an emergency as defined at N.J.A.C. 7:27-22. [N.J.A.C. 7:27-22.16(o)]
12	Maximum Gross Heat Input <= 1.59 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(a)]	Other: Engine Rated Capacity. [N.J.A.C. 7:27-22.16(o)].	None.	None.
13	VOC (Total) <= 0.105 tons/yr. Annual emission limit based on total permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
14	NOx (Total) <= 1.3 tons/yr. Annual emission limit based on total permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
15	CO <= 0.286 tons/yr. Annual emission limit based on total permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
16	SO2 <= 0.087 tons/yr. Annual emission limit based on total permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
17	TSP <= 0.094 tons/yr. Annual emission limit based on total permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
18	PM-10 (Total) <= 0.094 tons/yr. Annual emission limit based on total permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U15 Ash and Metals Recovery System (E16, E17, E21-E30)**
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. [N.J.A.C. 7:27- 6.2(a)]	None.	None.	None.
2	The owner or operator shall not use this emission unit in a manner which will cause visible emissions greater than 20 percent opacity, exclusive of condensed water vapor, for a period longer than three minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-6.2(d)] and [N.J.A.C. 7:27-6.2(e)]	None.	None.	None.
3	The permittee shall not use the equipment in a manner which will cause visible emissions, exclusive of condensed water vapor. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	TSP <= 0.05 lb/hr (from all scenarios combined.) Emission limit from the operating permit modification BOP120001. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	PM-10 (Total) <= 0.05 lb/hr (from all scenarios combined.) Emission limit from the operating permit modification BOP120001. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	All particulate emissions from this emission unit shall be exhausted through dust collector CD1022. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	Total Material Transferred <= 25.5 tons/hr of bottom ash to metals recovery (Design capacity) for this scenario. This includes re-feed ash flow. Similarly, combined design capacity for both fly ash and bottom ash = 31 tons per hour. [Modification BOP120001]. [N.J.A.C. 7:27-22.16(a)]	Total Material Transferred: Monitored by documentation of construction once initially. [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 once initially. Retain original design specifications and emission calculations in file. From Minor Modification BOP120001. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	The owner or operator shall inspect and maintain the dust collectors and replace the filter media on a schedule necessary to achieve the required particulate control effeciency as specified by the manufacturer. [N.J.A.C. 7:27-22.16(a)]	None.	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. Record each inspection and maintenance event. The filter will be maintained in accordance with manufacturer's recommendations. [N.J.A.C. 7:27-22.16(o)]	None.
9	Pressure Drop >= 1 and Pressure Drop <= 6 inches w.c. (across the filter.). [N.J.A.C. 7:27-22.16(a)]	Pressure Drop: Monitored by pressure drop instrument once every 2 weeks. [N.J.A.C. 7:27-22.16(o)]	Pressure Drop: Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. Record observed pressure drop. [N.J.A.C. 7:27-22.16(o)]	None.
10	FUGITIVE ASH EMISSIONS -The facility must not cause to be discharged to the atmosphere visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5 percent of the observation period (i.e., 9-min. per 3-hour period), except during periods of startup, shutdown, and malfunction and as provided below. Startup, shutdown, and malfunction exception is specified by 40 CFR 62.14109(b) and 40 CFR 60.58b(a)(1). - The emission limit specified above does not cover visible emissions discharged inside buildings or enclosures of ash conveying systems; however, the emission limit specified above does cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems. - The provisions specified above do not apply during maintenance and repair of ash conveying systems. 40 CFR 60.39b(d)& [40 CFR 62.14106(a)]	Monitored by visual determination annually, based on the average of three tests. Compliance with fugitive ash emission limits shall be based on a series of three one hour observations, performed annually, using EPA Reference Method 22. This is based on the requirement at 40 CFR 60.58b(k). [40 CFR 60.39b(d)]&. [40 CFR 62.14106(a)]	Other: Maintain records of annual method 22 results along with all supporting calculations. This is as specified at 40 CFR 60.59b(d)(9). [40 CFR 60.39b(d)]&[40 CFR 62.14109(a)].	None.

COVANTA ESSEX CO (07736)
BOP190001

New Jersey Department of Environmental Protection
Facility Profile (General)

Facility Name (AIMS): Covanta Essex Company

Facility ID (AIMS): 07736

Street Address: 183 RAYMOND BLVD
NEWARK NJ 07105
NEWARK, NJ 07105-4798

Mailing Address: 183 RAYMOND BLVD
NEWARK NJ 07105
NEWARK, NJ 07105-4798

State Plane Coordinates:

X-Coordinate:	574
Y-Coordinate:	4,510
Units:	UTM Zone 18N - Meters
Datum:	Unknown
Source Org.:	Other/Unknown
Source Type:	Other/Unknown

County: Essex

Location Description: Municipal Waste Combustion using mass-burn waterwall furnace and boiler that generates electricity.

Industry:

Primary SIC:	4953
Secondary SIC:	4939
NAICS:	562213

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: Air Permit Information Contact

Organization: Covanta Essex Company
Org. Type: Partnership
Name: Patricia Earls
NJ EIN: 75611300000
Title: NJ Regional Environmental Manager
Phone: (973) 817-7322 x
Fax: (973) 344-4999 x
Other: (201) 621-1845 x
Type: Mobile
Email: pearls@covanta.com
Mailing Address: 183 Raymond Boulevard
Newark, NJ 07105

Contact Type: BOP - Operating Permits

Organization: Covanta Essex Company
Org. Type: Partnership
Name: Patricia Earls
NJ EIN: 75611300000
Title: NJ Regional Environmental Manager
Phone: (973) 817-7322 x
Fax: (973) 344-4999 x
Other: (201) 621-1845 x
Type: Mobile
Email: pearls@covanta.com
Mailing Address: 183 Raymond Boulevard
Newark, NJ 07105

Contact Type: Environmental Officer

Organization: Covanta Essex Company
Org. Type: Partnership
Name: Patricia Earls
NJ EIN: 75611300000
Title: NJ Regional Environmental Manager
Phone: (973) 817-7322 x
Fax: (973) 344-4999 x
Other: (201) 621-1845 x
Type: Mobile
Email: pearls@covanta.com
Mailing Address: 183 Raymond Boulevard
Newark, NJ 07105

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: Fees/Billing Contact

Organization: Covanta Essex Company
Org. Type: Corporation
Name: Patricia Earls
NJ EIN: 75611300000
Title: Environmental Engineer
Phone: (973) 817-7322 x
Mailing Address: 183 Raymond Blvd
Newark, NJ 07105-4798
Fax: ( ) - x
Other: ( ) - x
Type:
Email: pearls@covantaenergy.com

Contact Type: General Contact

Organization: Covanta Essex Company
Org. Type: Partnership
Name: Patricia Earls
NJ EIN: 75611300000
Title: NJ Regional Environmental Manager
Phone: (973) 817-7322 x
Mailing Address: 183 Raymond Boulevard
Newark, NJ 07105
Fax: (973) 344-4999 x
Other: (201) 621-1845 x
Type: Mobile
Email: pearls@covanta.com

Contact Type: On-Site Manager

Organization: Covanta Essex Company
Org. Type: Partnership
Name: David Blackmore
NJ EIN: 75611300000
Title: Facility Manager
Phone: (973) 817-7228 x
Mailing Address: 183 Raymond Boulevard
Newark, NJ 07105
Fax: (973) 344-4999 x
Other: (240) 308-5025 x
Type: Mobile
Email: dblackmore@covanta.com

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: Operator

Organization: Covanta Essex Company
Org. Type: Partnership
Name: Covanta Essex Company
NJ EIN: 75611300000
Title: NA
Phone: (973) 344-0900 x
Fax: (973) 344-4999 x
Other: ( ) - x
Type:
Email: pearls@covanta.com; dblackmore@covanta.com
Mailing Address:

Contact Type: Owner (Current Primary)

Organization: Covanta Essex Company
Org. Type: Partnership
Name: Covanta Essex Company
NJ EIN: 75611300000
Title: NA
Phone: (973) 344-0900 x
Fax: (973) 344-4999 x
Other: ( ) - x
Type:
Email: pearls@covanta.com; dblackmore@covanta.com
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Contact Type: Responsible Official

Organization: Covanta Essex Company
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COVANTA ESSEX CO (07736)
BOP190001

Date: 10/18/2019

New Jersey Department of Environmental Protection
Insignificant Source Emissions

IS NJID	Source/Group Description	Equipment Type	Location Description	Estimate of Emissions (tpy)								
				VOC (Total)	NOx	CO	SO	TSP	PM-10	Pb	HAPS (Total)	Other (Total)
IS1	No. 2 Fuel Oil Tanks (<10,000 Gallons Capacity)	Storage Vessel										
IS2	Fuel Oil Tank (>10,000 Gallons Capacity)	Storage Vessel										
Total				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00000000	0.000

COVANTA ESSEX CO (07736) Date: 10/18/2019
BOP190001

New Jersey Department of Environmental Protection
Equipment Inventory

Equip. NJID	Facility's Designation	Equipment Description	Equipment Type	Certificate Number	Install Date	Grand-Fathered	Last Mod. (Since 1968)	Equip. Set ID
E1	1	MSW Boiler #1	Incinerator	PCP960005	11/3/1990	No	7/29/1997	
E2	2	MSW Boiler #2	Incinerator	PCP960005	11/26/1990	No	7/29/1997	
E3	3	MSW Boiler #3	Incinerator	PCP960005	12/17/1990	No	7/29/1997	
E4	4	Lime Silo A	Manufacturing and Materials Handling Equipment	PCP960001	11/1/1990	No		
E5	5	Lime Silo B	Manufacturing and Materials Handling Equipment	PCP960002	11/1/1990	No		
E6	6	Lime Silo C	Manufacturing and Materials Handling Equipment	PCP960003	11/1/1990	No		
E7	7	Diesel Generator	Emergency Generator	PCP960006	11/1/1990	No		
E8	8	Diesel Fire Pump	Emergency Generator	PCP960007	11/1/1990	No		
E9	9	Lime Slaker Vent A	Manufacturing and Materials Handling Equipment	PCP960010	11/11/1991	No		
E10	10	Lime Slaker Vent B	Manufacturing and Materials Handling Equipment	PCP960013	11/11/1991	No		
E12	12	Flyash Silo 1	Manufacturing and Materials Handling Equipment	PCP960012	11/11/1991	No		

New Jersey Department of Environmental Protection
Equipment Inventory

Equip. NJID	Facility's Designation	Equipment Description	Equipment Type	Certificate Number	Install Date	Grand-Fathered	Last Mod. (Since 1968)	Equip. Set ID
E13	13	Flyash Silo 2	Manufacturing and Materials Handling Equipment	PCP960012	11/11/1991	No		
E14	14	Carbon Silo	Manufacturing and Materials Handling Equipment	PCP960005	12/1/1995	No		
E16	16	Ash Conveyance Line "A	Manufacturing and Materials Handling Equipment	PCP960009	11/1/1990	No	11/1/1994	
E17	17	Ash Conveyance Line "B	Manufacturing and Materials Handling Equipment	PCP960009	11/1/1990	No	11/1/1994	
E21	RH-136-CV	Vibratory Conveyor	Manufacturing and Materials Handling Equipment	BOP120001	10/1/2012	No		
E22	RH-150-SC	Grizzly Scalper	Manufacturing and Materials Handling Equipment	BOP120001	10/1/2012	No		
E23	RH-170-CV	Feeder	Manufacturing and Materials Handling Equipment	BOP120001	10/1/2012	No		
E24	FE-200-MAG	Ferrous Magnet	Manufacturing and Materials Handling Equipment	BOP120001	10/1/2012	No		
E25	RH-160-FD	Vibratory Conveyor	Manufacturing and Materials Handling Equipment	BOP120001	10/1/2012	No		

New Jersey Department of Environmental Protection
Equipment Inventory

Equip. NJID	Facility's Designation	Equipment Description	Equipment Type	Certificate Number	Install Date	Grand-Fathered	Last Mod. (Since 1968)	Equip. Set ID
E26	NF-230-SC	Screen	Manufacturing and Materials Handling Equipment	BOP120001	10/1/2012	No	12/1/2018	
E27	NF-300-ECS	Eddy Current Separator (+3/8)	Manufacturing and Materials Handling Equipment	BOP120001	10/1/2012	No		
E28	NF-400-MSB	Feeder Conveyor	Manufacturing and Materials Handling Equipment	BOP120001	10/1/2012	No	12/1/2018	
E29	NF-410-ECS	Eddy Current Separator (-3/8)	Manufacturing and Materials Handling Equipment	BOP120001	10/1/2012	No		
E30	E30	Conveyors	Manufacturing and Materials Handling Equipment	BOP120001	10/1/2012	No		
E31	RH-180-VSL	Re-Feed Chute	Manufacturing and Materials Handling Equipment	BOP120001	10/1/2012	No		
E32	RH-185-FD	Feeder	Manufacturing and Materials Handling Equipment	BOP120001	10/1/2012	No		

07736 COVANTA ESSEX CO BOP190001 E1 (Incinerator)
Print Date: 10/15/2019

Make:	
Manufacturer:	Foster Wheeler
Model:	
Unit Type:	Mass Burn Waterwall
Description:	
Maximum Waste Processing Capacity:	
Units:	
Physical State of Waste being Incinerated:	Solid
Description:	
Primary Chamber Maximum Gross Heat Input from Fuel (MMbtu/hr, HHV):	423
Primary Chamber Maximum Primary Air (acfm):	109000
Primary Chamber Maximum Gas Flow Rate (acfm):	505350
Primary Chamber Volume (ft^3):	
Primary Chamber Minimum Design Operation Temperature (ºF):	
Primary Chamber Minimum Gas Residence Time (sec):	
Secondary Chamber Maximum Gross Heat Input from Fuel (MMBtu/hr, HHV):	
Secondary Chamber Maximum Primary Air (acfm):	
Secondary Chamber Maximum Gas Flow Rate (acfm):	
Secondary Chamber Volume (ft^3):	
Secondary Chamber Minimum Design Operation Temperature (ºF):	
Secondary Chamber Minimum Gas Residence Time (sec):	
Secondary Chamber Maximum Outlet Air Flow Rate (acfm):	
Secondary Chamber Minimum Outlet Temperature (ºF):	
Type of Plume Supression:	
Do you have a bypass Stack?	○ Yes ● No

07736 COVANTA ESSEX CO BOP190001 E1 (Incinerator)
Print Date: 10/15/2019

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:

07736 COVANTA ESSEX CO BOP190001 E2 (Incinerator)
Print Date: 10/15/2019

Make:	
Manufacturer:	Foster Wheeler
Model:	
Unit Type:	Mass Burn Waterwall
Description:	
Maximum Waste Processing Capacity:	
Units:	
Physical State of Waste being Incinerated:	Solid
Description:	
Primary Chamber Maximum Gross Heat Input from Fuel (MMbtu/hr, HHV):	423
Primary Chamber Maximum Primary Air (acfm):	109000
Primary Chamber Maximum Gas Flow Rate (acfm):	505350
Primary Chamber Volume (ft^3):	
Primary Chamber Minimum Design Operation Temperature (ºF):	
Primary Chamber Minimum Gas Residence Time (sec):	
Secondary Chamber Maximum Gross Heat Input from Fuel (MMBtu/hr, HHV):	
Secondary Chamber Maximum Primary Air (acfm):	
Secondary Chamber Maximum Gas Flow Rate (acfm):	
Secondary Chamber Volume (ft^3):	
Secondary Chamber Minimum Design Operation Temperature (ºF):	
Secondary Chamber Minimum Gas Residence Time (sec):	
Secondary Chamber Maximum Outlet Air Flow Rate (acfm):	
Secondary Chamber Minimum Outlet Temperature (ºF):	
Type of Plume Supression:	
Do you have a bypass Stack?	○ 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:

07736 COVANTA ESSEX CO BOP190001 E3 (Incinerator)
Print Date: 10/15/2019

Make:	
Manufacturer:	Foster Wheeler
Model:	
Unit Type:	Mass Burn Waterwall
Description:	
Maximum Waste Processing Capacity:	
Units:	
Physical State of Waste being Incinerated:	Solid
Description:	
Primary Chamber Maximum Gross Heat Input from Fuel (MMbtu/hr, HHV):	423
Primary Chamber Maximum Primary Air (acfm):	109000
Primary Chamber Maximum Gas Flow Rate (acfm):	505350
Primary Chamber Volume (ft^3):	
Primary Chamber Minimum Design Operation Temperature (ºF):	
Primary Chamber Minimum Gas Residence Time (sec):	
Secondary Chamber Maximum Gross Heat Input from Fuel (MMBtu/hr, HHV):	
Secondary Chamber Maximum Primary Air (acfm):	
Secondary Chamber Maximum Gas Flow Rate (acfm):	
Secondary Chamber Volume (ft^3):	
Secondary Chamber Minimum Design Operation Temperature (ºF):	
Secondary Chamber Minimum Gas Residence Time (sec):	
Secondary Chamber Maximum Outlet Air Flow Rate (acfm):	
Secondary Chamber Minimum Outlet Temperature (ºF):	
Type of Plume Supression:	
Do you have a bypass Stack?	○ 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:

07736 COVANTA ESSEX CO BOP190001 E4 (Manufacturing and Materials Handling Equipment)
Print Date: 10/15/2019

Make:	Steel Lime Storage Silo
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	Lime Storage
Capacity:	6.00E+03
Units:	ft^3
Description (if other):	
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	

07736 COVANTA ESSEX CO BOP190001 E5 (Manufacturing and Materials Handling Equipment)
Print Date: 10/15/2019

Make:	Steel Lime Storage Silo
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	Lime Storage
Capacity:	6.00E+03
Units:	ft^3
Description (if other):	
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	

07736 COVANTA ESSEX CO BOP190001 E6 (Manufacturing and Materials Handling Equipment)
Print Date: 10/15/2019

Make:	Steel Lime Storage Silo
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	Lime Storage
Capacity:	6.00E+03
Units:	ft^3
Description (if other):	
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	

07736 COVANTA ESSEX CO BOP190001 E7 (Emergency Generator)
Print Date: 10/15/2019

Make:	
Manufacturer:	Cummins
Model:	
Maximum rated Gross Heat Input (MMBtu/hr-HHV):	7.00
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:	

07736 COVANTA ESSEX CO BOP190001 E8 (Emergency Generator)
Print Date: 10/15/2019

Make:	
Manufacturer:	Peerless
Model:	4000
Maximum rated Gross Heat Input (MMBtu/hr-HHV):	1.60
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:	

07736 COVANTA ESSEX CO BOP190001 E9 (Manufacturing and Materials Handling Equipment)
Print Date: 10/15/2019

Make:	
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	Lime Slaker Vent A
Capacity:	
Units:	
Description (if other):	
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	

07736 COVANTA ESSEX CO BOP190001 E10 (Manufacturing and Materials Handling Equipment)
Print Date: 10/15/2019

Make:	
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	Lime Slaker Vent B
Capacity:	
Units:	
Description (if other):	
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	

07736 COVANTA ESSEX CO BOP190001 E12 (Manufacturing and Materials Handling Equipment)
Print Date: 10/15/2019

Make:	
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	Flyash System A
Capacity:	
Units:	
Description (if other):	
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	

07736 COVANTA ESSEX CO BOP190001 E13 (Manufacturing and Materials Handling Equipment)
Print Date: 10/15/2019

Make:	
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	Flyash System B
Capacity:	
Units:	
Description (if other):	
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	

07736 COVANTA ESSEX CO BOP190001 E14 (Manufacturing and Materials Handling Equipment)
Print Date: 10/15/2019

Make:	
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	Steel Activated Carbon Storage Silo
Capacity:	2.70E+03
Units:	ft^3
Description (if other):	
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	

07736 COVANTA ESSEX CO BOP190001 E16 (Manufacturing and Materials Handling Equipment)
Print Date: 10/15/2019

Make:	
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	Flyash Building Baghouse & Flyash System A I
Capacity:	8.50E+03
Units:	other units
Description (if other):	lb/hr
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	

07736 COVANTA ESSEX CO BOP190001 E17 (Manufacturing and Materials Handling Equipment)
Print Date: 10/15/2019

Make:	
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	Flyash Building Baghouse & Flyash System B
Capacity:	
Units:	
Description (if other):	
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	

07736 COVANTA ESSEX CO BOP190001 E21 (Manufacturing and Materials Handling Equipment)
Print Date: 10/15/2019

Make:	
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	Conveyor
Capacity:	2.25E+01
Units:	other units
Description (if other):	tons/hour
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	Located in current ash/ferrous area

07736 COVANTA ESSEX CO BOP190001 E22 (Manufacturing and Materials Handling Equipment)
Print Date: 10/15/2019

Make:	
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	Grizzly Scalper
Capacity:	2.25E+01
Units:	other units
Description (if other):	tons/hour
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	Located in current ash/ferrous area

07736 COVANTA ESSEX CO BOP190001 E23 (Manufacturing and Materials Handling Equipment)
Print Date: 10/15/2019

Make:	
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	Feeder
Capacity:	2.01E+01
Units:	other units
Description (if other):	tons/hour
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	Located in current ash/ferrous area

07736 COVANTA ESSEX CO BOP190001 E24 (Manufacturing and Materials Handling Equipment)
Print Date: 10/15/2019

Make:	
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	Ferrous Magnet
Capacity:	3.68E+00
Units:	other units
Description (if other):	tons/hour
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	Located in current ash/ferrous area

07736 COVANTA ESSEX CO BOP190001 E25 (Manufacturing and Materials Handling Equipment)
Print Date: 10/15/2019

Make:	
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	Conveyor
Capacity:	2.40E+00
Units:	other units
Description (if other):	tons/hour
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	Located in current ash/ferrous area.

07736 COVANTA ESSEX CO BOP190001 E26 (Manufacturing and Materials Handling Equipment)
Print Date: 10/15/2019

Make:	
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	Screen
Capacity:	1.64E+01
Units:	other units
Description (if other):	tons/hour
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	Located in current ash/ferrous area.

07736 COVANTA ESSEX CO BOP190001 E27 (Manufacturing and Materials Handling Equipment)
Print Date: 10/15/2019

Make:	
Manufacturer:	Steinert or equivalent
Model:	NES 150-220-5009 or equivalent
Type of Manufacturing and Materials Handling Equipment:	Eddy Current Separator
Capacity:	6.59E+00
Units:	other units
Description (if other):	tons/hour
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	Located in current ash/ferrous area.

07736 COVANTA ESSEX CO BOP190001 E28 (Manufacturing and Materials Handling Equipment)
Print Date: 10/15/2019

Make:	
Manufacturer:	Joest
Model:	
Type of Manufacturing and Materials Handling Equipment:	Feeder
Capacity:	9.83E+00
Units:	other units
Description (if other):	tons/hour
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	Located in current ash/ferrous area.

07736 COVANTA ESSEX CO BOP190001 E29 (Manufacturing and Materials Handling Equipment)
Print Date: 10/15/2019

Make:	
Manufacturer:	Steinert or equivalent
Model:	NES 150-210-E6119 or equivalent
Type of Manufacturing and Materials Handling Equipment:	Eddy Current Separator
Capacity:	9.83E+00
Units:	other units
Description (if other):	tons/hour
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	Located in current ash/ferrous area.

07736 COVANTA ESSEX CO BOP190001 E30 (Manufacturing and Materials Handling Equipment)
Print Date: 10/15/2019

Make:	
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	Conveyors
Capacity:	2.80E+01
Units:	other units
Description (if other):	tons/hour
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	Located in current ash/ferrous area.

07736 COVANTA ESSEX CO BOP190001 E31 (Manufacturing and Materials Handling Equipment)
Print Date: 10/15/2019

Make:	
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	Re-Fed Chute
Capacity:	2.00E+00
Units:	other units
Description (if other):	tons/hour
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	U15 ash handling

07736 COVANTA ESSEX CO BOP190001 E32 (Manufacturing and Materials Handling Equipment)
Print Date: 10/15/2019

Make:	
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	Feeder
Capacity:	2.00E+00
Units:	other units
Description (if other):	tons/hour
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	U15 ash handling

COVANTA ESSEX CO (07736) Date: 10/18/2019

BOP190001

New Jersey Department of Environmental Protection
Control Device Inventory

CD NJID	Facility's Designation	Description	CD Type	Install Date	Grand-Fathered	Last Mod. (Since 1968)	CD Set ID
CD1001	1001	Scrubber - Boiler #1	Scrubber (Other)	11/1/1990	No		
CD1002	1002	Scrubber - Boiler #2	Scrubber (Other)	11/1/1990	No		
CD1003	1003	Scrubber - Boiler #3	Scrubber (Other)	11/1/1990	No		
CD1004	1004	Electrostatic Precipitator - Boiler #1	Electrostatic Precipitator	11/1/1990	No		
CD1005	1005	Electrostatic Precipitator - Boiler #2	Electrostatic Precipitator	11/1/1990	No		
CD1006	1006	Electrostatic Precipitator - Boiler #3	Electrostatic Precipitator	11/1/1990	No		
CD1007	1007	Thermal DeNOx - Boiler #1	Selective Non-Catalytic Reduction	11/1/1994	No	7/29/1997	
CD1008	1008	Thermal DeNOx - Boiler #2	Selective Non-Catalytic Reduction	11/1/1994	No	7/29/1997	
CD1009	1009	Thermal DeNOx - Boiler #3	Selective Non-Catalytic Reduction	11/1/1994	No	7/29/1997	
CD1010	1010	Carbon Injection - Boiler #1	Adsorber	12/1/1995	No	6/21/1996	
CD1011	1011	Carbon Injection - Boiler #2	Adsorber	12/1/1995	No	6/21/1996	
CD1012	1012	Carbon Injection - Boiler #3	Adsorber	12/1/1995	No	6/21/1996	
CD1013	1013	Lime Silo A Baghouse	Particulate Filter (Baghouse)	11/1/1990	No		
CD1014	1014	Lime Silo B Baghouse	Particulate Filter (Baghouse)	11/1/1990	No		
CD1015	1015	Lime Silo C Baghouse	Particulate Filter (Baghouse)	11/1/1990	No		

COVANTA ESSEX CO (07736) Date: 10/18/2019

BOP190001

New Jersey Department of Environmental Protection
Control Device Inventory

CD NJID	Facility's Designation	Description	CD Type	Install Date	Grand-Fathered	Last Mod. (Since 1968)	CD Set ID
CD1017	1017	Flyash Silo A Baghouse	Particulate Filter (Baghouse)	11/11/1991	No		
CD1018	1018	Flyash Silo B Baghouse	Particulate Filter (Baghouse)	11/11/1991	No		
CD1019	1019	Flyash Building Baghose	Particulate Filter (Baghouse)	11/11/1991	No	3/29/2019	
CD1020	1020	Carbon Silo Baghouse	Particulate Filter (Baghouse)	12/1/1995	No		
CD1022	Ash Area Ven	Ash Area Vent Filter	Particulate Filter (Cartridge)	10/1/2012	No		
CD1023	1023	Baghouse - Boiler #1	Particulate Filter (Baghouse)	11/6/2016	No		
CD1024	1024	Baghouse - Boiler #2	Particulate Filter (Baghouse)	5/24/2016	No		
CD1025	1025	Baghouse - Boiler #3	Particulate Filter (Baghouse)	11/1/2015	No		

07736 COVANTA ESSEX CO BOP190001 CD1001 (Scrubber (Other))
Print Date: 10/15/2019

Make:	
Manufacturer:	Belco
Model:	
Scrubber Type:	Spray Dryer Absorber System
Description:	Lime Scrubber
Is the Scrubber used for Particulate Control?	No
Is the Scrubber used for Gas Control?	Yes
Is the Scrubber Equipped with a Mist Eliminator?	No
Minimum Pump Discharge Pressure (in. H2O):	0
Maximum Pump Discharge Pressure (in. H2O):	3600
Method of Monitoring Pump Discharge Pressure:	
Minimum Pump Current (amps):	0
Maximum Pump Current (amps):	50
Method of Monitoring Pump Current:	
Minimum Scrubber Medium Inlet Pressure (in. H2O):	>=6
Minimum Operating Liquid Flow Rate (gpm):	0
Maximum Operating Liquid Flow Rate (gpm):	30
Method of Monitoring Liquid Flow Rate:	Bailey Net 90 Control System
Minimum Operating Gas Flow Rate (acfm):	215000
Maximum Operating Gas Flow Rate (acfm):	315000
Method of Monitoring Gas Flow Rate:	

07736 COVANTA ESSEX CO BOP190001 CD1001 (Scrubber (Other))
Print Date: 10/15/2019

Minimum Operating Pressure Drop (in. H2O):	5.5
Maximum Operating Pressure Drop (in. H2O):	6
Method of Monitoring Pressure Drop:	Manometer
Relative Direction of the Gas-Liquid Flow:	Co - Current
Number of Plates:	
Type of Plates:	
Spacing Between Plates (in.):	11 13/16
Maximum Inlet Gas Temperature (deg F):	491
Maximum Outlet Gas Temperature (deg F):	302
Inlet Particle Grain Loading (gr/dscf):	
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:	SO2 monitor
Have you attached data from recent performance testing?	No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	no
Have you attached a diagram showing the location and/or configuration of this control apparatus?	No
Comments:	

Control Device Design Efficiency Table

Pollutant Category	Design Efficiency (%)
PM-10	
TSP	
VOC	
NOx	
SO2	70
CO	
Pb	
HAPs (Total)	
Other (Total)	
Individual HAPs/Other (speciate below)	

07736 COVANTA ESSEX CO BOP190001 CD1002 (Scrubber (Other))
Print Date: 10/15/2019

Make:	
Manufacturer:	Belco
Model:	
Scrubber Type:	Spray Dryer Absorber System
Description:	Lime Scrubber
Is the Scrubber used for Particulate Control?	No
Is the Scrubber used for Gas Control?	Yes
Is the Scrubber Equipped with a Mist Eliminator?	No
Minimum Pump Discharge Pressure (in. H2O):	0
Maximum Pump Discharge Pressure (in. H2O):	3600
Method of Monitoring Pump Discharge Pressure:	
Minimum Pump Current (amps):	0
Maximum Pump Current (amps):	50
Method of Monitoring Pump Current:	
Minimum Scrubber Medium Inlet Pressure (in. H2O):	>=6
Minimum Operating Liquid Flow Rate (gpm):	0
Maximum Operating Liquid Flow Rate (gpm):	30
Method of Monitoring Liquid Flow Rate:	Bailey Net 90 Control System
Minimum Operating Gas Flow Rate (acfm):	215000
Maximum Operating Gas Flow Rate (acfm):	315000
Method of Monitoring Gas Flow Rate:	

07736 COVANTA ESSEX CO BOP190001 CD1002 (Scrubber (Other))
Print Date: 10/15/2019

Minimum Operating Pressure Drop (in. H2O):	5.5
Maximum Operating Pressure Drop (in. H2O):	6
Method of Monitoring Pressure Drop:	Manometer
Relative Direction of the Gas-Liquid Flow:	Co - Current
Number of Plates:	
Type of Plates:	
Spacing Between Plates (in.):	11 13/16
Maximum Inlet Gas Temperature (deg F):	491
Maximum Outlet Gas Temperature (deg F):	302
Inlet Particle Grain Loading (gr/dscf):	
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:	SO2 monitor
Have you attached data from recent performance testing?	No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	no
Have you attached a diagram showing the location and/or configuration of this control apparatus?	No
Comments:	

Control Device Design Efficiency Table

Pollutant Category	Design Efficiency (%)
PM-10	
TSP	
VOC	
NOx	
SO2	70
CO	
Pb	
HAPs (Total)	
Other (Total)	
Individual HAPs/Other (speciate below)	

07736 COVANTA ESSEX CO BOP190001 CD1003 (Scrubber (Other))
Print Date: 10/15/2019

Make:	
Manufacturer:	Belco
Model:	
Scrubber Type:	Spray Dryer Absorber System
Description:	Lime Scrubber
Is the Scrubber used for Particulate Control?	No
Is the Scrubber used for Gas Control?	Yes
Is the Scrubber Equipped with a Mist Eliminator?	No
Minimum Pump Discharge Pressure (in. H2O):	0
Maximum Pump Discharge Pressure (in. H2O):	3600
Method of Monitoring Pump Discharge Pressure:	
Minimum Pump Current (amps):	0
Maximum Pump Current (amps):	50
Method of Monitoring Pump Current:	
Minimum Scrubber Medium Inlet Pressure (in. H2O):	>=6
Minimum Operating Liquid Flow Rate (gpm):	0
Maximum Operating Liquid Flow Rate (gpm):	30
Method of Monitoring Liquid Flow Rate:	Bailey Net 90 Control System
Minimum Operating Gas Flow Rate (acfm):	215000
Maximum Operating Gas Flow Rate (acfm):	315000
Method of Monitoring Gas Flow Rate:	

07736 COVANTA ESSEX CO BOP190001 CD1003 (Scrubber (Other))
Print Date: 10/15/2019

Minimum Operating Pressure Drop (in. H2O):	5.5
Maximum Operating Pressure Drop (in. H2O):	6
Method of Monitoring Pressure Drop:	Manometer
Relative Direction of the Gas-Liquid Flow:	Co - Current
Number of Plates:	
Type of Plates:	
Spacing Between Plates (in.):	11 13/16
Maximum Inlet Gas Temperature (deg F):	491
Maximum Outlet Gas Temperature (deg F):	302
Inlet Particle Grain Loading (gr/dscf):	
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:	SO2 monitor
Have you attached data from recent performance testing?	No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	no
Have you attached a diagram showing the location and/or configuration of this control apparatus?	No
Comments:	

Control Device Design Efficiency Table

Pollutant Category	Design Efficiency (%)
PM-10	
TSP	
VOC	
NOx	
SO2	70
CO	
Pb	
HAPs (Total)	
Other (Total)	
Individual HAPs/Other (speciate below)	

07736 COVANTA ESSEX CO BOP190001 CD1004 (Electrostatic Precipitator)
Print Date: 10/15/2019

Make:	FLAKT
Manufacturer:	FLAKT
Model:	
Unit Type:	3-Stage Plate
Description:	
Number of Stages:	3
Method of Operation:	HIGH VOLTAGE
Method of Cleaning:	Rapping
Description:	
Capacity (acfm):	184,672 @ 302 degrees F
Maximum Gas Velocity (ft/sec):	137
Type of Rectifier:	Solid State
Maximum Inlet Gas Stream Moisture (%):	17.71
Maximum Inlet Gas Stream Temperature (deg F):	302
Number of Plates:	37
Number of Fields:	3
Aspect Ratio:	
Plate Surface Area (ft2):	1190
Spacing Between Plates (in):	11 13/16
Cross Sectional Area of Precipitator (ft2):	1349
Treatment Time (sec.):	
Maximum Corona Power (Volt):	3 HV units, 55 kV (DC) Avg. 115.5 kVA nominal rating each
Minimum Apparent Migration Velocity (ft/min):	13.2
Maximum Particle Resistivity (ohm-cm):	1E-011

07736 COVANTA ESSEX CO BOP190001 CD1004 (Electrostatic Precipitator)
Print Date: 10/15/2019

Average Particle Size (Micrometers):	
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?	No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	
Comments:	COM required by PCP Condition B.3.

Control Device Design Efficiency Table

Pollutant Category	Design Efficiency (%)
PM-10	99.9
TSP	99.9
VOC	
NOx	
SO2	
CO	
Pb	
HAPs (Total)	
Other (Total)	
Individual HAPs/Other (speciate below)	

07736 COVANTA ESSEX CO BOP190001 CD1005 (Electrostatic Precipitator)
Print Date: 10/15/2019

Make:	FLAKT
Manufacturer:	FLAKT
Model:	
Unit Type:	3-Stage Plate
Description:	
Number of Stages:	3
Method of Operation:	HIGH VOLTAGE
Method of Cleaning:	Rapping
Description:	
Capacity (acfm):	184,672 @ 302 degrees F
Maximum Gas Velocity (ft/sec):	137
Type of Rectifier:	Solid State
Maximum Inlet Gas Stream Moisture (%):	17.71
Maximum Inlet Gas Stream Temperature (deg F):	302
Number of Plates:	37
Number of Fields:	3
Aspect Ratio:	
Plate Surface Area (ft2):	1190
Spacing Between Plates (in):	11 13/16
Cross Sectional Area of Precipitator (ft2):	1349
Treatment Time (sec.):	
Maximum Corona Power (Volt):	3 HV units, 55 kV (DC) Avg. 115.5 kVA nominal rating each
Minimum Apparent Migration Velocity (ft/min):	13.2
Maximum Particle Resistivity (ohm-cm):	1E-011

Average Particle Size (Micrometers):	
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?	No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	
Comments:	COM required by PCP Condition B.3.

Control Device Design Efficiency Table

Pollutant Category	Design Efficiency (%)
PM-10	99.9
TSP	99.9
VOC	
NOx	
SO2	
CO	
Pb	
HAPs (Total)	
Other (Total)	
Individual HAPs/Other (speciate below)	

07736 COVANTA ESSEX CO BOP190001 CD1006 (Electrostatic Precipitator)
Print Date: 10/15/2019

Make:	FLAKT
Manufacturer:	FLAKT
Model:	
Unit Type:	3-Stage Plate
Description:	
Number of Stages:	3
Method of Operation:	HIGH VOLTAGE
Method of Cleaning:	Rapping
Description:	
Capacity (acfm):	184,672 @ 302 degrees F
Maximum Gas Velocity (ft/sec):	137
Type of Rectifier:	Solid State
Maximum Inlet Gas Stream Moisture (%):	17.71
Maximum Inlet Gas Stream Temperature (deg F):	302
Number of Plates:	37
Number of Fields:	3
Aspect Ratio:	
Plate Surface Area (ft2):	1190
Spacing Between Plates (in):	11 13/16
Cross Sectional Area of Precipitator (ft2):	1349
Treatment Time (sec.):	
Maximum Corona Power (Volt):	3 HV units, 55 kV (DC) Avg. 115.5 kVA nominal rating each
Minimum Apparent Migration Velocity (ft/min):	13.2
Maximum Particle Resistivity (ohm-cm):	1E-011

Average Particle Size (Micrometers):	
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?	No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	
Comments:	COM required by PCP Condition B.3.

Control Device Design Efficiency Table

Pollutant Category	Design Efficiency (%)
PM-10	99.9
TSP	99.9
VOC	
NOx	
SO2	
CO	
Pb	
HAPs (Total)	
Other (Total)	
Individual HAPs/Other (speciate below)	

07736 COVANTA ESSEX CO BOP190001 CD1007 (Selective Non-Catalytic Reduction)
Print Date: 10/15/2019

Make:	Sierra Environmental
Manufacturer:	Sierra Environmental
Model:	
Minimum Temperature at Reagent Injection Point (deg F):	1600-1700 F
Maximum Temperature at Reagent Injection Point (deg F):	1800-1900 F
Type of Reagent:	Ammonium Hydroxide
Description:	
Minimum Concentration of Reagent in Solution (% Volume):	19
Minimum Reagent Charge Rate (gpm):	0.2
Maximum Reagent Charge Rate (gpm):	7
Maximum NOx to Reagent Mole Ratio:	0.8
Number of Reagent Injectors:	54
Location of Reagent Injectors:	First Pass of Boiler (Injection nozzles located at 84', 95' and 113'
Reagent Injection Method:	Injection Nozzles (18 per boiler level)
Maximum Anticipated Ammonia Slip (ppm):	Less than 50 ppm
Description of Feedback System which Controls the Amount of Reagent Charged to the Control Apparatus:	NOx monitor
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-permitted Sources):	1

Alternative Method to Demonstrate Control Apparatus is Operating Properly:	
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	No
Comments:	

Control Device Design Efficiency Table

Pollutant Category	Design Efficiency (%)
PM-10	
TSP	
VOC	
NOx	50
SO2	
CO	
Pb	
HAPs (Total)	
Other (Total)	
Individual HAPs/Other (speciate below)	

07736 COVANTA ESSEX CO BOP190001 CD1008 (Selective Non-Catalytic Reduction)
Print Date: 10/15/2019

Make:	Sierra Environmental
Manufacturer:	Sierra Environmental
Model:	
Minimum Temperature at Reagent Injection Point (deg F):	1600-1700 F
Maximum Temperature at Reagent Injection Point (deg F):	1800-1900 F
Type of Reagent:	Ammonium Hydroxide
Description:	
Minimum Concentration of Reagent in Solution (% Volume):	19
Minimum Reagent Charge Rate (gpm):	0.2
Maximum Reagent Charge Rate (gpm):	7
Maximum NOx to Reagent Mole Ratio:	0.8
Number of Reagent Injectors:	54
Location of Reagent Injectors:	First Pass of Boiler (Injection nozzles located at 84', 95' and 113'
Reagent Injection Method:	Injection Nozzles (18 per boiler level)
Maximum Anticipated Ammonia Slip (ppm):	Less than 50 ppm
Description of Feedback System which Controls the Amount of Reagent Charged to the Control Apparatus:	NOx monitor
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-permitted Sources):	1

Alternative Method to Demonstrate Control Apparatus is Operating Properly:	
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	No
Comments:	

Control Device Design Efficiency Table

Pollutant Category	Design Efficiency (%)
PM-10	
TSP	
VOC	
NOx	50
SO2	
CO	
Pb	
HAPs (Total)	
Other (Total)	
Individual HAPs/Other (speciate below)	

07736 COVANTA ESSEX CO BOP190001 CD1009 (Selective Non-Catalytic Reduction)
Print Date: 10/15/2019

Make:	Sierra Environmental
Manufacturer:	Sierra Environmental
Model:	
Minimum Temperature at Reagent Injection Point (deg F):	1600-1700 F
Maximum Temperature at Reagent Injection Point (deg F):	1800-1900 F
Type of Reagent:	Ammonium Hydroxide
Description:	
Minimum Concentration of Reagent in Solution (% Volume):	19
Minimum Reagent Charge Rate (gpm):	0.2
Maximum Reagent Charge Rate (gpm):	7
Maximum NOx to Reagent Mole Ratio:	0.8
Number of Reagent Injectors:	54
Location of Reagent Injectors:	First Pass of Boiler (Injection nozzles located at 84', 95' and 113'
Reagent Injection Method:	Injection Nozzles (18 per boiler level)
Maximum Anticipated Ammonia Slip (ppm):	Less than 50 ppm
Description of Feedback System which Controls the Amount of Reagent Charged to the Control Apparatus:	NOx monitor
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-permitted Sources):	1

Alternative Method to Demonstrate Control Apparatus is Operating Properly:	
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	No
Comments:	

Control Device Design Efficiency Table

Pollutant Category	Design Efficiency (%)
PM-10	
TSP	
VOC	
NOx	50
SO2	
CO	
Pb	
HAPs (Total)	
Other (Total)	
Individual HAPs/Other (speciate below)	

07736 COVANTA ESSEX CO BOP190001 CD1010 (Adsorber)
Print Date: 10/15/2019

Make:	
Manufacturer:	Norit Americas, Inc.
Model:	
Adsorber Type:	Carbon Injection
Description:	Mercury removal by adsorption onto carbon
Maximum Gas Flow Rate to Adsorber (acfm):	
Maximum Temperature of Vapor Stream to Adsorber (deg F):	491
Minimum Temperature of Vapor Stream to Adsorber (deg F):	
Minimum Moisture Content of Vapor Stream to Adsorber (%):	15 to 20%
Type of Adsorbant:	Carbon (Lignite, DARCO FGD, or equiv.)
Bed Height:	NA
Bed Length:	NA
Bed Width:	NA
Units:	Injection rate: 0 - 100 pounds per hour
Other Bed Dimension:	
Value:	
Units:	
Minimum Pressure Drop Across Adsorber (In H20):	NA
Maximum Pressure Drop Across Adsorber (In H20):	NA
Total Weight of Adsorbant (lbs):	
Total Weight of Adsorbant When Saturated (lbs):	
Maximum Adsorbant Capacity (lbs Adsorbate/lbs Adsorbant):	
Minimum Adsorbant Capacity (lbs Adsorbate/lbs Adsorbant):	
Set-up Type:	

Method of Determining Breakthrough:

Continuous Emissions Monitor (CEM)	
Replacement By Weight	Once - Through
Periodic Testing	
Sampling Frequency	
Sampling Device	
Other	
Description:	
Minimum Concentration at Breakthrough (ppmvd):	
Handling Method of Saturated Adsorbant:	Ash Disposal
Method of Regeneration:	NA
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?	No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	Yes
Comments:	Carbon injected into boiler exit ductwork.

Control Device Design Efficiency Table

Pollutant Category	Design Efficiency (%)
PM-10	
TSP	
VOC	
NOx	
SO2	
CO	
Pb	
HAPs (Total)	
Other (Total)	
Individual HAPs/Other (speciate below)	
Mercury	80

07736 COVANTA ESSEX CO BOP190001 CD1011 (Adsorber)
Print Date: 10/15/2019

Make:	
Manufacturer:	Norit Americas, Inc.
Model:	
Adsorber Type:	Carbon Injection
Description:	Mercury removal by adsorption onto carbon
Maximum Gas Flow Rate to Adsorber (acfm):	
Maximum Temperature of Vapor Stream to Adsorber (deg F):	491
Minimum Temperature of Vapor Stream to Adsorber (deg F):	
Minimum Moisture Content of Vapor Stream to Adsorber (%):	15 to 20%
Type of Adsorbant:	Carbon (Lignite, DARCO FGD, or equiv.)
Bed Height:	NA
Bed Length:	NA
Bed Width:	NA
Units:	Injection rate: 0 - 100 pounds per hour
Other Bed Dimension:	
Value:	
Units:	
Minimum Pressure Drop Across Adsorber (In H20):	NA
Maximum Pressure Drop Across Adsorber (In H20):	NA
Total Weight of Adsorbant (lbs):	
Total Weight of Adsorbant When Saturated (lbs):	
Maximum Adsorbant Capacity (lbs Adsorbate/lbs Adsorbant):	
Minimum Adsorbant Capacity (lbs Adsorbate/lbs Adsorbant):	
Set-up Type:	

Method of Determining Breakthrough:

Continuous Emissions Monitor (CEM)	
Replacement By Weight	Once - Through
Periodic Testing	
Sampling Frequency	
Sampling Device	
Other	
Description:	
Minimum Concentration at Breakthrough (ppmvd):	
Handling Method of Saturated Adsorbant:	Ash Disposal
Method of Regeneration:	NA
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?	No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	Yes
Comments:	Carbon injected into boiler exit ductwork.

Control Device Design Efficiency Table

Pollutant Category	Design Efficiency (%)
PM-10	
TSP	
VOC	
NOx	
SO2	
CO	
Pb	
HAPs (Total)	
Other (Total)	
Individual HAPs/Other (speciate below)	
Mercury	80

07736 COVANTA ESSEX CO BOP190001 CD1012 (Adsorber)
Print Date: 10/15/2019

Make:	
Manufacturer:	Norit Americas, Inc.
Model:	
Adsorber Type:	Carbon Injection
Description:	Mercury removal by adsorption onto carbon
Maximum Gas Flow Rate to Adsorber (acfm):	
Maximum Temperature of Vapor Stream to Adsorber (deg F):	491
Minimum Temperature of Vapor Stream to Adsorber (deg F):	
Minimum Moisture Content of Vapor Stream to Adsorber (%):	15 to 20%
Type of Adsorbant:	Carbon (Lignite, DARCO FGD, or equiv.)
Bed Height:	NA
Bed Length:	NA
Bed Width:	NA
Units:	Injection rate: 0 - 100 pounds per hour
Other Bed Dimension:	
Value:	
Units:	
Minimum Pressure Drop Across Adsorber (In H20):	NA
Maximum Pressure Drop Across Adsorber (In H20):	NA
Total Weight of Adsorbant (lbs):	
Total Weight of Adsorbant When Saturated (lbs):	
Maximum Adsorbant Capacity (lbs Adsorbate/lbs Adsorbant):	
Minimum Adsorbant Capacity (lbs Adsorbate/lbs Adsorbant):	
Set-up Type:	

07736 COVANTA ESSEX CO BOP190001 CD1012 (Adsorber)
Print Date: 10/15/2019

Method of Determining Breakthrough:

Continuous Emissions Monitor (CEM)	
Replacement By Weight	Once - Through
Periodic Testing	
Sampling Frequency	
Sampling Device	
Other	
Description:	
Minimum Concentration at Breakthrough (ppmvd):	
Handling Method of Saturated Adsorbant:	Ash Disposal
Method of Regeneration:	NA
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?	No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	Yes
Comments:	Carbon injected into boiler exit ductwork.

Control Device Design Efficiency Table

Pollutant Category	Design Efficiency (%)
PM-10	
TSP	
VOC	
NOx	
SO2	
CO	
Pb	
HAPs (Total)	
Other (Total)	
Individual HAPs/Other (speciate below)	
Mercury	80

07736 COVANTA ESSEX CO BOP190001 CD1013 (Particulate Filter (Baghouse))
Print Date: 10/15/2019

Make:	
Manufacturer:	Griffen
Model:	DF44
Number of Bags:	54
Size of Bags (ft2):	7.6
Total Bag Area (ft2):	375
Bag Fabric:	Polypropylene
Fabric Weight (oz/ft):	16 oz/ sq yd.
Fabric Weave:	non - woven
Fabric Finish:	plain
Maximum Design Temperature Capability (deg F):	250
Maximum Design Air Flow Rate (acfm):	1300
Draft Type:	
Maximum Air Flow Rate to Cloth Area Ratio:	5.28:1 @ 340 ACFM
Minimum Operating Pressure Drop (in. H2O):	4
Maximum Operating Pressure Drop (in. H2O):	6
Method of Monitoring Pressure Drop:	
Maximum Inlet Temperature (deg F):	
Minimum Inlet Temperature (deg F):	
Dew Point of Gas Stream (deg F):	
Maximum Operating Exhaust Gas Flow Rate (acfm):	800
Maximum Inlet Gas Stream Moisture Content (%):	

Method for Determining When Bag Replacement is Required:	Replacement is Done on a Preventative Maintenance Schedule.
Method for Determining When Cleaning is Required:	
Method of Bag Cleaning:	Mechanical shaking
Is Bag Cleaning Conducted On-Line?	
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?	No
Have you attached data from recent performance testing?	No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	
Comments:	

Control Device Design Efficiency Table

Pollutant Category	Design Efficiency (%)
PM-10	
TSP	
VOC	
NOx	
SO2	
CO	
Pb	
HAPs (Total)	
Other (Total)	
Individual HAPs/Other (speciate below)	

07736 COVANTA ESSEX CO BOP190001 CD1014 (Particulate Filter (Baghouse))
Print Date: 10/15/2019

Make:	
Manufacturer:	Griffen
Model:	DF44
Number of Bags:	54
Size of Bags (ft2):	7.6
Total Bag Area (ft2):	375
Bag Fabric:	Polypropylene
Fabric Weight (oz/ft):	16 oz/ sq yd.
Fabric Weave:	non - woven
Fabric Finish:	plain
Maximum Design Temperature Capability (deg F):	250
Maximum Design Air Flow Rate (acfm):	1300
Draft Type:	
Maximum Air Flow Rate to Cloth Area Ratio:	5.28:1 @ 340 ACFM
Minimum Operating Pressure Drop (in. H2O):	4
Maximum Operating Pressure Drop (in. H2O):	6
Method of Monitoring Pressure Drop:	
Maximum Inlet Temperature (deg F):	
Minimum Inlet Temperature (deg F):	
Dew Point of Gas Stream (deg F):	
Maximum Operating Exhaust Gas Flow Rate (acfm):	800
Maximum Inlet Gas Stream Moisture Content (%):	

07736 COVANTA ESSEX CO BOP190001 CD1014 (Particulate Filter (Baghouse))
Print Date: 10/15/2019

Method for Determining When Bag Replacement is Required:	Replacement is Done on a Preventative Maintenance Schedule.
Method for Determining When Cleaning is Required:	
Method of Bag Cleaning:	Mechanical Shaking
Is Bag Cleaning Conducted On-Line?	
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?	No
Have you attached data from recent performance testing?	No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	
Comments:	

Control Device Design Efficiency Table

Pollutant Category	Design Efficiency (%)
PM-10	
TSP	
VOC	
NOx	
SO2	
CO	
Pb	
HAPs (Total)	
Other (Total)	
Individual HAPs/Other (speciate below)	

07736 COVANTA ESSEX CO BOP190001 CD1015 (Particulate Filter (Baghouse))
Print Date: 10/15/2019

Make:	
Manufacturer:	Griffen
Model:	DF44
Number of Bags:	54
Size of Bags (ft2):	7.6
Total Bag Area (ft2):	375
Bag Fabric:	Polypropylene
Fabric Weight (oz/ft):	16 oz/ sq yd.
Fabric Weave:	non - woven
Fabric Finish:	plain
Maximum Design Temperature Capability (deg F):	250
Maximum Design Air Flow Rate (acfm):	1300
Draft Type:	
Maximum Air Flow Rate to Cloth Area Ratio:	5.28:1 @ 340 ACFM
Minimum Operating Pressure Drop (in. H2O):	4
Maximum Operating Pressure Drop (in. H2O):	6
Method of Monitoring Pressure Drop:	
Maximum Inlet Temperature (deg F):	
Minimum Inlet Temperature (deg F):	
Dew Point of Gas Stream (deg F):	
Maximum Operating Exhaust Gas Flow Rate (acfm):	800
Maximum Inlet Gas Stream Moisture Content (%):	

07736 COVANTA ESSEX CO BOP190001 CD1015 (Particulate Filter (Baghouse))
Print Date: 10/15/2019

Method for Determining When Bag Replacement is Required:	Replacement is Done on a Preventative Maintenance Schedule.
Method for Determining When Cleaning is Required:	
Method of Bag Cleaning:	Mechanical Shaking
Is Bag Cleaning Conducted On-Line?	
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?	No
Have you attached data from recent performance testing?	No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	
Comments:	

Control Device Design Efficiency Table

Pollutant Category	Design Efficiency (%)
PM-10	
TSP	
VOC	
NOx	
SO2	
CO	
Pb	
HAPs (Total)	
Other (Total)	
Individual HAPs/Other (speciate below)	

07736 COVANTA ESSEX CO BOP190001 CD1017 (Particulate Filter (Baghouse))
Print Date: 10/15/2019

Make:	
Manufacturer:	
Model:	
Number of Bags:	9
Size of Bags (ft2):	7.2
Total Bag Area (ft2):	65
Bag Fabric:	Polyester Felt
Fabric Weight (oz/ft):	16
Fabric Weave:	Non - Woven
Fabric Finish:	Plain
Maximum Design Temperature Capability (deg F):	250
Maximum Design Air Flow Rate (acfm):	400
Draft Type:	
Maximum Air Flow Rate to Cloth Area Ratio:	5.2:1 @ 340 acfm
Minimum Operating Pressure Drop (in. H2O):	3
Maximum Operating Pressure Drop (in. H2O):	6
Method of Monitoring Pressure Drop:	
Maximum Inlet Temperature (deg F):	190
Minimum Inlet Temperature (deg F):	
Dew Point of Gas Stream (deg F):	Saturated @ 190 degrees F
Maximum Operating Exhaust Gas Flow Rate (acfm):	400
Maximum Inlet Gas Stream Moisture Content (%):	

07736 COVANTA ESSEX CO BOP190001 CD1017 (Particulate Filter (Baghouse))
Print Date: 10/15/2019

Method for Determining When Bag Replacement is Required:	Replacement is Done on a Preventative maintenance Schedule.
Method for Determining When Cleaning is Required:	
Method of Bag Cleaning:	Pulse Jet
Is Bag Cleaning Conducted On-Line?	
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?	No
Have you attached data from recent performance testing?	No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	
Comments:	

Control Device Design Efficiency Table

Pollutant Category	Design Efficiency (%)
PM-10	99.8
TSP	
VOC	
NOx	
SO2	
CO	
Pb	
HAPs (Total)	
Other (Total)	
Individual HAPs/Other (speciate below)	

07736 COVANTA ESSEX CO BOP190001 CD1018 (Particulate Filter (Baghouse))
Print Date: 10/15/2019

Make:	
Manufacturer:	
Model:	
Number of Bags:	9
Size of Bags (ft2):	7.2
Total Bag Area (ft2):	65
Bag Fabric:	Polyester Felt
Fabric Weight (oz/ft):	16
Fabric Weave:	Non - Woven
Fabric Finish:	Plain
Maximum Design Temperature Capability (deg F):	250
Maximum Design Air Flow Rate (acfm):	400
Draft Type:	
Maximum Air Flow Rate to Cloth Area Ratio:	5.2:1 @ 340 acfm
Minimum Operating Pressure Drop (in. H2O):	3
Maximum Operating Pressure Drop (in. H2O):	6
Method of Monitoring Pressure Drop:	
Maximum Inlet Temperature (deg F):	190
Minimum Inlet Temperature (deg F):	
Dew Point of Gas Stream (deg F):	Saturated @ 190 degrees F
Maximum Operating Exhaust Gas Flow Rate (acfm):	400
Maximum Inlet Gas Stream Moisture Content (%):	

07736 COVANTA ESSEX CO BOP190001 CD1018 (Particulate Filter (Baghouse))
Print Date: 10/15/2019

Method for Determining When Bag Replacement is Required:	Replacement is Done on a Preventative maintenance Schedule.
Method for Determining When Cleaning is Required:	
Method of Bag Cleaning:	Pulse Jet
Is Bag Cleaning Conducted On-Line?	
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?	No
Have you attached data from recent performance testing?	No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	
Comments:	

Control Device Design Efficiency Table

Pollutant Category	Design Efficiency (%)
PM-10	99.8
TSP	
VOC	
NOx	
SO2	
CO	
Pb	
HAPs (Total)	
Other (Total)	
Individual HAPs/Other (speciate below)	

07736 COVANTA ESSEX CO BOP190001 CD1019 (Particulate Filter (Baghouse))
Print Date: 10/15/2019

Make:	
Manufacturer:	
Model:	
Number of Bags:	36
Size of Bags (ft2):	10.6
Total Bag Area (ft2):	382
Bag Fabric:	Polypropylene
Fabric Weight (oz/ft):	16
Fabric Weave:	Felt
Fabric Finish:	Plain
Maximum Design Temperature Capability (deg F):	180
Maximum Design Air Flow Rate (acfm):	2000
Draft Type:	
Maximum Air Flow Rate to Cloth Area Ratio:	5.24:1 @ 2000 ACFM
Minimum Operating Pressure Drop (in. H2O):	3
Maximum Operating Pressure Drop (in. H2O):	6
Method of Monitoring Pressure Drop:	
Maximum Inlet Temperature (deg F):	110
Minimum Inlet Temperature (deg F):	40
Dew Point of Gas Stream (deg F):	
Maximum Operating Exhaust Gas Flow Rate (acfm):	2000
Maximum Inlet Gas Stream Moisture Content (%):	

07736 COVANTA ESSEX CO BOP190001 CD1019 (Particulate Filter (Baghouse))
Print Date: 10/15/2019

Method for Determining When Bag Replacement is Required:	Replacement is Done on a Preventative maintenance schedule.
Method for Determining When Cleaning is Required:	
Method of Bag Cleaning:	Pulse Jet
Is Bag Cleaning Conducted On-Line?	
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?	No
Have you attached data from recent performance testing?	No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	
Comments:	

Control Device Design Efficiency Table

Pollutant Category	Design Efficiency (%)
PM-10	99
TSP	
VOC	
NOx	
SO2	
CO	
Pb	
HAPs (Total)	
Other (Total)	
Individual HAPs/Other (speciate below)	

07736 COVANTA ESSEX CO BOP190001 CD1020 (Particulate Filter (Baghouse))
Print Date: 10/15/2019

Make:	
Manufacturer:	
Model:	
Number of Bags:	25
Size of Bags (ft2):	10.6
Total Bag Area (ft2):	265
Bag Fabric:	Polyester felt
Fabric Weight (oz/ft):	16
Fabric Weave:	Felt
Fabric Finish:	Plain
Maximum Design Temperature Capability (deg F):	250
Maximum Design Air Flow Rate (acfm):	1000
Draft Type:	
Maximum Air Flow Rate to Cloth Area Ratio:	1:01
Minimum Operating Pressure Drop (in. H2O):	4
Maximum Operating Pressure Drop (in. H2O):	6
Method of Monitoring Pressure Drop:	
Maximum Inlet Temperature (deg F):	
Minimum Inlet Temperature (deg F):	
Dew Point of Gas Stream (deg F):	
Maximum Operating Exhaust Gas Flow Rate (acfm):	1000
Maximum Inlet Gas Stream Moisture Content (%):	

Method for Determining When Bag Replacement is Required:	Replacement is done on a preventative maintenance schedule.
Method for Determining When Cleaning is Required:	
Method of Bag Cleaning:	Pulse Jet
Is Bag Cleaning Conducted On-Line?	
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?	No
Have you attached data from recent performance testing?	No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	Yes
Comments:	

Control Device Design Efficiency Table

Pollutant Category	Design Efficiency (%)
PM-10	
TSP	
VOC	
NOx	
SO2	
CO	
Pb	
HAPs (Total)	
Other (Total)	
Individual HAPs/Other (speciate below)	

07736 COVANTA ESSEX CO BOP190001 CD1022 (Particulate Filter (Cartridge))
Print Date: 10/15/2019

Make:	Donaldson DownFlo OVAL
Manufacturer:	Donaldson Company, Inc.
Model:	DFO 4-16
Number of Cartridges:	16
Size of Cartridges (ft²):	190.00
Total Cartridge Area (ft²):	3,040.00
Maximum Design Temperature Capability (°F):	150.0
Maximum Design Air Flow Rate (acfm):	10,000.0
Maximum Air Flow Rate to Filter Area Ratio:	3.28
Minimum Operating Pressure Drop (in. H2O):	0.40
Maximum Operating Pressure Drop (in. H2O):	6.00
Maximum Inlet Temperature (°F):	150.0
Maximum Operating Exhuast Gas Flow Rate (acfm):	10,000.0
Method for Determining When Cartridge Replacement is Required:	Preventative maintenance schedule based on manufacturer's recommendations.
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?	○ 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:	Minimum 99% control efficiency (MERV 13 rating)

07736 COVANTA ESSEX CO BOP190001 CD1023 (Particulate Filter (Baghouse))
Print Date: 10/15/2019

Make:	TBD
Manufacturer:	TBD
Model:	TBD
Number of Bags:	
Size of Bags (ft²):	
Total Bag Area (ft²):	0.0
Bag Fabric:	PPS
Fabric Weight (oz/ft²):	
Fabric Weave:	Felt
Fabric Finish:	PTFE
Maximum Design Temperature Capability (°F):	375.0
Maximum Design Air Flow Rate (acfm):	240,000.0
Draft Type:	Balanced
Maximum Air Flow Rate to Cloth Area Ratio:	2.70
Minimum Operating Pressure Drop (in. H2O):	2.00
Maximum Operating Pressure Drop (in. H2O):	12.00
Method of Monitoring Pressure Drop:	Pressure Drop Transmitter
Maximum Inlet Temperature (°F):	375.0
Minimum Inlet Temperature (°F):	290.0
Dew Point of Gas Stream Maximum Inlet Temperature (°F):	262
Maximum Operating Exhuast Gas Flow Rate (acfm):	234,000.0
Maximum Inlet Gas Stream Moisture Content (%):	21.00
Method for Determining When Bag Replacement is Required:	A change in opacity level signifies that bag replacement is required.
Method for Determining When Cleaning is Required:	Cleaning cycle is initiated based upon differential pressure across the baghouse and operating time.
Method of Bag Cleaning:	Pulse Jet
Description:	
Is Bag Cleaning Conducted On-Line?	(●) Yes ( ) 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:	Continuous opacity monitoring and annual emissions testing are used to demonstrate that the control apparatus is functioning properly.
Have you attached a Particle Size Distribution Analysis?	( ) Yes (●) No

07736 COVANTA ESSEX CO BOP190001 CD1023 (Particulate Filter (Baghouse))
Print Date: 10/15/2019

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:	Number of bags, size of bags, total bag area, and fabric weight will be provided upon vendor selection. Total bag area is listed as 0.0 due to a RADIUS error. Maximum Air Flow Rate to Cloth Area Ratio is 2.4 at MCR and 2.7 at 110% MCR.

07736 COVANTA ESSEX CO BOP190001 CD1024 (Particulate Filter (Baghouse))
Print Date: 10/15/2019

Make:	TBD
Manufacturer:	TBD
Model:	TBD
Number of Bags:	
Size of Bags (ft²):	
Total Bag Area (ft²):	0.0
Bag Fabric:	PPS
Fabric Weight (oz/ft²):	
Fabric Weave:	Felt
Fabric Finish:	PTFE
Maximum Design Temperature Capability (°F):	375.0
Maximum Design Air Flow Rate (acfm):	240,000.0
Draft Type:	Balanced
Maximum Air Flow Rate to Cloth Area Ratio:	2.70
Minimum Operating Pressure Drop (in. H2O):	2.00
Maximum Operating Pressure Drop (in. H2O):	12.00
Method of Monitoring Pressure Drop:	Pressure Drop Transmitter
Maximum Inlet Temperature (°F):	375.0
Minimum Inlet Temperature (°F):	290.0
Dew Point of Gas Stream Maximum Inlet Temperature (°F):	262
Maximum Operating Exhuast Gas Flow Rate (acfm):	234,000.0
Maximum Inlet Gas Stream Moisture Content (%):	21.00
Method for Determining When Bag Replacement is Required:	A change in opacity level signifies that bag replacement is required.
Method for Determining When Cleaning is Required:	Cleaning cycle is initiated based upon differential pressure across the baghouse and operating time.
Method of Bag Cleaning:	Pulse Jet
Description:	
Is Bag Cleaning Conducted On-Line?	(●) Yes ( ) 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:	Continuous opacity monitoring and annual emissions testing are used to demonstrate that the control apparatus is functioning properly.
Have you attached a Particle Size Distribution Analysis?	( ) Yes (●) No

07736 COVANTA ESSEX CO BOP190001 CD1024 (Particulate Filter (Baghouse))
Print Date: 10/15/2019

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:	Number of bags, size of bags, total bag area, and fabric weight will be provided upon vendor selection. Total bag area is listed as 0.0 due to a RADIUS error. Maximum Air Flow Rate to Cloth Area Ratio is 2.4 at MCR and 2.7 at 110% MCR.

07736 COVANTA ESSEX CO BOP190001 CD1025 (Particulate Filter (Baghouse))
Print Date: 10/15/2019

Make:	TBD
Manufacturer:	TBD
Model:	TBD
Number of Bags:	
Size of Bags (ft²):	
Total Bag Area (ft²):	0.0
Bag Fabric:	PPS
Fabric Weight (oz/ft²):	
Fabric Weave:	Felt
Fabric Finish:	PTFE
Maximum Design Temperature Capability (°F):	375.0
Maximum Design Air Flow Rate (acfm):	240,000.0
Draft Type:	Balanced
Maximum Air Flow Rate to Cloth Area Ratio:	2.70
Minimum Operating Pressure Drop (in. H2O):	2.00
Maximum Operating Pressure Drop (in. H2O):	12.00
Method of Monitoring Pressure Drop:	Pressure Drop Transmitter
Maximum Inlet Temperature (°F):	375.0
Minimum Inlet Temperature (°F):	290.0
Dew Point of Gas Stream Maximum Inlet Temperature (°F):	262
Maximum Operating Exhuast Gas Flow Rate (acfm):	234,000.0
Maximum Inlet Gas Stream Moisture Content (%):	21.00
Method for Determining When Bag Replacement is Required:	A change in opacity level signifies that bag replacement is required.
Method for Determining When Cleaning is Required:	Cleaning cycle is initiated based upon differential pressure across the baghouse and operating time.
Method of Bag Cleaning:	Pulse Jet
Description:	
Is Bag Cleaning Conducted On-Line?	(●) Yes ( ) 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:	Continuous opacity monitoring and annual emissions testing are used to demonstrate that the control apparatus is functioning properly.
Have you attached a Particle Size Distribution Analysis?	( ) Yes (●) No

07736 COVANTA ESSEX CO BOP190001 CD1025 (Particulate Filter (Baghouse))
Print Date: 10/15/2019

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:	Number of bags, size of bags, total bag area, and fabric weight will be provided upon vendor selection. Total bag area is listed as 0.0 due to a RADIUS error. Maximum Air Flow Rate to Cloth Area Ratio is 2.4 at MCR and 2.7 at 110% MCR.

COVANTA ESSEX CO (07736)
BOP190001

Date: 10/18/2019

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	U0001	MSW BOILER #1	Round	91	279	230	285.0	200.0	300.0	181,000.0	140,000.0	220,000.0	Up	
PT2	U0002	MSW BOILER #2	Round	91	279	230	285.0	200.0	300.0	181,000.0	140,000.0	220,000.0	Up	
PT3	U0003	MSW BOILER #3	Round	91	279	230	285.0	200.0	300.0	181,000.0	140,000.0	220,000.0	Up	
PT4	U0006	LIME SILO A	Rectangle	12	72	375	60.0	-10.0	100.0	1,176.0	1,176.0	1,176.0	Horizontal	
PT5	U0007	LIME SILO B	Rectangle	12	72	375	60.0	-10.0	100.0	1,176.0	1,176.0	1,176.0	Horizontal	
PT6	U0008	LIME SILO C	Rectangle	12	72	375	60.0	-10.0	100.0	1,176.0	1,176.0	1,176.0	Horizontal	
PT7	U0013	DIESEL GENERATOR	Round	12	43	360	915.0	915.0	915.0	6,915.0	6,915.0	6,915.0	Horizontal	
PT8	U0014	DIESEL FIRE PUMP	Round	8	39	125	983.0	982.0	982.0	1,200.0	1,200.0	1,200.0	Horizontal	
PT9	U0009	LIME SLAKER VENT A	Round	6	20	250	85.0	60.0	140.0	37.0	37.0	37.0	Horizontal	
PT10	U0010	LIME SLAKER VENT B	Round	6	20	250	85.0	60.0	140.0	37.0	37.0	37.0	Horizontal	
PT12	U0012	FLY ASH CONDITIONING ROOM	Rectangle	8	71	376	80.0	40.0	110.0	2,000.0	2,000.0	2,000.0	Horizontal	
PT13	U0004	#2 FUEL OIL STORAGE TANK	Round	3	3	100	60.0	-10.0	100.0	5.0	1.0	8.0	Down	
PT14	U0011	CARBON SILO	Round	12	35	375	60.0	-10.0	100.0	1,200.0	100.0	1,200.0	Horizontal	
PT15	U0015	ASH CONVEYANCE	Square	42	8	376	60.0	40.0	90.0	6,000.0	0.0	9,600.0	Horizontal	

COVANTA ESSEX CO (07736)
BOP190001

Date: 10/18/2019

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

U 1 MWC #1,#2,#3 MWC #1, 2, 3 Municipal Waste Combustors (E1, E2, and E3)

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours Min.	Annual Oper. Hours Max.	VOC Range	Flow (acfm) Min.	Flow (acfm) Max.	Temp. (deg F) Min.	Temp. (deg F) Max.
OS1	MWC 1	Operation of MWC #1 at Maximum Input (423 MMBtu/hr).	Normal - Steady State	E1	CD1001 (T) CD1004 (T) CD1007 (P) CD1010 (S)	PT1	5-03-001-12	0.0	8,760.0		140,000.0	233,500.0	200.0	300.0
OS2	MWC 1	Operation of MWC #1 under Malfunction conditions	Malfunction	E1	CD1001 (T) CD1004 (T) CD1007 (P) CD1010 (S)	PT1	5-03-001-12	0.0	8,760.0		140,000.0	233,500.0	200.0	300.0
OS3	MWC 2	Operation of MWC #2 at Maximum Input (423 MMBtu/hr)	Normal - Steady State	E2	CD1002 (T) CD1005 (T) CD1008 (P) CD1011 (S)	PT2	5-03-001-12	0.0	8,760.0		140,000.0	233,500.0	200.0	300.0
OS4	MWC 2	Operation of MWC #2 under Malfunction conditions	Malfunction	E2	CD1002 (T) CD1005 (T) CD1008 (P) CD1011 (S)	PT2	5-03-001-12	0.0	8,760.0		140,000.0	233,500.0	200.0	300.0
OS5	MWC 3	Operation of MWC #3 at Maximum Input (423 MMBtu/hr)	Normal - Steady State	E3	CD1003 (T) CD1006 (T) CD1009 (P) CD1012 (S)	PT3	5-03-001-12	0.0	8,760.0		140,000.0	233,500.0	200.0	300.0
OS6	MWC 3	Operation of MWC #3 under Malfunction conditions	Malfunction	E3	CD1003 (T) CD1006 (T) CD1009 (P) CD1012 (S)	PT3	5-03-001-12	0.0	8,760.0		140,000.0	233,500.0	200.0	300.0

COVANTA ESSEX CO (07736)
BOP190001

Date: 10/18/2019

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

U 1 MWC #1,#2,#3 MWC #1, 2, 3 Municipal Waste Combustors (E1, E2, and E3)

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours Min.	Annual Oper. Hours Max.	VOC Range	Flow (acfm) Min.	Flow (acfm) Max.	Temp. (deg F) Min.	Temp. (deg F) Max.
OS10	MWC 1	Operation of MWC #1 at Maximum Input (423 MMBtu/hr) with Baghouse	Normal - Steady State	E1	CD1001 (T) CD1007 (P) CD1010 (S) CD1023 (T)	PT1	5-03-001-12	0.0	8,760.0		140,000.0	233,500.0	200.0	300.0
OS11	MWC 2	Operation of MWC #2 at Maximum Input (423 MMBtu/hr) with Baghouse	Normal - Steady State	E2	CD1002 (T) CD1008 (P) CD1011 (S) CD1024 (T)	PT2	5-03-001-12	0.0	8,760.0		140,000.0	233,500.0	200.0	300.0
OS12	MWC 3	Operation of MWC #3 at Maximum Input (423 MMBtu/hr) with Baghouse	Normal - Steady State	E3	CD1003 (T) CD1009 (P) CD1012 (S) CD1025 (T)	PT3	5-03-001-12	0.0	8,760.0		140,000.0	233,500.0	200.0	300.0

U 6 Silo A Lime Storage Silo A (E4)

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours Min.	Annual Oper. Hours Max.	VOC Range	Flow (acfm) Min.	Flow (acfm) Max.	Temp. (deg F) Min.	Temp. (deg F) Max.
OS1	Silo A	Silo A	Normal - Steady State	E4	CD1013 (P)	PT4		2,920.0	8,760.0		1,176.0	1,176.0	-10.0	110.0

COVANTA ESSEX CO (07736)
BOP190001

Date: 10/18/2019

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

U 6 Silo A Lime Storage Silo A (E4)

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours Min.	Annual Oper. Hours Max.	VOC Range	Flow (acfm) Min.	Flow (acfm) Max.	Temp. (deg F) Min.	Temp. (deg F) Max.
OS6	Silo A	Lime Storage Silo - A	Normal - Steady State	E4	CD1013 (P)	PT4		2,920.0	8,760.0		1,176.0	1,176.0	-10.0	110.0

U 7 Silo B Lime Storage Silo B (E5)

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours Min.	Annual Oper. Hours Max.	VOC Range	Flow (acfm) Min.	Flow (acfm) Max.	Temp. (deg F) Min.	Temp. (deg F) Max.
OS7	Silo B	Lime Storage Silo - B	Normal - Steady State	E5	CD1014 (P)	PT5		2,920.0	8,760.0		1,176.0	1,176.0	-10.0	110.0

COVANTA ESSEX CO (07736)
BOP190001

Date: 10/18/2019

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

U 8 Silo C Lime Storage Silo C (E6)

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours Min.	Annual Oper. Hours Max.	VOC Range	Flow (acfm) Min.	Flow (acfm) Max.	Temp. (deg F) Min.	Temp. (deg F) Max.
OS8	Silo C	Lime Storage Silo - C	Normal - Steady State	E6	CD1015 (P)	PT6		2,920.0	8,760.0		1,176.0	1,176.0	-10.0	110.0

U 9 Slaker A Lime Slaker Vent A (E9)

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours Min.	Annual Oper. Hours Max.	VOC Range	Flow (acfm) Min.	Flow (acfm) Max.	Temp. (deg F) Min.	Temp. (deg F) Max.
OS9	Slaker A	Lime Slaker Vent A	Normal - Steady State	E9		PT9		4,380.0	8,760.0		37.0	37.0	60.0	140.0

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U 10 Slaker B Lime Slaker Vent B (E10)

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours Min.	Annual Oper. Hours Max.	VOC Range	Flow (acfm) Min.	Flow (acfm) Max.	Temp. (deg F) Min.	Temp. (deg F) Max.
OS10	Slaker B	Lime Slaker Vent B	Normal - Steady State	E10		PT10		4,380.0	8,760.0		37.0	37.0	60.0	140.0

U 11 Carbon Silo Activated Carbon Storage Silo (E14)

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours Min.	Annual Oper. Hours Max.	VOC Range	Flow (acfm) Min.	Flow (acfm) Max.	Temp. (deg F) Min.	Temp. (deg F) Max.
OS11	Carbon Silo	Activated Carbon Storage Silo	Normal - Steady State	E14	CD1020 (P)	PT14		8,760.0	8,760.0		1,200.0	1,200.0	-10.0	110.0

U 12 Flyash Cond Flyash Conditioning Room (E12,E13)

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours Min.	Annual Oper. Hours Max.	VOC Range	Flow (acfm) Min.	Flow (acfm) Max.	Temp. (deg F) Min.	Temp. (deg F) Max.
OS12	Silo 1	Flyash storage in Silo 1	Normal - Steady State	E12	CD1017 (P) CD1019 (S)	PT12		8,760.0	8,760.0		2,000.0	2,000.0	40.0	110.0

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U 12 Flyash Cond Flyash Conditioning Room (E12,E13)

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours Min.	Annual Oper. Hours Max.	VOC Range	Flow (acfm) Min.	Flow (acfm) Max.	Temp. (deg F) Min.	Temp. (deg F) Max.
OS15	Silo 2	Flyash storage in Silo 2	Normal - Steady State	E13	CD1018 (P) CD1019 (S)	PT12		8,760.0	8,760.0		2,000.0	2,000.0	40.0	110.0

U 13 Em Generator 7.4 MMBtu/hr, 740 KW Diesel Engine-Driven Emergency Generator (E7)

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours Min.	Annual Oper. Hours Max.	VOC Range	Flow (acfm) Min.	Flow (acfm) Max.	Temp. (deg F) Min.	Temp. (deg F) Max.
OS13	Generator	Emergency Diesel Generator	Normal - Steady State	E7		PT7		0.0	500.0		6,915.0	6,915.0	915.0	915.0

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U 14 Em FW Pump 1.59 MMBtu/hr Emergency Diesel Engine-Driven Fire Pump (E8)

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	Fire Pump	Emergency Diesel Fire Pump	Normal - Steady State	E8		PT8		0.0	500.0		1,200.0	1,200.0	982.0	982.0

U 15 Ash Convey Ash and Metals Recovery System (E16, E17, E21-E30)

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	Ash Convey A	Ash Conveyance Line A	Normal - Steady State	E16	CD1022 (P)	PT15		4,380.0	8,760.0		0.0	10,000.0	40.0	110.0
OS17	Ash Convey B	Ash Conveyance Line B	Normal - Steady State	E17	CD1022 (P)	PT15		4,380.0	8,760.0		0.0	10,000.0	40.0	110.0
OS21	RH-136-CV	Vibratory Conveyor E21 transporting ash to Grizzly Scalper	Normal - Steady State	E21	CD1022 (P)	PT15		4,380.0	8,760.0		0.0	10,000.0	40.0	110.0
OS22	RH-150-SC	Grizzly Scalper E22 separating large pieces of ferrous metal for recovery	Normal - Steady State	E22	CD1022 (P)	PT15		4,380.0	8,760.0		0.0	10,000.0	40.0	110.0
OS23	RH-160-FD	Vibratory Conveyor E25 transporting bulky ferrous to load out bunker	Normal - Steady State	E25	CD1022 (P)	PT15		4,380.0	8,760.0		0.0	10,000.0	40.0	110.0
OS24	RH-170-CV	Feeder E23 transporting ash to ferrous recovery magnet	Normal - Steady State	E23	CD1022 (P)	PT15		4,380.0	8,760.0		0.0	10,000.0	40.0	110.0

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U 15 Ash Convey Ash and Metals Recovery System (E16, E17, E21-E30)

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours Min.	Annual Oper. Hours Max.	VOC Range	Flow (acfm) Min.	Flow (acfm) Max.	Temp. (deg F) Min.	Temp. (deg F) Max.
OS25	FE-200-MAG	Ferrous material separation by Drum Magnet E24	Normal - Steady State	E24	CD1022 (P)	PT15		4,380.0	8,760.0		0.0	10,000.0	40.0	110.0
OS26	NF-230-SC	Screen E26 separating remainder of ash into large & small	Normal - Steady State	E26	CD1022 (P)	PT15		4,380.0	8,760.0		0.0	10,000.0	40.0	110.0
OS27	NF-300-ECS	Eddy Current Separator (+3/8) E27 separating larger non-ferrous metal	Normal - Steady State	E27	CD1022 (P)	PT15		4,380.0	8,760.0		0.0	10,000.0	40.0	110.0
OS28	NF-400-MSB	Conveyor E28 transporting smaller material -3/8 to E29	Normal - Steady State	E28	CD1022 (P)	PT15		4,380.0	8,760.0		0.0	10,000.0	40.0	110.0
OS29	NF-410-ECS	Eddy Current Separator (-3/8) E29 separating smaller non-ferrous metal	Normal - Steady State	E29	CD1022 (P)	PT15		4,380.0	8,760.0		0.0	10,000.0	40.0	110.0
OS30	E30	Conveyors E30 trasnporting to and from metals recovery systems	Normal - Steady State	E30	CD1022 (P)	PT15		4,380.0	8,760.0		0.0	10,000.0	40.0	110.0
OS31	ReFeed Chute	Transferring ash residue from bunker to feeder (for reporcessing)	Normal - Steady State	E31	CD1022 (P)	PT15		4,380.0	8,760.0		0.0	10,000.0	40.0	110.0
OS32	Vib Conv E32	Transporting ash to re-feed metal recovery system	Normal - Steady State	E32	CD1022 (P)	PT15		4,380.0	8,760.0		0.0	10,000.0	40.0	110.0

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New Jersey Department of Environmental Protection
Subject Item Group Inventory

Group NJID: GR1 NSPS Sub A

Members:

Type	ID	OS	Step
U	U 1	OS0 Summary	
U	U 15	OS0 Summary	

Formal Reason(s) for Group/Cap:

☑ Other

Other (explain): Showing Subpart A requirements applicable to 2 emission units (U1 & U15)

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

Operating Circumstances: