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

PHILIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

SHAWN M. LATOURETTE
COMMISSIONER

Air Pollution Control Operating Permit
Significant Modification

Permit Activity Number: BOP210003 **Program Interest Number: 75697**

Mailing Address	Plant Location
MR. THOMAS W. JUDGE SR. VICE PRESIDENT-OPERATIONS EPP RENEWABLE ENERGY LLC 1605 N CEDAR CREST BLVD - STE 509 ALLENTOWN, PA 18104	CUMBERLAND CNTY GAS TO ENERGY PLANT 169 Jesse Brg Rd Deerfield Township Millville Cumberland County

Initial Operating Permit Approval Date: **12/26/2012**

Operating Permit Approval Date: **PROPOSED**

Operating Permit Expiration Date: **12/25/2022**

AUTHORITY AND APPLICABILITY

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

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

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

PERMIT SHIELD

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

COMPLIANCE SCHEDULES

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

COMPLIANCE CERTIFICATIONS AND DEVIATION REPORTS

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

ACCESSING PERMITS

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

HELPLINE

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

RENEWING YOUR OPERATING PERMIT AND APPLICATION SHIELD

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

COMPLIANCE ASSURANCE MONITORING

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

ADMINISTRATIVE HEARING REQUEST

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

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

Approved by:

_____
Shafi Ahmed

Enclosure

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

Facility Name: CUMBERLAND CNTY GAS TO ENERGY PLANT
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Section A

Facility Name: CUMBERLAND CNTY GAS TO ENERGY PLANT
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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)	$PM_{2.5}$ (total)	Pb	HAPs* (total)	CO_2e[2]
Emission Units Summary	35.73	3.2	0.08	NA	14.29	28.72	28.72	NA	28.33	
Batch Process Summary	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Group Summary	NA	33.94	245	37	NA	NA	NA	NA	NA	
Total Emissions	35.73	37.14	245	37	14.29	28.72	28.72	NA	28.33	30,496

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)	$PM_{2.5}$ (total)	Pb	HAPs (total)
Insignificant Source Operations	NA	NA	NA	NA	NA	NA	NA	NA	NA
Non-Source Fugitive Emissions[3]	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] Total CO_2e emissions for the facility that includes all Significant Source Operations (emission units, batch process, group) and Insignificant Source Operations.
[3] 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: CUMBERLAND CNTY GAS TO ENERGY PLANT
Program Interest Number: 75697
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POLLUTANT EMISSIONS SUMMARY

Table 3: Summary of Hazardous Air Pollutants (HAP) Emissions from Significant Source Operations [4]:

HAP	TPY
Acrolein	0.51
Acrylonitrile	0.0105
Cadmium compounds	0.000013
Cobalt compounds	0.0003
Formaldehyde	20.6
Hydrogen Chloride	7.19
Nickel compounds	0.0004
1,1,2,2-Tetrachloroethane	0.00583
Vinyl chloride	0.0134

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

Other Air Contaminant	TPY
Methane	10.54

[4] 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: CUMBERLAND CNTY GAS TO ENERGY PLANT
Program Interest Number: 75697
Permit Activity Number: BOP210003

GENERAL PROVISIONS AND AUTHORITIES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Section C

Facility Name: CUMBERLAND CNTY GAS TO ENERGY PLANT
Program Interest Number: 75697
Permit Activity Number: BOP210003

STATE-ONLY APPLICABLE REQUIREMENTS

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

STATE-ONLY APPLICABLE REQUIREMENTS

The following applicable requirements are not federally enforceable:

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

Section D

Facility Name: CUMBERLAND CNTY GAS TO ENERGY PLANT
Program Interest Number: 75697
Permit Activity Number: BOP210003

FACILITY SPECIFIC REQUIREMENTS AND INVENTORIES

FACILITY SPECIFIC REQUIREMENTS PAGE INDEX

Groups (GR):

Emission Units (U):

CUMBERLAND CNTY GAS TO ENERGY PLANT (75697)
BOP210003

Date: 8/4/2022

New Jersey Department of Environmental Protection
Reason for Application

Permit Being Modified

Permit Class: BOP **Number:** 210002

Description of Modifications:

1. Pursuant to BOP190001 U1 OS Summary Ref # 2 and 3, EPP performed compliance stack testing on the Landfill Gas Fired CAT3520C Engines (E1-E3) and the Leachate Evaporator (E6). The TSP stack test results for one engine and the combined operation of the engines and evaporator exceeded the existing permit limits for the following operating scenarios (within U1): - U1 OS1 (Engine 1) - TSP Average Emission Rate of 0.277 lb/hr (vs. 0.21 lb/hr limit) - U1 OS4 (Evaporator/Engines) - TSP Average Emission Rate of 0.955 lb/hr (vs. 0.64 lb/hr limit)

As a result of this testing, this modification proposed an increase in the TSP permit limits to reflect the latest stack test results. In addition to the revised TSP limits, this application proposed the PM-10 and PM-2.5 limits from the combined operation of the engines and evaporator in accordance with BOP190001 U1 OS Summary, Ref # 14 and 15 and U1 OS4, Ref #10 and 11.

2. Pursuant to N.J.A.C. 7:27-22.30(l), HAP emissions from a source operation that equal or exceed the reporting threshold specified in N.J.A.C. 7:27-17.9(a) included in the facility's operating permit. This significant modification includes the applicable HAPs which were added to the permit as per the minor modification application BOP210002.

3. Added emission Point PT12 and PT13, Bypass Stack for LFG Engines 2 and 3 in the Emission Points Inventory.

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]

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

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

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

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Facility Specific Requirements

Subject Item: **GR1 Emission caps from 3 Engines, 1 Candlestick Flare and 1 Enclosed Flare**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	NOx (Total) <= 33.94 tons/yr total facility wide emission cap. NOx emissions from the existing enclosed flare constructed in 1999 by Cumberland County Solid Waste Facility (CCSWF), one candlestick flare and three caterpillar engines constructed in 2008 by Cumberland County Gas to Energy Plant (CCGEP) shall not exceed 33.94 tons/year; for any combination of operation of the three engines and two flares. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Monitored by calculations each month during operation, based on one calendar year Compliance with the NOx emission shall be demonstrated through calculations based on the following monitoring equation parameters: NOx (Tons/Year) = [(A lb/MMBtu) x (B MMBtu/MMscf) x (MMscf of landfill gas consumed by three engines during the calendar year)] + [(0.070 lb/MMBtu NOx emission factor) x (MMBtu of landfill gas burned in candlestick flare) x (1 ton / 2,000 lbs)] + [(A lb/MMBtu) x (MMBtu of landfill gas burned in enclosed flare) x (1 ton / 2,000 lbs)] A = the most recent stack test NOx emission factor in lb/MMBtu for three engines and enclosed flare B = Heating value for landfill gas (monthly average of higher heating value of landfill gas as calculated by plant personnel based on average measured CH4 concentration). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. The owner or operator shall record the monthly and year-to-date emissions. The emissions (tons) per any consecutive 12-month period shall be calculated by adding the emissions (tons) emitted during any one month to the emissions (tons) emitted in the preceding 11 months. Maintain records of each calculation. [N.J.A.C. 7:27-22.16(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
2	CO <= 245 tons/yr total facility wide emission cap, based on 3.75 gm/bhp-hr. CO emissions from the existing enclosed flare constructed in 1999 by Cumberland County Solid Waste Facility (CCSWF), one candlestick flare and three caterpillar engines constructed in 2008 by Cumberland County Gas to Energy Plant (CCGEP) shall not exceed 245 tons/year; for any combination of operation of the three engines and two flares. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by calculations each month during operation. Compliance with the CO emission shall be demonstrated through calculations based on the following monitoring equation parameters: CO (Tons/Year) = [(A lb/MMBtu) x (B MMBtu/MMscf) x (MMscf of landfill gas consumed by three engines during the calendar year)] + [(0.150 lb/MMBtu CO emission factor) x (MMBtu of landfill gas burned in candlestick flare) x (1 ton / 2,000 lbs)] + [(A lb/MMBtu) x (MMBtu of landfill gas burned in enclosed flare) x (1 ton / 2,000 lbs)] A = the most recent stack test CO emission factor in lb/MMBtu for three engines and enclosed flare B = Heating value for landfill gas (monthly average of higher heating value of landfill gas as calculated by plant personnel based on average measured CH4 concentration). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. The owner or operator shall record the monthly and year-to-date emissions. The emissions (tons) per any consecutive 12-month period shall be calculated by adding the emissions (tons) emitted during any one month to the emissions (tons) emitted in the preceding 11 months. Maintain records of each calculation. [N.J.A.C. 7:27-22.16(o)]	None.

GR1 Emission caps from 3 Engines, 1 Candlestick Flare and 1 Enclosed Flare

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	SO2 <= 37 tons/yr total facility wide emission cap. SO2 emissions from the existing enclosed flare constructed in 1999 by Cumberland County Solid Waste Facility (CCSWF), one candlestick flare and three caterpillar engines constructed in 2008 by Cumberland County Gas to Energy Plant (CCGEP) shall not exceed 37 tons/year; for any combination of operation of the three engines and two flares. [N.J.A.C. 7:27-22.16(e)]	SO2: Monitored by calculations each month during operation using the following equation: SO2 (Total) (Tons/Year) = Landfill gas consumed by 3 engines(U1) + Candlestick & Enclosed Flares (U2) (MMScf/month) x (1,000,000 SCF/MMScf) / (379.6 Scf/lb-mole) X LFG sulfur from most recent sample/analysis (PPM) / (1,000,000) X (64 lb/lb-mole SO2) / (2000 lb/ton). [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. The owner or operator shall record the monthly and year-to-date emissions. The emissions (tons) per any consecutive 12-month period shall be calculated by adding the emissions (tons) emitted during any one month to the emissions (tons) emitted in the preceding 11 months. Maintain records of each calculation. The landfill gas sulfur content to be used in the equation to demonstrate compliance with this limit shall be based on the most recent landfill gas sampling and analysis data available. Sampling shall be conducted on at least a quarterly basis at the gas forwarding skid upstream of the engines and flares, and analysis of the sample for H2S in parts per million (PPM) shall be deemed representative of total landfill gas sulfur content. [N.J.A.C. 7:27-22.16(o)]	None.
4	Flowrate <= 899.68 MMft^3/yr cumulative gas flow for 3 engines, Candlestick flare and Enclosed flare. Any combination of operation of the three engines and two flares shall not be allowed to exceed a total of 899.68 MMft^3/year, based on 533 Btu/Scf HHV. The facility wide landfill gas flow cap will be 899.68 MMft^3/year for all equipment (Landfill gas flow in MMScf/year = 815.52 MMScf/year by 3 RICE + 84.16 MMScf/year by Candlestick or Enclosed flare or any combination of equipment) = 899.68 MMScf). [N.J.A.C. 7:27-22.16(e)]	Flowrate: Monitored by fuel flow/firing rate instrument continuously. The fuel use monitoring system shall have an accuracy of not less than 1.5%, certified by the manufacturer. Compliance shall be determined based on a consecutive 12-month period computed with monthly sums. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Flowrate: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. Compliance shall be determined based on a consecutive 12-month period computed with monthly sums. Compliance determined by calculating a total monthly MMBtu based on total gas flow and average monthly methane content. [N.J.A.C. 7:27-22.16(o)]	None.

GR1 Emission caps from 3 Engines, 1 Candlestick Flare and 1 Enclosed Flare

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Emission Unit: **U1 Three LFG CAT G3520C Engines (16.54 MMBtu/hr each, 2233 BHP, 1600kW) and 30,000 gallons/day Leachate Evaporator**

Operating Scenario: **OS Summary**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Summary of Applicable Federal Regulations: *NSPS Subpart A - General Provisions, *NSPS Subpart WWW - Standards of Performance for Municipal Solid Waste Landfills, *NSPS Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines, Applicable to Engine 1 (E1) and Engine 3 (E3), *MACT Subpart A - General Provisions, *MACT Subpart AAAA - Municipal Solid Waste Landfills, and *MACT Subpart ZZZZ - Major HAPs Sources for Stationary Reciprocating Internal Combustion Engines [40 CFR Federal Rules Summary]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
2	INITIAL STACK TESTING SUMMARY FOR OS4: (Three LFG engines venting with leachate evaporator) The permittee shall conduct a stack test using a protocol approved by the Department to demonstrate compliance with emission limits for CO, NOx, VOC. SO2, TSP, PM-10, PM-2.5, O2, Formaldehyde and Opacity as specified in the compliance plan for OS4. Testing must be conducted at worst-case permitted operating conditions with regard to meeting the applicable emission standards, but without creating an unsafe condition or the maximum possible flow rate that can be achieved considering current gas generation and collection. THIS STACK TEST IS SUBJECT TO THE SIGNIFICANT MODIFICATION SUPPLEMENTAL FEES PURSUANT TO N.J.A.C. 7:27-22.31. [N.J.A.C. 7:27-22.16(a)]	Other: For new or modified source, within 60 days of the protocol approval or within 180 days after initial startup of the new or modified source, whichever comes later. If a source is subject to NSPS, extending the testing date beyond 180 days after the source's initial startup requires prior approval from US EPA. [N.J.A.C. 7:27-22.18] and[N.J.A.C. 7:27-22.16(o)].	Other: Recordkeeping as required under the applicable operating scenario(s). [N.J.A.C. 7:27-22.16(o)].	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Submit a stack test protocol to the Emission Measurement Section (EMS) at Mail Code: 09-01, PO Box 420, Trenton, NJ 08625 within 60 days from the date of the approved initial (or modified) operating permit. The protocol and test report must be prepared and submitted on a CD using the Electronic Reporting Tool (ERT), unless another format is approved by EMS. The ERT program can be downloaded at: http://www.epa.gov/ttnchie1/ert. Within 30 days of protocol approval or no less than 60 days prior to the testing deadline, whichever is later, the permittee must contact EMS at 609-984-3443 to schedule a mutually acceptable test date. A full stack test report must be submitted to EMS and a certified summary test report must be submitted to the Regional Enforcement Office within 45 days after performing the stack test pursuant to N.J.A.C. 7:27-22.19(d). The test results must be certified by a licensed professional engineer or certified industrial hygienist. [N.J.A.C. 7:27-22.18(e)] and. [N.J.A.C. 7:27-22.18(h)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	RENEWAL STACK TESTING SUMMARY: The permittee shall conduct a stack test at least 18 months prior to the expiration of the initial or renewed operating permit using an approved protocol to demonstrate compliance with emission limits for CO, NOx, VOC. SO2, TSP, PM-10, PM-2.5, O2, HCl, Formaldehyde and Opacity for each of three engines (U1 - OS1, OS2, OS3 and OS4) as specified in the compliance plan for those Operating Scenarios. Testing must be conducted at worst-case permitted operating conditions with regard to meeting the applicable emission standards, but without creating an unsafe condition or, for OS4, the maximum possible flow rate that can be achieved considering current gas generation and collection. The valid initial stack testing for OS4 shall be considered as the renewal testing for this operating scenario if it is conducted within 24 months prior to the permit expiration. [N.J.A.C. 7:27-22.16(a)]	Other: Monitoring as required under the applicable operating scenario(s). [N.J.A.C. 7:27-22.16(o)].	Other: Recordkeeping as required under the applicable operating scenario(s). [N.J.A.C. 7:27-22.16(o)].	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Submit a stack test protocol to the Emission Measurement Section (EMS) at Mail Code: 09-01, PO Box 420, Trenton, NJ 08625 at least 30 months prior to the expiration of the approved operating permit. The protocol and test report must be prepared and submitted on a CD using the Electronic Reporting Tool (ERT), unless another format is approved by EMS. The ERT program can be downloaded at: http://www.epa.gov/ttnchie1/ert. Within 30 days of protocol approval or no less than 60 days prior to the testing deadline, whichever is later, the permittee must contact EMS at 609-984-3443 to schedule a mutually acceptable test date. A full stack test report must be submitted to EMS and a certified summary test report must be submitted to the Regional Enforcement Office within 45 days after performing the stack test pursuant to N.J.A.C. 7:27-22.19(d). The test results must be certified by a licensed professional engineer or certified industrial hygienist. [N.J.A.C. 7:27-22.18(e)] and. [N.J.A.C. 7:27-22.18(h)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	PERIODIC STACK TESTING SUMMARY FOR ENGINE 1 (E1) AND ENGINE 3 (E3): The permittee shall conduct a periodic stack testing per NSPS Subpart JJJJ using a protocol approved by the Department to demonstrate compliance with emission limits for CO, NOx and VOC as specified in the compliance plan for U1/OS1 and U1/OS3. Testing must be conducted at worst-case permitted operating conditions with regard to meeting the applicable emission standards, but without creating an unsafe condition. [N.J.A.C. 7:27-22.16(a)]	Monitored by stack emission testing upon occurrence of event. Monitoring every 8760 hours or every 3 years, whichever comes first, as required under the applicable operating scenario(s). [N.J.A.C. 7:27-22.16(o)]	Other: Recordkeeping as required under the applicable operating scenario(s). [N.J.A.C. 7:27-22.16(o)].	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Submit a stack test protocol to the Emission Measurement Section (EMS) at Mail Code: 09-01, PO Box 420, Trenton, NJ 08625 no later than 180 days prior to the testing due date or request from EMS, in writing, to use a previously approved protocol no later than 90 days prior to the testing due date. The protocol and test report must be prepared and submitted on a CD using the Electronic Reporting Tool (ERT) that is downloaded at: http://www.epa.gov/ttnchie1/ert , unless another format is approved by EMS. Within 30 days of protocol approval or no less than 60 days prior to the testing deadline, whichever is later, the permittee must contact EMS at 609-984-3443 to schedule a mutually acceptable test date. A full stack test report must be submitted to EMS and a certified summary test report must be submitted to the Regional Enforcement Office within 45 days after performing the stack test pursuant to N.J.A.C. 7:27-22.19(d). The test results must be certified by a licensed professional engineer or certified industrial hygienist. [N.J.A.C. 7:27-22.18(e)] and The test results must be certified by a licensed professional engineer or certified industrial hygienist. [N.J.A.C. 7:27-22.18(e)] and. [N.J.A.C. 7:27-22.18(h)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	Opacity <= 20 %. Smoke emissions from the engines no greater than 20% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5]	None.	None.	None.
6	SO2 <= 310 ppmvd @ 12% CO2. [N.J.A.C. 7:27- 9.2(e)]	SO2: Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. See Stack Testing requirements under OS Summary. [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by stack test results prior to permit expiration date. See Stack Testing requirements under OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See Stack Testing requirements under OS Summary. [N.J.A.C. 7:27-22.16(o)]
7	Stack Height Above Ground >= 46 Feet for PT6 and PT7. [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.
8	Annual heat input limit based on permit application is 434,672 MMBTU(HHV)/any consecutive 12 months (815.5 MMscf/ any consecutive 12 months at 533 BTU/scf HHV) for three (3) engines full load operational mode. Total annual heat input during any consecutive 12-month period shall be calculated by adding the total heat input for a given month to the total heat input during the preceding 11-month period. Monthly MMBTU fuel use shall be calculated using the following formula: (MMBTU(HHV)/Month) = [(Y MMBTU/MMscf) x (MMscf of landfill gas consumed by the engines per month)]. Y = Heating Value of Landfill Gas (monthly average of HHV of the landfill gas as measured by plant personnel). This procedure will begin the first day following the commencement of the operation of the engines. [N.J.A.C. 7:27-22.16(e)]	Monitored by fuel flow/firing rate instrument continuously, based on a consecutive 12 month period (rolling 1 month basis). The fuel use monitoring system shall have an accuracy of not less than 1.5%, certified by the manufacturer. Compliance shall be determined based on a consecutive 12-month period computed with monthly sums. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. Compliance shall be determined based on a consecutive 12 month period computed with monthly sums. Compliance determined by calculating a total monthly MMBtu based on total gas flow and average monthly methane content. [N.J.A.C. 7:27-22.16(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
9	CO <= 242.6 tons/yr. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by fuel flow/firing rate instrument continuously : Compliance with the CO emission shall be demonstrated through calculations based on the following monitoring equation parameters for three engines. CO (Tons/Year) = [(A lb/MMBtu) x (B MMBtu/MMscf) x (MMscf of landfill gas consumed by three engines during the calendar year) x (1 ton / 2,000 lbs)] A = the most recent stack test CO emission factor in lb/MMBtu B = Heating value for landfill gas (monthly average of higher heating value of landfill gas as calculated by plant personnel based on average measured CH4 concentration). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by manual logging of parameter or storing data in a computer data system continuously each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
10	NOx (Total) <= 32.3 tons/yr. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Monitored by fuel flow/firing rate instrument continuously and following calculations: NOx (Tons/Year) = (A lb/MMBTU) x (B MMBTU/MMscf) x (MMscf of landfill gas consumed by the engine during the calendar year) x (1 ton / 2000 lb). A = the most recent stack test emission factor for NOx in lb/MMBTU as stated in this permit. B = Heating Value for Landfill Gas (monthly average of higher heating value of the landfill gas as calculated by plant personnel based on average measured CH4 concentration). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system continuously each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
11	VOC (Total) <= 32.03 tons/yr. The value of the VOC (Total) includes the formaldehyde. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by fuel flow/firing rate instrument continuously and following calculations: VOC (Total) (Tons/Year) = (A lb/MMBtu) x (B MMBTU/MMscf) x (MMscf of landfill gas consumed by the engine during the calendar year) x (1 ton / 2000 lb). A = the most recent VOC emission stack test factor (including Formaldehyde) in lb/MMBtu B = Heating Value for Landfill Gas (monthly average of higher heating value of the landfill gas as calculated by plant personnel based on average measured CH4 concentration). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system continuously each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
12	SO2 <= 37 tons/yr. The total SO2 emissions from combined operation of three engines and two flares shall not exceed 37 tons/year. [N.J.A.C. 7:27-22.16(e)]	SO2: Monitored by calculations each month during operation using the following equation: SO2 (Total) (Tons/Year) = Landfill gas consumed by 3 engines(U1) + 2 Flares (U2) (MMSCF/month) x (1,000,000 SCF/MMSCF) / (379.6 SCF/lb-mole) X LFG sulfur from most recent sample/analysis (PPM) / (1,000,000) X (64 lb/lb-mole SO2) / (2000 lb/ton). [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by manual logging of parameter or storing data in a computer data system semiannually: once every six months; six month cycle shall begin on January 1 and July 1 of each year. The owner or operator shall record the monthly and year-to-date emissions. The emissions (tons) per any consecutive 12-month period shall be calculated by adding the emissions (tons) emitted during any one month to the emissions (tons) emitted in the preceding 11 months. Maintain records of each calculation. The landfill gas sulfur content to be used in the equation to demonstrate compliance with this limit shall be based on the most recent landfill gas sampling and analysis data available. Sampling shall be conducted on at least a quarterly basis at the gas forwarding skid upstream of the engines and flares, and analysis of the sample for H2S in parts per million (PPM) shall be deemed representative of total landfill gas sulfur content. [N.J.A.C. 7:27-22.16(o)]	Submit a report: As per the approved schedule : The six month cycle shall begin on January 1 and July 1 of each year. Submit results with semi-annual treatment system report to EPA. [N.J.A.C. 7:27-22.16(o)]
13	TSP <= 8.08 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
14	PM-10 (Total) <= 16.09 tons/yr for all equipment venting through the single stack. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
15	PM-2.5 (Total) <= 16.09 tons/yr for all equipment venting through the single stack. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
16	Methane <= 1.53 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
17	Greenhouse gases as CO2e <= 25,076 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
18	Total HAPs <= 22.732 tons/yr. [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
19	Acrolein <= 0.512 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
20	Acrylonitrile <= 0.00979 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
21	Cadmium Emissions <= 0.0000128 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
22	Cobalt Emissions <= 0.000289 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
23	Formaldehyde <= 20.6 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
24	Hydrogen chloride <= 1.59 tons/yr. [N.J.A.C. 7:27-22.16(e)]	Hydrogen chloride: Monitored by fuel flow/firing rate instrument continuously and following calculations: HCl (Ton/Year) = (A lb/MMBTU) x (B MMBTU/MMscf) x (MMscf of landfill gas consumed by the engine during the calendar year) x (1 ton / 2000 lb). A = the most recent stack test HCl emission factor in lb/MMBTU B = Heating Value for Landfill Gas (monthly average of higher heating value of the landfill gas as calculated by plant personnel based on average measured CH4 concentration). [N.J.A.C. 7:27-22.16(o)]	None.	None.
25	Nickel Emissions <= 0.000421 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
26	Tetrachloroethane (1,1,2,2-) <= 0.00543 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
27	Vinyl chloride <= 0.0134 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
28	The Cumberland County Gas-to-Energy Plant (CCGEP) owns and operates the gas compression skids and filtering equipment and used the landfill gas that is received from the Cumberland County Solid Waste facility. The flow of the gas from Cumberland County Solid Waste facility to Cumberland County Gas-to-Energy Plant is fully automated. The skid system used at Cumberland County Solid Waste facility is not equipped with atmospheric vents. Therefore, all of the landfill gas received by the system is directed to the IC engines or the facility's enclosed and candlestick flares. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
29	All landfill gas received by Cumberland County Gas-to-Energy Plant (CCGEP) must be directed to the IC engines for use as a fuel. If the IC engines are not in operations, the landfill gas must be flared thru enclosed flare and/or candlestick flare at Cumberland County Gas-to-Energy Plant (CCGEP). No collected landfill gas shall be vented to atmosphere. [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 for any engine(s) malfunctions: Made records available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	Submit a report: Every six months on January 1 and July 1 of each year but started no sooner than three months after the effective date of the approved permit. The first report shall include data for the three months preceding the reporting half-year, if applicable. Reports are due 30 days after the reporting period. The six month cycles shall begin on January 1 and July 1. Reports are due on January 30 and July 30. Submit semi-annual report to: NJDEP Regional Enforcement Office and EPA Region 2 Air Compliance Branch. [40 CFR 60.752]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
30	Operate a skid system for the landfill gas (LFG) prior to combustion in the three (3) reciprocating internal combustion engine. The skid system shall include (in this order): 1) A Primary filter vessel that contains coalescing filter, which is designed to remove particles in the gas stream that are 10 microns and larger. Condensate collected by the coalescing filter falls to the bottom of the vessel where it is pumped to a sump that transfers the liquid back to the landfill for processing. 2) Gas blowers (two separate blowers) for compression of the LFG. 3) An air-to-gas cooler to reduce the temperature of the gas (which is heated by the blower during gas compression). 4) A polishing filter vessel that contains coalescing filter, which is designed to remove particles in the gas stream that are 6 microns and larger. Condensate collected by the coalescing filter falls to the bottom of the vessel where it is transferred by gravity to the inlet vessel to be pumped to a sump that transfers the liquid back to the landfill for processing. Monitoring parameters, to ensure proper operation of the treatment system, are included under [40 CFR 60.756] and [N.J.A.C. 7:27-22.16(e)]	Other: The permittee shall monitor parameters to ensure proper operation of the treatment system as required by this permit and NSPS Subpart WWW.[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. Keep recoreds on-site and which shall be available upon request.. [N.J.A.C. 7:27-22.16(o)]	None.

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Facility Specific Requirements

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

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
35	The owner or operator subject to the provisions of 40 CFR Part 60 shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). The notification shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of facility before and after the change and the expected completion date of the change. Notification shall be postmarked within 60 days or as soon as practicable before any change is commenced. The Administrator may request additional relevant information subsequent to this notice. [NSPS Subpart A-General Provisions]- [40 CFR 60.7(a)(4)]	None.	None.	Submit notification: Upon occurrence of event to EPA Region 2 and the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60.7 [40 CFR 60.7(a)(4)]
36	The owner or operator shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility, any malfunction of air pollution control equipment or any periods during which continuous monitoring system or monitoring device is inoperative. [NSPS Subpart A-General Provisions]- [40 CFR 60.7(b)]	None.	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The records should be kept in a permanent form suitable for inspections. [40 CFR 60.7(b)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Semi-annually beginning on the 30th day of the 6th month following initial performance tests. The report shall contain the information required in 40 CFR 60.7(b) and be postmarked by the 30th day following the end of each six-month period. The report shall be submitted to the EPA Region 2 Administrator and the appropriate Regional Enforcement Office of NJDEP and be in the format specified at 40 CFR Part 60.7(c) and 40 CFR Part 60.7(d). [40 CFR 60.7(c)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
37	The owner or operator shall conduct performance tests and data reduced in accordance with the test methods and procedures contained in each applicable subpart, unless otherwise specified and approved by the Administrator. [NSPS Subpart A-General Provisions]- [40 CFR 60.8(b)]	None.	None.	None.
38	Performance tests shall be conducted under conditions the Administrator specifies to the plant operator based on representative performance of the affected facility. Operations during periods of startup, shutdown and malfunction shall not constitute representative conditions for the purpose of the performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [NSPS Subpart A-General Provisions]- [40 CFR 60.8(c)]	None.	None.	None.
39	The owner or operator shall provide the Administrator at least 30 days prior notice of any performance test and shall provide adequate performance testing facilities as specified in 40 CFR Part 60.8(e). [NSPS Subpart A-General Provisions]- [40 CFR 60.8(d)]	None.	None.	None.
40	Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. [NSPS Subpart A-General Provisions]- [40 CFR 60.8(f)]	None.	None.	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
41	Compliance with NSPS standards specified in this permit, other than opacity standards, shall be determined only by performance tests established by 40 CFR 60.8, unless otherwise specified in NSPS. [NSPS Subpart A-General Provisions]- [40 CFR 60.11(a)]	None.	None.	None.
42	The NSPS opacity standard shall apply at all times except during periods of startup, shutdown, malfunctions and as otherwise specified in the applicable standard. [NSPS Subpart A-General Provisions]- [40 CFR 60.11(c)]	None.	None.	None.
43	At all times, including periods of start-up, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operation and maintenance procedures, and inspection of the source. [NSPS Subpart A-General Provisions]- [40 CFR 60.11(d)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
44	No owner or operator subject to NSPS standards in Part 60, shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. [NSPS Subpart A-General Provisions]- [40 CFR 60.12]	None.	None.	None.
45	All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of Appendix B of 40 CFR Part 60 shall be used. [NSPS Subpart A-General Provisions]- [40 CFR 60.13(f)]	None.	None.	None.
46	The owner or operator shall notify the Administrator of the proposed replacement of components, upon triggering reconstruction as defined at 40 CFR 60.15. [NSPS Subpart A-General Provisions]- [40 CFR 60.15]	None.	None.	Submit notification: At a common schedule agreed upon by the operator and the Administrator. The notification shall include information listed under 40 CFR Part 60.15(d). The notification shall be postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced. [40 CFR 60.15(d)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
47	Operate the facility such that all landfill gas is routed to the control system (three IC engines or two flares) designed and operated in compliance with 40 CFR 60.752(b)(2)(iii)(B). In the event the control system is inoperable or malfunctioned then the gas mover system must be shut down. [NSPS Subpart WWW-Standards of Performance for Municipal Solid Waste Landfills]- [40 CFR 60.752(b)]	Other: The time duration of shutdown of the engines must be recorded. The standard operating procedure for shutdown of the landfill gas control system is to: 1. Ensure there are no unsafe conditions. 2. Contact prior to shutdown the Cumberland County Gas-to-Energy Plant in-charge Plant Operator and notify appropriate Cumberland County Solid Waste facility representatives that the landfill gas treatment and electricity generation processes will be shutdown. Extended shutdowns of the specified equipment will require startup of the Cumberland County Gas-to-Energy Plant gas flaring process. 3. Initiate the proper equipment, process, and system shutdown sequence by one or more of the following: a. Press Emergency Stop as determined to be necessary. b. Close On/Off Switch(es) or push On/Off button(s). c. Close adjacent valves as determined to be necessary. 4. Observe that system achieves normal shutdown ranges for appropriate gas and fluid levels, pressures, and temperatures. 5. An investigation of the equipment that caused the malfunction will be performed and corrected. 6. After the cause of the malfunction has been identified and corrective actions implemented, the fuel use and electricity generation processes will be restarted using the procedures specified in the SSM plan. The appropriate SSM reporting forms and documents must be completed. 7. Refer to Operations and Maintenance Manuals as determined when necessary. [40 CFR 60.752].	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The time duration of shutdown of the control system must be recorded. Keep Operating and Maintenance Manuals on-site and which shall be available upon request.. [40 CFR 60.752]	Submit a report: Every six months on January 1 and July 1 of each year but started no sooner than three months after the effective date of the approved permit. The first report shall include data for the three months preceding the reporting half-year, if applicable.. The six month cycles shall begin on January 1 and July 1. Submit semi-annual report to: Chief, Air Compliance Branch United States Environmental Protection Agency, Region 2 290 Broadway, New York, New York 10007-1886. [40 CFR 60.752]

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
48	A control system shall be designed and operated to reduce NMOC by 98 % (weight-percent) or 20 ppmvd as hexane at 3% O2. The reduction efficiency shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in 40 CFR 60.754(d). [NSPS Subpart WWW-Standards of Performance for Municipal Solid Waste Landfills]- [40 CFR 60.752(b)(2)(iiiB)]	Monitored by stack emission testing once initially and prior to permit renewal. [40 CFR 60.756(a)(1)]	Recordkeeping by stack test results upon occurrence of event . [40 CFR 60.758(c)]	No submittal or action required: on the effective date of this document. NOTE: The initial stack test (TST080001dated 7/1/2009) for an enclosed flare demonstrated that reduction efficiency has been achieved. [40 CFR 60.754(d)]
49	The owner or operator shall operate the control system at all times when the collected landfill gas is routed to the system. [NSPS Subpart WWW-Standards of Performance for Municipal Solid Waste Landfills]- [40 CFR 60.753(f)]	None.	None.	None.
50	The provisions of NSPS Subpart WWW apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices. [NSPS Subpart WWW-Standards of Performance for Municipal Solid Waste Landfills]- [40 CFR 60.755(e)]	None.	None.	None.
51	Each owner or operator shall calibrate, maintain, and operate according to the manufacturer's specifications, a gas flow rate measuring device that records flow to or bypass of the control device. [NSPS Subpart WWW-Standards of Performance for Municipal Solid Waste Landfills]- [40 CFR 60.756(b)(2)]	Monitored by gas flow rate instrument continuously. [40 CFR 60.756(b)(2)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. The owner or operator shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under 40 CFR 60.756. [40 CFR 60.758(c)(2)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
52	An owner or an operator of a landfill gas control systems and/or treatment system must submit a semi-annual report to EPA describing the monitoring and operational practices. [NSPS Subpart WWW-Standards of Performance for Municipal Solid Waste Landfills]- [40 CFR 60.756(d)]	None.	None.	Submit a report: As per the approved schedule The six month cycles shall begin on January 1 and July 1. Submit semi-annual report to: Air Compliance Branch EPA Region 2 290 Broadway New York, New York 10007-1886. [40 CFR 60.756(d)]
53	The owner or operator shall submit an equipment(s) removal report to the Administrator 30 days prior to removal or cessation of operation of the control equipment(s). [NSPS Subpart WWW-Standards of Performance for Municipal Solid Waste Landfills]- [40 CFR 60.757(e)]	None.	None.	Submit a report: As per the approved schedule. The equipment removal report shall contain all of the following items: (i) A copy of the closure report submitted in accordance with 40 CFR 60.757(d); (ii) A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired; and (iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year. [40 CFR 60.757(e)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
54	Each owner or operator shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in 40 CFR 60.756 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. The following constitute exceedances that shall be recorded and reported under 40 CFR 60.757(f): (i) For enclosed combustors, all 3-hour periods of operation during which the average combustion temperature was more than 28 deg C below the average combustion temperature during the most recent performance test at which compliance with 40 CFR 60.752(b)(2)(iii) was determined. [NSPS Subpart WWW-Standards of Performance for Municipal Solid Waste Landfills]- [40 CFR 60.758(c)(1)(i)]	None.	Other: See Applicable Requirement.[40 CFR 60.758(c)(1)(i)].	None.
55	The landfill source shall keep up-to-date, readily accessible records for the life of the control equipments. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the treatment system devices' specifications must be kept until the equipment(s) is removed. [NSPS Subpart WWW-Standards of Performance for Municipal Solid Waste Landfills]- [40 CFR 60.758(f)]	None.	Other: Keep records on readily-accessible files for Five (5) years. The control equipment(s) and/or treatment system component data must be kept on site for 5 years. Records of the control equipment(s) and/or treatment system devices' specifications must be kept until the equipment is removed. [40 CFR 60.758(a)].	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
56	The owner or operator of a new non-certified SI ICE landfill gas lean burn with a maximum engine power of >= 1350 HP (>= 1010 kW) manufactured after July 1, 2007 and prior to July 1, 2010 must meet the emission standards for engines HP >=500 summarized in Table 1 in 40 CFR 60 Subpart JJJJ as follows: NOx <=3.0 g/HP-hr, CO <= 5.0 g/HP-hr, VOC <= 1.0 g/HP-hr or NOx <= 220 ppmvd @15% O2, CO <= 610 ppmvd @15% O2, VOC <= 80 ppmvd @15% O2. Applicable to Engines E1 and E3. [NSPS Subpart JJJJ-Standards of Performance for Stationary Spark Ignition Internal Combustion Engines]. [40 CFR 60.4233(e)]	Monitored by stack emission testing at the approved frequency, based on the average of three 1-hour tests. The permittee shall conduct an initial performance test and conduct subsequent performance testing every 8760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance, per 40 CFR 60.4243(b)(2)(ii). Each performance test must be conducted according to the requirements in 40 CFR 60.8 and 40 CFR 60.4244 and under the specific conditions specified in Table 2 to 40 CFR 60 Subpart JJJJ. The tests must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and may not be conducted during periods of startup, shutdown, or malfunction, as specified in 40 CFR 60.8(c). Three separate test runs for each performance test must be conducted, each test run must last at least 1 hour. Compliance with the emission limits shall be determined based on calculations in 40 CFR 60.4244(d) through (g). [40 CFR 60.4243(b)(2)]	Recordkeeping by stack test results at the approved frequency. The owner or operator of a SI ICE engine must keep documentation demonstrating compliance with the applicable emission standards. [40 CFR 60.4245(a)]	Submit a stack test report: Within 60 days of stack testing. The owner or operator of a SI ICE engine must submit the results of stack tests to EPA Region 2 and to the Regional Enforcement Office of NJDEP. [40 CFR 60.4245(d)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
57	The owner or operator of a non - certified SI ICE engine with maximum engine power > 500 HP (> 375 kW) must keep a maintenance plan and records of conducted maintenance, and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. Additionally, the owner or operator must conduct an initial performance test and conduct subsequent performance testing in accordance with 40 CFR 60.4244 every 8760 hours or 3 years, whichever comes first, as prescribed in 40 CFR 60.4243(b)(2)(ii) to demonstrate compliance. Applicable to Engines E1 and E3. [NSPS Subpart JJJJ-Standards of Performance for Stationary Spark Ignition Internal Combustion Engines]. [40 CFR 60.4243(b)(2)(ii)]	Other: The owner or operator must demonstrate compliance as prescribed in 40 CFR 60.4243(b)(2). [40 CFR 60.4243].	Other: The owner or operator must keep records of the documentation that the engine meets the emission standards. [40 CFR 60.4245(a)(4)].	None.
58	The owner or operators of all SI ICE must keep records of the information in 40 CFR 60.4245(a)(1) through (4) as follows: All notification submitted to comply with 40 CFR 60 Subpart JJJJ and all documentation supporting any notification; maintenance conducted on the engine; for a certified engine, keep documentation from the manufacturer that the engine is certified; if engine is not a certified engine or is a certified engine operating in a non-certified manner, documentation that the engine meets the emission standards. Applicable to Engines E1 and E3. [NSPS Subpart JJJJ-Standards of Performance for Stationary Spark Ignition Internal Combustion Engines]. [40 CFR 60.4245(a)]	None.	Other: The owner or operators of all SI ICE must keep records of the information in 40 CFR 60.4245(a)(1) through (4) as follows: (1) All notification submitted to comply with 40 CFR 60 Subpart JJJJ and all documentation supporting any notification; (2) maintenance conducted on the engine; (3) for a certified engine, keep documentation from the manufacturer that the engine is certified; (4) if engine is not a certified engine or is a certified engine operating in a non-certified manner, documentation that the engine meets the emission standards.[40 CFR 60.4245(a)].	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
59	The owner or operator of SI ICE engine with a maximum engine power >= 500 HP (>=375 kW) that have not been certified by an engine manufacturer to meet the emission standards in 40 CFR 60.4231 must submit an initial notification as required in 40 CFR 60.7(a)(1). Applicable to Engines E1 and E3. [NSPS Subpart JJJJ-Standards of Performance for Stationary Spark Ignition Internal Combustion Engines]. [40 CFR 60.4245(c)]	None.	None.	Submit notification: Once initially. The owner or operator must submit an initial notification as required in 40 CFR 60.7(a)(1) to EPA Region 2 and Regional Enforcement Office of NJDEP. The notification must include the information outlined in 40 CFR 60.4245(c)(1) through (5): (1) Name and address of the owner or operator; (2) The address of the affected source; (3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement; (4) Emission control equipment; and (5) Fuel used. [40 CFR 60.4245(c)]
60	No owner or operator subject to the provisions of 40 CFR 63 must operate any affected source in violation of the requirements of 40 CFR 63. No owner or operator subject to the provisions of 40 CFR 63 shall fail to keep records, notify, report, or revise reports as required under 40 CFR 63. [MACT Subpart A - General Provisions]- [40 CFR 63.4(a)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
61	For equipment subject to MACT, no owner or operator subject to the provisions of MACT Subpart A in 40 CFR 63 shall build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to: (1) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere; and (2) the use of gaseous diluents to achieve compliance with a relevant standard for visible emissions. [MACT Subpart A - General Provisions]- [40 CFR 63.4(b)]	None.	None.	None.
62	The owner or operator must operate and maintain any affected source at all times, including periods of startup, shutdown, and malfunction, including associated APC equipment and monitoring equipment for minimizing emissions to the levels required by the relevant standards, i.e., meet the emission standard or comply with the startup, shutdown, and malfunction plan. [MACT Subpart A - General Provisions]- [40 CFR 63.6(e)(1)(i)]	None.	None.	None.
63	For equipment subject to MACT, malfunctions shall be corrected as soon as practicable after their occurrence, in accordance with the startup, shutdown, and malfunction plan required under 40 CFR 63.6(e)(3). [MACT Subpart A - General Provisions]- [40 CFR 63.6(e)(1)(ii)]	None.	None.	Comply with requirement: Upon occurrence of event. Correct the malfunction as soon as practicable in accordance with the startup, shutdown, and malfunction plan. [40 CFR 63.6(e)(1)(ii)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
64	The owner or operator of an affected source must develop and implement a written startup, shutdown and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction; a program of corrective action for malfunctioning process; and APC and monitoring equipment used to comply with relevant standard. The plan must be developed by the source's compliance date for that relevant standard. [MACT Subpart A - General Provisions]- [40 CFR 63.6(e)(3)(i)]	None.	Other: The owner or operator must maintain at the affected source a current startup, shutdown, and malfunction plan and make the plan available upon request for inspection. In addition, the owner or operator must maintain each previous version of the plan for a period of 5 years after the revision of the plan.[40 CFR 63.6(e)(3)(v)].	None.
65	During periods of startup, shutdown, and malfunction, the owner or operator of an affected source must operate and maintain such source, including APC and monitoring equipment, in accordance with the procedures specified in the startup, shutdown and malfunction plan developed under paragraph 40 CFR 63.6(e)(3)(i). [MACT Subpart A - General Provisions]- [40 CFR 63.6(e)(3)(ii)]	None.	None.	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
66	The owner or operator of an affected source must keep records of actions taken during a startup, shutdown, or malfunction, which are consistent with the procedures specified in the affected source's startup, shutdown, or malfunction plan, including records of the occurrence and duration of each startup, shutdown, or malfunction of operation and each malfunction of the APC and monitoring equipment. [MACT Subpart A - General Provisions]- [40 CFR 63.6(e)(3)(iii)]	None.	Recordkeeping by manual logging of parameter upon occurrence of event. The owner or operator shall maintain relevant records for such source of: (i) The occurrence & duration of each startup, shutdown, or malfunction of operation (i.e., process equipment); (ii) The occurrence & duration of each malfunction of the required air pollution control (APC) and monitoring equipment; (iii) All required maintenance performed on the APC and monitoring equipment; (iv) Actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and APC and monitoring equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan; (v) All information necessary to demonstrate conformance with the affected source's startup, shutdown, and malfunction plan when all actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and APC and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. (The information needed to demonstrate conformance with the startup, shutdown, and malfunction plan may be recorded using a "checklist," or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events). [40 CFR 63.10(b)(2)]	Submit a report: Semiannually beginning within 6 months of initial start-up. The startup, shutdown, or malfunction report shall consist of a letter containing: name, title, and signature of the owner or operator and shall be submitted to the Administrator. The report shall be delivered by the 30th day following the end of each calendar half. The report shall only be required if a startup, shutdown, or malfunction occurred during the reporting period and shall identify any instance where any action taken by an owner or operator during startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the affected source's startup, shutdown, or malfunction plan, but the source does not exceed any applicable emission limitation in the relevant emission standard. [40 CFR 63.10(d)(5)(i)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
67	The owner or operator of an affected source must keep records of actions which are not consistent with the procedures specified in the affected source's startup, shutdown, or malfunction plan and, if the source exceeds any applicable emission limitation in the relevant emission standard, must report such actions to the Administrator. [MACT Subpart A - General Provisions]- [40 CFR 63.6(e)(3)(iv)]	None.	Recordkeeping by manual logging of parameter upon occurrence of event. The owner or operator shall maintain relevant records for such source of: (i) The occurrence & duration of each startup, shutdown, or malfunction of operation (i.e., process equipment); (ii) The occurrence & duration of each malfunction of the required air pollution control (APC) and monitoring equipment; (iii) All required maintenance performed on the APC and monitoring equipment; (iv) Actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and APC and monitoring equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan; (v) All information necessary to demonstrate conformance with the affected source's startup, shutdown, and malfunction plan when all actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and APC and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. (The information needed to demonstrate conformance with the startup, shutdown, and malfunction plan may be recorded using a "checklist," or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events). [40 CFR 63.10(b)(2)]	Submit a report: Upon occurrence of event. The report shall consist of a telephone call or facsimile and shall be submitted within 2 working days after commencing action, followed by a letter delivered or postmarked within 7 working days after the end of the event. [40 CFR 63.10(d)(5)(ii)]

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
68	If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event, the owner or operator of an affected source must revise the startup, shutdown, and malfunction plan of such a source within 45 days after the event. [MACT Subpart A - General Provisions]- [40 CFR 63.6(e)(3)(viii)]	None.	None.	Submit a report: Upon occurrence of event. Each startup, shutdown, and malfunction plan revision must be reported in the semiannual report required by 40 CFR 63.10(d)(5). [40 CFR 63.6(e)(3)(viii)]
69	The nonopacity emission standards shall apply at all times except during periods of startup, shutdown, and malfunction. [MACT Subpart A - General Provisions]- [40 CFR 63.6(f)(1)]	None.	None.	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
70	The facility shall develop and implement a written startup, shutdown, and malfunction (SSM) plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction; a program of corrective action for malfunctioning process; and air pollution control and monitoring equipment used to comply with this standard During periods of startup, shutdown, and malfunction, the facility must operate and maintain the affected source in accordance with the procedures specified in the SSM plan. [MACT Subpart AAAA-National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills]- [40 CFR 63.1955]	None.	Other: When actions taken by the owner/operator during a startup, shutdown, or malfunction are consistent with the procedures specified in the affected source's SSM plan,the owner/operator must keep records for that event which demonstrate that the procedures specified in the plan were followed. In addition, the owner/operator must keep records of these events as specified in 63.10(b), including records of operation and each malfunction of the air pollution control and monitoring equipment. Furthermore, the owner/operator shall confirm that actions taken during the startup, shutdown, and malfunction were consistent with the SSM plan in the semiannual report as required in 63.10(d)(5).[40 CFR 63.1955].	Submit a report: As per the approved schedule. If an action taken by the facility is not consistent with the SSM plan, and the affected source exceeds the relevant emission standard, then the owner/operator must record the actions taken for that event and must report such actions within 2 working days after commencing actions inconsistent with the SSM plan, followed by a letter within 7 working days after the end of the event. EPA or NJDEP may at any time request in writing that the facility submit a copy of the SSM plan (or a portion thereof) which is maintained at the affected source. Upon receipt of such a request, the facility must promptly submit a copy of the requested plan to EPA or NJDEP. EPA or NJDEP must request that the facility submit a SSM plan whenever a member of the public submits a specific and reasonable request to examine or to receive a copy of that plan or portion of a plan. If the facility claims that any portion of such a SSM plan is confidential business information entitled to protection from disclosure under section 114(c) of the Act or 40CFR2.301, the material which is claimed as confidential must be clearly designated in the submission. [40 CFR 63.1955]

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
71	For the purposes of the landfill monitoring and SSM plan requirements, deviations as defined in (40 CFR 63. 1990) include the items in paragraphs (a) through (c) of this section. (a) A deviation occurs when the control device operating parameter boundaries described in 40 CFR 60.758(c)(1) of subpart WWW are exceeded. (b) A deviation occurs when 1 hour or more of the hours during the 3-hour block averaging period (refer to 40 CFR 63.1975) does not constitute a valid hour of data. A valid hour of data must have measured values for at least three 15-minute monitoring periods within the hour. [MACT Subpart AAAA-National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills]- [40 CFR 63.1965]	None.	None.	Submit a report: Upon occurrence of event to the extent this requirement may be applicable to equipment owned or operated by permittee. The report shall consist of a telephone call or facsimile and shall be submitted within 2 working days after commencing action, followed by a letter delivered or postmarked within 7 working days after the end of an event. [40 CFR 63.10(d)(5)(ii)]
72	The owner or operator shall submit reports every 6 months to the Administrator. For enclosed combustion devices and flares, reportable exceedances are defined under 40 CFR 60.758 (c) [40 CFR 60.757(f)], and [MACT Subpart AAAA-National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills]- [40 CFR 63.1980(a)]	None.	None.	Submit a report: As per the approved schedule to the extent this requirement may be applicable to equipment owned or operated by permittee. The biannual report shall include the following information: (1) Value and length of time for exceedance of applicable parameters monitored under 40 CFR 60.756(b). (2) Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of the bypass flow as specified under 40 CFR 60.756. (3) Description and duration of all periods when the control device was not operating for a period exceeding one hour and length of time the control device was not operating. [40 CFR 60.757(f)] & [40 CFR 63.1980(a)]. [40 CFR 60.756]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
73	The owner or operator of new or reconstructed RICE > 500 HP which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis and located at major HAPS source, must submit an initial notification as prescribed at 40 CFR 63.6645(f). [MACT Subpart ZZZZ - Major HAPs for Stationary Reciprocating Internal Combustion Engines]. [40 CFR 63.6590(b)(2)]	None.	None.	Submit notification: Once initially. The owner or operator shall submit an Initial Notification to the EPA Region 2 and Regional Enforcement Office of NJDEP within 120 calendar days after the source becomes subject to the relevant standard, that includes the information in 40 CFR 63.9(b)(2)(i) through (v) as follows: (i) The name and address of the owner or operator; (ii) The address (i.e., physical location) of the affected source; (iii) An identification of the relevant standard, or other requirement, that is the basis of the notification and the source's compliance date; (iv) A brief description of the nature, size, design, and method of operation of the source and an identification of the types of emission points within the affected source subject to the relevant standard and types of hazardous air pollutants emitted; and (v) A statement of whether the affected source is a major source or an area source. [40 CFR 63.6645(f)]
74	At all times the owner or operator must operate and maintain a RICE, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. [MACT Subpart ZZZZ - Major HAPs for Stationary Reciprocating Internal Combustion Engines]. [40 CFR 63.6605(b)]	None.	None.	None.

New Jersey Department of Environmental Protection
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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
75	The owner or operator of a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must monitor and record the fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel. In addition, the owner or operator must operate the stationary RICE in a manner which reasonably minimizes HAP emissions. [MACT Subpart ZZZZ - Major HAPs for Stationary Reciprocating Internal Combustion Engines]. [40 CFR 63.6625(c)]	Monitored by fuel flow/firing rate instrument continuously. [40 CFR 63.6625(c)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. The owner or operator must keep the records of daily fuel usage monitors. [40 CFR 63.6655(c)]	Submit a report: Annually. The owner or operator must submit an annual report within 60 days after the end of each calendar year to the EPA Region 2 and Regional Enforcement office of NJDEP. You must report the data specified in 40 CFR 63.6650(g)(1) through (g)(3) as follows: (1) Fuel flow rate of each fuel and the heating values that were used in your calculations. You must also demonstrate that the percentage of heat input provided by landfill gas or digester gas is equivalent to 10 percent or more of the total fuel consumption on an annual basis. (2) The operating limits provided in your federally enforceable Title V permit, and any deviations from these limits. (3) Any problems or errors suspected with the meters. . [40 CFR 63.6650(g)]
76	The owner or operator of a new, reconstructed, or existing stationary engine must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [MACT Subpart ZZZZ - Major HAPs for Stationary Reciprocating Internal Combustion Engines]. [40 CFR 63.6625(h)]	None.	None.	None.

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Facility Specific Requirements

Emission Unit: **U1 Three LFG CAT G3520C Engines (16.54 MMBtu/hr each, 2233 BHP, 1600kW) and 30,000 gallons/day Leachate Evaporator**

Operating Scenario: **OS1 Landfill Gas Fired CAT G3250C Engine #1, OS2 Landfill Gas Fired CAT G3250C Engine #2, OS3 Landfill Gas Fired CAT G3250C Engine #3**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Particulate Emissions <= 7.1 lb/hr. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
2	CO <= 500 ppmvd @ 15% O2. [N.J.A.C. 7:27-16.10(b)]	CO: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results prior to permit expiration date. [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). [N.J.A.C. 7:27-22.16(o)]
3	Adjust the combustion process in accordance with N.J.A.C.7:27-19.16 each calendar year. Record NOx and CO concentration after each adjustment and the O2 concentration, at which NOx and CO were measured. [N.J.A.C. 7:27-16.10(e)]	Other: Monitored by periodic emission monitoring upon performing combusting adjustment. Monitoring shall be done in accordance with the specific procedures for combustion adjustment monitoring specified in NJDEP Technical Manual 1005 "Guidelines for Continuous Emissions Monitoring Systems (CEMS), Continuous Opacity Monitoring Systems (COMS), Periodic Monitoring Procedures (PMPs), and Annual Combustion Adjustments (ACAs)" posted on AQPP webpage, at http://www.state.nj.us/dep/aqpp/techman.html.[N.J.A.C. 7:27-16.8(c)].	Recordkeeping by manual logging of parameter or storing data in a computer data system at the manufacturer's specified frequency in a logbook or readily accessible computer data system and retained for a minimum of five years, to be made accessible to the Department upon request. Such record shall contain the following information for each adjustment: 1. The date of the adjustment and the times at which it began and ended; 2. The name, title and affiliation of the person who made the adjustment; 3. The type of procedure and maintenance performed; 4. The concentration of NOx, CO and O2 measured before and after the adjustment was made, and 5. The type and amount of fuel use over the 12 months prior to adjustment. [N.J.A.C. 7:27-19.16(h)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	NOx (Total) <= 0.9 grams/brake horsepower-hour per engine. 0.9 gms-bhp-hr or an emission rate which is equivalent to 80 % NOx reduction from the uncontrolled NOx emission level. [N.J.A.C. 7:27-19.8(e)2]	NOx (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. [N.J.A.C. 7:27-19.15(a)2]	NOx (Total): Recordkeeping by stack test results prior to permit expiration date. [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). [N.J.A.C. 7:27-19.15(a)2]
5	Fuel type limited to landfill gas. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
6	CO <= 3.75 grams/brake horsepower-hour per engine. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. In addition, a stack testing for compliance with NSPS Subpart JJJJ for Engine 1 (E1) and Engine 3 (E3) shall be performed every 8760 hours or every 3 years, whichever comes first, per U1/OS Summary/Periodic Stack Testing Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results upon occurrence of event. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. The Permittee shall also submit the total operating time for the engine, starting from the time of the prior stack testing date. (See U1/OS Summary/Stack Testing Summary). [N.J.A.C. 7:27-22.16(o)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
7	CO <= 3.75 grams/brake horsepower-hour per engine. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by periodic emission monitoring quarterly: once per quarter; quarters shall begin on January 1, April 1, July 1, and October 1 of each year. The permittee conducting periodic emission monitoring quarterly, for NOx, CO and O2 shall meet the requirements specified in NJDEP Technical Manual 1005 "Guidelines for Continuous Emissions Monitoring Systems (CEMS), Continuous Opacity Monitoring Systems (COMS), Periodic Monitoring Procedures (PMPs), and Annual Combustion Adjustments (ACAs)" posted on AQPP webpage, at http://www.state.nj.us/dep/aqpp/techman.html. The minimum duration between PMP tests shall be 105 calendar days. If the PMP test result exceeds the permit limit, the permittee shall do the following: Verify that the equipment and/or control device is operating according to manufacturer's specifications and the operating permit compliance plan. If the equipment or control device is not operating properly, the permittee shall take corrective action immediately to eliminate the excess emissions and repeat the PMP testing within 24 hours. The PMP test shall be repeated each day during operation until compliance with both NOx and CO emission limits is achieved. The required monthly periodic emission monitoring (PMP) frequency was reduced to quarterly after 12 consecutive PMP tests demonstrated compliance, per BOP130001 minor modification. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event and retain the following records: (1) Date and time of PMP; (2) PMP results and calculations in accordance with the procedure specified in latest version of EPA CTM-034. PMP results must be recorded in the same units as permit limits; (3) Description of corrective action taken if needed; (4) Date and time of corrective action taken, if applicable. [N.J.A.C. 7:27-16(10)(b)] and. [N.J.A.C. 7:27-22.16(o)]	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	NOx (Total) <= 0.5 grams/brake horsepower-hour per engine. [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 Department validated stack test runs. In addition, a stack testing for compliance with NSPS Subpart JJJJ for Engine 1 (E1) and Engine 3 (E3) shall be performed every 8760 hours or every 3 years, whichever comes first, per U1/OS Summary/Periodic Stack Testing Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results annually. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. The Permittee shall also submit the total operating time for the engine, starting from the time of the prior stack testing date. (See U1/OS Summary/Stack Testing 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	NOx (Total) <= 0.5 grams/brake horsepower-hour per engine. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Monitored by periodic emission monitoring quarterly: once per quarter; quarters shall begin on January 1, April 1, July 1, and October 1 of each year. The permittee conducting periodic emission monitoring quarterly, for NOx, CO and O2 shall meet the requirements specified in NJDEP Technical Manual 1005 "Guidelines for Continuous Emissions Monitoring Systems (CEMS), Continuous Opacity Monitoring Systems (COMS), Periodic Monitoring Procedures (PMPs), and Annual Combustion Adjustments (ACAs)" posted on AQPP webpage, at http://www.state.nj.us/dep/aqpp/techman.html. The minimum duration between PMP tests shall be 105 calendar days. If the PMP test result exceeds the permit limit, the permittee shall do the following: Verify that the equipment and/or control device is operating according to manufacturer's specifications and the operating permit compliance plan. If the equipment or control device is not operating properly, the permittee shall take corrective action immediately to eliminate the excess emissions and repeat the PMP testing within 24 hours. The PMP test shall be repeated each day during operation until compliance with both NOx and CO emission limits is achieved. The required monthly periodic emission monitoring (PMP) frequency was reduced to quarterly after 12 consecutive PMP tests demonstrated compliance, per BOP130001 minor modification. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event and retain the following records: (1) Date and time of PMP; (2) PMP results and calculations in accordance with the procedure specified in latest version of EPA CTM-034. PMP results must be recorded in the same units as permit limits; (3) Description of corrective action taken if needed; (4) Date and time of corrective action taken, if applicable. [N.J.A.C. 7:27-16(10)(b)] and. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
10	VOC (Total) <= 0.23 grams/brake horsepower-hour per engine. [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. In addition, a stack testing for compliance with NSPS Subpart JJJJ for Engine 1 (E1) and Engine 3 (E3) shall be performed every 8760 hours or every 3 years, whichever comes first, per OS Summary/Periodic Stack Testing Summary. For NSPS Subpart JJJJ compliance, VOC (Total) does not include Formaldehyde. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results prior to permit expiration date. In addition, a stack testing for compliance with NSPS Subpart JJJJ for Engine 1 (E1) and Engine 3 (E3) shall be performed per OS Summary/Periodic Stack Testing Summary/Ref. #4. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. The Permittee shall also submit the total operating time for the engine, starting from the time of the prior stack testing date. (See U1/OS Summary/Stack Testing Summary). [N.J.A.C. 7:27-22.16(o)]
11	PM-10 (Total) <= 0.2 grams/brake horsepower-hour per engine. [N.J.A.C. 7:27-22.16(e)]	PM-10 (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). [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by stack test results prior to permit expiration date (See Stack Testing Requirements). [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). [N.J.A.C. 7:27-22.16(o)]
12	CO <= 18.41 lb/hr based on 3.75 grams/bhp-hr. [N.J.A.C. 7:27-22.16(e)]	CO: 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). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results prior to permit expiration date (See Stack Testing Requirements). [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). [N.J.A.C. 7:27-22.16(o)]
13	NOx (Total) <= 2.46 lb/hr. [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 Department validated stack test runs (See Stack Testing Requirements). [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). [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). [N.J.A.C. 7:27-22.16(o)]
14	VOC (Total) <= 2.44 lb/hr including formaldehyde. [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). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results prior to permit expiration date (See Stack Testing Requirements). [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). [N.J.A.C. 7:27-22.16(o)]
15	SO2 <= 2.97 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). [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by stack test results prior to permit expiration date (See Stack Testing Requirements). [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). [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
16	TSP <= 0.58 lb/hr. [N.J.A.C. 7:27-22.16(e)]	TSP: 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). [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by stack test results prior to permit expiration date (See Stack Testing Requirements). [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). [N.J.A.C. 7:27-22.16(o)]
17	PM-10 (Total) <= 0.9 lb/hr. [N.J.A.C. 7:27-22.16(e)]	PM-10 (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). [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by stack test results prior to permit expiration date (See Stack Testing Requirements). [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). [N.J.A.C. 7:27-22.16(o)]
18	PM-2.5 (Total) <= 0.9 lb/hr. [N.J.A.C. 7:27-22.16(e)]	PM-2.5 (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). [N.J.A.C. 7:27-22.16(o)]	PM-2.5 (Total): Recordkeeping by stack test results prior to permit expiration date (See Stack Testing Requirements). [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). [N.J.A.C. 7:27-22.16(o)]
19	Acrolein <= 0.039 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
20	Acrylonitrile <= 0.000745 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
21	Formaldehyde <= 1.57 lb/hr. [N.J.A.C. 7:27-22.16(a)]	Formaldehyde: 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). [N.J.A.C. 7:27-22.16(o)]	Formaldehyde: Recordkeeping by stack test results prior to permit expiration date (See Stack Testing Requirements). [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). [N.J.A.C. 7:27-22.16(o)]
22	Hydrogen chloride <= 0.121 lb/hr. [N.J.A.C. 7:27-22.16(e)]	Hydrogen chloride: 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). [N.J.A.C. 7:27-22.16(o)]	Hydrogen chloride: Recordkeeping by stack test results prior to permit expiration date (See Stack Testing Requirements). [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). [N.J.A.C. 7:27-22.16(o)]
23	Tetrachloroethane (1,1,2,2-) <= 0.000413 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
24	Vinyl chloride <= 0.00102 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
25	Oxygen > 6 %. [N.J.A.C. 7:27-22.16(e)]	Oxygen: Monitored by stack emission testing prior to permit expiration date ; and thereafter using a periodic emissions monitor, monthly. (See Stack Testing Requirements). [N.J.A.C. 7:27-22.16(o)]	Oxygen: Recordkeeping by stack test results prior to permit expiration date and by manual logging of periodic emissions monitoring results thereafter. (See Stack Testing Requirements). [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). [N.J.A.C. 7:27-22.16(o)]
26	Total Landfill Gas Usage <= 144,890 MMBtu/yr (HHV) per engine of landfill gas. [N.J.A.C. 7:27-22.16(e)]	Monitored by fuel flow/firing rate instrument continuously, based on a consecutive 12 month period (rolling 1 month basis) , electric generating records and total facility fuel flow. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. Keep records of monthly electric generating records and total fuel flow to all engines, which shall be continuously measured by a flow totalizer. [N.J.A.C. 7:27-22.16(o)]	None.
27	Methane: Requirement to continuously monitor and continuously record the percentage of methane in the landfill gas. [N.J.A.C. 7:27-22.16(e)]	Other: Methane Gas Analyzer Continuously.[N.J.A.C. 7:27-22.16(o)].	Methane: Recordkeeping by data acquisition system (DAS) / electronic data storage every 15 minutes. [N.J.A.C. 7:27-22.16(o)]	None.
28	Opacity <= 20 % during startup and shutdown periods smoke emissions no greater than 20% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. The engine startup and shutdown time shall be less than 5 minutes. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
29	Opacity <= 10 %. Smoke emissions no greater than 10% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds, except for startups or shutdowns. The engine startup and shutdown time shall be less than 5 mins. [N.J.A.C. 7:27-22.16(e)]	Opacity: Monitored by stack emission testing prior to permit expiration date, based on the averaging period as per approved sampling protocol (See Stack Testing Requirements). [N.J.A.C. 7:27-22.16(o)]	Opacity: Recordkeeping by stack test results at the approved frequency (See Stack Testing Requirements). [N.J.A.C. 7:27-22.16(o)]	Submit a stack test report: As per the approved schedule (See Stack Testing Requirements). [N.J.A.C. 7:27-22.16(o)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
30	The Permittee shall monitor and record operating hours for Engine 1 and Engine 3 to demonstrate compliance with the stack testing requirement frequency, per engine, every 8760 hours or every 3 years, whichever comes first. [N.J.A.C. 7:27-22.16(a)]	Monitored by hour/time monitor continuously , using non-resettable meter. [N.J.A.C. 7:27-22.16(o)]	Other: The Permittee shall record in a logbook or computer data system and maintain on-site the total operating time for each engine. Once per month. [N.J.A.C. 7:27-22.16(o)].	None.

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Emission Unit: **U1 Three LFG CAT G3520C Engines (16.54 MMBtu/hr each, 2233 BHP, 1600kW) and 30,000 gallons/day Leachate Evaporator**

Operating Scenario: **OS4 Three LFG engines and leachate evaporator**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Particulate Emissions <= 3.94 lb/hr for Leachate Evaporator only. [N.J.A.C. 7:27-6.2]	None.	None.	None.
2	Fuel type limited to landfill gas for Engines 1 (E1), Engine 2 (E2) and Engine 3 (E3). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	VOC (Total) <= 0.23 grams/brake horsepower-hour per engine. [N.J.A.C. 7:27-22.16(e)]	VOC (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. In addition, a stack testing for compliance with NSPS Subpart JJJJ for Engine1 (E1) and Engine 3 (E3) shall be performed per OS Summary (See Stack Testing Requirements). For NSPS Subpart JJJJ compliance, VOC (Total) does not include Formaldehyde. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results once initially and prior to permit expiration date. In addition, a stack testing for compliance with NSPS Subpart JJJJ shall be performed per OS Summary (See Stack Testing Requirements). [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). [N.J.A.C. 7:27-22.16(o)]
4	PM-10 (Total) <= 0.2 grams/brake horsepower-hour per engine. [N.J.A.C. 7:27-22.16(e)]	PM-10 (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by stack test results once initially and prior to permit expiration date. [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). [N.J.A.C. 7:27-22.16(o)]
5	CO <= 55.23 lb/hr from all equipment venting through the single stack. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs (See Stack Testing Requirements). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results once initially and prior to permit expiration date (See Stack Testing Requirements). [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). [N.J.A.C. 7:27-22.16(o)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
6	NOx (Total) <= 7.38 lb/hr from all equipment venting through the single stack. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs (See Stack Testing Requirements). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results once initially and prior to permit expiration date (See Stack Testing Requirements). [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). [N.J.A.C. 7:27-22.16(o)]
7	VOC (Total) <= 7.33 lb/hr including formaldehyde, from all equipment venting through the single stack. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs (See Stack Testing Requirements). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results once initially and prior to permit expiration date (See Stack Testing Requirements). [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). [N.J.A.C. 7:27-22.16(o)]
8	SO2 <= 8.91 lb/hr from all equipment venting through the single stack. [N.J.A.C. 7:27-22.16(a)]	SO2: Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs (See Stack Testing Requirements). [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by stack test results once initially and prior to permit expiration date (See Stack Testing Requirements). [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). [N.J.A.C. 7:27-22.16(o)]
9	TSP <= 1.85 lb/hr from all equipment venting through the single stack. [N.J.A.C. 7:27-22.16(a)]	TSP: Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs (See Stack Testing Requirements). [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by stack test results once initially and prior to permit expiration date (See Stack Testing Requirements). [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). [N.J.A.C. 7:27-22.16(o)]
10	PM-10 (Total) <= 3.67 lb/hr for all equipment venting through the single stack. [N.J.A.C. 7:27-22.16(a)]	PM-10 (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs (See Stack Testing Requirements). [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by stack test results once initially and prior to permit expiration date (See Stack Testing Requirements). [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). [N.J.A.C. 7:27-22.16(o)]
11	PM-2.5 (Total) <= 3.67 lb/hr for all equipment venting through the single stack. [N.J.A.C. 7:27-22.16(a)]	PM-2.5 (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs (See Stack Testing Requirements). [N.J.A.C. 7:27-22.16(o)]	PM-2.5 (Total): Recordkeeping by stack test results once initially and prior to permit expiration date (See Stack Testing Requirements). [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). [N.J.A.C. 7:27-22.16(o)]
12	Acrolein <= 0.117 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
13	Acrylonitrile <= 0.00223 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

U1 Three LFG CAT G3520C Engines (16.54 MMBtu/hr each, 2233 BHP, 16(

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
14	Cadmium Emissions <= 0.0000029 lb/hr from leachate evaporator. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
15	Cobalt Emissions <= 0.000066 lb/hr from leachate evaporator. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
16	Formaldehyde <= 4.71 lb/hr from all equipment venting through the single stack. [N.J.A.C. 7:27-22.16(a)]	Formaldehyde: Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs (See Stack Testing Requirements). [N.J.A.C. 7:27-22.16(o)]	Formaldehyde: Recordkeeping by stack test results once initially and prior to permit expiration date (See Stack Testing Requirements). [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). [N.J.A.C. 7:27-22.16(o)]
17	Hydrogen chloride <= 0.363 lb/hr from all equipment venting through the single stack. [N.J.A.C. 7:27-22.16(a)]	Hydrogen chloride: 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). [N.J.A.C. 7:27-22.16(o)]	Hydrogen chloride: Recordkeeping by stack test results prior to permit expiration date (See Stack Testing Requirements). [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). [N.J.A.C. 7:27-22.16(o)]
18	Nickel Emissions <= 0.000096 lb/hr from leachate evaporator. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
19	Tetrachloroethane (1,1,2,2-) <= 0.00124 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
20	Vinyl chloride <= 0.00305 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
21	Oxygen > 6 %. [N.J.A.C. 7:27-22.16(e)]	Oxygen: Monitored by stack emission testing prior to permit expiration date ; and thereafter using a periodic emissions monitor, monthly. (See Stack Testing Requirements). [N.J.A.C. 7:27-22.16(o)]	Oxygen: Recordkeeping by stack test results prior to permit expiration date and by manual logging of periodic emissions monitoring results thereafter. (See Stack Testing Requirements). [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). [N.J.A.C. 7:27-22.16(o)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
22	Total Landfill Gas Usage <= 144,890 MMBtu/yr (HHV) per engine of landfill gas. [N.J.A.C. 7:27-22.16(e)]	Monitored by fuel flow/firing rate instrument continuously, based on a consecutive 12 month period (rolling 1 month basis) , electric generating records and total facility fuel flow. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. Keep records of monthly electric generating records and total fuel flow to all engines, which shall be continuously measured by a flow totalizer. [N.J.A.C. 7:27-22.16(o)]	None.
23	Methane: Requirement to continuously monitor and continuously record the percentage of methane in the landfill gas. [N.J.A.C. 7:27-22.16(e)]	Other: Methane Gas Analyzer Continuously.[N.J.A.C. 7:27-22.16(o)].	Methane: Recordkeeping by data acquisition system (DAS) / electronic data storage every 15 minutes. [N.J.A.C. 7:27-22.16(o)]	None.
24	Opacity <= 20 % during startup and shutdown periods smoke emissions no greater than 20% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. The engine startup and shutdown time shall be less than 5 minutes. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
25	Opacity <= 10 %. Smoke emissions no greater than 10% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds, except for startups or shutdowns. The engine startup and shutdown time shall be less than 5 mins. [N.J.A.C. 7:27-22.16(e)]	Opacity: Monitored by stack emission testing prior to permit expiration date, based on the averaging period as per approved sampling protocol (See Stack Testing Requirements). [N.J.A.C. 7:27-22.16(o)]	Opacity: Recordkeeping by stack test results at the approved frequency (See Stack Testing Requirements). [N.J.A.C. 7:27-22.16(o)]	Submit a stack test report: As per the approved schedule (See Stack Testing Requirements). [N.J.A.C. 7:27-22.16(o)]
26	Total Throughput <= 1,250 gal/hr of Leachate (maximum 30,000 gallons per day). [N.J.A.C. 7:27-22.16(a)]	Total Throughput: Monitored by material feed/flow monitoring continuously and hour/time monitoring. [N.J.A.C. 7:27-22.16(o)]	Total Throughput: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
27	The evaporator shall utilize heat from the exhaust from the existing LFG engines to heat the collected leachate and evaporate the water. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
28	The exhaust stack outlet diameter (PT6) shall be <= 24 inches and height shall be >= 46 feet. [N.J.A.C. 7:27-22.16(a)]	Monitored by documentation of construction upon occurrence of event. [N.J.A.C. 7:27-22.16(o)]	Other: Keep documentation of construction at the site.[N.J.A.C. 7:27-22.16(o)].	Submit a plan: Upon occurrence of event. [N.J.A.C. 7:27-22.16(o)]

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Facility Specific Requirements

Emission Unit: **U2 Candlestick Flare, 15.2 MMBtu/hr, 500 scfm and Enclosed Flare, 64 MMBtu/hr , 2,000 scfm**
Operating Scenario: **OS Summary**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Summary of Applicable Federal Regulations: *NSPS Subpart A - General Provisions, *NSPS Subpart WWW - Standards of Performance for Municipal Solid Waste Landfills, *MACT Subpart A - General Provisions, *MACT Subpart AAAA - Municipal Solid Waste Landfills, and [40 CFR Federal Rules Summary]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
2	RENEWAL STACK TESTING SUMMARY: The permittee shall conduct a stack test at least 18 months prior to the expiration of the initial or renewed operating permit using an approved protocol to demonstrate compliance with emission limits for CO, NOx, VOC, SO2, TSP, PM-10, Opacity, HCl and VOC destruction efficiency for enclosed flare U2, OS2. Testing must be conducted at worst-case permitted operating conditions with regard to meeting the applicable emission standards, but without creating an unsafe condition. [N.J.A.C. 7:27-22.16(a)]	Other: Monitoring as required under the applicable operating scenario(s). [N.J.A.C. 7:27-22.16(o)].	Other: Recordkeeping as required under the applicable operating scenario(s). [N.J.A.C. 7:27-22.16(o)].	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Submit a stack test protocol to the Emission Measurement Section (EMS) at Mail Code: 09-01, PO Box 420, Trenton, NJ 08625 at least 30 months prior to the expiration of the approved operating permit. The protocol and test report must be prepared and submitted on a CD using the Electronic Reporting Tool (ERT), unless another format is approved by EMS. The ERT program can be downloaded at: http://www.epa.gov/ttnchie1/ert. Within 30 days of protocol approval or no less than 60 days prior to the testing deadline, whichever is later, the permittee must contact EMS at 609-984-3443 to schedule a mutually acceptable test date. A full stack test report must be submitted to EMS and a certified summary test report must be submitted to the Regional Enforcement Office within 45 days after performing the stack test pursuant to N.J.A.C. 7:27-22.19(d). The test results must be certified by a licensed professional engineer or certified industrial hygienist. [N.J.A.C. 7:27-22.18(e)] and [N.J.A.C. 7:27-22.18(h)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	CO <= 68.7 tons/yr. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by fuel flow/firing rate instrument continuously and following calculations. CO (Tons/Year) = (A lb/MMBtu) x (B MMBtu/MMscf) x (MMscf of landfill gas consumed by Enclosed flare during the calendar year) + (C lb/MMBtu) x (B MMBtu/MMscf) x (MMscf of landfill gas consumed by the Candlestick flare during the calendar year) x (1 ton / 2000 lb). A = the most recent stack test CO emission factor for enclosed flare in lb/MMBTU B = Heating Value for Landfill Gas (monthly average of higher heating value of the landfill gas as calculated by plant personnel based on average measured CH4 concentration). C = 0.192 lb/MMBTU CO emission factor for candlestick flare per preconstruction permit. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	NOx (Total) <= 13.6 tons/yr (4.56 tpy CF + 9.04 tpy EF) CF = Candlestick Flare EF = Enclosed Flare. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Monitored by fuel flow/firing rate instrument continuously and following calculations. NOx (Tons/Year) = (A lb/MMBtu) x (B MMBtu/MMscf) x (MMscf of landfill gas consumed by Enclosed flare during the calendar year) + (C lb/MMBtu) x (B MMBtu/MMscf) x (MMscf of landfill gas consumed by the Candlestick flare during the calendar year) x (1 ton / 2000 lb). A = the most recent stack test NOx emission factor for enclosed flare in lb/MMBTU B = Heating Value for Landfill Gas (monthly average of higher heating value of the landfill gas as calculated by plant personnel based on average measured CH4 concentration). C = 0.070 lb/MMBTU NOx emission factor for candlestick flare per preconstruction permit. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously . [N.J.A.C. 7:27-22.16(o)]	None.
5	VOC (Total) <= 3.7 tons/yr. [N.J.A.C. 7:27-22.16(e)]	VOC (Total): Monitored by fuel flow/firing rate instrument continuously and following calculations. VOC (Tons/Year) = (A lb/MMBTU) x (B MMBTU/mmscf) x (MMscf of landfill gas consumed by both flares during the calendar year) x (1 ton/2,000 lb). A = the most recent stack test VOC emission factor for enclosed flare in lb/MMBTU B = Heating Value for Landfill Gas (monthly average of higher heating value of the landfill gas as calculated by plant personnel based on average measured CH4 concentration). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
6	SO2 <= 37 tons/yr. Any combination of operation of the three engines and two flares are capped at a total of 37 tons. The combination of operation of this equipments shall not be allowed to exceed the facility wide cap of 37 tons/year (see GR1). [N.J.A.C. 7:27-22.16(a)]	SO2: Monitored by fuel flow/firing rate instrument continuously and following calculations. SO2 (Tons/Year) = (A lb/MMBTU) x (B MMBTU/mmscf) x (MMscf of landfill gas consumed by both flares during the calendar year) x (1 ton/2,000 lb). A = the most recent stack test SO2 emission factor for enclosed flare in lb/MMBTU B = Heating Value for Landfill Gas (monthly average of higher heating value of the landfill gas as calculated by plant personnel based on average measured CH4 concentration). [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	Comply with the requirement: At no specified schedule :See Group 1 (GR1) for details. [N.J.A.C. 7:27-22.16(o)]
7	TSP <= 6.3 tons/yr. [N.J.A.C. 7:27-22.16(e)]	TSP: Monitored by fuel flow/firing rate instrument continuously and following calculations. TSP (Tons/Year) = (A lb/MMBTU) x (B MMBTU/MMscf) x (MMscf of landfill gas consumed by Enclosed flare during the calendar year) + (C lb/MMBtu) x (B MMBtu/MMscf) x (MMscf of landfill gas consumed by the Candlestick flare during the calendar year) x (1 ton / 2000 lb). A = the most recent stack test TSP emission factor for enclosed flare in lb/MMBTU B = Heating Value for Landfill Gas (monthly average of higher heating value of the landfill gas as calculated by plant personnel based on average measured CH4 concentration). C = 0.017 lb/MMBTU TSP emission factor for candlestick flare. [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously . [N.J.A.C. 7:27-22.16(o)]	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	PM-10 (Total) <= 12.62 tons/yr. [N.J.A.C. 7:27-22.16(e)]	PM-10 (Total): Monitored by fuel flow/firing rate instrument continuously and following calculations. PM-10 (Tons/Year) = (A lb/MMBTU) x (B MMBTU/MMscf) x (MMscf of landfill gas consumed by Enclosed flare during the calendar year) + (C lb/MMBtu) x (B MMBtu/MMscf) x (MMscf of landfill gas consumed by the Candlestick flare during the calendar year) x (1 ton / 2000 lb). A = the most recent stack test PM-10 emission factor for enclosed flare in lb/MMBTU B = Heating Value for Landfill Gas (monthly average of higher heating value of the landfill gas as calculated by plant personnel based on average measured CH4 concentration). C = 0.017 lb/MMBTU PM-10 emission factor for candlestick flare. [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
9	PM-2.5 (Total) <= 12.62 tons/yr. [N.J.A.C. 7:27-22.16(a)]	PM-2.5 (Total): Monitored by fuel flow/firing rate instrument continuously and following calculations. PM-2.5 (Tons/Year) = (A lb/MMBTU) x (B MMBTU/MMscf) x (MMscf of landfill gas consumed by Enclosed flare during the calendar year) + (C lb/MMBtu) x (B MMBtu/MMscf) x (MMscf of landfill gas consumed by the Candlestick flare during the calendar year) x (1 ton / 2000 lb). A = the most recent stack test PM-2.5 emission factor for enclosed flare in lb/MMBTU B = Heating Value for Landfill Gas (monthly average of higher heating value of the landfill gas as calculated by plant personnel based on average measured CH4 concentration). C = 0.017 lb/MMBTU PM-2.5 emission factor for candlestick flare. [N.J.A.C. 7:27-22.16(o)]	PM-2.5 (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.
10	Methane <= 9 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
11	Greenhouse gases as CO2e <= 5,091 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
12	Total HAPs <= 5.6 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
13	Acrylonitrile <= 0.000721 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
14	Hydrogen chloride <= 5.6 tons/yr. [N.J.A.C. 7:27-22.16(e)]	Hydrogen chloride: Monitored by fuel flow/firing rate instrument continuously and following calculations. HCl (Ton/Year) = [(A lb/MMBTU) x (B MMBTU/MMscf) x (MMscf of landfill gas consumed by the Enclosed flare during the calendar year) + (C lb/MMBTU) x (B MMBTU/mmscf) x (MMscf of landfill gas consumed by the Candlestick flare during the calendar year)] x (1 ton/2,000 lb). A = the most recent stack test HCl emission factor for enclosed flare in lb/MMBTU B = Heating Value for Landfill Gas (monthly average of higher heating value of the landfill gas as calculated by plant personnel based on average measured CH4 concentration) C = 0.0151 lb/MMBTU emission factor for HCl for candlestick flare per preconstruction permit. [N.J.A.C. 7:27-22.16(o)]	Hydrogen chloride: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.
15	Tetrachloroethane (1,1,2,2-) <= 0.0004 tons/yr. [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
16	Total cumulative landfill gas fuel use to both flares <= 700,800 MMBTU in any calendar year. [N.J.A.C. 7:27-22.16(e)]	Other: and measuring higher heating value of the landfill gas by plant personnel every shift. The flow rate monitoring system shall: (1) correct and report from actual to standard cubic feet; (2) be installed and operated in accordance with the manufacturer's specifications; (3) be equipped with a totalizer to continuously monitor the cumulative amount of landfill gas directed to the flare in scf; and (4) If a mass flowmeter is used, the readout shall be in scfm as total scf each calendar year. Total annual heat input during any consecutive 12-month period shall be calculated by adding the total heat input for a given month to the total heat input during the preceding 11-month period. Monthly MMBTU fuel use for Enclosed Flare and the Candlestick Flare shall be calculated using the following formula: (MMBTU(HHV)/Month) = [(Y MMBTU/MMscf) x (MMscf of landfill gas consumed by both flares per month)] (MMBTU(HHV)/Month) = [(Y MMBTU/MMscf) x (MMscf of landfill gas consumed by the flare per month)]. Y = Heating Value of Landfill Gas (monthly average of higher heating value of the landfill gas as measured by plant personnel every shift.[N.J.A.C. 7:27-22.16(o)].	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously for gas flow rate and once per shift for heat content of the landfill gas. [N.J.A.C. 7:27-22.16(o)]	None.
17	No direct release of landfill gas into the atmosphere is permitted. [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
18	All requests, reports, applications, submittals, and other communications required by 40 CFR 60 shall be submitted in duplicate to the EPA Region 2 Administrator. [NSPS Subpart A - General Provisions] - [40 CFR 60.4(a)]	None.	None.	Submit a report: As per the approved schedule to EPA Region 2 as required by 40 CFR 60: Air Compliance Branch EPA Region 2 290 Broadway New York, New York 10007-1886. [40 CFR 60.4(a)]
19	Submit a copy of all requests, reports, applications, submittals, and other communication required by 40 CFR 60 to the Southern Regional Enforcement Office, One Port Center, 2 Riverside Drive, Suite 201, Camden, NJ 08102. [NSPS Subpart A - General Provisions] - [40 CFR 60.4(b)]	None.	None.	Submit a report: As per the approved schedule as required by 40 CFR 60, to: Southern Regional Enforcement Office, One Port Center, 2 Riverside Drive, Suite 201, Camden, NJ 08102. [40 CFR 60.4(b)]
20	The owner or operator subject to the provisions of 40 CFR Part 60 shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, of the date of construction or reconstruction of an affected facility as defined under 40 CFR Part 60 Subpart A. Notification shall be postmarked no later than 30 days after such date. [NSPS Subpart A - General Provisions] - [40 CFR 60.7(a)(1)]	None.	None.	Submit notification: Upon occurrence of event to EPA Region 2 and the Southern Regional Enforcement Office of NJDEP as required by 40 CFR 60.7. [40 CFR 60.7(a)(1)]
21	The owner or operator subject to the provisions of 40 CFR Part 60 shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, of the actual date of initial startup of an affected facility postmarked within 15 days after such date. [NSPS Subpart A - General Provisions] - [40 CFR 60.7(a)(3)]	None.	None.	Submit notification: Upon occurrence of event to EPA Region 2 and the Southern Regional Enforcement Office of NJDEP as required by 40 CFR 60.7. [40 CFR 60.7(a)(3)]

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
22	A 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). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice. [NSPS Subpart A - General Provisions] - [40 CFR 60.7(a)(4)]	None.	None.	Comply with the requirement: Upon occurrence of event submit notification to EPA Region 2 and the Southern Regional Enforcement Office per 40 CFR 60.7. [40 CFR 60.7(a)(4)]
23	Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. [NSPS Subpart A - General Provisions] - [40 CFR 60.7(b)]	None.	Other: Manual logging of Parameter (Permanently Bound). Upon occurrence of event.[40 CFR 60.7(b)].	None.
24	The owner or operator shall conduct performance tests and data reduced in accordance with the test methods and procedures contained in each applicable subpart, unless otherwise specified and approved by the Administrator. [NSPS Subpart A - General Provisions] - [40 CFR 60.8(b)]	None.	None.	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
25	Performance tests shall be conducted under conditions the Administrator specifies to the plant operator based on representative performance of the affected facility. Operations during periods of startup, shutdown and malfunction shall not constitute representative conditions for the purpose of the performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [NSPS Subpart A - General Provisions] - [40 CFR 60.8(c)]	None.	None.	None.
26	The owner or operator shall provide the Administrator at least 30 days prior notice of any performance test and shall provide adequate performance testing facilities as specified in 40 CFR Part 60.8(e). [NSPS Subpart A - General Provisions] - [40 CFR 60.8(d)]	None.	None.	None.
27	Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. [NSPS Subpart A - General Provisions] - [40 CFR 60.8(f)]	None.	None.	None.
28	Compliance with NSPS standards specified in this permit, other than opacity standards, shall be determined only by performance tests established by 40 CFR 60.8, unless otherwise specified in NSPS. [NSPS Subpart A - General Provisions] - [40 CFR 60.11(a)]	None.	None.	None.
29	The NSPS opacity standard shall apply at all times except during periods of startup, shutdown, malfunctions and as otherwise specified in the applicable standard. [NSPS Subpart A - General Provisions] - [40 CFR 60.11(c)]	None.	None.	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
30	At all times, including periods of start-up, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operation and maintenance procedures, and inspection of the source. [NSPS Subpart A - General Provisions] - [40 CFR 60.11(d)]	None.	None.	None.
31	No owner or operator subject to the provisions of NSPS part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. [NSPS Subpart A - General Provisions] - [40 CFR 60.12]	None.	None.	None.
32	Flares shall be designed for, and operated with, no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [NSPS Subpart A - General Provisions] - [40 CFR 60.18(c)(1)]	Monitored by visual determination once initially and prior to permit renewal, based on a 2 hour period. Compliance shall be determined using Method 22. [40 CFR 60.18(f)(1)]	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. [N.J.A.C. 7:27-22.16(o)]	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
33	Flares shall be operated with a flame present at all times. [NSPS Subpart A - General Provisions] - [40 CFR 60.18(c)(2)]	Monitored by temperature instrument continuously, based on an instantaneous determination. The owner or operator may also use any other equivalent device to detect the presence of a flare pilot flame. [40 CFR 60.18(f)(2)]	None.	None.
34	The net heating value, Ht, [as calculated using the equation in 40 CFR Part 60.18(f)(3)] of the gas being combusted in a non-assisted flare shall be 200 Btu/SCF or greater. [NSPS Subpart A - General Provisions] - [40 CFR 60.18(c)(3)]	Monitored by calculations once initially. The net heating value of the gas being combusted in a flare shall be calculated using the equation in 40 CFR Part 60.18(f)(3). [40 CFR 60.18(f)(3)]	None.	None.
35	Steam assisted or non-assisted flare shall be designated and operated with an exit velocity, V actual, being less than 60 ft/sec. [NSPS Subpart A - General Provisions] - [40 CFR 60.18(c)(4)(i)]	Monitored by calculations once initially. The actual exit velocity, V actual, of the flare shall be determined by dividing volumetric flowrate (as determined by Reference Methods 2, 2A, 2C or 2D) by the unobstructed cross sectional area of the flare tip. [40 CFR 60.18(f)(4)]	None.	None.
36	The owner or operator shall use a steam assisted or non-assisted flare designed for and operating with a exit velocity, V actual (calculated using 40 CFR 60.18(f)(4)), being less than Vmax (calculated using the equation in 40 CFR 60.18(f)(5)) and less than 400 ft/sec. [NSPS Subpart A - General Provisions] - [40 CFR 60.18(c)(4)(iii)]	Monitored by calculations once initially. The actual exit velocity, V actual, of the flare shall be determined by dividing volumetric flowrate (as determined by Reference Methods 2, 2A, 2C or 2D) by the unobstructed cross sectional area of the flare tip. The maximum permitted velocity, Vmax, shall be calculated using the equation in 40CFR Part 60.18.(f)(5). [40 CFR 60.18(f)(5)]	None.	None.
37	The owner or operator shall design and operate an air assisted flare with an exit velocity being less than Vmax [calculate using the equation in 40 CFR 60.18 (f)(6)]. [NSPS Subpart A - General Provisions] - [40 CFR 60.18(c)(5)]	Monitored by calculations once initially. The maximum permitted velocity, Vmax, shall be calculated using the equation in 40CFR Part 60.18.(f)(6). [40 CFR 60.18(f)(6)]	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
38	Flares used to comply with the provisions of 40 CFR Part 60 Subpart A, shall monitor these control device to ensure that they operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how the owner or operator shall monitor the Flare as a control device. [NSPS Subpart A - General Provisions] - [40 CFR 60.18(d)]	Other: The owner or operator shall monitor the flare as specified in the applicable subpart(s) of 40 CFR Part 60. [40 CFR 60.18(d)].	None.	None.
39	Flares used to comply with the provisions of 40 CFR Part 60 Subpart A, shall be operated at all times when emissions may be vented to them. [NSPS Subpart A - General Provisions] - [40 CFR 60.18(e)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
40	Operate the facility such that all landfill gas is routed to the control system (three IC engines or two flares) designed and operated in compliance with 40 CFR 60.752(b)(2)(iii)(B). In the event the control system is inoperable or malfunctioned then the gas mover system must be shut down. [NSPS Subpart WWW-Standards of Performance for Municipal Solid Waste Landfills]- [40 CFR 60.752(b)]	Other: The time duration of shutdown of the engines must be recorded. The standard operating procedure for shutdown of the landfill gas control system is to: 1. Ensure there are no unsafe conditions. 2. Contact prior to shutdown the Cumberland County Gas-to-Energy Plant in-charge Plant Operator and notify appropriate Cumberland County Solid Waste facility representatives that the landfill gas treatment and electricity generation processes will be shutdown. Extended shutdowns of the specified equipment will require startup of the Cumberland County Gas-to-Energy Plant gas flaring process. 3. Initiate the proper equipment, process, and system shutdown sequence by one or more of the following: a. Press Emergency Stop as determined to be necessary. b. Close On/Off Switch(es) or push On/Off button(s). c. Close adjacent valves as determined to be necessary. 4. Observe that system achieves normal shutdown ranges for appropriate gas and fluid levels, pressures, and temperatures. 5. An investigation of the equipment that caused the malfunction will be performed and corrected. 6. After the cause of the malfunction has been identified and corrective actions implemented, the fuel use and electricity generation processes will be restarted using the procedures specified in the SSM plan. The appropriate SSM reporting forms and documents must be completed. 7. Refer to Operations and Maintenance Manuals as determined when necessary. [40 CFR 60.752].	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The time duration of shutdown of the control system must be recorded. Keep Operating and Maintenance Manuals and shall be available on-site. [40 CFR 60.752]	Submit a report: Every six months on January 1 and July 1 of each year but started no sooner than three months after the effective date of the approved permit. The first report shall include data for the three months preceding the reporting half-year, if applicable.. The six month cycles shall begin on January 1 and July 1. Submit semi-annual report to: Air Compliance Branch EPA Region 2 290 Broadway New York, New York 10007-1886. [40 CFR 60.752]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
41	All gas must be received by a control system for subsequent use. [NSPS Subpart WWW-Standards of Performance for Municipal Solid Waste Landfills]- [40 CFR 60.752(b)(2)(iii)]	None.	None.	None.
42	A control system shall be designed and operated to reduce NMOC by 98 % (weight-percent) or 20 ppmvd as hexane at 3% O2. The reduction efficiency shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in 40 CFR 60.754(d). [NSPS Subpart WWW-Standards of Performance for Municipal Solid Waste Landfills]- [40 CFR 60.752(b)(2)(iiiB)]	Monitored by stack emission testing once initially and prior to permit renewal. [40 CFR 60.756(a)(1)]	Recordkeeping by stack test results upon occurrence of event . [40 CFR 60.758(c)]	Comply with the requirement: As per the approved schedule. Submit protocol, conduct tests and submit results. Refer to stack testing requirements specified in this permit. [40 CFR 60.754(d)]
43	The owner or operator shall operate the control system at all times when the collected landfill gas is routed to the system. [NSPS Subpart WWW-Standards of Performance for Municipal Solid Waste Landfills]- [40 CFR 60.753(f)]	None.	None.	None.
44	If monitoring demonstrates that the operational requirements in 40 CFR 60.753(b) or (c) are not met, corrective action shall be taken as specified in 40 CFR 60.755(a)(3) through (5). If corrective actions are taken as specified in 40 CFR 60.755, the monitored exceedance is not a violation of the operational requirements in this section. [NSPS Subpart WWW-Standards of Performance for Municipal Solid Waste Landfills]- [40 CFR 60.753(g)]	None.	None.	Comply with the requirement: As per the approved schedule. If monitoring demonstrates that the operational requirements in 40 CFR 60.753(b) or (c) are not met, corrective action shall be taken as specified in 40 CFR 60.755(a)(3) through (5). [40 CFR 60.753(g)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
45	The provisions of NSPS Subpart WWW apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices. [NSPS Subpart WWW-Standards of Performance for Municipal Solid Waste Landfills]- [40 CFR 60.755(e)]	None.	None.	None.
46	An owner or an operator of a landfill gas control systems and/or treatment system must submit a semi-annual report to EPA describing the monitoring and operational practices. [NSPS Subpart WWW-Standards of Performance for Municipal Solid Waste Landfills]- [40 CFR 60.756(d)]	None.	None.	Submit a report: Semi-annually on January 31 and July 31 of each year to: Air Compliance Branch EPA Region 2 290 Broadway New York, New York 10007-1886. [40 CFR 60.756(d)]
47	Each owner or operator subject to the requirements of this subpart is exempted from the requirements of 40 CFR 60.757(b)(1) and (2), after the installation of a collection and control system in compliance with 40 CFR 60.752(b)(2), during such time as the collection and control system is in operation and in compliance with 40 CFR 60.753 and 40 CFR 60.755. [NSPS Subpart WWW-Standards of Performance for Municipal Solid Waste Landfills]- [40 CFR 60.757(b)(3)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
48	The owner or operator shall submit an equipment(s) removal report to the Administrator 30 days prior to removal or cessation of operation of the control equipment(s). [NSPS Subpart WWW-Standards of Performance for Municipal Solid Waste Landfills]- [40 CFR 60.757(e)]	None.	None.	Submit a report: As per the approved schedule. The equipment removal report shall contain all of the following items: (i) A copy of the closure report submitted in accordance with 40 CFR 60.757(d); (ii) A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired; and (iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year. [40 CFR 60.757(e)]
49	Each owner or operator shall submit annual reports to the Administrator. For enclosed combustion devices and flares, reportable exceedances are defined under 40 CFR 60.758(c). [NSPS Subpart WWW-Standards of Performance for Municipal Solid Waste Landfills]- [40 CFR 60.757(f)]	None.	None.	Submit a report: As per the approved schedule. The annual reports shall include the following recorded information: (1) Value and length of time for exceedance of applicable parameters monitored under 40 CFR 60.756(a), (b), (c), and (d). (2) Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under 40 CFR 60.756. (3) Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating. (4) All periods when the collection system was not operating in excess of 5 days. (5) The date of installation and the location of each well or collection system expansion added pursuant to 40 CFR 60.755(a)(3), (b), and (c)(4). [40 CFR 60.757(f)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
50	Each owner or operator shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in 40 CFR 60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance. [NSPS Subpart WWW-Standards of Performance for Municipal Solid Waste Landfills]- [40 CFR 60.758(e)]	None.	Other: See Applicable Requirement.[40 CFR 60.758(e)].	None.
51	The landfill source shall keep up-to-date, readily accessible records for the life of the control equipments. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the treatment system devices' specifications must be kept until the equipment(s) is removed. [NSPS Subpart WWW-Standards of Performance for Municipal Solid Waste Landfills]- [40 CFR 60.758(f)]	None.	Other: Keep records on readily-accessible files for Five (5) years. The control equipment(s) and/or treatment system component data must be kept on site for 5 years. Records of the control equipment(s) and/or treatment system devices' specifications must be kept until the equipment is removed. [40 CFR 60.758(a)].	None.
52	No owner or operator subject to the provisions of 40 CFR 63 must operate any affected source in violation of the requirements of 40 CFR 63. No owner or operator subject to the provisions of 40 CFR 63 shall fail to keep records, notify, report, or revise reports as required under 40 CFR 63. [MACT Subpart A - General Provisions] - [40 CFR 63.4(a)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
53	For equipment subject to MACT, no owner or operator subject to the provisions of MACT Subpart A in 40 CFR 63 shall build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to: (1) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere; and (2) the use of gaseous diluents to achieve compliance with a relevant standard for visible emissions.[MACT Subpart A - General Provisions] - [40 CFR 63.4(b)]	None.	None.	None.
54	During periods of startup, shutdown, and malfunction, the owner or operator of an affected source must operate and maintain such source, including APC and monitoring equipment, in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under paragraph 40 CFR 63.6(e)(3)(i). [MACT Subpart A - General Provisions] - [40 CFR 63.6(e)(ii)]	None.	None.	None.
55	The owner or operator must operate and maintain any affected source at all times, including periods of startup, shutdown, and malfunction, including associated APC equipment and monitoring equipment for minimizing emissions to the levels required by the relevant standards, i.e., meet the emission standard or comply with the startup, shutdown, and malfunction plan. [MACT Subpart A - General Provisions] - [40 CFR 63.6(e)(1)(i)]	None.	None.	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
56	For equipment subject to MACT, malfunctions shall be corrected as soon as practicable after their occurrence, in accordance with the startup, shutdown, and malfunction plan required under 40 CFR 63.6(e)(3). [MACT Subpart A - General Provisions] - [40 CFR 63.6(e)(1)(ii)]	None.	None.	Comply with requirement: Upon occurrence of event. Correct the malfunction as soon as practicable in accordance with the startup, shutdown, and malfunction plan. [40 CFR 63.6(e)(1)(ii)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
57	The owner or operator of an affected source must keep records of actions taken during a startup, shutdown, or malfunction, which are consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, including records of the occurrence and duration of each startup, shutdown, and malfunction of operation and each malfunction of the APC and monitoring equipment. [MACT Subpart A - General Provisions] - [40 CFR 63.6(e)(3)(iii)]	None.	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event The owner and operator shall maintain relevant records for such source of: (1) The occurrence & duration of each startup, shutdown, or malfunction of operation (i.e. process equipment); (2) The occurrence and duration of each malfunction of the required air pollution control (APC) and monitoring equipment; (3) All required maintenance performed on the APC and monitoring equipment; (4) Actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and APC and monitoring equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan; (5) All information necessary to demonstrate conformance with the affected source's startup, shutdown, and malfunction plan when all actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and APC and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. (The information needed to demonstrate conformance with the startup, shutdown, and malfunction plan may be recorded using a "checklist", or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events). [40 CFR 63.10(b)(2)]	Submit a report: Semiannually beginning within 6 months of initial start-up. The startup, shutdown, or malfunction report shall consist of a letter containing: name, title, and signature of the owner or operator and shall be submitted to the Administrator. The report shall be delivered by the 30th day following the end of each calendar half. The report shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. [40 CFR 63.10(d)(5)(i)]

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
58	The owner or operator of an affected source must keep records of actions which are not consistent with the procedures specified in the affected source's startup, shutdown, or malfunction plan and, if the source exceeds any applicable emission limitation in the relevant emission standard, must report such actions to the Administrator. [MACT Subpart A - General Provisions] - [40 CFR 63.6(e)(3)(iv)]	None.	Recordkeeping by manual logging of parameter upon occurrence of event. The owner or operator shall maintain relevant records for such source of: (i) The occurrence & duration of each startup, shutdown, or malfunction of operation (i.e., process equipment); (ii) The occurrence & duration of each malfunction of the required air pollution control (APC) and monitoring equipment; (iii) All required maintenance performed on the APC and monitoring equipment; (iv) Actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and APC and monitoring equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan; (v) All information necessary to demonstrate conformance with the affected source's startup, shutdown, and malfunction plan when all actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and APC and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. (The information needed to demonstrate conformance with the startup, shutdown, and malfunction plan may be recorded using a "checklist," or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events). [40 CFR 63.10(b)(2)]	Submit a report: Upon occurrence of event. The report shall consist of a telephone call or facsimile and shall be submitted within 2 working days after commencing action, followed by a letter delivered or postmarked within 7 working days after the end of the event. [40 CFR 63.10(d)(5)(ii)]

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
59	If the startup, shutdown, and malfunction plan fails to address or inadequately address an event, the owner or operator of an affected source must revise the startup, shutdown, and malfunction plan of such a source within 45 days after the event. [MACT Subpart A - General Provisions] - [40 CFR 63.6(e)(3)(viii)]	None.	None.	Submit a report: Upon occurrence of event. Each startup, shutdown, and malfunction plan revision must be reported in the semiannual report required by 40 CFR 63.10(d)(5). [40 CFR 63.6(e)(3)(viii)]
60	The owner or operator of an affected source must develop and implement a written startup, shutdown and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction; a program of corrective action for malfunctioning process; and APC and monitoring equipment used to comply with relevant standard. The plan must be developed by the source's compliance date for that relevant standard. [MACT Subpart A - General Provisions] - [40 CFR 63.6(e)(3)(i)]	None.	Other: The owner or operator must maintain at the affected source a current startup, shutdown, and malfunction plan and make the plan available upon request for inspection. In addition, the owner or operator must maintain each previous version of the plan for a period of 5 years after the revision of the plan.[40 CFR 63.6(e)(3)(v)].	None.
61	The non-opacity emission standards shall apply at all times except during periods of startup, shutdown, and malfunction. [MACT Subpart A - General Provisions] - [40 CFR 63.6(f)(1)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
62	The facility shall develop and implement a written startup, shutdown, and malfunction (SSM) plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction; a program of corrective action for malfunctioning process; and air pollution control and monitoring equipment used to comply with this standard During periods of startup, shutdown, and malfunction, the facility must operate and maintain the affected source in accordance with the procedures specified in the SSM plan. [MACT Subpart AAAA-National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills]- [40 CFR 63.1955]	None.	Other: When actions taken by the owner/operator during a startup, shutdown, or malfunction are consistent with the procedures specified in the affected source's SSM plan,the owner/operator must keep records for that event which demonstrate that the procedures specified in the plan were followed. In addition, the owner/operator must keep records of these events as specified in 63.10(b), including records of operation and each malfunction of the air pollution control and monitoring equipment. Furthermore, the owner/operator shall confirm that actions taken during the startup, shutdown, and malfunction were consistent with the SSM plan in the semiannual report as required in 63.10(d)(5).[40 CFR 63.1955].	Submit a report: As per the approved schedule. If an action taken by the facility is not consistent with the SSM plan, and the affected source exceeds the relevant emission standard, then the owner/operator must record the actions taken for that event and must report such actions within 2 working days after commencing actions inconsistent with the SSM plan, followed by a letter within 7 working days after the end of the event. EPA or NJDEP may at any time request in writing that the facility submit a copy of the SSM plan (or a portion thereof) which is maintained at the affected source. Upon receipt of such a request, the facility must promptly submit a copy of the requested plan to EPA or NJDEP. EPA or NJDEP must request that the facility submit a SSM plan whenever a member of the public submits a specific and reasonable request to examine or to receive a copy of that plan or portion of a plan. If the facility claims that any portion of such a SSM plan is confidential business information entitled to protection from disclosure under section 114(c) of the Act or 40CFR2.301, the material which is claimed as confidential must be clearly designated in the submission. [40 CFR 63.1955]
63	Existing affected sources and area sources must comply with the requirements of 40 CFR 63, subpart AAAA and with the general provisions of this part by January 16, 2004. [MACT Subpart AAAA-National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills]- [40 CFR 63.1945(f)] & [40 CFR 63.1955(b)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
64	The owner/operator must develop and implement a written startup, shutdown, and malfunction (SSM) plan according to the provisions in 40 CFR 63.6(e)(3). [MACT Subpart AAAA-National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills]- [40 CFR 63.1960]	None.	Other: Maintain a current copy of the SSM plan on site. [40 CFR 63.1960] &[40 CFR 63.1980].	None.
65	Demonstrate compliance with the operating conditions for control systems including continuous parameter monitoring data collected under 40 CFR 60.756(b)(1) of subpart WWW. [MACT Subpart AAAA-National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills]- [40 CFR 63.1960]	Monitored by parametric monitoring system continuously. [40 CFR 63.1960]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [40 CFR 63.1960]	Comply with requirement: As per the approved schedule. [40 CFR 63.1980]
66	For the purposes of the landfill monitoring and SSM plan requirements, deviations as defined in (40 CFR 63. 1990) include the items in paragraphs (a) through (c) of this section. (a) A deviation occurs when the control device operating parameter boundaries described in 40 CFR 60.758(c)(1) of subpart WWW are exceeded. (b) A deviation occurs when 1 hour or more of the hours during the 3-hour block averaging period (refer to 40 CFR 63.1975) does not constitute a valid hour of data. A valid hour of data must have measured values for at least three 15-minute monitoring periods within the hour. [MACT Subpart AAAA-National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills]- [40 CFR 63.1965]	None.	None.	Submit a report: Upon occurrence of event to the extent this requirement may be applicable to equipment owned or operated by permittee. The report shall consist of a telephone call or facsimile and shall be submitted within 2 working days after commencing action, followed by a letter delivered or postmarked within 7 working days after the end of an event. [40 CFR 63.10(d)(5)(ii)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
67	The owner or operator shall submit reports every 6 months to the Administrator. For enclosed combustion devices and flares, reportable exceedances are defined under 40 CFR 60.758 (c). [MACT Subpart AAAA-National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills] - [40 CFR 60.757(f)] and [40 CFR 63.1980(a)]	None.	None.	Submit a report: As per the approved schedule to the extent this requirement may be applicable to equipment owned or operated by permittee. The biannual report shall include the following information: (1) Value and length of time for exceedance of applicable parameters monitored under 40 CFR 60.756(b). (2) Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of the bypass flow as specified under 40 CFR 60.756. (3) Description and duration of all periods when the control device was not operating for a period exceeding one hour and length of time the control device was not operating. [40 CFR 60.757(f)] & [40 CFR 63.1980(a)]. [40 CFR 60.756]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U2 Candlestick Flare, 15.2 MMBtu/hr, 500 scfm and Enclosed Flare, 64 MMBtu/hr , 2,000 scfm**
Operating Scenario: **OS1 Candlestick Flare**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	The flare shall be designed to reduce the concentration of NMOC by no less than 95%. The flare shall be installed, operated and maintained in accordance with the specifications provided by the manufacturer. [N.J.A.C. 7:27-16.13(a)]	None.	None.	None.
2	The owner or operator shall inspect the flare before May 1 annually to verify that the flare continues to operate in accordance with the manufacturer's specifications for the operation of the flare. [N.J.A.C. 7:27-16.13(c)]	None.	Recordkeeping by other recordkeeping method (provide description) annually. The owner or operator shall record the following in a permanently bound log book at the conclusion of each inspection: (1) name of person conducting the inspection; (2) date on which the inspection was conducted; (3) an entry indicating which flare was inspected; (4) any changes or adjustments made to the flare as a result of the inspection; and (5) a statement stating that the flare is currently being operated in compliance with the manufacturer's specifications. [N.J.A.C. 7:27-16.13(c)]	None.
3	SO2 <= 50 lb/hr , in any 60-minute period. [N.J.A.C. 7:27-7.2(b)2] &. [N.J.A.C. 7:27-7.2(r)]	None.	None.	None.
4	SO2 <= 100 lb/hr allowable emission rate at any instant. [N.J.A.C. 7:27-7.2(b)2] &. [N.J.A.C. 7:27- 7.2(r)]	None.	None.	None.
5	CO <= 0.15 lb/MMBTU. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
6	NOx (Total) <= 0.07 lb/MMBTU. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
7	CO <= 2.4 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
8	NOx (Total) <= 1.12 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
9	VOC (Total) <= 0.17 lb/hr. [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
10	SO2 <= 2.87 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
11	TSP <= 0.32 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
12	PM-10 (Total) <= 0.58 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
13	Non-Methane Hydrocarbons <= 0.17 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
14	Acrylonitrile <= 0.000514 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
15	Hydrogen chloride <= 0.117 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
16	Tetrachloroethane (1,1,2,2-) <= 0.000285 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
17	Flowrate <= 500 SCFM. Maximum inlet landfill gas flow rate to Candlestick flare. [N.J.A.C. 7:27-22.16(e)]	Other: The landfill gas flow rate to the flare shall be continuously monitored (in scfm), based on a one hour block basis. The flow rate monitoring system shall: (1) correct and report from actual to standard cubic feet; (2) be installed and operated in accordance with the manufacturer's specifications; (3) be equipped with a totalizer to continuously monitor the cumulative amount of landfill gas directed to the flare in scf; and (4) if a mass flowmeter is used, the readout shall be in scfm as total scf each calendar year.[N.J.A.C. 7:27-22.16(o)].	Flowrate: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously during operation. [N.J.A.C. 7:27-22.16(o)]	None.
18	Flowrate <= 263 MMft^3/yr. Total cumulative gas flow to the Candlestick flare. [N.J.A.C. 7:27-22.16(e)]	Other: The landfill gas flow rate to the open flare shall be continuously monitored (in scfm). The flow rate monitoring system shall: (1) correct and report from actual to standard cubic feet; (2) have an overall accuracy of not less than 0.5% or the best accuracy available; (3) be installed and operated in accordance with the instructions of the manufacturer; and (4) be equipped with a totalizer to continuously monitor the cumulative amount of landfill gas directed to the open flare in scf.[N.J.A.C. 7:27-22.16(o)].	Flowrate: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously during operation. [N.J.A.C. 7:27-22.16(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
19	Maximum Gross Heat Input <= 15.2 MMBTU/hr (HHV). The maximum heat input rate to candlestick flare (one hour block average, from PCP permits). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
20	Destruction and Removal Efficiency >= 98 % by weight. Flare shall be operated to achieve a minimum destruction efficiency of 98% for NMOC. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
21	Exit Gas Velocity <= 60 ft/sec. The flare tip velocity shall not exceed 60 ft/sec. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
22	Flare Shutdown - If the flare ceases operation and cannot be reignited, the flow of landfill gas to the flare shall be shutdown until normal operation is restored. [N.J.A.C. 7:27-22.16(e)]	Other: Monitored by a thermocouple to ensure the presence of a pilot flame continuously. The monitor shall measure temperature. An alarm system shall be operated on the flare to alert operating personnel if the flare fails to reignite after the flare shuts down.[N.J.A.C. 7:27-22.16(o)].	The monitor shall record temperature. Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(o)]	None.
23	The flare and ancillary equipment shall be installed, operated and maintained in accordance with the specifications provided by the manufacturer. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
24	Natural gas, propane, or the equivalent shall be used for ignition and natural gas, propane, landfill gas, or the equivalent shall be used as a pilot fuel. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
25	All monitors and recorders required by this permit shall be operated at any time landfill gas is combusted. [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
26	The flare shall be equipped with the following: (1) Automatic relighting system to relight the flare pilot if extinguished; (2) Pilot flame monitor with automatic system to shut-off the flow of landfill gas to the flare when combustion ceases and cannot be relighted; (3) Thermocouple alarm system to signal the operator when the flare fails to relight or combustion ceases; (4) One propane gas pilot; (5) Flame arrestor on inlet; and (6) Low temperature shutdown. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
27	The flare shall have automatic flow control logic which will start the flare based on a comparison of the "flow control setpoint" and the measured flow of gas to the engines. [N.J.A.C. 7:27-22.16(e)]	Monitored by flame monitor at the approved frequency to ensure the presence of flame. An alarm system shall be operated on the flare to alert operating personnel if the flare fails to reignite after the flare shuts down. [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. All periods of operation of the flare providing start-up time, shut down time, reason for operation and name of operator making the entry must be recorded at occurrence of event. [N.J.A.C. 7:27-22.16(o)]	None.
28	Flares shall be designed for, and operated with, no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [40 CFR 60.18(c)(1)]	Monitored by visual determination once initially and prior to permit renewal, based on a 2 hour period. Compliance shall be determined using Method 22. [40 CFR 60.18(f)(1)]	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U2 Candlestick Flare, 15.2 MMBtu/hr, 500 scfm and Enclosed Flare, 64 MMBtu/hr , 2,000 scfm**

Operating Scenario: **OS2 Enclosed Flare**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	TSP <= 6.57 lb/hr based on 0.02 gr/scf of source gas. [N.J.A.C. 7:27- 6.2(a)]	Other: Stack Emission Testing. (See OS Summary for details).[N.J.A.C. 7:27-22.16(o)].	Other: Stack Emission Testing. (See OS Summary for details).[N.J.A.C. 7:27-22.16(o)].	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (See Stack Testing Requirements). [N.J.A.C. 7:27-22.16(o)]
2	SO2 <= 20 lb/hr in any 60-minute period. [N.J.A.C. 7:27- 7.2(b)2]	SO2: Monitored by stack emission testing prior to permit expiration date. [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by stack test results prior to permit expiration date. [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). [N.J.A.C. 7:27-22.16(o)]
3	SO2 <= 40 lb/hr at any instant. [N.J.A.C. 7:27- 7.2(b)2]	SO2: Monitored by stack emission testing prior to permit expiration date. [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by stack test results prior to permit expiration date. [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). [N.J.A.C. 7:27-22.16(o)]
4	Destruction and Removal Efficiency >= 99 % by weight. The flare shall be designed to operate at a minimum VOC destruction and removal efficiency (DRE) of 99%. The flare shall demonstrate a minimum DRE of 95% if 99% is not reasonably achievable, provided the minimum operating temperature shall be 1500 degrees Fahrenheit at a residence time of 0.5 seconds. [N.J.A.C. 7:27-16.13(a)]	Destruction and Removal Efficiency: Monitored by stack emission testing once initially and prior to permit expiration date. [N.J.A.C. 7:27-22.16(o)]	Destruction and Removal Efficiency: Recordkeeping by stack test results once initially and prior to permit expiration date. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (See OS Summary for details). [N.J.A.C. 7:27-22.16(o)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	The owner or operator shall inspect the flare before May 1 annually to verify that the flare continues to be operated in accordance with the manufacturer's specifications for the operation of the flare. [N.J.A.C. 7:27-16.13(c)]	None.	The owner or operator shall record the following at the conclusion of each inspection: (1) name of person conducting the inspection; (2) date on which the inspection was conducted; (3) an entry indicating which flare was inspected; (4) any changes or adjustments made to the flare as a result of the inspection; and (5) a statement stating that the flare is currently being operated in compliance with the manufacturer's specifications. Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. [N.J.A.C. 7:27-16.13(c)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
6	Equipment shall not be used in a manner which will cause visible emissions, exclusive of visible condensed water vapor. [N.J.A.C. 7:27-22.16(e)]	Monitored by visual determination each month during operation. For compliance with the opacity standard, the permittee shall conduct visual opacity inspections during daylight hours. Visual inspections shall consist of a visual survey to identify if the stack has visible emissions, (other than condensed water vapor), greater than the prescribed standard. If visible emissions are observed, the permittee shall do the following: (1) Verify that the equipment and/or control device causing the emission is operating according to manufactures specifications and the operating permit compliance plan. If the equipment or control device is not operating properly, the permittee shall take corrective action immediately to eliminate the excess emissions. The permittee must report any permit violations to NJDEP pursuant to N.J.A.C. 7:27-22.19.; (2) If the corrective action taken in step (1) does not correct the opacity problem within 24 hours, the applicant shall perform a check via a certified opacity reader, in accordance with N.J.A.C. 7:27B-2. Such test shall be conducted each day until corrective action is taken to successfully correct the opacity problem. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Retain the following records: (1) Date and time of inspection; (2) Emission Point number; (3) Operational status of equipment; (4) Observed results and conclusions; (5) Description of corrective action taken if needed; (6) Date and time opacity problem was solved, if applicable; (7) N.J.A.C. 7:27B-2 results if conducted; and (8) Name of person(s) conducting inspection. [N.J.A.C. 7:27-22.16(o)]	None.
7	CO <= 14.4 lb/hr. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by stack emission testing prior to permit expiration date. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results prior to permit expiration date. [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). [N.J.A.C. 7:27-22.16(o)]
8	NOx (Total) <= 3.7 lb/hr potential to emit NOx on any calendar day from May 1 to September 30 shall be less than 137 pounds per day. [N.J.A.C. 7:27-16(e)] and. [N.J.A.C. 7:27-19.2(b)]	NOx (Total): Monitored by stack emission testing prior to permit expiration date. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results prior to permit expiration date. [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). [N.J.A.C. 7:27-22.16(o)]
9	SO2 <= 11.5 lb/hr. [N.J.A.C. 7:27-22.16(e)]	SO2: Monitored by stack emission testing prior to permit expiration date. [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by stack test results prior to permit expiration date. [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). [N.J.A.C. 7:27-22.16(o)]

U2 Candlestick Flare, 15.2 MMBtu/hr, 500 scfm and Enclosed Flare, 64 MM

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
10	TSP <= 1.11 lb/hr. [N.J.A.C. 7:27-22.16(e)]	TSP: Monitored by stack emission testing prior to permit expiration date. [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by stack test results prior to permit expiration date. [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). [N.J.A.C. 7:27-22.16(o)]
11	PM-10 (Total) <= 2.3 lb/hr. [N.J.A.C. 7:27-22.16(e)]	PM-10 (Total): Monitored by stack emission testing prior to permit expiration date. [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by stack test results prior to permit expiration date. [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). [N.J.A.C. 7:27-22.16(o)]
12	Methane <= 53.9 lb/hr. [N.J.A.C. 7:27-22.16(e)]	Methane: Monitored by stack emission testing prior to permit expiration date. [N.J.A.C. 7:27-22.16(o)]	Methane: Recordkeeping by stack test results prior to permit expiration date. [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). [N.J.A.C. 7:27-22.16(o)]
13	Non-Methane Hydrocarbons <= 0.68 lb/hr. [N.J.A.C. 7:27-22.16(e)]	Non-Methane Hydrocarbons: Monitored by stack emission testing prior to permit expiration date. [N.J.A.C. 7:27-22.16(o)]	Non-Methane Hydrocarbons: Recordkeeping by stack test results prior to permit expiration date. [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). [N.J.A.C. 7:27-22.16(o)]
14	Acrylonitrile <= 0.00206 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
15	HCl Emissions <= 0.96 lb/hr. [N.J.A.C. 7:27-22.16(e)]	HCl Emissions: Monitored by stack emission testing prior to permit expiration date. [N.J.A.C. 7:27-22.16(o)]	HCl Emissions: Recordkeeping by stack test results prior to permit expiration date. [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). [N.J.A.C. 7:27-22.16(o)]
16	Tetrachloroethane (1,1,2,2-) <= 0.00114 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
17	H2S <= 0.01 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
18	Residence Time >= 0.5 seconds [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
19	Maximum Gross Heat Input <= 64 MMBTU/hr (HHV) to the enclosed flare. [N.J.A.C. 7:27-22.16(e)]	Maximum Gross Heat Input: Monitored by stack emission testing prior to permit expiration date. [N.J.A.C. 7:27-22.16(o)]	Maximum Gross Heat Input: Recordkeeping by stack test results prior to permit expiration date. [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). [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
20	Flowrate <= 2,000 SCFM. Maximum inlet landfill gas flow rate to the enclosed flare. [N.J.A.C. 7:27-22.16(e)]	Other: The landfill gas flow rate to the enclosed flare shall be continuously monitored (in scfm). The flow rate monitoring system shall: (1) correct and report from actual to standard cubic feet; (2) have an overall accuracy of not less than 0.5% or the best accuracy available; (3) be installed and operated in accordance with the instructions of the manufacturer; and (4) be equipped with a totalizer to continuously monitor the cumulative amount of landfill gas directed to the flare in scf.[N.J.A.C. 7:27-22.16(o)].	Flowrate: Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(o)]	None.
21	Total cumulative gas flow to the enclosed flare <= 1051 MM scf in any consecutive 12 month period. [N.J.A.C. 7:27-22.16(e)]	Other: The landfill gas flow rate to the enclosed flare shall be continuously monitored (in scfm) during operation. The flow rate monitoring system shall: (1) correct and report from actual to standard cubic feet; (2) have an overall accuracy of not less than 0.5% or the best accuracy available; (3) be installed and operated in accordance with the instructions of the manufacturer; and (4) be equipped with a totalizer to continuously monitor the cumulative amount of landfill gas directed to the flare in scf.[N.J.A.C. 7:27-22.16(o)].	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously during operation. Cubic feet per consecutive 12-month period shall be calculated by the sum of cubic feet during any one month added to the sum of cubic feet during the preceeding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.
22	An operating temperature of 1500 degrees Fahrenheit is required unless minimum DRE of 99% is achieved and can be demonstrated, and other air contaminant emission rates do not exceed those approved in this permit. [N.J.A.C. 7:27-22.16(e)]	Monitored by temperature instrument continuously. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously during operation. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
23	The flare shall have a continuous temperature monitor and recorder with an alarm or other operational warning system. The sensor shall be installed at the exit of the combustion chamber and it shall be properly shielded from direct contact with the flame. The alarm shall be designed to activate when temperatures less than the permitted operating temperature are detected at any time. [N.J.A.C. 7:27-22.16(e)]	Monitored by temperature instrument continuously. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously during operation. [N.J.A.C. 7:27-22.16(o)]	None.
24	The flare shall emit no more than 100 parts per million by volume, dry basis (ppmvd) of CO corrected to 7% oxygen averaged over any consecutive 60 minute period. For oxygen concentrations in the flue gas greater than 14%, the maximum allowable concentration of CO is 50 ppmvd uncorrected for oxygen. [N.J.A.C. 7:27-22.16(e)]	Monitored by stack emission testing prior to permit expiration date. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by stack test results prior to permit expiration date. [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). [N.J.A.C. 7:27-22.16(o)]
25	The flare shall emit no more than 50 ppmvd of total hydrocarbons (THC) expressed as equivalent methane (CH4) and including CH4 corrected to 7% oxygen or 5% of the maximum THC entering the flare, averaged over any consecutive 60 minute period. For oxygen concentrations in the flue gas greater than 14%, the maximum allowable concentration of THC is 25 ppmvd uncorrected for oxygen, when the concentration limit applies. [N.J.A.C. 7:27-22.16(e)]	Monitored by stack emission testing once initially and prior to permit expiration date. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by stack test results once initially and prior to permit expiration date. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule a protocol to conduct stack test shall be submitted to the Bureau of Technical Services. (See OS Summary for details). [N.J.A.C. 7:27-22.16(o)]
26	There shall be an automatic shut-off of the flow of gas to the flare when flare combustion ceases and cannot be restarted by the automatic re-light system. [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
27	The flare shall have a smokeless design and the following: (i) Monitoring of the flare pilot burners by a thermocouple or any equivalent device to ensure the presence of a pilot flame (ii) An automatic system or equivalent to re-light the flare pilots to maintain flare combustion. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
28	Any excursion from operating levels specified in this permit shall be recorded. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
29	All records required to be kept as part of this permit shall be entered in a permanently bound log book or in readily accessible computer memories or by a method acceptable to the Regional Enforcement Office, maintained on site for a minimum of five years after collection and shall be made available to the representatives of the Department upon request. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
30	The applicant shall report any non-compliance of operating requirements directly related to emission limits or any non-compliance of conditions specified in this permit, in writing, within three working days after the event, to the Regional Enforcement Office, unless otherwise specified in writing by the Regional Enforcement Office. [N.J.A.C. 7:27-22.16(e)]	None.	None.	Submit a report: Upon occurrence of event , report non-compliance in writing, within three working days after the event, to: Southern Regional Office, NJDEP, 2 Riverside Drive, One Port Center, Suite 201, Camden, New Jersey, 08103. [N.J.A.C. 7:27-22.16(o)]
31	Propane gas shall be used for ignition and as a pilot fuel. [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
32	The flare shall be designed to reduce the concentration of NMOC by 98% (weight-percent) or 20 ppmvd as hexane @ 3% O2. The flare shall be installed, operated and maintained in accordance with the specifications provided by the manufacturer. [N.J.A.C. 7:27-22.16(a)]	Monitored by stack emission testing prior to permit expiration date. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by stack test results prior to permit expiration date. [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). [N.J.A.C. 7:27-22.16(o)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U3 Emergency Diesel Generators, CAT C32 10.1 MMBtu/hr, 1000 kW, each**
Operating Scenario: **OS Summary**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Summary of Applicable Federal Regulations: *NSPS Subpart A - General Provisions *NSPS Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines *NESHAP Subpart A - General Provisions *NESHAP Subpart ZZZZ - Major HAPs Sources for Stationary Reciprocating Internal Combustion Engines [40 CFR Federal Rules Summary]	None.	None.	None.
2	Opacity <= 20 % , exclusive of visible condensed water vapor, except for a period of not longer than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5]	None.	None.	None.
3	Particulate emission limit from the combustion of fuel based on the rated heat input of source. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
4	Sulfur Content in Fuel <= 15 ppmw (0.0015% by weight). [N.J.A.C. 7:27-9.2(b)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	None.
5	The owner or operator shall keep records of engine manufacturer data for the life of the equipment showing the rated Maximum Gross Heat Input, Maximum Rated Power Output, Model Year and Displacement. [N.J.A.C. 7:27-22.16(a)]	None.	Other: The owner or operator shall keep records of engine manufacturer data for the life of the equipment showing the rated Maximum Gross Heat Input, Maximum Rated Power Output, Model Year and Displacement. [N.J.A.C. 7:27-22.16(o)].	None.
6	Generator fuel limited to No. 2 fuel oil, diesel fuel or kerosene. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
7	Each emergency generator shall be located at the facility and produce mechanical or thermal energy, or electrical power exclusively for use at the facility. This emergency generator shall be operated only: 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 when the power disruption resulted from construction, repair, or maintenance activity (CRM) at the facility. Operation of the emergency generator under construction, repair, or maintenance activity is limited to 30 days in any calendar year; or 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. In addition, the owner or operator shall monitor, once per month, the total operating time from the generator's hour meter; hours of operation for emergency use; hours of operation for testing and maintenance; hours of operation during power disruption resulted from construction, repair and maintenance activity (CRM) at the facility; and the total fuel usage calculated by the following: Fuel Usage (Gallons per month) = (Hours of operation per month) x (Maximum emergency generator fuel usage rate in gallons per hour). Hours of operation for emergency use (per month) = (The monthly total operating time from the generator's hour meter) - (The monthly total operating time for testing and maintenance) – (The monthly total operating time due to power disruption resulted from construction, repair, or maintenance activity not counting operation during the performance of normal testing and maintenance procedures). [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Record the following information: 1. Once per month, the total operating time from the generator's hour meter, the fuel usage (gallons per month), and the monthly hours of operation for emergency use and during power disruption from CRM. Document if the emergency use was due to internal or external loss of primary source of energy, or due to a fire or flood. If internal loss at the facility, document the emergency and/or CRM that occurred, the damages to the primary source of energy and the amount of time needed for repairs. 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 shall maintain the above records for at least 5 years after the record was made and shall make the records readily available to the Department or the	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	readily available to the Department or the EPA. [N.J.A.C. 7:27-22.16(o)] and. [N.J.A.C. 7:27-19.11]	Submittal/Action Requirement
8	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 after emergency or after power disruption resulted from construction, repair, or maintenance activity. Operation of the emergency generator during construction, repair, or maintenance (CRM) activity shall be limited to no more than 30 days of operation per calendar year. If the primary energy or power source is under the control of the owner or operator of the emergency generator, the owner or operator shall make a reasonable, timely effort to repair the primary energy or power source. [N.J.A.C. 7:27-19.2(d)]	None.	None.	None.
9	Hours of Operation <= 100 hr/yr. The Permittee shall comply with the above hour per year limit for maintenance and testing purpose 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)]	Other: The Permittee shall maintain on site and record in a logbook or computer data system the total operating time from the generator's hour meter. Once per month. [N.J.A.C. 7:27-19.11].	None.
10	CO <= 0.08 tons/yr for E7, E8, E9 and E10 combined. [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
11	NOx (Total) <= 3.2 tons/yr for E7, E8, E9 and E10 combined. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
12	TSP <= 0.01 tons/yr for E7, E8, E9 and E10 combined. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
13	PM-10 (Total) <= 0.01 tons/yr for E7, E8, E9 and E10 combined. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
14	PM-2.5 (Total) <= 0.01 tons/yr for E7, E8, E9 and E10 combined. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
15	Methane <= 0.01 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
16	Greenhouse gases as CO2e <= 329.3 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
17	All requests, reports, applications, submittals, and other communications to the Administrator pursuant to Part 60 shall be submitted in duplicate to the Regional Office of US Environmental Protection Agency. Submit information to: Director, Division of Enforcement & Compliance Assistance, US EPA, Region 2, 290 Broadway, New York, NY 10007-1866 [NSPS Subpart A - General Provisions]. [40 CFR 60.4(a)]	None.	None.	Submit a report: As per the approved schedule to EPA Region 2 as required by 40 CFR 60. [40 CFR 60.4(a)]
18	Copies of all information submitted to EPA pursuant to 40 CFR Part 60, must also be submitted to the appropriate Regional Enforcement Office of NJDEP [NSPS Subpart A - General Provisions]. [40 CFR 60.4(b)]	None.	None.	Submit a report: As per the approved schedule to the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60. [40 CFR 60.4(b)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
19	No owner or operator subject to NSPS standards in Part 60, shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere [NSPS Subpart A - General Provisions]. [40 CFR 60.12]	None.	None.	None.
20	The owner or operator shall notify the Administrator of the proposed replacement of components [NSPS Subpart A - General Provisions]. [40 CFR 60.15]	None.	None.	Submit notification: At a common schedule agreed upon by the operator and the Administrator. The notification shall include information listed under 40 CFR Part 60.15(d). The notification shall be postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced. [40 CFR 60.15(d)]
21	Changes in time periods for submittal of information and postmark deadlines set forth in this subpart, may be made only upon approval by the Administrator and shall follow procedures outlined in 40 CFR Part 60.19 [NSPS Subpart A - General Provisions]. [40 CFR 60.19]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
22	The owner or operator of a 2007 model year and later emergency generator with a displacement of < 10 liters per cylinder and a maximum engine power >= 37 kW (HP >= 50) and no greater than 3,000HP (<= 2,237 kW) must comply with the certification emissions standards in 40 CFR 89.112 and smoke standards in 40 CFR 89.113 for the same model year and maximum engine power as follows: NMHC + NOx <= 6.4 g/kW-hr, CO <= 3.5 g/kW-hr, PM <= 0.2 g/kW-hr, weighted average emissions as defined in 40 CFR 89.404. [NSPS Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines]. [40 CFR 60.4205(b)]	None.	Other: The owner or operator of a 2007 model year or later engine must keep manufacturer certification showing compliance with the applicable emission standards, for the same model year and maximum engine power. [40 CFR 60.4211].	None.
23	Owners and operators of stationary CI internal combustion engines must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4204 and 60.4205 over the entire life of the engine. [NSPS Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines]. [40 CFR 60.4206]	None.	Other: The owner or operator shall keep the manufacturer's emission-related written instructions over the entire life of the engine. [40 CFR 60.4206].	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
24	Beginning October 1, 2010, the CI internal combustion engines with a displacement of less than 30 liters per cylinder subject to NSPS IIII (manufactured after April 1, 2006 or modified or reconstructed after July 11, 2005) that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) that contains the following per gallon standards: 15 ppm (0.0015 percent) maximum sulfur content and either a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. [NSPS Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines]. [40 CFR 60.4207(b)]	Monitored by review of fuel delivery records once per bulk fuel shipment. For each diesel delivery received, the owner or operator shall review written documentation of the delivery to ensure the maximum allowable fuel oil sulfur content and either a minimum cetane index or a maximum aromatic content is not being exceeded. Such written documentation can include, but is not limited to: bill of lading, delivery invoice, certificate of analysis. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by invoices / bills of lading / certificate of analysis once per bulk fuel shipment. The owner or operator shall keep records of fuel showing oil sulfur content and either a minimum cetane index or a maximum aromatic content for each delivery received. All records must be maintained for a minimum of 2 years following the date of such records per 40 CFR 60.7(f). [N.J.A.C. 7:27-22.16(o)]	None.
25	The owner or operator that must comply with the emission standards specified in NSPS IIII must operate and maintain the stationary CI internal combustion engine and control device, except as permitted under 40 CFR 60.4211(g), according to the manufacturer's emission-related written instructions. In addition, owners and operators may only change emission-related settings that are permitted by the manufacturer. The owner or operator must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as applicable [NSPS Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines]. [40 CFR 60.4211(a)]	None.	Other: The owner or operator shall keep the manufacturer's emission-related written instructions. [40 CFR 60.4211].	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
26	The owner or operator of a 2007 model year and later stationary CI internal combustion engine complying with the emission standards specified in 40 CFR 60.4205(b), must comply by purchasing an engine certified to the emission standards in 40 CFR 60.4205(b), for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications [NSPS Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines]. [40 CFR 60.4211(c)]	None.	Other: The owner or operator must keep documentation from the manufacturer, for the life of the equipment, that the engine is certified to meet the emission standards as applicable, for the same model year and maximum engine power. If the engine and control device is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, or emission-related settings are changed in a way that is not permitted by the manufacturer, the owner or operator must demonstrate compliance as prescribed at 40 CFR 60.4211(g)(1), (2) or (3) depending on the maximum engine power. [40 CFR 60.4211(c)].	None.
27	Emergency generators may be operated for the purpose of maintenance checks and readiness testing limited to 100 hours per year, provided that those tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Anyone may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year [NSPS Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines]. [40 CFR 60.4211(f)]	Monitored by hour/time monitor continuously. The owner or operator of an emergency stationary internal combustion engine that does not meet the standards applicable to non-emergency engines must install a non-resettable hour meter prior to startup of the engine. [40 CFR 60.4209(a)]	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator must record the time of operation of the emergency engine and the reason the engine was in operation during that time. Starting with the model year 2011, 2012, or 2013, depending on the maximum engine power as provided in Table 5 in NSPS IIII, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter if the emergency engine does not meet the standards in 40 CFR 60.4204, applicable to non-emergency engines, in the applicable model year. The emergency engine must comply with the labeling requirements in 40 CFR 60.4210(f). [40 CFR 60.4214(b)]	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
28	At all times the owner or operator must operate and maintain a RICE, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. [NESHAP Subpart ZZZZ - Major HAPs Sources for Stationary Reciprocating Internal Combustion Engines] [40 CFR 63.6605(b)]	None.	None.	None.
29	Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. [NESHAP Subpart ZZZZ - Major HAPs Sources for Stationary Reciprocating Internal Combustion Engines] [40 CFR 63.6640(f)(2i)]	None.	None.	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
30	Submit an Initial Notification in accordance with 40 CFR 63.6590(b). The notification should include the information in 40 CFR 63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion. (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions). [NESHAP Subpart ZZZZ - Major HAPs Sources for Stationary Reciprocating Internal Combustion Engines]. [40 CFR 63.6640(e)] and [40 CFR 63.6645(f)]	None.	None.	Submit notification: Once initially. The owner or operator shall submit an Initial Notification within 120 calendar days after the source becomes subject to MACT Subpart ZZZZ for major HAP emissions to Director, Air and Waste Management Division, USEPA Region 2, 290 Broadway, New York, NY 10007-1866, and copy to appropriate Regional Enforcement Office of NJDEP. The Notification shall include information required in 40 CFR 63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion. The notification shall include the following information: (i) The name and address of the owner or operator; (ii) The address (i.e., physical location) of the affected source; (iii) An identification of the relevant standard, or other requirement, that is the basis of the notification and the source's compliance date; (iv) A brief description of the nature, size, design, and method of operation of the source and an identification of the types of emission points within the affected source subject to the relevant standard and types of hazardous air pollutants emitted; (v) A statement of whether the affected source is a major source or an area source; and (vi) a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion. [40 CFR 63.6645(c)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U3 Emergency Diesel Generators, CAT C32 10.1 MMBtu/hr, 1000 kW, each**

Operating Scenario: **OS1 CAT C32 1000kW, 10.1 MMBtu/hr, Emergency Diesel Generator 1, OS2 CAT C32 1000kW, 10.1 MMBtu/hr, Emergency Diesel Generator 2, OS3 CAT C32 1000kW, 10.1 MMBtu/hr, Emergency Diesel Generator 3, OS4 CAT C32 1000kW, 10.1 MMBtu/hr, Emergency Diesel Generator 4**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Particulate Emissions <= 6 lb/hr. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
2	NOx (Total) <= 16.02 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	CO <= 0.42 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	TSP <= 0.06 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	PM-10 (Total) <= 0.06 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	PM-2.5 (Total) <= 0.06 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Profile (General)

Facility Name (AIMS): Cumberland County Gas to Energy Plant **Facility ID (AIMS):** 75697

Street Address: 169 JESSE BRG RD
DEERFIELD TOWNSHIP
DEERFIELD TOWNSHIP
MILLVILLE, NJ 08332

Mailing Address: EPP RENEWABLE ENERGY LLC
1605 N CEDAR CREST BLVD
STE 509
ALLENTOWN, PA 18104

State Plane Coordinates:

X-Coordinate:	1,878,200
Y-Coordinate:	226,350
Units:	Feet
Datum:	NAD27
Source Org.:	Submittal Document
Source Type:	Hard Copy Map

County: Cumberland

Location Description: Plant located on property that is leased from the Cumberland County Improvement Authority t the Cumberland County Solid Waste Facility

Industry:

Primary SIC:	4953
Secondary SIC:	
NAICS:	221118

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: Air Permit Information Contact

Organization: EPP Renewable Energy, LLC
Org. Type: LLC
Name: Thomas W. Judge
NJ EIN: 47450892300
Title: Sr. Vice President-Operations
Phone: (484) 788-3788 x
Fax: ( ) - x
Other: ( ) - x
Type:
Email: tjudge@eppservice.com
Mailing Address: 1605 N. Cedar Crest Blvd.
Suite 509
Suite 509
Allentown, PA 18104

Contact Type: Consultant

Organization: Trinity Consultants, Inc.
Org. Type: Corporation
Name: Carla Adduci
NJ EIN:
Title: Managing Consultant
Phone: (609) 318-5500 x1758
Fax: ( ) - x
Other: (407) 913-6547 x
Type: Mobile
Email: cadduci@trinityconsultants.com
Mailing Address: 15 Roszel Road
Suite 105
Princeton, NJ 08540

Contact Type: Emission Statements

Organization: EPP Renewable Energy, LLC
Org. Type: LLC
Name: Robert Sorensen
NJ EIN: 47450892300
Title: Asset Manager
Phone: (610) 557-1879 x
Fax: (610) 557-1891 x
Other: ( ) - x
Type:
Email: rsorensen@eppservie.com
Mailing Address: 1605 N. Cedar Crest Blvd.
Suite 509
Suite 509
Allentown, PA 18104

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: Fees/Billing Contact

Organization: EPP Renewable Energy, LLC
Org. Type: LLC
Name: Robert Sorensen
NJ EIN: 47450892300
Title: Asset Manager
Phone: (610) 557-1879 x
Fax: (610) 557-1891 x
Other: ( ) - x
Type:
Email: rsorensen@eppservie.com

Mailing Address:
1605 N. Cedar Crest Blvd.
Suite 509
Suite 509
Allentown, PA 18104

Contact Type: Operator

Organization: EPP Renewable Energy, LLC
Org. Type: LLC
Name: Thomas W. Judge
NJ EIN: 47450892300
Title: Sr. Vice President-Operations
Phone: (484) 788-3788 x
Fax: ( ) - x
Other: ( ) - x
Type:
Email: tjudge@eppservice.com

Mailing Address:
1605 N. Cedar Crest Blvd.
Suite 509
Suite 509
Allentown, PA 18104

Contact Type: Owner (Current Primary)

Organization: EPP Renewable Energy, LLC
Org. Type: LLC
Name: Thomas W. Judge
NJ EIN: 47450892300
Title: Sr. Vice President-Operations
Phone: (484) 788-3788 x
Fax: (610) 557-1891 x
Other: ( ) - x
Type:
Email: tjudge@eppservice.com

Mailing Address:
1605 N. Cedar Crest Blvd.
Suite 509
Suite 509
Allentown, PA 18104

CUMBERLAND CNTY GAS TO ENERGY PLANT (75697)
BOP210003

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: **Responsible Official**

Organization: EPP Renewable Energy, LLC
Org. Type: LLC

Name: Thomas W. Judge
NJ EIN: 47450892300

Title: Sr. Vice President-Operations

Phone: (484) 788-3788 x
Fax: (610) 557-1891 x
Other: ( ) - x
Type:
Email: tjudge@eppservice.com

Mailing Address:
1605 N. Cedar Crest Blvd.
Suite 509
Suite 509
Allentown, PA 18104

CUMBERLAND CNTY GAS TO ENERGY PLANT (75697) Date: 08/04/2022
BOP210003

New Jersey Department of Environmental Protection
Non-Source Fugitive Emissions

FG NJID	Description of Activity Causing Emission	Location Description	Reasonable Estimate of Emissions (tpy)								
			VOC (Total)	NOx	CO	SO	TSP (Total)	PM-10	Pb	HAPS (Total)	Other (Total)
FG1											
Total			0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00000000	0.000

CUMBERLAND CNTY GAS TO ENERGY PLANT (75697)
BOP210003

Date: 8/4/2022

New Jersey Department of Environmental Protection
Insignificant Source Emissions

IS NJID	Source/Group Description	Equipment Type	Location Description	Estimate of Emissions (tpy)								
				VOC (Total)	NOx	CO	SO	TSP	PM-10	Pb	HAPS (Total)	Other (Total)
IS1												
Total				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00000000	0.000

CUMBERLAND CNTY GAS TO ENERGY PLANT (75697) Date: 8/4/2022

BOP210003

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	ENG001	Landfill Gas Fired CAT G3520C Engine, 16.54 MMBtu/hr, 2233 BHP, 1600 kW, 4-stroke Spark	Stationary Reciprocating Engine	PCP070001	8/1/2008	No		
E2	ENG002	Landfill Gas Fired CAT G3520C Engine, 16.54 MMBtu/hr, 2233 BHP, 1600 kW, 4-stroke Spark	Stationary Reciprocating Engine	PCP070001	8/1/2008	No		
E3	ENG003	Landfill Gas Fired CAT G3520C Engine, 16.54 MMBtu/hr, 2233 BHP, 1600 kW, 4-stroke Spark	Stationary Reciprocating Engine	PCP070001	8/1/2008	No		
E4	CSF001	Candlestick Flare, Perennial Energy, 15.2 MMBtu/hr, 500 scfm	Fuel Combustion Equipment (Other)	PCP070001	8/1/2008	No		
E5	ECF001	Enclosed Flare, 64 MMBtu/hr, 2,000 scfm.	Fuel Combustion Equipment (Other)	75510BOP050001	3/25/1999	No		
E6	EVAP	Leachate Evaporator	Other Equipment	BOP190001	4/1/2020	No		
E7	EDG001	CAT C32 1000kW, 10.1 MMBtu/hr, Emergency Diesel Generator	Emergency Generator	BOP190001	4/1/2020	No		
E8	EDG002	CAT C32 1000kW, 10.1 MMBtu/hr, Emergency Diesel Generator	Emergency Generator	BOP190001	4/1/2020	No		
E9	EDG003	CAT C32 1000kW, 10.1 MMBtu/hr, Emergency Diesel Generator	Emergency Generator	BOP190001	4/1/2020	No		

CUMBERLAND CNTY GAS TO ENERGY PLANT (75697) Date: 8/4/2022

BOP210003

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
E10	EDG004	CAT C32 1000kW, 10.1 MMBtu/hr, Emergency Diesel Generator	Emergency Generator	BOP190001		No		

75697 CUMBERLAND CNTY GAS TO ENERGY PLANT BOP210003 E1 (Stationary Reciprocating Engine)
Print Date: 8/4/2022

Make:	Caterpillar
Manufacturer:	Caterpillar
Model:	G3520C
Maximum Rated Gross Heat Input (MMBtu/hr):	16.54
Class:	Lean Burn
Description:	
Duty:	Load Following
Description:	
Minimum Load Range (%):	50
Maximum Load Range (%):	100
Stroke:	4-stroke
Power Output (BHP):	2233
Electric Output(KW):	1600
Compression Ratio:	11.3
Ignition Type:	Spark
Description:	
Engine Speed (RPM):	1200
Engine Exhaust Temperature (°F):	898
Air to Fuel Ratio at Peak Load:	
Ratio Basis:	
Lambda Factor (scfm/scfm):	1.71
Brake Specific Fuel Consumption at Peak Load (Btu/BHP-hr):	6509
Output Type:	Cogeneration
Heat to Power Ratio:	
Is the Engine Using a Turbocharger?	○ Yes ● No
Is the Engine Using an Aftercooler?	○ Yes ● No

Is the Engine Using (check all that apply):

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

Description:

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

Comments: Subject to NSPS JJJJ

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

75697 CUMBERLAND CNTY GAS TO ENERGY PLANT BOP210003 E3 (Stationary Reciprocating Engine)
Print Date: 8/4/2022

Make:	Caterpillar
Manufacturer:	Caterpillar
Model:	G3520C
Maximum Rated Gross Heat Input (MMBtu/hr):	16.54
Class:	Lean Burn
Description:	
Duty:	Load Following
Description:	
Minimum Load Range (%):	50
Maximum Load Range (%):	100
Stroke:	4-stroke
Power Output (BHP):	2233
Electric Output(KW):	1600
Compression Ratio:	11.3
Ignition Type:	Spark
Description:	
Engine Speed (RPM):	1200
Engine Exhaust Temperature (°F):	898
Air to Fuel Ratio at Peak Load:	
Ratio Basis:	
Lambda Factor (scfm/scfm):	1.71
Brake Specific Fuel Consumption at Peak Load (Btu/BHP-hr):	6509
Output Type:	Cogeneration
Heat to Power Ratio:	
Is the Engine Using a Turbocharger?	○ Yes ● No
Is the Engine Using an Aftercooler?	○ Yes ● No

Is the Engine Using (check all that apply):

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

Description:

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

Comments: Subject to NSPS JJJJ

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

75697 CUMBERLAND CNTY GAS TO ENERGY PLANT BOP210003 E4 (Fuel Combustion Equipment (Other))
Print Date: 8/4/2022

Make:	Perennial Energy
Manufacturer:	Perennial Energy
Model:	6 In. Candlestick Flare
Maximum rated Gross Heat Input (MMBtu/hr-HHV):	15.20
Type of Heat Exchange:	Direct
Equipment Type Description:	Candlestick (Open) Flare

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: The proposed project includes a candlestick flare that will burn excess or trim landfill gas that is not burned in the engines or the enclosed landfill gas flare. The current design calls for installation of a Perennial Energy landfill gas candlestick flare with a six inch flare size. The proposed candlestick flare will be able to burn up to 500 scfm of landfill gas. The flare is considered an open flare and contains a thermocouple flame recognition system for maximum reliability.

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

75697 CUMBERLAND CNTY GAS TO ENERGY PLANT BOP210003 E2 (Stationary Reciprocating Engine)
Print Date: 8/4/2022

Make:	Caterpillar
Manufacturer:	Caterpillar
Model:	G3520C
Maximum Rated Gross Heat Input (MMBtu/hr):	16.54
Class:	Lean Burn
Description:	
Duty:	Load Following
Description:	
Minimum Load Range (%):	50
Maximum Load Range (%):	100
Stroke:	4-stroke
Power Output (BHP):	2233
Electric Output(KW):	1600
Compression Ratio:	11.3
Ignition Type:	Spark
Description:	
Engine Speed (RPM):	1200
Engine Exhaust Temperature (°F):	898
Air to Fuel Ratio at Peak Load:	
Ratio Basis:	
Lambda Factor (scfm/scfm):	1.71
Brake Specific Fuel Consumption at Peak Load (Btu/BHP-hr):	6509
Output Type:	Cogeneration
Heat to Power Ratio:	
Is the Engine Using a Turbocharger?	○ Yes ● No
Is the Engine Using an Aftercooler?	○ Yes ● No

Is the Engine Using (check all that apply):

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

Description:

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: Engine # 2 build date is September 13, 2006. Not subject to NSPS JJJJ

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

75697 CUMBERLAND CNTY GAS TO ENERGY PLANT BOP210003 E5 (Fuel Combustion Equipment (Other))
Print Date: 8/4/2022

Make:	LFG&E Products or Equivalent
Manufacturer:	Landfill Gas & Environmental Products
Model:	GF2500
Maximum rated Gross Heat Input (MMBtu/hr-HHV):	64.00
Type of Heat Exchange:	Direct
Equipment Type Description:	Existing Enclosed Landfill Gas Flare, & was transferred from CCIA to CCGEP.

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:

The proposed project involves taking over ownership and operational control of the existing enclosed landfill gas flare that presently operates as part of the Cumberland County Solid Waste Facility under Title V Permit No. 75510-BOP050001. The enclosed landfill gas flare will burn landfill gas that is not combusted in the engines or candlestick flare.

The existing maximum heat input of the enclosed landfill gas flare is 75 mmBtu/hr which was based on a maximum landfill gas throughput of 2,500 scfm. This application reflects limiting the maximum heat input to 70 mmBtu/hr which is based on a maximum landfill gas throughput of 2,300 scfm and a heat content of the landfill gas of 506 Btu/scf. As such, lb/hr emission limits are proposed to be reduced based on scaling the lb/hr emission limits in Cumberland County Solid Waste Facility's Title V Permit No. 75510-BOP050001 (June 2005 Modification).

Enclosed flare burner was replaced, and was downgraded from 2,300 scfm to 2,000 scfm. Accordigly the maximum heat input was revised from 70 MMBtu/hr to 64 MMBtu/hr, and heat content of the landfill gas of 506 Btu/scf based on 2,300 scfm was reduced to 456 Btu/scf based on 2,000 scfm. . . (August 2011)

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

75697 CUMBERLAND CNTY GAS TO ENERGY PLANT BOP210003 E6 (Other Equipment)
Print Date: 8/4/2022

Make:	Heartland Type 3 Concentrator
Manufacturer:	Heartland Water Technology
Model:	
Equipment Type:	30,000 gpd leachate evaporator/concentrator
Capacity:	1,250.00
Units:	gal/hr
Description:	

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

- ○ Yes
- ● No

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

- ○ Yes
- ● No

Comments:

75697 CUMBERLAND CNTY GAS TO ENERGY PLANT BOP210003 E7 (Emergency Generator)
Print Date: 8/4/2022

Make:	Caterpillar
Manufacturer:	Caterpillar
Model:	C32
Maximum rated Gross Heat Input (MMBtu/hr-HHV):	10.10
Will the equipment be used in excess of 500 hours per year?	○ Yes ● No
Have you attached a diagram showing the location and/or the configuration of this equipment?	○ Yes ● No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	● Yes ○ No
Comments:	Lean Burn, 4-Stroke, 1474 BHP, 1000 kW, Compression Ration - 15, Ignition Type: Compression, Engine Speed: 1800 RPM, Output Type: Electric

75697 CUMBERLAND CNTY GAS TO ENERGY PLANT BOP210003 E8 (Emergency Generator)
Print Date: 8/4/2022

Make:	Caterpillar
Manufacturer:	Caterpillar
Model:	C32
Maximum rated Gross Heat Input (MMBtu/hr-HHV):	10.10
Will the equipment be used in excess of 500 hours per year?	○ Yes ● No
Have you attached a diagram showing the location and/or the configuration of this equipment?	○ Yes ● No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	● Yes ○ No
Comments:	Lean Burn, 4-Stroke, 1474 BHP, 1000 kW, Compression Ration - 15, Ignition Type: Compression, Engine Speed: 1800 RPM, Output Type: Electric

75697 CUMBERLAND CNTY GAS TO ENERGY PLANT BOP210003 E9 (Emergency Generator)
Print Date: 8/4/2022

Make:	Caterpillar
Manufacturer:	Caterpillar
Model:	C32
Maximum rated Gross Heat Input (MMBtu/hr-HHV):	10.10
Will the equipment be used in excess of 500 hours per year?	○ Yes ● No
Have you attached a diagram showing the location and/or the configuration of this equipment?	○ Yes ● No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	● Yes ○ No
Comments:	Lean Burn, 4-Stroke, 1474 BHP, 1000 kW, Compression Ration - 15, Ignition Type: Compression, Engine Speed: 1800 RPM, Output Type: Electric

75697 CUMBERLAND CNTY GAS TO ENERGY PLANT BOP210003 E10 (Emergency Generator)
Print Date: 8/4/2022

Make:	Caterpillar
Manufacturer:	Caterpillar
Model:	C32
Maximum rated Gross Heat Input (MMBtu/hr-HHV):	10.10
Will the equipment be used in excess of 500 hours per year?	○ Yes ● No
Have you attached a diagram showing the location and/or the configuration of this equipment?	○ Yes ● No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	● Yes ○ No
Comments:	Lean Burn, 4-Stroke, 1474 BHP, 1000 kW, Compression Ration - 15, Ignition Type: Compression, Engine Speed: 1800 RPM, Output Type: Electric

CUMBERLAND CNTY GAS TO ENERGY PLANT (75697) Date: 8/4/2022

BOP210003

New Jersey Department of Environmental Protection
Control Device Inventory

CD NJID	Facility's Designation	Description	CD Type	Install Date	Grand-Fathered	Last Mod. (Since 1968)	CD Set ID
CD1	CandleFlare	Candlestick (Open) Flare	Flare	8/1/2008	No		
CD2	EncloseFlare	Enclosed Flare	Flare	3/25/1999	No		
CD3	MistEliminat	Mist Eliminator	Particulate Filter (Other)	4/1/2020	No		

75697 CUMBERLAND CNTY GAS TO ENERGY PLANT BOP210003 CD2 (Flare)
Print Date: 8/4/2022

Make:	Lindfill Gas & Environmental Products (LFG&E)
Manufacturer:	Lindfill Gas & Environmental Products (LFG&E)
Model:	GF2500
Type:	Enclosed
Minimum Residence Time (sec):	0.50
Maximum Rated Gross Heat Input (MMBtu/hr):	64.00
Auxilliary Fuel:	Propane
Description:	
Method of Pilot Flame Monitoring:	thermocouple
Monitoring Location:	Local
Automatic Gas Shutoff After Loss of Flame?	○ Yes ● No
Automatic Reignition After Loss of Flame?	○ Yes ● No
Minimum Gas Flow Rate (acfm):	500.0
Minimum Operating Temperature (ºF):	1,500.0
Minimum Heat Content at Burner Tip (Btu/ft³):	
Flare Operation Type:	Continuous
Does Flare have smokeless design?	○ Yes ● No
Is Flare equipped with flame retainer?	○ Yes ● No
Is Flare equipped with flame arrestor?	○ Yes ● No
Is Flare equipped with LEL monitor?	○ Yes ● No
Flare Stack Diameter (inches):	120.00
Lower Heat Content of source gas (BTU/scf):	456
Lower Heat Content of Supplemental Fuel (BTU/scf):	
Destruction and Removal Efficency (%):	98.00
How was Efficency determined?	existing permit condition
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?	○ Yes ○ No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	○ Yes ● No

○ Yes ● No

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

● Yes ○ No

Comments:

Existing source of CCIA (Landfill) transferred to Cumberland County Gas to Energy Plant (CCGEP).

The existing maximum heat input of the enclosed landfill gas flare is 75 mmBtu/hr which was based on a maximum landfill gas throughput of 2,500 scfm. This application reflects limiting the maximum heat input to 70 mmBtu/hr which is based on a maximum landfill gas throughput of 2,300 scfm and a heat content of the landfill gas of 506 Btu/scf. As such, lb/hr emission limits are proposed to be reduced based on scaling the lb/hr emission limits in Cumberland County Solid Waste Facility's Title V Permit No. 75510-BOP050001 (June 2005 Modification).

Enclosed flare burner was replaced, and was downgraded from 2,300 scfm to 2,000 scfm reflects limiting the maximum heat input from 70 MMBtu/hr to 64 MMBtu/hr which is based on a maximum landfill gas throughput of 2,000 scfm. (August 2011)

75697 CUMBERLAND CNTY GAS TO ENERGY PLANT BOP210003 CD3 (Particulate Filter (Other))
Print Date: 8/4/2022

Make:	DM20
Manufacturer:	Heartland Technology
Model:	DM20
Filter Description:	The mist eliminators are a horizontal cross flow vane-type and are designed to remove >99% of system
Total Filter Area (ft^2):	
Maximum Design Temperature Capability (°F):	180.0
Maximum Design Air Flow Rate (acfm):	30,000.0
Maximum Air Flow Rate to Filter Area Ratio:	
Minimum Operating Pressure Drop (in. H2O):	0.02
Maximum Operating Pressure Drop (in. H2O):	5.00
Maximum Inlet Temperature (°F):	170.0
Maximum Operating Exhuast Gas Flow Rate (acfm):	
Method for Determining When Filter Replacement is Required:	Continuous monitoring of differential pressure and temperature across device.
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	4
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:	Leachate evaporator shall be equipped with mist eliminators. The mist eliminators are a horizontal cross flow vane-type and are designed to remove >99% of system particulate matter. Heartland considers the mist eliminator as inherent to the evaporation process.

75697 CUMBERLAND CNTY GAS TO ENERGY PLANT BOP210003 CD3 (Particulate Filter (Other))
Print Date: 8/4/2022

75697 CUMBERLAND CNTY GAS TO ENERGY PLANT BOP210003 CD1 (Flare)
Print Date: 8/4/2022

Make:	Perennial Energy or equivalent
Manufacturer:	Perennial Energy or equivalent
Model:	6 in. Candlestick Flare or equivalent
Type:	Open
Minimum Residence Time (sec):	
Maximum Rated Gross Heat Input (MMBtu/hr):	15.20
Auxilliary Fuel:	Propane
Description:	
Method of Pilot Flame Monitoring:	thermocouple
Monitoring Location:	
Automatic Gas Shutoff After Loss of Flame?	○ Yes ● No
Automatic Reignition After Loss of Flame?	○ Yes ● No
Minimum Gas Flow Rate (acfm):	
Minimum Operating Temperature (ºF):	
Minimum Heat Content at Burner Tip (Btu/ft³):	
Flare Operation Type:	Continuous
Does Flare have smokeless design?	○ Yes ● No
Is Flare equipped with flame retainer?	○ Yes ● No
Is Flare equipped with flame arrestor?	○ Yes ● No
Is Flare equipped with LEL monitor?	○ Yes ● No
Flare Stack Diameter (inches):	6.38
Lower Heat Content of source gas (BTU/scf):	456
Lower Heat Content of Supplemental Fuel (BTU/scf):	
Destruction and Removal Efficency (%):	
How was Efficency determined?	
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	
Have you attached data from recent performance testing?	○ Yes ○ No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	● Yes ○ No

● Yes ○ No

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

● Yes ○ No

Comments:

CUMBERLAND CNTY GAS TO ENERGY PLANT (75697)
BOP210003

Date: 8/4/2022

New Jersey Department of Environmental Protection
Emission Points Inventory

PT NJID	Facility's Designation	Description	Config.	Equiv. Diam. (in.)	Height (ft.)	Dist. to Prop. Line (ft)	Exhaust Temp. (deg. F)			Exhaust Vol. (acfm)			Discharge Direction	PT Set ID
							Avg.	Min.	Max.	Avg.	Min.	Max.		
PT4	CSF001 Flare	Emission Point for Candlestick Flare	Round	6	19	220	1,050.0	0.0	1,600.0		0.0	36,476.0	Up	
PT5	EXF001 Flare	Emission Point for Enclosed Flare	Round	108	34	220		0.0	1,500.0		0.0	167,791.0	Up	
PT6	EVAP Stack	Exhaust Stack for LFG Engines & Evaporator	Round	24	46	220	160.0	150.0	170.0	15,354.0	7,677.0	23,031.0	Up	
PT7	EVAP Bypass1	Bypass Stack for LFG Engine 1	Round	16	46	220	898.0	844.0	1,047.0	12,476.0	6,363.8	13,224.6	Up	
PT8	EDG1 Stack	Exhaust Stack for EDG1	Round	8	11	220	691.9	491.3	892.5	5,052.6	1,989.9	8,115.3	Up	
PT9	EDG2 Stack	Exhaust Stack for EDG2	Round	8	11	220	691.9	491.3	892.5	5,052.6	1,989.9	8,115.3	Up	
PT10	EDG3 Stack	Exhaust Stack for EDG3	Round	8	11	220	691.9	491.3	892.5	5,052.6	1,989.9	8,115.3	Up	
PT11	EDG4 Stack	Exhaust Stack for EDG4	Round	8	11	220	691.9	491.3	892.5	5,052.6	1,989.9	8,115.3	Up	
PT12	EVAP Bypass2	Bypass Stack for LFG Engine 2	Round	16	46	220	898.0	844.0	1,047.0	12,476.0	6,363.8	13,224.6	Up	
PT13	EVAP Bypass3	Bypass Stack for LFG Engine 3	Round	16	46	220	898.0	844.0	1,047.0	12,476.0	6,363.8	13,224.6	Up	

CUMBERLAND CNTY GAS TO ENERGY PLANT (75697)
BOP210003

Date: 8/4/2022

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

U 1 ENGINES+EVAP Three LFG CAT G3520C Engines (16.54 MMBtu/hr each, 2233 BHP, 1600kW) and 30,000 gallons/day Leachate Evaporator

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	ENG001	Landfill Gas Fired CAT G3250C Engine #1	Normal - Steady State	E1		PT6 PT7	2-01-008-02	0.0	8,760.0	F	6,363.8	13,224.6	844.0	1,047.0
OS2	ENG002	Landfill Gas Fired CAT G3250C Engine #2	Normal - Steady State	E2		PT6 PT7	2-01-008-02	0.0	8,760.0	F	6,363.8	13,224.6	844.0	1,047.0
OS3	ENG003	Landfill Gas Fired CAT G3250C Engine #3	Normal - Steady State	E3		PT6 PT7	2-01-008-02	0.0	8,760.0	F	6,363.8	13,224.6	844.0	1,047.0
OS4	ENGINES+EVA	Three LFG engines and leachate evaporator	Normal - Steady State	E6	CD3 (P)	PT6	2-01-008-02	0.0	8,760.0		7,677.0	23,031.0	150.0	170.0

U 2 Flares Candlestick Flare, 15.2 MMBtu/hr, 500 scfm and Enclosed Flare, 64 MMBtu/hr , 2,000 scfm

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	CSF001	Candlestick Flare	Normal - Steady State	E4	CD1 (P)	PT4	5-02-006-02	0.0	8,760.0	G	0.0	36,476.0	0.0	1,600.0
OS2	ECF001	Enclosed Flare	Normal - Steady State	E5	CD2 (P)	PT5	5-02-006-02	0.0	8,760.0	F	0.0	167,791.0	0.0	1,500.0

CUMBERLAND CNTY GAS TO ENERGY PLANT (75697)
BOP210003

Date: 8/4/2022

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

U 3 EDGs Emergency Diesel Generators, CAT C32 10.1 MMBtu/hr, 1000 kW, each

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours		VOC Range	Flow (acfm)		Temp. (deg F)	
								Min.	Max.		Min.	Max.	Min.	Max.
OS1	EDG001	CAT C32 1000kW, 10.1 MMBtu/hr, Emergency Diesel Generator 1	Standby	E7		PT8	2-01-001-02		100.0		1,989.9	8,115.3	491.3	892.5
OS2	EDG002	CAT C32 1000kW, 10.1 MMBtu/hr, Emergency Diesel Generator 2	Standby	E8		PT9	2-01-001-02		100.0		1,989.9	8,115.3	491.3	892.5
OS3	EDG003	CAT C32 1000kW, 10.1 MMBtu/hr, Emergency Diesel Generator 3	Standby	E9		PT10	2-01-001-02		100.0		1,989.9	8,115.3	491.3	892.5
OS4	EDG004	CAT C32 1000kW, 10.1 MMBtu/hr, Emergency Diesel Generator 4	Standby	E10		PT11	2-01-001-02		100.0		1,989.9	8,115.3	491.3	892.5

Date: 8/4/2022

New Jersey Department of Environmental Protection
Subject Item Group Inventory

Group NJID: GR1 ENG/CSF/ECF

Members:

Type	ID	OS	Step
U	U 1	OS0 Summary	
U	U 2	OS0 Summary	

Formal Reason(s) for Group/Cap:

☑ Other

Other (explain): Annual Emission Cap from 3 Engines, 1 Candlestick Flare and 1 Enclosed Flare

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

Operating Circumstances: