



Forsyth County

Office of Environmental Assistance and Protection

March 12, 2013

Mr. Alexander Lacsamana, PE
Project Manager, Closed Sites
Waste Management – Piedmont Landfill & Recycling Center
1000 Parkwood Circle, Suite 700
Atlanta, GA 30339

**RE: Air Quality Permit No. 00914-TV-5
Piedmont Landfill & Recycling Center**

Dear Mr. Lacsamana:

It has come to our attention that the incorrect renewal date is listed on your permit, 00914-TV-4. The correct renewal date is September 11, 2014. Accordingly we are forwarding herewith Air Quality Permit No. 00914-TV-5 including the correct renewal date for Piedmont Landfill & Recycling Center, Kernersville, North Carolina. In addition, the address on the cover page and in condition 2.3 has been changed to reflect our new address. No other changes have been made to your air quality permit.

This permit authorizes the operation, as outlined in Part I, "Air Quality Title V Operating Permit," of the emission source(s) and associated air pollution control device(s) specified therein. Additionally, any emissions activities determined from your air quality permit application as meeting the definition for insignificant activities contained in Rule 3Q .0503 have been listed for informational purposes as an "ATTACHMENT."

As the designated responsible official it is your responsibility to review, understand, and abide by all of the terms and conditions of the attached permit. It is also your responsibility to ensure that any person who operates any emission source and associated air pollution control device subject to any term or condition of the attached permit reviews, understands, and abides by the condition(s) of the attached permit that are applicable to that particular emission source. A copy of this permit must be kept at the facility site.

Please review the permit and contact me if you require or wish to discuss the permit conditions. Any formal appeal of this permit must be made within 30 days and in accordance with the requirements specified in Rule 3A .0205 of the Forsyth County Administrative Code. Request for corrections or administrative changes can be made at any time by contacting me directly. Please note that this document is an official copy of the Air Quality permit providing Departmental approval as of the effective date. No other copies or drafts of this permit can be relied upon to provide any Department approval or other rights.



Mr. Alexander Lacsamana, PE
March 12, 2013
Page 2

Operating permit fee invoices will be sent to you in January of each year. After receiving the invoice you have thirty days to send the payment to the Department. If you have any questions regarding this permit revision, please call me at (336) 703-2430 or write to the letterhead address.

Sincerely,

A handwritten signature in cursive script that reads "Peter B. Lloyd". The signature is written in black ink and is positioned above the typed name and title.

Peter B. Lloyd, Ph.D., PE
Program Manager
Compliance Assistance & Permitting Division
(lloydpb@forsyth.cc)

Enclosures

County of Forsyth



OFFICE OF ENVIRONMENTAL ASSISTANCE AND PROTECTION

FORSYTH COUNTY GOVERNMENT CENTER
201 NORTH CHESTNUT STREET
WINSTON-SALEM, NC 27101-4120

PERMIT TO CONSTRUCT/OPERATE
AIR QUALITY CONTROL
CLASS: Title V

PERMIT NUMBER	EFFECTIVE DATE	EXPIRATION DATE	RENEWAL DUE
00914-TV-5	March 12, 2013	June 11, 2015	September 11, 2014

Facility Name: Piedmont Landfill and Recycling Center
Mailing Address: 1000 Parkwood Circle
Suite 700
City, State, ZIP Code: Atlanta, GA 30339

Facility Location: 9900 Freeman Road
City: Kernersville

In accordance with the provisions set forth in the Forsyth County Air Quality Technical Code and Chapter 3 of the Forsyth County Code, "Air Quality Control," the facility identified above is authorized to operate, as outlined in Part I, "Air Quality Title V Operation Permit," and to construct and operate, as outlined in Part II, "Air Quality Construction and Operation Permit," the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations contained within this permit.

The permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete air quality permit application to the Forsyth County Environmental Affairs Department and received an Air Quality Permit, except as provided in this permit or in accordance with applicable provisions of the Forsyth County Air Quality Technical Code.

This permit supersedes all previous permits issued to the permittee by the Forsyth County Environmental Affairs Department.

Peter B. Lloyd, Ph.D., P.E., Manager
Compliance Assistance & Permitting Division

DATE:

3/12/2013

CONTENTS

PART 1 AIR QUALITY OPERATING PERMIT

SECTION 1:

PERMITTED EQUIPMENT AND ASSOCIATED AIR POLLUTION CONTROL DEVICES	Page 6
---	--------

SECTION 2:

FACILITY GENERAL ADMINISTRATIVE CONDITIONS	Page 6
2.1 General Provisions	Page 6
2.2 Permit Availability	Page 7
2.3 Submissions	Page 7
2.4 Severability Clause	Page 7
2.5 Duty to Comply	Page 7
2.6 Need to Halt or Reduce Activity Not a Defense	Page 7
2.7 Permit Shield	Page 7
2.8 Circumvention	Page 8
2.9 Good Air Pollution Control Practice	Page 8
2.10 Reporting Requirements for Excess Emissions and Permit Deviations	Page 8
2.11 Emergency Provisions	Page 9
2.12 Permit Fees	Page 10
2.13 Annual Emission Inventory Requirements	Page 10
2.14 Compliance Certification	Page 10
2.15 Retention of Records	Page 11
2.16 NESHAP - Recordkeeping Requirement for Applicability Determinations Circumvention	Page 11
2.17 Duty to Provide Information	Page 11
2.18 Duty to Supplement or Correct Application	Page 11
2.19 Certification by Responsible Official	Page 11
2.20 Inspection and Entry	Page 12
2.21 Averaging Times Circumvention	Page 12
2.22 Compliance Testing	Page 12
2.23 General Emissions Testing and Reporting Requirements	Page 12
2.24 Termination, Modification, and Revocation of the Permit	Page 13
2.25 Permit Reopenings, Modifications, Revocations and Reissuances, or Terminations	Page 14
2.26 Permit Renewal	Page 14
2.27 Reopening for Cause	Page 14
2.28 Construction and Operation Permits	Page 14
2.29 Permit Modifications	Page 14
2.30 Insignificant Activities	Page 15
2.31 Standard Application Form and Required Information	Page 15
2.32 Property Rights	Page 15
2.33 Refrigerant Requirements (Stratospheric Ozone and Climate Protection)	Page 15
2.34 Prevention of Accidental Releases - Section 112(r)	Page 15
2.35 Title IV Allowances	Page 15
2.36 Air Pollution Alert, Warning or Emergency	Page 16
2.37 Registration of Air Pollution Sources	Page 16

2.38	Ambient Air Quality Standards	Page 16
2.39	Odor	Page 16
2.40	Fugitive Dust Control Requirement	Page 16

New Source Performance Standards (NSPS) General Conditions.....		Page 16
2.41	NSPS - General Provisions	Page 17
2.42	NSPS - Good Air Pollution Control Practice.....	Page 17
2.43	NSPS - Circumvention	Page 17
2.44	NSPS - Maintain Records - Startup/Shutdown/Malfunction.....	Page 17
2.45	NSPS - Files Available for Inspection.....	Page 17
2.46	NSPS - Performance Testing Facilities Provided by Permittee.....	Page 17

National Emission Standards for Hazardous Air Pollutants for Source Categories (NESHAP) General Conditions		Page 18
2.47	NESHAP - General Provisions	Page 18
2.48	NESHAP - Startup Shutdown and Malfunction Plan	Page 18
2.49	NESHAP - Good Air Pollution Control Practice.....	Page 18
2.50	NESHAP - Circumvention	Page 18
2.51	NESHAP - Maintain Records.....	Page 18
2.52	NESHAP - Files Available for Inspection.....	Page 19
2.53	NESHAP - Performance Testing Facilities Provided by Permittee.....	Page 19

SECTION 3:

SPECIFIC LIMITATIONS AND CONDITIONS..... Page 20

3.1	Municipal Solid Waste Landfill (ES-1), Controlled By Gas Collection System and Treatment System for Subsequent Sale (CD-1) or Utility Flare (CD-2).....	Page 20
A.	NSPS: Municipal Solid Waste Landfills	Page 20
1.	Standard.....	Page 20
2.	Installation of collection and control system.....	Page 21
3.	Specifications for active collection systems.....	Page 21
4.	Removal of collection and control system.....	Page 23
5.	Operational standards	Page 23
6.	Compliance provisions	Page 24
7.	Monitoring requirements and corrective action.....	Page 25
8.	Recordkeeping Requirements.....	Page 26
9.	Reporting requirements	Page 28
B.	NESHAP: Municipal Solid Waste Landfills	Page 29
1.	Standard.....	Page 29
2.	Monitoring requirements and corrective action.....	Page 30
3.	Recordkeeping Requirements.....	Page 30
4.	Reporting requirements	Page 30
3.2	Utility Flare (ID CD-2)	Page 31
A.	NSPS: Municipal Solid Waste Landfills	Page 31
1.	Standard.....	Page 31
2.	Monitoring.....	Page 32

	3.	Recordkeeping.....	Page 32
	4.	Reporting.....	Page 33
B.		Sulfur Dioxide Emissions from Combustion Sources.....	Page 33
	1.	Standard.....	Page 33
	2.	Monitoring, Recordkeeping, Reporting.....	Page 33
3.3		Landfill Gas Treatment System (ID CD-04).....	Page 33
A.		NSPS: Municipal Solid Waste Landfills.....	Page 33
	1.	Standard.....	Page 33
	2.	Monitoring and Recordkeeping.....	Page 34
	3.	Reporting.....	Page 34
B.		NESHAP: Municipal Solid Waste Landfills.....	Page 34
	1.	Standard.....	Page 34
	2.	Monitoring and Recordkeeping.....	Page 35
	3.	Reporting.....	Page 35
3.4		Engines/Generators Combustion Landfill Gas (ID ES-04, ES-05, ES-06).....	Page 36
A.		NSPS: Stationary Spark Engine Internal Combustion Engines.....	Page 36
	1.	Standard.....	Page 37
	2.	Performance Testing.....	Page 37
	3.	Recordkeeping.....	Page 37
	4.	Reporting.....	Page 38
B.		NESHAP: Stationary Reciprocating Internal Combustion Engines.....	Page 38
C.		Sulfur Dioxide Emissions from Combustion Sources.....	Page 38
	1.	Standard.....	Page 38
	2.	Monitoring, Recordkeeping, Reporting.....	Page 38
D.		Control of Visible Emissions.....	Page 38
	1.	Standard.....	Page 38
	2.	Monitoring.....	Page 38
E.		Best Available Control Technology.....	Page 38
	1.	Standard.....	Page 38
	2.	Performance Testing.....	Page 39
	3.	Monitoring and Recordkeeping.....	Page 39

SECTION 4:

		CONTROL OF TOXIC AIR POLLUTANTS (Local Enforcement only).....	Page 41
A.		Toxic Air Pollutants- General.....	Page 41
B.		De minimis Limits.....	Page 41
C.		Dispersion Modeling Emission Limits (2010 Model).....	Page 42
D.		Modifications.....	Page 42
E.		Toxic Air Pollutant Recordkeeping Requirements.....	Page 42
F.		Toxic Air Pollutant Reporting Requirements.....	Page 42

PART 2
AIR QUALITY CONSTRUCTION PERMIT

SECTION 1:
PERMITTED EMISSION SOURCE(S) AND ASSOCIATED AIR POLLUTION CONTROL DEVICE(S)
..... Page 43

SECTION 2:
GENERAL CONDITIONS..... Page 43

- A. General Provisions..... Page 43
- B. Submissions (Reports, Test and Monitoring Data, Notifications, Renewal Page 43
- C. .Part II Renewal Request Page 44
- D. Annual Fee Payment..... Page 44
- E. Reporting Requirements Page 44
- F. Termination, Modification, and Revocation of the Permit Page 44
- G. Inspection and Entry Page 44

SECTION 3:
SPECIFIC LIMITATIONS AND CONDITIONS..... Page 45

- A. Engines/Generators Addition Page 45

SECTION 1
PERMITTED EQUIPMENT
AND ASSOCIATED AIR POLLUTION CONTROL DEVICE(S)

Emission Source ID #	Emission Source Description	Control Device ID #	Control Device Description
ES-01 ES-03	Municipal Solid Waste Disposal Area and Utility Flare burning landfill gas	CD-01 CD-03 CD-04	Landfill gas collection system (CD-01); 1333 scfm flare (CD-03); Treatment System for processing landfill gas for subsequent use (CD-04)
ES-04 ES-05 ES-06	3 Caterpillar G35161LE Engine/generators fueled by landfill gas (1,148 IIP each)		

SECTION 2
FACILITY GENERAL ADMINISTRATIVE CONDITIONS

- 2.1 **General Provisions** [Subchapter 3A and Rule 3Q .0508(i)(16)]
- A. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in Subchapters 3D and 3Q of the Forsyth County Air Quality Technical Code (FCAQTC).
 - B. The terms, conditions, requirements, limitations and restrictions set forth in this permit are binding and enforceable pursuant to Subchapter 3A of the Forsyth County Air Quality Ordinance (FCAQO), including assessment of civil and/or criminal penalties. This permit is valid only for the specific processes and operations applied for and indicated in the air quality permit application. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
 - C. This permit is not a waiver of or approval of any other permits that may be required for other aspects of the facility which are not addressed in this permit.
 - D. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore. This permit does not allow the permittee to cause pollution in contravention of local laws or rules, unless specifically authorized by an order from the Director, or to cause pollution in contravention of state laws or rules.
 - E. Terms and conditions contained herein shall be enforceable by the Department, the U.S. EPA and citizens of the United States as defined in the federal Clean Air Act, except those identified as **Locally Enforceable Only** requirements which are enforceable by the Department.

- F. Any stationary installation which will reasonably be expected to be a source of pollution shall not be operated, maintained or modified without the appropriate and valid permits issued by the Department, unless the source is exempted by rule. The Department may issue a permit only after it receives reasonable assurance that the installation will not cause pollution in violation of any of the applicable requirements.
- G. In addition to the authority found in Rules 3D. 0501 and 3Q .0508(i)(16), any deviation from the monitoring provisions of this permit may result in a request by the Department to submit data on rates of emissions in order to demonstrate compliance with any applicable regulation.

2.2 **Permit Availability** [Rules 3Q .0507(k), .0508(i)(16), .0508(i)(9) and .0] 10]

The permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of the Department or the U.S. EPA upon request.

2.3 **Submissions** [Rules 3Q .0507(c), .0508(i)(16) and .0104]

All documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required to be sent to this department by this permit shall be submitted to the Forsyth County Office of Environmental Assistance and Protection, 201 N. Chestnut Street, Winston-Salem, NC 27101.

2.4 **Severability Clause** [Rule 3Q .0508(i)(2)]

The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any specific circumstance, is challenged, the application of the provision in question to other circumstances, as well as the remainder of this permit's provisions, shall not be affected.

2.5 **Duty to Comply** [Rule 3Q .0508(i)(3)]

The permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

2.6 **Need to Halt or Reduce Activity Not a Defense** [Rule 3Q .0508(i)(4)]

It shall not be a defense for a 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 this permit.

2.7 **Permit Shield** [Rule 3Q .0512(a)]

A. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.

B. A permit shield shall not alter or affect:

- 1. the power of the Forsyth County Board of Commissioners, Director, or Governor under NCGS 143-215.3(a)(12) or the U.S. EPA under Section 303 of the federal Clean Air Act;

2. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
3. the applicable requirements under Title IV of the Clean Air Act; or
4. the ability of the Director or the U.S. EPA under Section 114 of the federal Clean Air Act to obtain information to determine compliance of the facility with its permit.

C. A permit shield shall not apply to any change made at a facility that does not require a permit or to any permit revision made under Rule 3Q .0523.

D. A permit shield shall not extend to minor permit modifications made under Rule 3Q .0515.

2.8 **Circumvention** [Rules 3D .0502 and 3Q .0508(i)(16)]

No person shall circumvent any permitted air pollution control device, or allow the emissions of regulated air pollutants without the applicable air pollution control device operating properly. Unless otherwise specified by this permit, no permitted emission source may be operated without the concurrent operation of its associated air pollution control device(s) and appurtenances.

2.9 **Good Air Pollution Control Practice** [Rules 3D .0502 and 3Q .0508(i)(16)]

At all times, the equipment listed in *Section 1* shall be operated and maintained in a manner consistent with the design and emissions control as applied for in the application.

2.10 **Reporting Requirements for Excess Emissions and Permit Deviations** [Rules 3D .0535(f), 3Q .0508(f)(2), 3Q .0508(i)(16) and 3Q .0508(g)]

“Excess Emissions” - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections 3D .0500, .0900, .1200 or .1400; or by a permit condition; or that exceeds a **Locally Enforceable Only** emission limit established in a permit issued under Section 3Q .0700. (*Note: This definition applies where the NSPS does not further define excess emissions for an affected NSPS emissions source.*)

“Deviation” - means any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions.

A. Sources subject to Rules 3D .0524, .1110 or .1111
Excess Emissions and Permit Deviations

1. If the source specific NSPS (3D .0524) or NESHAP (3D .1110 or .1111) defines “excess emissions”, these shall be reported as prescribed in 3D .0524, .1110 or .1111.
2. If the source specific NSPS (3D .0524) or NESHAP (3D .1110 or .1111) does NOT define “excess emissions”, the permittee shall report excess emissions as deviations from permit requirements as prescribed in paragraph 3, below.
3. In addition to any specific NSPS or NESHAP reporting requirements the permittee shall upon becoming aware:
 - a. report to the Department any deviations from permit requirements by the next business day, unless an alternative reporting schedule is specifically provided in the permit, and

- b. report in writing to the Department all deviations from permit requirements or any excess emissions within two business days, unless an alternative reporting schedule is specifically provided in the permit. The written report shall include the probable cause of such deviations and any corrective actions or preventative actions taken. Reports of all deviations from permit requirements shall be certified by a responsible official.

B. Sources NOT subject to Rules 3D .0524, 1110 or .1111

1. Excess Emissions Greater than Four Hours in Duration [3D .0535(f)]

The permittee shall report excess emissions greater than four hours in duration as prescribed in Rule 3D .0535(f) including, but not limited to the following:

- a. Notify the Department of any such occurrence by 9:00 a.m. Eastern time of the Department's next business day of becoming aware of the occurrence as described in Rule 3D .0535(f)(1);
- b. Notify the Department immediately when corrective measures have been accomplished; and
- c. Submit, if requested, to the Department within 15 days after the request, a written report as described in Rule 3D .0535(f)(3).

2. Excess Emissions Less than Four Hours in Duration and Deviations [3Q .0508(f)]

The permittee shall report excess emissions less than four hours in duration and deviations from permit requirements as follows:

- a. Report to the Department any excess emissions less than four hours in duration and any deviations from permit requirements quarterly, unless an alternative reporting schedule is specifically provided in the permit; and
- b. Report in writing to the Department any excess emission less than four hours in duration or any deviations from permit requirements quarterly, unless an alternative reporting schedule is specifically provided in the permit. The written report shall include the probable cause of such excess emissions and deviations and any corrective actions or preventative actions taken. All reports of excess emissions and deviations from permit requirements shall be certified by a responsible official.

C. Other Requirements under Rule 3D .0535 (Rule 3D .0535(g) is *Locally Enforceable Only.*)

The permittee shall comply with all other requirements contained in Rule 3D .0535.

2.11 **Emergency Provisions** <40 CFR 70.6(g)>

The permittee shall be subject to the following provision with regard to emergencies:

- A. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.
- B. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in paragraph C below are met.

- C. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs, or other relevant evidence that include information as follows:
1. an emergency occurred and that the permittee can identify the cause(s) of the emergency;
 2. the permitted facility was at the time being properly operated;
 3. during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the standards, or other requirements in the permit; and
 4. the permittee submitted notice of the emergency to the Department within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, and steps taken to mitigate emissions, and corrective actions taken.
- D. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
- E. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

2.12 **Permit Fees** [Rules 3Q .0206(b), .0508(i)(10)) and .0519(a)(4)]

If, within 30 days after being billed, the permittee fails to pay an annual permit fee required under Subchapter 3Q .0200 of the FCAQTC, the Director may initiate action to terminate this permit under Rule 3Q .0519 of the FCAQTC.

2.13 **Annual Emission Inventory Requirements** [Rule 3Q .0207]

The permittee shall report to the Director by June 30th of each year the actual emissions of each air pollutant listed in Rule 3Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form(s) as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

2.14 **Compliance Certification** <40 CFR 70.6(c)> [Rules 3Q .0508(n) and .0508((i)(16))]

By March 1st unless another date is established by the Director, the permittee shall submit to the Department and the U.S. EPA (**U.S. EPA Region 4, Air Enforcement Section, Mail Code: 4APT-AEEB, 61 Forsyth Street, S.W., Atlanta, GA 30303**) a compliance certification by a responsible official with all terms and conditions in the permit, including emissions limitations, standards, or work practices. The compliance certification shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the federal Clean Air Act. The compliance certification shall include all of the following (provided that the identification of applicable information may cross-reference the permit or previous reports as applicable):

- A. the identification of each term or condition of the permit that is the basis of the certification;
- B. the identification of the method(s) or other means used by the permittee for determining the compliance status with each term and condition during the certification period, and whether such methods or other means provide continuous or intermittent data. Such methods and other means shall include at a minimum, the methods and means required under 40 CFR 70.6(a)(3). If necessary, the permittee also shall identify any other material information that must be included in the certification to comply with Section 113(c)(2) of the federal Clean Air Act, which prohibits knowingly making a false certification or omitting material information;

- C. the status of compliance with the terms and conditions of the permit for the period covered by the certification, based on the method or means designated in paragraph B above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 occurred; and
- D. such other facts as the permitting authority may require to determine the compliance status of the source.

2.15 **Retention of Records** [Rule 3Q .0508(f)]

The permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit.

2.16 **NESHAP - Recordkeeping Requirement for Applicability Determinations** <40 CFR 63.10(b)(3)> [Rule 3D .1111]

If the permittee determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants is not subject to a relevant standard or other requirement established under 40 CFR Part 63, the permittee shall keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source. This record shall include all of the information required under 40 CFR 63.10(b)(3).

2.17 **Duty to Provide Information** [Rule 3Q .0508(i)(9)]

- A. The permittee shall furnish to the Department, in a timely manner, any reasonable information that the Director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
- B. The permittee shall furnish the Department copies of records required to be kept by the permit when such copies are requested by the Director.

2.18 **Duty to Supplement or Correct Application** [Rule 3Q .0507(f)]

The permittee, upon becoming aware that any relevant facts were omitted from the application or that incorrect information was submitted with the application, shall promptly submit such supplementary facts or corrected information to the Department. The permittee shall also provide additional information necessary to address any requirements that become applicable to the source after the date a complete application was submitted but prior to release of the draft permit.

2.19 **Certification by Responsible Official** [Rule 3Q .0520]

A responsible official (as defined in 40 CFR 70.2) shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that, based on information and belief formed after reasonable inquiry, the statement and information in the document are true, accurate, and complete.

2.20 **Inspection and Entry** [Rule 3Q .0508(l)]

- A. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized representatives of the Department to perform the following:
1. enter upon the permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
 2. have access to and copy, at reasonable times, any records that must be kept under conditions of the permit;
 3. inspect, at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
 4. sample or monitor substances or parameters, at reasonable times and using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements.

Nothing in this condition shall limit the ability of the U.S. EPA to inspect or enter the premises of the permittee under Section 114 or other provisions of the Clean Air Act.

- B. No person shall obstruct, hamper or interfere with any such authorized representative while in the process of carrying out his official duties.

2.21 **Averaging Times** <40 CFR 70.6(a)(3)> [Rule 3Q .0508(f)]

Unless otherwise specified in *Section 3* of this permit for a specific emission standard or limitation, the applicable averaging period for determining compliance with an emission standard or limitation during compliance testing shall be based on the applicable U.S. EPA reference test method.

2.22 **Compliance Testing** [Rule 3D .0501(b)]

When requested by the Department for determining compliance with emission control standards, means shall be provided by the owner to allow periodic sampling and measuring of emission rates, including necessary ports, scaffolding and power to operate sampling equipment; and upon the request of the Department, data on rates of emissions shall be supplied by the permittee.

2.23 **General Emissions Testing and Reporting Requirements** [Rule 3Q .0508(i)(16)]

When required to conduct emissions testing under the terms of the permit:

- A. The permittee shall submit a sampling protocol to the Department at least 30 days prior to the scheduled test date.
- B. The permittee shall notify the Department of the specific test dates at least 10 days prior to the scheduled test date in order to afford the Department the opportunity to have an observer on-site during the sampling program.
- C. During all sampling periods, the permittee shall operate the emission source(s) under operating conditions approved by the Director or his delegate.

- D. The permittee shall submit one copy of the test report to the Department. The test report shall contain at a minimum the following information:
1. a certification of the test results by sampling team leader and facility representative;
 2. a summary of emissions results and text detailing the objectives of the testing program, the applicable state and federal regulations, and conclusions about the testing and compliance status of the emission source(s) as appropriate;
 3. a detailed description of the tested emission source(s) and sampling location(s) process flow diagrams, engineering drawings, and sampling location schematics as necessary;
 4. all field, analytical and calibration data necessary to verify that the testing was performed as specified in the applicable test methods;
 5. example calculations for at least one test run using equations in the applicable test methods and all test results including intermediate parameter calculations; and
 6. documentation of facility operating conditions during all testing periods and an explanation relating these operating conditions to maximum normal operation. If necessary, provide historical process data to verify maximum normal operation.
- E. The Department will review emission test results with respect to the specified testing objectives as proposed by the permittee and approved by the Department.

2.24 **Termination, Modification, and Revocation of the Permit** [Rule 3Q .0519]

The Director may terminate, modify, or revoke and reissue this permit if:

- A. the information contained in the application or presented in support thereof is determined to be incorrect;
- B. the conditions under which the permit or permit renewal was granted have changed;
- C. violations of conditions contained in the permit have occurred;
- D. the permit holder fails to pay fees required under Section 3Q .0200 within 30 days after being billed;
- E. the permittee refuses to allow the Director or his authorized representative upon presentation of credentials:
 1. to enter, at reasonable times and using reasonable safety practices, the permittee's premises in which a source of emissions is located or in which any records are required to be kept under terms and conditions of the permit;
 2. to have access, at reasonable times, to any copy or records required to be kept under terms and conditions of the permit;
 3. to inspect, at reasonable times and using reasonable safety practices, any source of emissions, control equipment, and any monitoring equipment or method required in the permit; or
 4. to sample, at reasonable times and using reasonable safety practices, any emission sources at the facility;
- F. the U.S. EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or

G. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of Chapter 3 of the Forsyth County Code.

2.25 Permit Reopenings, Modifications, Revocations and Reissuances, or Terminations [Rule 3Q .0508(i)(5)]

The Director may reopen, modify, revoke and reissue, or terminate this permit for reasons specified in Rule 3Q .0517 or .0519. The filing of a request by the permittee for a permit revision, revocation and reissuance, or termination, notification of planned changes, or anticipated noncompliance does not stay any permit condition in this permit.

2.26 Permit Renewal [Rule 3Q .0508(e) and Rule 3Q .0513]

This permit is issued for a term not to exceed five years. Permits issued under Title IV of the Clean Air Act shall be issued for a fixed period of five years. This permit shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete renewal application is submitted at least nine months before the date of permit expiration. If the permittee or applicant has complied with Rule 3Q .0512(b)(1), this permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of this permit shall remain in effect until the renewal permit has been issued or denied.

2.27 Reopening for Cause [Rules 3Q .0517 and .0508(g)]

This permit shall be reopened and revised in accordance with Rule 3Q .0517 prior to its expiration date, for any of the following reasons:

- A. Additional applicable requirements become applicable to the facility with remaining permit term of three or more years.
- B. Additional requirements, including excess emissions requirements, become applicable to this source under Title IV of the Clean Air Act. Excess emissions offset plans for this source shall become part of this permit upon approval by the U.S. EPA.
- C. The Director or the U.S. EPA finds that a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.
- D. The Director or the U.S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

2.28 Construction and Operation Permits [Sections 3Q .0100 and .0300]

A construction and operating permit shall be obtained by the permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of Sections 3Q .0100 and .0300.

2.29 Permit Modifications [Rules 3Q .0514, .0515, .0516, .0517, .0523 and .0524]

- A. Permit modifications may be subject to the requirements of Rules 3Q .0514, .0515, .0516 and .0524.
- B. Changes made pursuant to Rules 3Q .0523(a) and (b) do not require a permit modification.
- C. The permittee shall submit an application for reopening for cause in accordance with Rule 3Q .0517 if notified by the Department.

D. To the extent that emissions trading is allowed under FCAQTC Subchapter 3D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to Rule 3Q .0523(c).

2.30 **Insignificant Activities** [Rules 3Q .0503 and .0508(i)(15)]

Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The permittee shall have available at the facility at all times and made available to an authorized representative of the Department upon request, documentation, including calculations if necessary, to demonstrate that an emission source or activity is insignificant.

2.31 **Standard Application Form and Required Information** [Rules 3Q .0505 and .0507]

The permittee shall submit applications and required information in accordance with the provision of Rules 3Q .0505 and .0507.

2.32 **Property Rights** [Rule 3Q .0508(i)(8)]

This permit does not convey any property rights of any sort, or any exclusive privileges.

2.33 **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [Rule 3Q .0508(b)]

A. If the permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR 82 Subpart A, Appendices A and B, the permittee shall service, repair, and maintain such equipment according to the work practices and personnel certification requirements, and the permittee shall use certified recycling and recovery equipment specified in 40 CFR 82 Subpart F.

B. The permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR 82 Subpart F.

C. The permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the U.S. EPA or its designee as required.

2.34 **Prevention of Accidental Releases - Section 112(r)** [Rule 3Q .0508(h)]

If the permittee is required to develop and register a risk management plan pursuant to Section 112(r) of the federal Clean Air Act, then the permittee is required to register this plan in accordance with 40 CFR Part 68.

2.35 **Title IV Allowances** [Rule 3Q .0508(i)(1)]

The facility's emissions are prohibited from exceeding any allowances that the facility lawfully holds under Title IV of the Clean Air Act. This permit shall not limit the number of allowances held by the permittee, but the permittee may not use allowances as a defense to noncompliance with any other applicable requirement.

2.36 **Air Pollution Alert, Warning or Emergency** [Section 3D .0300]

Should the Director of the Department declare an Air Pollution Alert, Warning or Emergency, the permittee will be required to operate in accordance with the permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in Section 3D .0300.

2.37 **Registration of Air Pollution Sources** [Rule 3D .0202]

The Director of the Department may require the permittee to register a source of air pollution. If the permittee is required to register a source of air pollution, this registration and required information shall be in accordance with Rule 3D .0202(b).

2.38 **Ambient Air Quality Standards** [Rule 3D .0501(e)]

In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in Rule 3D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

2.39 **Odor** [Rule 3D .0522] *Locally Enforceable Only*

The permittee shall not cause or permit the emission of odors beyond the facility's property lines which are harmful, irritating or which unreasonably interfere with the use and enjoyment of any person's properties or living conditions, or any public properties or facilities. Such odors are prohibited by Rule 3D .0522. No violation shall be cited, provided that the best practical treatment, maintenance, and control of odor(s) currently available is used. This requirement does not apply to normal agricultural practices, nor to accidental emissions of odors which are not normally produced during routine operations and activities as determined by the Director.

2.40 **Fugitive Dust Control Requirement** [Rule 3D .0540]

The permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR 60, Appendix A), the owner or operator may be required to submit and implement a fugitive dust control plan as described in 3D . 540(f).

New Source Performance Standards (NSPS) General Conditions - [Rule 3D .0524]

Following are conditions found in the 40 CFR Part 60 NSPS General Provisions. The following conditions only apply to sources subject to a relevant standard of a subpart of 40 CFR Part 60 except when otherwise specified in a particular subpart or in a relevant standard.

2.41 **NSPS - General Provisions** <40 CFR 60 Subpart A> [Rule 3D .0524]

The permittee shall comply with all applicable requirements specified in the general provisions of the New Source Performance Standards (40 CFR 60 Subpart A) including but not limited to requirements concerning notifications, testing, monitoring, recordkeeping, modifications and reconstruction.

2.42 **NSPS - Good Air Pollution Control Practice** <40 CFR 60.11(d)> [Rule 3D .0524]

At all times, including periods of startup, shutdown, and malfunction, the permittee 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.

2.43 **NSPS - Circumvention** <40 CFR 60.12> [Rule 3D .0524]

Permittee shall not 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 under 40 CFR 60. 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.

2.44 **NSPS - Maintain Records - Startup/Shutdown/Malfunction** <40 CFR 60.7(b)> [Rule 3D .0524]

The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

2.45 **NSPS - Files Available for Inspection** <40 CFR 60.7(f)> [Rule 3D .0524]

The permittee shall maintain a file of all measurements, including, if applicable, performance test measurements and all other information required in 40 CFR 60. This file shall be kept in a permanent form suitable for inspection and shall be retained at least two years following the date of such measurements, maintenance, reports, and records.

2.46 **NSPS - Performance Testing Facilities Provided by Permittee** <40 CFR 60.8(e)> [Rule 3D .0524]

For any performance testing, the permittee shall provide, or cause to be provided, performance testing facilities as follows:

- A. Sampling ports adequate for the applicable test methods. This includes:
 - 1. constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and
 - 2. providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.
- B. Safe sampling platform(s) with safe access.
- C. Utilities for sampling and testing equipment.

- D. Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For purposes of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply.

National Emission Standards for Hazardous Air Pollutants for Source Categories (NESHAP) General Conditions - [Rule 3D .1111]

Following are conditions found in the 40 CFR Part 63 NESHAP General Provisions. The following conditions only apply to sources subject to a relevant standard of a subpart of 40 CFR Part 63 except when otherwise specified in a particular subpart or in a relevant standard.

2.47 NESHAP - General Provisions <40 CFR 63 Subpart A> [Rule 3D .1111]

The permittee shall comply with all applicable requirements specified in the general provisions of the National Emission Standards for Hazardous Air Pollutants for Source Categories (40 CFR 63 Subpart A) including but not limited to requirements concerning notifications, testing, monitoring, recordkeeping, modifications, construction, and reconstruction.

2.48 NESHAP - Startup Shutdown and Malfunction Plan <40 CFR 63.6(e)(3)> [Rule 3D .1111]

The permittee shall develop and implement a written startup, shutdown and malfunction plan in accordance with the requirements in 40 CFR 63.6(e)(3).

2.49 NESHAP - Good Air Pollution Control Practice <40 CFR 63.6(e) and 63.8(c)> [Rule 3D .1111]

At all times, including periods of startup, shutdown, and malfunction, the permittee shall maintain and operate any affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions at least to the levels required by all relevant standards. The permittee also shall maintain and operate each continuous monitoring system (CMS) as specified in 40 CFR 63.8, or in a relevant standard, and in a manner consistent with good air pollution control practices. Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan required by 40 CFR 63.6(e)(3). Operation and maintenance requirements established pursuant to Section 112 of the Clean Air Act are enforceable independent of emissions limitations or other requirements in relevant standards.

2.50 NESHAP - Circumvention <40 CFR 63.4(b)> [Rule 3D .1111]

The permittee shall not 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, the use of gaseous diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere, the use of diluents to achieve compliance with a relevant standard for visible emissions, and the fragmentation of an operation such that the operation avoids regulation by a relevant standard.

2.51 NESHAP - Maintain Records <40 CFR 63.10(b)(2)> [Rule 3D .1111]

For affected sources, the permittee shall maintain relevant records of:

- A. the occurrence and duration of each startup, shutdown, or malfunction of operation;
- B. the occurrence and duration of each malfunction of the air pollution control equipment;
- C. all maintenance performed on the air pollution control equipment;

- D. actions taken during periods of startup, shutdown, and malfunction;
- E. all information necessary to demonstrate compliance with the affected source's startup, shutdown, and malfunction plan when all actions taken are consistent with the procedures specified in the plan;
- F. each period during which a CMS is malfunctioning or inoperative;
- G. all required measurement needed to demonstrate compliance with a relevant standard;
- H. all results of performance tests, CMS performance evaluations, and opacity and visible emission observations;
- I. all measurements as may be necessary to determine the conditions of performance tests and performance evaluations;
- J. all CMS calibration checks;
- K. all adjustments and maintenance performed on CMS;
- L. any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements if the source has been granted a waiver under 40 CFR 63.10(f);
- M. all emission levels relative to the criterion for obtaining permission to use an alternative to the relative accuracy test if the source has been granted such permission under 40 CFR 63.8(f)(6); and
- N. all documentation supporting initial notifications and notifications of compliance status under 40 CFR 63.9.

2.52 **NESHAP - Files Available for Inspection** <40 CFR 63.10(b)(1)> [Rule 3D .1111]

The permittee shall maintain files of all information required by 40 CFR Part 63 recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site.

2.53 **NESHAP - Performance Testing Facilities Provided by Permittee** <40 CFR 63.7(d)> [Rule 3D .1111]

For any performance testing for each new source and, at the request of the Director, for each existing source, the permittee shall provide performance testing facilities as follows:

- A. Sampling ports adequate for test methods applicable to the affected source. This includes:
 - 1. Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures; and
 - 2. Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.
- B. Safe sampling platform(s).
- C. Safe access to sampling platform(s).
- D. Utilities for sampling and testing equipment.
- E. Any other facilities that the Director deems necessary for safe and adequate testing of a source.
- F. Unless otherwise specified in the applicable subpart, each performance test shall be conducted according to the requirements in 40 CFR 63.7.

SECTION 3
SPECIFIC LIMITATIONS AND CONDITIONS

The emission source(s) and associated air pollution control device(s) listed in **Section 1** are subject to the following specific terms, conditions, and limitations:

3.1 MUNICIPAL SOLID WASTE LANDFILL (ES-1), CONTROLLED BY GAS COLLECTION SYSTEM (CD-1); UTILITY FLARES (CD-2 and 3); TREATMENT SYSTEM FOR SUBSEQUENT SALE OR USE (CD-4)

The following provides a summary of the limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Applicable Standard	Applicable Regulation
NMOC	installation and operation of approved LFG collection system and control by routing collected LFG to: - a flare, designed and operated in accordance with 40 CFR 60.18, or - a treatment system for subsequent sale or use.	3D .0524 New Source Performance Standards and 40 CFR Part 60, Subpart WWW - NSPS for Municipal Solid Waste Landfills
HAP	Comply with NSPS; additional reporting requirements, SSM requirements	40 CFR Part 63, Subpart AAAA, National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills, 40 CFR 63.1930 <i>et seq.</i>

A. Standards of Performance for New Stationary Sources: Municipal Solid Waste Landfills [Rule 3D .0524 and 40 CFR Part 60, Subpart WWW, hereinafter referenced by Section number]

1. **Standard** - [Rule **3D .0524**] - The permittee shall comply with all applicable standards and provisions, including the notification, testing, work practices, monitoring, recordkeeping, and reporting requirements of Rule 3D .0524, "New Source Performance Standards" (NSPS), promulgated in 40 CFR Part 60, Subpart WWW, including all applicable requirements and provisions specified by the general provisions of the New Source Performance Standards (40 CFR 60, Subpart A).
 - a. The provisions of 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. [Rule 3D .0524, 40 CFR §60.755(e)]
 - b. The permittee may propose for approval by the Department, alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of Sections 60.753 through 60.758 and of this permit. Until any such alternative is approved, and until such time as any required permit modification is made, however, the permittee shall comply with Sections 60.753 through 60.758 and the permit conditions herein. [Rule 3D .0524, 40 CFR

§60.752(b)(2)(i)(B) and (C), 40 CFR §63.1955(c)]

2. **Installation and maintenance of collection and control system** - [Rule 3D .0524, 40 CFR §752(b)(2)(ii)]
 - The permittee shall install and maintain a collection and control system that effectively captures the gas generated within the landfill and meets the specifications and requirements of 40 CFR §60.752(b)(2)(ii), including:
 - a. The collection and control system shall be installed in conformance to the Department-approved design plan. Changes or additions to the collection and control system shall be made pursuant to an amended design plan prepared by a professional engineer. The permittee shall submit to the Department any amendments to the design plan. [Rule 3D .0524, 40 CFR §§60.752(b)(2)(ii)(A)(1) and §60.755(a)(1)]
 - b. The active collection system shall be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment. [Rule 3D .0524, 40 CFR §60.752(b)(2)(ii)(A)(1)]
 - c. The active collection system shall collect gas from each area, cell, or group of cells in which the initial solid waste has been placed for a period of 5 years or more if active, or 2 years or more if closed or at final grade. The collection devices shall be located at a density sufficient to meet all operational and performance standards. [Rule 3D .0524, 40 CFR §§60.752(b)(2)(ii)(A)(2), 60.753(a), and 60.755(a)(2)]
 - d. The collection system shall collect gas at a sufficient extraction rate. The permittee shall demonstrate the sufficiency of the extraction rate by following the procedures of Section 60.755(a)(3) and condition **3.1.A.6.c**. [Rule 3D .0524, 40 CFR §60.752(b)(2)(ii)(A)(3)]
 - e. The collection system shall be designed to minimize off-site migration of subsurface gas. [Rule 3D .0524, 40 CFR §60.752(b)(2)(ii)(A)(4)]
 - f. The permittee shall route landfill gas collected pursuant to the NSPS to a control system that complies with the requirements in 40 CFR §60.752(b)(2)(iii)(A) or (C).
 - i. If collected landfill gas is controlled pursuant to 40 CFR §60.752(b)(2)(iii)(C), the landfill gas must be routed to a treatment system that will compress and de-water the landfill gas and remove particulate matter of 10 microns or more in size.
 - ii. If the collected landfill gas is routed to a flare, pursuant to 40 CFR §60.752(b)(2)(iii)(A), such flare shall be designed in accordance with 40 CFR §60.18 and that meets the requirements of **Section 3.2**.
[Rule 3D .0524, 40 CFR §60.752(b)(2)(iii)]
 - g. The collection and control system shall be operated in accordance with the operational standards, compliance provisions, and monitoring requirements of 40 CFR §§ 60.753, 60.755, and 60.756, and permit conditions **3.1.A.5, 6, and 7**. [Rule 3D .0524, 40 CFR §60.752(b)(2)(iv)]
3. **Specifications for active collection systems** - [Rule 3D .0524, 40 CFR §60.759] -
 - a. The permittee shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the procedures set forth in Section 60.759(a)(1) through (3), unless alternative procedures have been approved by the

Department as provided in Section 60.752(b)(2)(i)(C) and (D). [Rule 3D .0524, 40 CFR §60.759(a)]

- b. The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. [Rule 3D .0524, 40 CFR §60.759(a)(1)]
- c. The P.E. certified design shall address the following issues: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat. [Rule 3D .0524, 40 CFR §60.759(a)(1)]
- d. The determination of the sufficient density of gas collection devices, as required in paragraph a, above, shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior. [Rule 3D .0524, 40 CFR §60.759(a)(2)]
- e. The placement of gas collection devices shall control all gas producing areas, with the following exceptions:
 - i. Any segregated area of asbestos or nondegradable material may be excluded, if documented as provided in Sections 60.759(a)(3)(i) and 60.758(d) and permit condition 3.1.A.8(h).
 - ii. Any non-productive area of the landfill may be excluded, if the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill, using the procedures provided in Section 60.759(a)(3)(ii).

[Rule 3D .0524, 40 CFR §60.759(a)(3)]

- f. The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. [Rule 3D .0524, 40 CFR §60.759(b)(1)]
- g. The collection system shall extend as necessary to comply with emission and migration standards. [Rule 3D .0524, 40 CFR §60.759(b)(1)]
- h. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration. [Rule 3D .0524, 40 CFR §60.759(b)(1)]
- i. Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. [Rule 3D .0524, 40 CFR §60.759(b)(2)]
- j. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross section so as to allow for their proper construction and completion. [Rule 3D .0524, 40 CFR §60.759(b)(2)]
- k. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. [Rule 3D .0524, 40 CFR §60.759(b)(2)]

- l. Any gravel used around pipe perforations should be of a dimension that will not penetrate or block perforations. [Rule 3D .0524, 40 CFR §60.759(b)(2)]
- m. Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness. [Rule 3D .0524, 40 CFR §60.759(b)(3)]
- n. The permittee shall convey the landfill gas to a control system in compliance with §60.752(b)(2)(iii) through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the procedures found in §60.759(c)(1) and (2). [Rule 3D .0524, 40 CFR §60.759(c)]

4. Removal of collection and control system -

- a. The collection and control system may be capped or removed provided that all the conditions below are met, in accordance with Section 60.752(b)(2)(v)(A), (B), and (C).
 - i. The landfill shall be a closed landfill as defined in 40 CFR §60.751. A closure report shall be submitted to the Department as provided in Section 60.757(d);
 - ii. The collection and control system shall have been in operation a minimum of 15 years; and
 - iii. Following the procedures specified in §60.754(b) the calculated NMOC gas produced by the landfill shall be less than 50 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.

[Rule 3D .0524, 40 CFR §60.754(b) and §60.752(b)(2)(v)]

- b. The permittee shall calculate the NMOC emission rate for purposes of determining when the system can be removed using the equation and methods provided in §60.754(b). [Rule 3D .0524, 40 CFR §60.754(b) and §60.752(b)(2)(v)]

5. Operational standards - [Rule 3D .0524, 40 CFR §60.753] -

- a. The permittee shall operate the collection system such that gas is collected from each area, cell, or group of cells in which solid waste has been in place for 5 years or more if active, or 2 years or more if closed or at final grade. [Rule 3D .0524, 40 CFR §60.753(a)]
- b. The permittee shall operate the collection system with negative pressure at each wellhead except under the following conditions:
 - i. A fire or increased well temperature. The permittee shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in Section 60.757(f)(1) and permit condition **3.1.A.9.a**.
 - ii. Use of a geomembrane or synthetic cover. The permittee shall develop acceptable pressure limits in the design plan.

iii. A decommissioned well. A well may experience a static positive pressure after shutdown to accommodate for declining flows. All design changes shall be approved by the Department.

[Rule 3D .0524, 40 CFR §60.753(b)]

- c. The permittee shall operate each interior wellhead in the collection system with a landfill gas temperature less than 55 degrees centigrade and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The permittee may establish a higher operating temperature, nitrogen, or oxygen value at a particular well by making a demonstration in accordance with Section 60.753(c).
- i. The nitrogen level shall be determined using Method 3C, unless an alternative test method is established as allowed by Section 60.752(b)(2)(i).
- ii. The oxygen level shall be determined by an oxygen meter using Method 3A or 3C with the exceptions to the method described in Section 60.753(c)(2)(i) through (v), unless an alternative test method is established as allowed by Section 60.752(b)(2)(i).

[Rule 3D .0524, 40 CFR §60.753(c)]

- d. The permittee shall operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. The permittee shall comply with this requirement as provided in Section 60.753(d) and as provided in the surface methane monitoring conditions of **3.1.A.7.d**. [Rule 3D .0524, 40 CFR §60.753(d)]
- e. The permittee shall operate the system such that all collected gases are vented to a control system designed and operated in compliance with Section 60.752(b)(2)(iii). [Rule 3D .0524, 40 CFR §60.753(e)]
- f. The permittee shall operate the control or treatment system at all times when the collected gas is routed to the system. [Rule 3D .0524, 40 CFR §60.753(f)]
- g. If for any reason the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within one hour. [Rule 3D .0524, 40 CFR §60.753(e)]
- h. If monitoring demonstrates that the operational requirements of the NSPS and conditions 3(b) through (g) are not met, corrective action shall be taken as specified in Section 60.755(a)(3) through (5) or Section 60.755(c), and conditions **3.1.A.7(b) through (d)**. If such corrective action is taken, the monitored exceedance is not a violation of the operational standards. [Rule 3D .0524, 40 CFR §60.753(g)]
6. **Compliance provisions** - [40 CFR §60.755] - Except as provided in Section 60.752(b)(2)(i)(B), and permit condition **3.1.A.1(b)**, paragraphs (a)(1) through (a)(6) of §60.755 and the following conditions shall be used to determine whether the gas collection system is in compliance with Section 60.752(b)(2)(ii) and permit condition **3.1.A.2**. [Rule 3D .0524, 40 CFR §60.755(a)]
- a. The permittee shall use an appropriate equation from Section 60.755(a)(1) to calculate the maximum expected gas generation flow rate to determine compliance with Section 60.752(b)(2)(ii)(A)(1) and permit condition **3.1.A.2.a**. [Rule 3D .0524, 40 CFR §60.755(a)(1)]

- b. For the purposes of determining sufficient density of gas collection devices for compliance with Section 60.752(b)(2)(ii)(A)(2) and permit condition **3.1.A.2.c**, the permittee shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Department, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards. [Rule 3D .0524, 40 CFR §60.755(a)(2)]
 - i. The permittee shall place each well or design component as specified in the approved design plan. [Rule 3D .0524, 40 CFR §60.755(b)]
 - ii. Each well shall be installed within 60 days of the date on which the initial solid waste has been in place for 5 years or more, if active, or 2 years or more, if closed or at final grade. [Rule 3D .0524, 40 CFR §60.755(b)]
- c. To demonstrate that the gas collection system flow rate is sufficient to determine compliance with Section 60.752(b)(2)(ii)(A)(3) and permit condition **3.1.A.2.d**, the permittee shall comply with the provisions of Section 60.755(a)(3) and permit condition **3.1.A.7.b**, regarding header pressure and corrective action. [Rule 3D .0524, 40 CFR §60.755(a)(3)]
- d. To determine whether excess air infiltration into the landfill is occurring, the permittee shall conduct monitoring as provided in Section 60.753(c) and permit condition **3.1.A.7.c**. [Rule 3D .0524, 40 CFR §60.755(a)(5)]
- e. For compliance with the surface methane requirements of Section 60.753(d) and permit condition **3.1.A.5(d)**, the permittee shall conduct monitoring and take corrective action as provided in Section 60.755(c) and permit condition **3.1.A.7(d)**. [Rule 3D .0524, 40 CFR §60.755(c)]

7. Monitoring requirements and corrective action -

- a. The permittee shall install a sampling port and thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead. [Rule 3D .0524, 40 CFR §60.756(a)]
- b. The permittee shall measure monthly gauge pressure in the gas collection system header at each individual well. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except when there exists one or more of the three conditions noted in Section 60.753(b) and permit condition **3.1.A.5.b**. [Rule 3D .0524, 40 CFR §§60.755(a)(3) and 60.756(a)(1)]
 - i. If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternate timeline for correcting the exceedance may be submitted to the Department for approval. [Rule 3D .0524, 40 CFR §60.755(a)(3)]
 - ii. The permittee will not be required to install additional wells as required above during the first 180 days after gas collection system start-up. [Rule 3D .0524, 40 CFR §60.755(a)(4)]
- c. To identify whether excess air infiltration is occurring, the permittee shall monitor each well monthly for temperature and nitrogen or oxygen as provided in Sections 60.753(c) and 60.756(a)(2) and permit condition **3.1.A.5(c)**. If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to

correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. [Rule 3D .0524, 40 CFR §§60.755(a)(5) and 60.753(a)(2)]

- d. **Methane surface concentration monitoring** - On a quarterly basis after installation of the collection system, the permittee shall monitor surface concentrations of methane along the entire perimeter of each collection area and along a pattern that traverses the landfill at 30 meter intervals or a site specific spacing established under (i) below. [Rule 3D .0524, 40 CFR §60.755(c)(1)]
- i. Surfacing monitoring shall be conducted in accordance with the approved surface monitoring design plan, which includes a topographical map with the monitoring route. The permittee may establish an alternative traversing pattern that ensures equivalent coverage, providing the rationale for any site-specific deviations in the monitoring design plan. The permittee shall submit a new or amended surface monitoring design plan when it submits changes to the collection and control system design plan, as the collection and control system is expanded. [Rule 3D .0524, 40 CFR §60.753(d)]
 - ii. Areas with steep slopes or other dangerous areas may be excluded from the surface testing. [Rule 3D .0524, 40 CFR §60.753(d)]
 - iii. The permittee shall follow the equipment and instrumentation specifications, calibration requirements, monitoring conditions requirements, testing methods and procedures provided in Section 60.755. [Rule 3D .0524, 40 CFR §60.755(c)]
 - iv. Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the action specified in paragraphs (c)(4)(i) through (v) of Section 60.755 shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of Section 60.753(d) or permit condition **3.1.A.5.d**. [Rule 3D .0524, 40 CFR §60.755(c)(4)]
 - v. For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy and a corresponding time line for installation may be submitted to the Department for approval. [Rule 3D .0524, 40 CFR §60.755(c)(4)(v)]
 - vi. The permittee shall comply with the instrumentation specifications and procedures for surface emission monitoring devices provided in Section 60.755(d). [Rule 3D .0524, 40 CFR §60.755(d)]
 - vii. Upon closure of the landfill, if there are no monitored exceedances of the surface methane operational standard in three consecutive quarterly monitoring periods, the permittee may skip to annual monitoring. If a methane reading of 500 ppm or more above background is detected during the annual monitoring, however, the permittee shall return to quarterly monitoring. [Rule 3D .0524, 40 CFR §60.756(f)]
- e. The permittee shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis. [Rule 3D .0524, 40 CFR §60.755(c)(5)]

8. **Recordkeeping Requirements** -

- a. All records and/or documentation required to be kept shall be up-to-date and readily accessible. If

records are maintained off-site, they shall be retrievable within 4 hours. Paper and/or electronic formats are acceptable. [Rule 3Q .0508(f), Rule 3D .0524 and 40 CFR §60.758(a) – (e)]

- b. The permittee shall keep for at least 5 years records of the design capacity report which triggered §60.752(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. [Rule 3Q .0508(f), Rule 3D .0524 and 40 CFR §60.758(a)]
- c. The permittee shall maintain records for the life of the control equipment of the data listed below as measured during the initial performance test. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal. [Rule 3Q .0508(f), Rule 3D .0524 and 40 CFR §60.758]
 - i. The maximum expected gas generation flow rate of the collection system as calculated in §60.755(a)(1) or as calculated by another method, if the method has been approved by the Department. [Rule 3Q .0508(f), Rule 3D .0524 and 40 CFR §60.758(b)(1)(i)]
 - ii. The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in Section 60.759(a)(1) and permit condition **3.1.A.3**. [Rule 3Q .0508(f), Rule 3D .0524 and 40 CFR §60.758(b)(1)(ii)]
 - iii. The flare type, all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18. [Rule 3Q .0508(f), Rule 3D .0524 and 40 CFR §60.758(b)(4)]
 - iv. During all periods when the permittee is seeking to comply with 40 CFR §§60.750 *et seq.* by use of an open flare, continuous records of the flame or flare pilot flame monitoring specified under §60.756(c), and records of all periods during which the pilot flame of the flare flame is absent. [Rule 3Q .0508(f), Rule 3D .0524 and 40 CFR §60.758(b)(4)]
- d. The permittee shall keep for at least 5 years continuous records of the equipment operating parameters specified in section 60.756 and permit condition **3.1.A.5** as well as records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. [Rule 3Q .0508(f), Rule 3D .0524 and 40 CFR §60.758(c)(2)]
- e. The permittee shall keep continuous records of the indication of flow to the control device and/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 Section 60.756 and permit condition **3.1.A.5.f**. [Rule 3Q .0508(f), Rule 3D .0524 and 40 CFR §60.758(c)]
- f. The permittee shall keep for the life of the collection system a plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector. [Rule 3Q .0508(f), Rule 3D .0524 and 40 CFR §60.758(d)]
- g. The permittee shall keep records of the installation date and location of all newly installed collectors as specified under Section 60.755(b) and permit conditions **3.1.A.6.b**. [Rule 3Q .0508(f), Rule 3D .0524 and 40 CFR §60.758(d)]
- h. The permittee shall keep documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as well as any nonproductive areas excluded from collection pursuant to Section 60.759(a)(3)(i) and (ii) and permit condition **3.1.A.3.e**. [Rule 3Q .0508(f), Rule 3D .0524 and 40 CFR §60.758(d)]

- i. The permittee shall keep for at least 5 years records of all collection and control system exceedances of the operational standards in Section 60.753 and permit condition **3.1.A.5**. [Rule 3Q .0508(f), Rule 3D .0524 and 40 CFR §60.758(e)]

9. **Reporting Requirements** - [Rule 3Q .0508(f), 40 CFR §60.757 and 40 CFR §63.1980(a)] -

- a. **Collection and control system compliance report** - The permittee shall submit to the Department, on or before January 30 for the period from July to December and on or before July 30 for the period from January through June, reports of the information recorded pursuant to Section 60.757(f)(1) through (6) and paragraphs (i) through (vi), below. Reportable exceedances for flares are defined under Section 60.758(c). The report shall include:

- i. Value and length of time for exceedance of applicable parameters monitored under Section 60.756(a), (b), (c), and (d) and permit conditions **3.1.A.7**.
- ii. 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 Section 60.756 and permit conditions **3.1.A.5**.
- iii. 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.
- iv. All periods when the collection system was not operating in excess of 5 days.
- v. The location of each exceedance of the 500 ppm methane concentration recorded at each location for which an exceedance was recorded in the previous month.
- vi. The date of installation and the location of each well or collection system expansion added pursuant to Section 60.755(a)(3), (b), and (c)(4).
- vii. The permittee shall note that 40 CFR Part 63, Subpart AAAA and Condition **3.1.B.4** require that this report be submitted every six months.
[Rule 3D .0524, 40 CFR §60.757(f), 40 CFR §§63.1955(c) and 63.1980(a) and (b)]

- b. **Closure report** - The permittee shall submit a closure report to the Department within 30 days of waste acceptance cessation.

- i. The Department may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60.
- ii. If a closure report has been submitted, no additional waste may be placed into the landfill without filing a notification of modification as described under 40 CFR Section 60.7(a)(4).

[Rule 3D .0524, 40 CFR §60.757(d)]

- c. **Equipment removal report** - The permittee shall submit an equipment removal report to the Department 30 days prior to removal or cessation of operation of the control equipment. The Department may request additional information as may be necessary to verify that all of the conditions for removal in Section 60.752(b)(2)(ii) have been met, but the report shall contain all of the following items:

- i. A copy of the closure report submitted in accordance with paragraph (b), above;
- 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.

[Rule 3D .0524, 40 CFR §60.757(e)]

B. National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills

[Rule 3D .1110 and 40 CFR Part 63, Subpart AAAA, hereinafter referenced by Section number]

- 1. **Standard** - [Rule 3D .1110, 40 CFR 63.1930 *et seq.*] - The permittee shall comply with all applicable standards and provisions, including the notification, testing, work practices, reporting, recordkeeping, and monitoring requirements of Rule 3D .1110, “National Emission Standards for Hazardous Air Pollutants” (NESHAP), promulgated in 40 CFR Part 63, Subpart AAAA, including all applicable requirements and provisions specified by the general provisions of the National Emission Standards for Hazardous Air Pollutants (40 CFR 63, Subpart A).
 - a. The permittee shall comply with this standard by compliance with 40 CFR part 60, subpart WWW, including performance testing, monitoring of the collection system, continuous parameter monitoring, and other credible evidence. [Rule 3D .1110, 40 CFR §§63.1955(b) and 63.1960]
 - i. Continuous parameter monitoring data, collected under subpart WWW, will be used to demonstrate compliance with the operating conditions for the permittee’s control systems. [Rule 3D .1110, 40 CFR 63.1960]
 - ii. Any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions, that have been approved under 40 CFR part 60, subpart WWW and condition 3.1.A.1(b) may be used to comply with the NESHAP, with the exceptions noted in Section 63.1955(c). [Rule 3D .1110, 40 CFR 63.1955(c)]
 - iii. For approval of alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions, the permittee must follow the procedures of 40 CFR 60.752(b)(2) and permit condition 3.1.A.1(b). [Rule 3D .1110, 40 CFR 63.1955(c)]
 - iv. If a deviation, as defined in 40 CFR §63.1990 or permit condition 3.1.B.1(d), occurs, the permittee has failed to meet the control device operating conditions of the NESHAP and has deviated from its requirements. [Rule 3D .1110, 40 CFR 63.1960]
 - b. The provisions of subpart AAAA 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. [Rule 3D .1111, 40 CFR 63.1960, 40 CFR 60.755(e)]
 - c. The permittee shall develop and implement a written Start-Up/Shutdown/Malfunction (SSM) plan according to the provision in 40 CFR 63.6(e)(3). A copy of the SSM shall be maintained on site. [Rule 3D .1111, 40 CFR 63.1960]
 - d. For the purposes of the landfill monitoring and SSM plan requirements, deviations include
 - i. Whenever the control device operating parameter boundaries described in 40 CFR §60.758(c)(1) are exceeded.

- ii. Whenever one hour or more of the hours during the three-hour block averaging period 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.
- iii. When a SSM plan is not developed, implemented, or maintained on site.

[Rule 3D .1111, 40 CFR 63.1965]

2. **Monitoring** [Rule 3Q .0508(f) and 40 CFR 63.1960] - The permittee shall monitor the collection and control system as provided in 40 CFR §60.750 *et seq.* and Condition **3.1.A.7**.
3. **Recordkeeping Requirements** [Rule 3Q .0508(f) and 40 CFR 63.1980]
 - a. The permittee shall maintain all records specified in 40 CFR Part 60, Subpart WWW. [Rule 3D .1111, 40 CFR 63.1980]
 - b. The permittee shall maintain records as specified in the general provisions of 40 CFR Parts 60. [Rule 3D .1111, 40 CFR 63.1980]
 - c. The permittee shall maintain records as specified in Table 1 of 40 CFR Part 63, Subpart AAAA, noting the applicable NESHAP General Provisions. [Rule 3D .1111, 40 CFR 63.1980]
 - i. Records of all SSMs.
 - ii. Records of all required maintenance.
 - iii. Records of all actions taken during startup or shutdown whenever applicable emission limitations are exceeded and actions taken differ from those specified in the SSM plan.

[Rule 3D .1111, 40 CFR §§63.1990 and 63.10(d)(5)]

4. **Reporting Requirements -**

- a. The **collection and control system report** described in 40 CFR 60.757(f) and required in Condition **3.1.A.9(a)** must be submitted every six months. The permittee shall submit the report on or before January 30 and on or before July 30 each year. [Rule 3Q .0508(f), Rule 3D .1111 and 40 CFR 63.1980]
- b. The permittee shall submit **periodic and immediate SSM reports** as required by 40 CFR 63.10(d)(5).
 - i. Startup, shutdown, and malfunction reports, containing the information specified in 40 CFR 63.10(d)(5) must be submitted on July 30 and January 30 for each preceding half year. [Rule 3Q .0508(f), Rule 3D .1111 and 40 CFR 63.1980]
 - ii. In accordance with 40 CFR 63.10(d)(5), if actions taken during a startup or shutdown that caused an emissions exceedance are inconsistent with the SSM plan, or if a malfunction or actions taken to correct a malfunction are inconsistent with the SSM, then the permittee shall report what happened within 2 working days after commencing the inconsistent actions, followed by a letter within 7 working days after the end of the event. [Rule 3Q .0508(f), Rule 3D .1111 and 40 CFR 63.1980]

[Rule 3D .111, 40 CFR §§63.1980, 63.1990, and 63.10(d)(5)]

3.2 UTILITY FLARE (ID No. CD-03)

Table 3.2: Summary of Emission Limits, Standards and Other Applicable Requirements.

Regulated Pollutant	Applicable Standard	Applicable Regulation
visible emissions	no visible emissions	3D .0524 New Source Performance Standards and 40 CFR Part 60, Subpart WWW, and 40 CFR Part 60, Subpart A, General Provisions, Section 60.18(c)(1)
NMOC	flame present at all times	3D .0524 New Source Performance Standards and 40 CFR Part 60, Subpart WWW, and 40 CFR Part 60, Subpart A, General Provisions, Section 60.18(c)(2)
NMOC	maximum exit velocity 60 ft/sec	3D .0524 New Source Performance Standards and 40 CFR Part 60, Subpart WWW, and 40 CFR Part 60, Subpart A, General Provisions, Section 60.18(c)(3)(iii) and 60.18(f)(5)
SO2	SO2 emissions < 2.3 lb/MMBtu	3D .0516 Sulfur Dioxide Emissions from Combustion Sources

A. Standards of Performance for New Stationary Sources: Municipal Solid Waste Landfills [Rule 3D .0524 and 40 CFR Part 60, Subpart WWW, hereinafter referenced by Section number]

1. **Standard** - [Rule **3D .0524**] - The permittee shall comply with all applicable standards and provisions, including the notification, testing, work practices, reporting, recordkeeping, and monitoring requirements of Rule 3D .0524, “New Source Performance Standards” (NSPS), promulgated in 40 CFR Part 60, Subpart WWW, including all applicable requirements and provisions specified by the general provisions of the New Source Performance Standards (40 CFR 60, Subpart A).
 - a. The utility flare, CD-03, shall be operated with no visible emissions as determined by method 22 as specified in 40 CFR §60.18(f), except for periods not to exceed a total of five minutes during any two consecutive hours, and except during periods of startup, shutdown, and malfunction.
 - b. During all periods when the permittee is seeking to comply with 40 CFR §§60.750 *et seq.* by use of CD-03, the flare shall be operated with a flame present at all times as determined by the methods specified in 40 CFR Section 60.18(f) and Condition 3.2.A.2(b). [Rule 3D .0524, 40 CFR §60.752(b)(2)(iii)(A)]
 - c. The utility flare, CD-03, shall combust no gas with net heating value of less than 200 Btu/scfm, as determined by the equation found at §60.18(f)(3). [Rule 3D .0524, 40 CFR §§60.752(b)(2)(iii)(A) and 60.18(c)(3)(ii)]

- d. CD-03 shall be operated with an exit velocity less than 60 feet/second. [Rule 3D .0524, 40 CFR §§60.752(b)(2)(iii)(A) and 60.18(c)(3)(ii)]
- e. The provisions of 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. [Rule 3D .0524, 40 CFR §60.755(c)]

2. Monitoring -

- a. The permittee shall make a monthly visual observation of the flare . If any visible emission is noted, corrective action shall be taken. [Rule 3Q .0508(f) and 40 CFR §§60.756 and 60.18]
- b. The permittee shall install, calibrate, maintain, and operate according to the manufacturer's specification the following equipment a heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame. [Rule 3Q .0508(f) and 40 CFR §§60.756 and 60.18]

3. Recordkeeping -

- a. When the permittee is seeking to comply with 40 CFR §§60.750 *et seq.* by use of an open flare, the permittee shall keep a log of the monthly flare observations conducted pursuant to **3.2.A.2.a.** The log shall contain the following:
 - i. the date and time of visual observation,
 - ii. the person(s) who performed visual observation,
 - iii. where emissions are observed, the operating conditions under which the visual observation was conducted, and
 - iv. any actions taken to eliminate the visible emissions.

If the flare is not operated during a month for more than 24 hours, a visual observation is not required and the log shall include a statement indicating the flare was not operated for more than 24 hours. This log shall be retained for at least 5 years from the event recorded and shall be made readily available upon request by an authorized representative of the Department or the U.S. EPA. [Rule 3Q .0508(f) and 40 CFR §§60.752(b)(2)(iii)(A) and 60.18(c)(1)]

- b. During all periods when the permittee is seeking to comply with 40 CFR §§60.750 *et seq.* by use of an open flare, the permittee shall keep continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame or flare flame is absent. [Rule 3Q .0508(f) and 40 CFR 60, Subpart WWW, Section 60.758(b)(4)]
- c. The permittee shall maintain for the life of the flare all visible emissions readings, heat content determinations, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR Section 60.18. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the vendor specifications for the flare shall be maintained until removal. [Rule 3Q .0508(f) and 40 CFR 60, Subpart WWW, Section 60.758(b)(4)]
- d. All records and/or documentation required to be kept shall be up-to-date and readily accessible. If records are maintained off-site, they shall be retrievable within 4 hours. Paper and/or electronic

formats are acceptable. [Rule 3Q .0508(f), Rule 3D .0524 and 40 CFR §60.758]

4. **Reporting** [Rule 3Q .0508(f) and 40 CFR 60, Subpart WWW, Section 60.758]

- a. The following constitute exceedances that shall be recorded and reported in the annual report required under Section 60.757(f) and permit condition **3.1.A.9.a**.
 - i. Exceedances of the parameter boundaries established during the most recent performance test.
 - ii. Any instance of visible emissions observed pursuant to condition **3.2.A.2.a**.
- b. All instances of deviations from the requirements for this emission source and the duration of these deviations must be clearly identified and reported in writing to the Department by July 30th for the previous months of January through June, and by January 30th for the previous months of July through December. The report shall contain the results of investigations and any corrective actions taken as a result of a deviation and other malfunctions in excess of three hours. If no deviations have occurred, the permittee shall make this statement in the report.

B. **Sulfur Dioxide Emissions from Combustion Sources** [Rule 3D .0516]

1. **Standard** - [Rule 3D .0516] - Emissions of sulfur dioxide from CD-03, the utility flare, shall not exceed 2.3 pounds of sulfur dioxide per million Btu input.
2. **Monitoring, Recordkeeping, Reporting** - [Rule 3Q .0508(f)] - No monitoring, recordkeeping, or reporting is required with regard to this requirement.

3.3 LANDFILL GAS TREATMENT SYSTEM (ID No. CD-04)

A. **Standards of Performance for New Stationary Sources: Municipal Solid Waste Landfills** [Rule 3D .0524 and 40 CFR Part 60, Subpart WWW, hereinafter referenced by Section number]

1. **Standard** - [Rule 3D .0524] - The permittee shall comply with all applicable standards and provisions, including the notification, testing, work practices, reporting, recordkeeping, and monitoring requirements of Rule 3D .0524, "New Source Performance Standards" (NSPS), promulgated in 40 CFR Part 60, Subpart WWW, including all applicable requirements and provisions specified by the general provisions of the New Source Performance Standards (40 CFR 60, Subpart A).
 - a. The permittee shall construct and operate a landfill gas treatment system, CD-04, that meets the requirements of 40 CFR §60.752(b)(2)(iii)(C).
 - b. The landfill gas treatment system shall be capable of and be operated to effectively treat landfill gas, such that the gas is optimally suitable for subsequent use with regard to air quality considerations. The landfill gas treatment system shall:
 - i. Remove moisture.
 - ii. Compress landfill gas
 - iii. Remove particulate matter of 10 microns or more in size.

[Rule 3D .0524, 40 CFR §60.752(b)(2)(iii)(C)]

- c. The landfill gas treatment system shall be designed and operated such that landfill gas cannot be

vented to the atmosphere. [Rule 3D .0524, 40 CFR §60.752(b)(2)(iii)]

- d. The landfill gas treatment system shall be operated and maintained in conformance with a written maintenance plan to ensure adequate performance. Such plan shall be provided by the manufacturer or based upon manufacturer's recommendations. If manufacturer's recommendations are not available, an appropriate plan shall be developed or adopted by the permittee. [Rule 3D .0524, 40 CFR §60.752(b)(2)(iii)]
- e. The provisions of 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. [Rule 3D .0524, 40 CFR §60.755(e)]
- f. The permittee shall update its written Start-Up/Shutdown/Malfunction (SSM) plan to address the landfill gas treatment system, according to the provision in 40 CFR 63.6(e)(3). A copy of the current SSM shall be maintained on site. [Rule 3D .1111, 40 CFR 63.1960]

2. **Monitoring and Recordkeeping**

- a. The permittee shall maintain all records specified in 40 CFR Part 60, Subpart WWW and the general provisions of 40 CFR Parts 60. [Rule 3D .0524, 40 CFR 63.1980]
- b. The permittee shall maintain records as specified in Table 1 of 40 CFR Part 63, Subpart AAAA, noting the applicable NESHAP General Provisions. [Rule 3D .1111, 40 CFR 63.1980]
 - i. Records of all Startups/Shutdowns/Malfunctions (SSMs).
 - ii. Records of all required maintenance.
 - iii. Records of all actions taken during startup or shutdown whenever applicable emission limitations are exceeded and actions taken differ from those specified in the SSM plan.

[Rule 3D .1111, 40 CFR §§63.1990 and 63.10(d)(5)]

- c. All records and/or documentation required to be kept shall be up-to-date and readily accessible. If records are maintained off-site, they shall be retrievable within 4 hours. Paper and/or electronic formats are acceptable. [Rule 3Q .0508(f), Rule 3D .0524 and 40 CFR §60.758]

- 3. **Reporting** - The permittee shall submit reports as provided in §60.757 *et seq.* and Condition **3.1.A.9** [Rule 3D .0524, 40 CFR §§60.757, and 63.10(d)(5)]

B. National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills [Rule 3D .1110 and 40 CFR Part 63, Subpart AAAA, hereinafter referenced by Section number]

- 1. **Standard** - [Rule 3D .1110, 40 CFR 63.1930 *et seq.*] - The permittee shall comply with all applicable standards and provisions, including the notification, testing, work practices, reporting, recordkeeping, and monitoring requirements of Rule 3D .1110, "National Emission Standards for Hazardous Air Pollutants" (NESHAP), promulgated in 40 CFR Part 63, Subpart AAAA, including all applicable requirements and provisions specified by the general provisions of the National Emission Standards for Hazardous Air Pollutants (40 CFR 63, Subpart A).

- a. The permittee shall comply with this standard by compliance with 40 CFR part 60, subpart WWW, including performance testing, monitoring of the collection system, continuous parameter monitoring, and other credible evidence. [Rule 3D .1110, 40 CFR §§63.1955(b) and 63.1960]
 - i. Continuous parameter monitoring data, collected under subpart WWW, will be used to demonstrate compliance with the operating conditions for the permittee's control systems. [Rule 3D .1110, 40 CFR 63.1960]
 - ii. Any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions, that have been approved under 40 CFR part 60, subpart WWW and condition 3.1.A.1(b) may be used to comply with the NESHAP, with the exceptions noted in Section 63.1955(c). [Rule 3D .1110, 40 CFR 63.1955(c)]
 - iii. For approval of alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions, the permittee must follow the procedures of 40 CFR 60.752(b)(2) and permit condition 3.1.A.1(b). [Rule 3D .1110, 40 CFR 63.1955(c)]
 - iv. If a deviation, as defined in 40 CFR §63.1990 or permit condition 3.1.B.1(d), occurs, the permittee has failed to meet the control device operating conditions of the NESHAP and has deviated from its requirements. [Rule 3D .1110, 40 CFR 63.1960]
 - b. The provisions of subpart AAAA 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. [Rule 3D .1111, 40 CFR 63.1960, 40 CFR 60.755(e)]
 - c. The permittee shall develop and implement a written Start-Up/Shutdown/Malfunction (SSM) plan according to the provision in 40 CFR 63.6(e)(3). A copy of the SSM shall be maintained on site. [Rule 3D .1111, 40 CFR 63.1960]
 - d. For the purposes of the landfill monitoring and SSM plan requirements, deviations include
 - i. Whenever the control device operating parameter boundaries are exceeded.
 - ii. When a SSM plan is not developed, implemented, or maintained on site.

[Rule 3D .1111, 40 CFR 63.1965]
2. **Monitoring and Recordkeeping** - The permittee shall monitor the treatment system as provided in 40 CFR §60.750 *et seq.* and Condition **3.3.A.2**. [Rule 3Q .0508(f) and 40 CFR 63.1960]
 3. **Reporting** - The permittee shall submit reports as provided in §63.757 *et seq.* and Condition **3.1.B.4** [Rule 3D .1111, 40 CFR §§63.1980, 63.1990, and 63.10(d)(5)] [Rule 3Q .0508(f) and 40 CFR 63.1980]

3.4 ENGINES/GENERATORS COMBUSTING LANDFILL GAS (ID No. ES-04, ES-05, ES-06)

Table 3.4: Summary of Emission Limits, Standards and Other Applicable Requirements.

Regulated Pollutant	Applicable Standard	Applicable Regulation
NOx	2.0 g/HP-hr	BACT determination, pursuant to Session Law 2007-397 / SB 3; <i>Locally Enforceable Only</i>
	2.0 g/HP-hr or 3.0 g/HP-hr (depending on actual manufacturing date of engines)	3D .0524 New Source Performance Standards and 40 CFR Part 60, Subpart JJJJ
CO	3.1 g/HP-hr	BACT determination, pursuant to Session Law 2007-397 / SB 3; <i>Locally Enforceable Only</i>
	5.0 g/HP-hr	3D .0524 New Source Performance Standards and 40 CFR Part 60, Subpart JJJJ
PM/PM10	Good Combustion Practices 20 percent opacity	BACT determination, pursuant to Session Law 2007-397 / SB 3; <i>Locally Enforceable Only</i>
VOC	1.0 g/HP-hr or	BACT determination, pursuant to Session Law 2007-397 / SB 3; <i>Locally Enforceable Only</i> and 3D .0524 New Source Performance Standards and 40 CFR Part 60, Subpart JJJJ
SO2	400 ppmv total fuel sulfur content	BACT determination, pursuant to Session Law 2007-397 / SB 3; <i>Locally Enforceable Only</i>
	2.3 lb/MMBtu	3D .0516 Sulfur Dioxide Emissions from Combustion Sources
visible emissions	20 percent opacity	3D.0521 Control of Visible Emissions

A. Standards of Performance for New Stationary Sources: Stationary Spark Engine Internal Combustion Engines [Rule 3D .0524 and 40 CFR Part 60, Subpart JJJJ, hereinafter referenced by Section number]

- Standard** - [Rule **3D .0524**] - The permittee shall comply with all applicable standards and provisions, including the notification, testing, work practices, reporting, recordkeeping, and monitoring requirements

of Rule 3D .0524, “New Source Performance Standards” (NSPS), promulgated in 40 CFR Part 60, Subpart JJJJ, including all applicable requirements and provisions specified by the general provisions of the New Source Performance Standards (40 CFR 60, Subpart A).

a. The permittee shall not exceed the following emissions limitations:

NO_x – Emissions of nitrous oxides from each engine shall not exceed 2.0 g/HP-hr if the manufacture date of each engine is July 1, 2010 or later, or 3.0 g/HP-hr if the manufacture date of each engine is prior to July 1, 2010.

CO - Emissions of carbon monoxide from each engine shall not exceed 5.0 g/HP-hr.

VOC - Emissions of volatile organic compounds from each engine shall not exceed 1.0 g/HP-hr.

[Rule 3D. 0524, 40 CFR §§60.4233, 3Q .0308]

b. The permittee shall develop or adopt a written maintenance plan and conduct maintenance to each engine in conformance with such plan. [Rule 3D. 0524, 40 CFR §§60.4243, 3Q .0308]

c. The permittee shall to the extent practicable, maintain and operate the engines in a manner consistent with good air pollution control practice for minimizing emissions
[Rule 3D. 0524, 40 CFR §§60.4243, 3Q .0308]

2. Performance Testing

a. The permittee shall conduct performance testing within 180 days of engine startup demonstrating each engine’s compliance with the requirements of 40 CFR §60.4233(e) and condition 3.4.A.1.a. Pursuant to locally enforceable requirements, permit condition 3.4.E.2, the permittee shall conduct such performance testing within 180 days after engine startup. [Rule 3D. 0524, 40 CFR §§60.4243, 4244 and 60.8]

b. The permittee shall thereafter conduct subsequent performance tests on each engine before it completes 8760 hours of operation or within 3 years of the date of its initial performance test, whichever comes first. Performance tests shall be conducted according to the methods and procedures set forth in 40 CFR §60.4244. [Rule 3D. 0524, 40 CFR §§60.4243, 4244 and 60.8]

c. The permittee shall, unless otherwise approved by the Department, submit a test protocol to the Department at least 30 days prior to a required performance test and provide a minimum of 10 days notice of the scheduled date and time of the test to enable an observer to be present. The results of the testing shall be provided in writing to the Department within 60 days of the test. [Rule 3Q .0308]

3. Recordkeeping –

a. The permittee shall maintain all records specified in 40 CFR Part 60, Subpart JJJJ.
[Rule 3D .0524, 40 CFR 60.4245(a)]

b. The permittee shall maintain the following records:

i. All notifications submitted to comply with 40 CFR Part 60, Subpart JJJJ, and all documentation supporting any notification.

ii. Maintenance conducted on each engine, respectively.

iii. Documentation that each engine meets the emission standards of 40 CFR Part 60, Subpart JJJJ.

[Rule 3D .0524, 40 CFR 60.4245(a)]

4. **Reporting** - The permittee shall submit an initial notification as required in 40 CFR §60.7(a)(1). The notification shall include:
 - a. Name and address of the owner or operator;
 - b. The address of the affected source;
 - c. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
 - d. Emission control equipment; and
 - e. Fuel used.
 [Rule 3D .0524, 40 CFR 60.4245(c)]

- B. **National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines** (Subpart ZZZZ) – The permittee shall comply with all applicable requirements of 40 CFR Part 63, Subpart ZZZZ including the applicable requirements of 40 CFR Part 63 Subpart A, General Provisions as specified in Table 8 to Subpart ZZZZ. As required under 40 CFR 63.6590(c), the permittee must meet the requirements of this Subpart ZZZZ by meeting the requirements of **40 CFR Part 60 Subpart JJJJ**. No further requirements apply under Subpart ZZZZ. [Rule 3D .1111 and 40 CFR Part 63, Subpart ZZZZ]

- C. **Sulfur Dioxide Emissions from Combustion Sources**
 1. **Standard** - Emissions of sulfur dioxide from ES-04, ES-05, or ES-06, respectively, shall not exceed 2.3 pounds of sulfur dioxide per million Btu input. [Rule 3D .0516]
 2. **Monitoring, Recordkeeping, Reporting** - No monitoring, recordkeeping, or -reporting is required with regard to this requirement. [Rule 3Q .0508(f)]

- D. **Control of Visible Emissions**
 1. **Standard** – Except for sources subject to a visible emission standard in Rule .0524, sources manufactured after July 1, 1971, visible emissions shall not be more than 20% opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20% opacity if:
 - a. No six-minute period exceeds 87% opacity;
 - b. No more than one six-minute period exceeds 20% opacity in any hour; and
 - c. No more than four six-minute periods exceed 20% opacity in any 24-hour period.
 [Rule 3D .0521(d)]
 2. **Monitoring** – The permittee shall comply with the monitoring provision in permit condition 3.4.E.3. [Rule 3Q .0508(f)]

- E. **Best Available Control Technology (Locally Enforceable Only)**
 1. **Standard**
 - a. The permittee shall not exceed the following emissions limitations:
 - i. NO_x – Emissions of nitrous oxides from each engine shall not exceed 2.0 g/HP-hr.
 - ii. CO - Emissions of carbon monoxide from each engine shall not exceed 5.0 g/HP-hr.

- iii. VOC - Emissions of volatile organic compounds from each engine shall not exceed 1.0 g/HP-hr.
 - iv. SO₂ – Total fuel sulfur content shall not exceed 400 ppmv.
 - v. PM/PM10 – Good Combustion Practices and visible emissions shall not exceed 20 percent opacity
- b. The permittee shall operate and maintain the landfill gas treatment system as required in permit conditions **3.3.1.a. through d** to minimize particulate matter emissions.
 - c. The permittee shall operate and maintain the engines according to manufacturer's recommendations.
 - d. The permittee shall to the extent practicable, maintain and operate the engines in a manner consistent with good air pollution control practice for minimizing emissions

[Rule 3Q .0308 and BACT determination, pursuant to Session Law 2007-397 / SB 3]

2. Performance Testing

- a. The permittee shall comply with the performance testing requirements under permit condition 3.4.A.2 to demonstrate compliance with the emission limits specified in permit condition 3.4.E.1 except the performance test shall be conducted within 60 days of achieving maximum production, but no later than 180 days after initial startup.
- b. The permittee shall determine the sulfur content of the landfill gas supplied to the engines within 180 days of initial startup of each engine. The sampling methods proposed for this determination shall be submitted to the Department at least 30 days prior to the sampling.
- c. The permittee shall conduct subsequent performance tests on each engine before it completes 8760 hours of operation or within 3 years of the date of its previous performance test, whichever comes first. The permittee shall also determine the sulfur content of the landfill gas supplied to the engines on this schedule.

[Rules 3D .0611, 3Q .0308 and BACT determination, pursuant to Session Law 2007-397 / SB 3]

3. Monitoring and Recordkeeping

- a. The permittee shall make a visual observation of the engines . If any visible emission is noted, corrective action shall be taken. **[Rule 3Q .0508(f) and BACT determination, pursuant to Session Law 2007-397 / SB 3]**
- b. The permittee shall keep a log of the monthly visible observations conducted. The log shall contain the following:
 - i. the date and time of visual observation,
 - ii. the person(s) who performed visual observation,
 - iii. where emissions are observed, the operating conditions under which the visual observation was conducted, and
 - v. any actions taken to eliminate the visible emissions.

This log shall be retained for at least 5 years from the event recorded and shall be made readily

available upon request by an authorized representative of the Department or the U.S. EPA.
[Rule 3Q .0508(f) and BACT determination, pursuant to Session Law 2007-397 / SB 3]

- c. The permittee shall comply with the recordkeeping requirements in permit condition **3.4.A.3**.
- d. For the landfill gas treatment system, the permittee shall maintain a copy of the manufacturer's operating and maintenance recommendations or if manufacturer's recommendations are not available, a copy of the maintenance plan required under permit condition **3.3.A.1.d**. [Rule 3Q .0508(f) and BACT determination, pursuant to Session Law 2007-397 / SB 3]
- e. For the engines, the permittee shall maintain a copy of the manufacturer's operating and maintenance recommendations. **Rule 3Q .0508(f) and BACT determination, pursuant to Session Law 2007-397 / SB 3]**

SECTION 4
CONTROL OF TOXIC AIR POLLUTANTS
LOCAL ENFORCEMENT ONLY

The facility is subject to Subchapter 3D .1100 of the Forsyth County Air Quality Technical Code (FCAQTC). This section is locally enforceable only. The emission sources and associated air pollution control device(s) are subject to the following specific terms, conditions, and limitations, including the monitoring recordkeeping, and reporting requirements to which those requirements apply.

- A. **Toxic Air Pollutants- General** - Specification of a listed toxic air pollutant (TAP) in this permit does not excuse the permittee from complying with the requirements of Sections 3D .1100 and 3Q .0700 of the FCAQTC with regard to any other listed TAP emitted from the regulated facility, nor does this permit exempt the permittee from compliance with any future air toxics regulations promulgated pursuant to the requirements of the Clean Air Act. [Sections 3D .1100 and 3Q .0700]
- B. **De minimis Limits** - Total facility-wide emissions of the following pollutants shall not exceed their respective de minimis emissions limits as shown in Rule 3Q .0711 unless a modeling demonstration is first approved by this Department which shows that the emissions of the subject TAPs from the facility will not adversely affect human health. This demonstration shall be in accordance with the requirements set forth in Sections 3D .1100 and 3Q .0700 of the FCAQTC. This demonstration must be made with an up-to-date version of a U.S. EPA approved computer model or, upon approval by the Department, calculated using the results of a previous modeling analysis showing compliance with the acceptable ambient levels for the pollutants listed below. [Section 3Q .0700]

Pollutant (CAS Number)	De minimis level
1,1,1 trichlorethane (71556)	8.1 lb/yr
1,1,2,2,tetrachlorethane (79-34-5)	430 lb/yr
acrilonitrile (107-13-1)	10 lb/yr
carbon disulfide (75-15-0)	3.9 lb/day
carbon tetrachloride (56-23-5)	460 lb/yr
chlorobenzene (108-90-7)	46 lb/day
chloroform (67-66-3)	290 lb/yr
dichlorobenzene (106-46-7)	16.8 lb/hr
ethyl mercaptan (75-08-1)	0.025 lb/hr
ethylene dibromide (106-93-4)	27 lb/yr
hexane (110-54-3)	23 lb/day
mercury and compounds (199)	0.013 lb/day
methyl ethyl ketone (78-93-3)	78 lb/day and 22.4 lb/hr
methyl isobutyl ketone (108-10-1)	52 lb/day and 7.6 lb/hr
perchloroethylene (127-18-4)	13000 lb/yr
trichloroethylene (79-01-6)	4000 lb/yr
toluene (108-88-3)	98 lb/day
xylenes (1330-20-7)	57 lb/day and 16.4 lb/hr

C. **Dispersion Modeling Emission Limits (2010 Model)** - Combined emissions of the following TAPs from all sources not exempted by Rule 3Q .0702(a) and (b) at this facility shall not exceed the emission rates listed below. Dispersion modeling using USEPA SCREEN3 model (version no. 96043), performed in August 2010, and approved by the Department, demonstrated that the permitted emissions of the TAPs listed in the table below from this facility impacted the surrounding ambient air at levels below the acceptable ambient levels (AALs) specified in Rule 3D .1104 of the FCAQTC. The emission rates listed below shall be used as a basis for certifying that any future modifications or changes in the methods of operation will result in ambient impacts below these AALs. In no case shall actual emissions resulting from changes or modifications exceed any of the following emission rates without first applying for and receiving a permit: **[Section 3D .1100]**

Pollutant	Maximum facility-wide emission rate
benzene (71-43-2)	114.038 lb/year
formaldehyde (50-00-0)	0.906 lb/hour
hydrogen chloride (7647-01-0)	0.5484 lb/hour
hydrogen sulfide (7783-06-4)	2.526 lb/24 hours
vinyl chloride (75-01-4)	306.7752 lb/year

D. **Modifications** - In accordance with Rule 3Q .0701(c), for the 5 year period beginning on September 8, 2008 modifications which increase the facility-wide emissions of, or which relocate an existing emission source of any TAP listed in the table in permit condition 4(C) are allowed without further modeling analysis by the permittee except that actual emissions may not increase above those emissions rates listed in that table without first applying for and obtaining a permit. This does not prevent the Department from conducting a modeling analysis of the facility and, furthermore, does not affect the ability of the Director to require the permittee to conduct another modeling analysis pursuant to Rule 3Q .0712. This permit condition does not exempt the permittee from the requirement to apply for a permit to comply with any future National Emissions Standards for Hazardous Air Pollutants (40 CFR Part 63). **[Rule 3Q .0701(c)]**

E. **Toxic Air Pollutant Recordkeeping Requirements** - The permittee shall maintain updated records of production rates, throughputs, material usage, and other process operational information as is necessary to determine compliance with the emission rates specified in permit conditions 4(B) and (C). At a minimum these records shall include data sufficient to calculate monthly averaged emission rates (in pounds per hour of emission source operation) for TAPs with 1-hour or 24-hour emission limits and yearly emission rates (in pounds per calendar year) for TAPs with annual emission limits.

Copies of these records shall be retained by the permittee for a period of three years after the date on which the record was made. If requested by an agent of the Department, the permittee shall readily supply copies of these records at the time of inspection. Likewise, the permittee shall submit copies of the records upon request by the Department. **[Rules 3D .0605, 3D .1105, and 3Q .0308(a)(1)]**

F. **Toxic Air Pollutant Reporting Requirements** - No reporting is required to demonstrate compliance with these requirements.

PART II AIR QUALITY CONSTRUCTION PERMIT

The Permittee is hereby authorized to construct air emission source(s) and associated air pollution control device(s) listed in Section 1, Part II of this permit, in accordance with the associated air quality permit application(s) received, including all plans, specifications, previous applications, and other supporting data, all of which are filed with the Forsyth County Environmental Affairs Department (FCEAD) and are incorporated in Part II of this Air Quality Permit.

SECTION 1: PERMITTED EMISSION SOURCE(S) AND ASSOCIATED AIR POLLUTION CONTROL DEVICE(S)

The following table contains a summary of all permitted emission sources and associated air pollution control devices:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-04 ES-05 ES-06	3 Caterpillar G35161LE Engine/generators fueled by landfill gas (1,148 HP each)	CD-04	Treatment System for processing landfill gas for subsequent use

SECTION 2: GENERAL CONDITIONS:

This section describes terms and conditions applicable to the construction of the air emission source(s) and associated air pollution control device(s) listed in Section 1. Unless otherwise specified herein all references to the "permit" in this section apply only to Part II of the permit.

A. General Provisions

1. This permit is nontransferable by the Permittee. Future owners and operators must obtain a new air quality permit from the FCEAD.
2. This issuance of this permit in no way absolves the Permittee of liability for any potential civil penalties which may be assessed for violations of State law which have occurred prior to the issuance date of this permit.
3. A violation of any term or condition of Part II of this permit shall subject the Permittee to enforcement pursuant to Forsyth County Air Quality Control Ordinance and Technical Code, including assessment of civil and/or criminal penalties.

B. Submissions (REPORTS, TEST DATA, MONITORING DATA, NOTIFICATIONS, AND REQUESTS FOR RENEWAL)

Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the FCEAD.

C. **Part II Renewal Request**

The Permittee shall request renewal of the emission source(s) and associated air pollution control device(s) listed in Section 1 at the same time as specified in Part I, Section 2.24 of this permit.

D. **Annual Fee Payment**

The Permittee shall pay all fees in accordance with Forsyth County Air Quality Control Ordinance and Technical Code Subchapter 3Q .0200 and in conjunction with Part I, Section 2.12 of this permit.

E. **Reporting Requirements**

Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Director:

1. changes in the information submitted in the application;
2. changes that modify equipment or processes; or
3. changes in the quantity or quality of materials processed.

If appropriate, modifications to the permit may then be made by the FCEAD to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.

F. **Termination, Modification, and Revocation of the Permit**

The Director may terminate, modify, or revoke and reissue this permit if:

1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred; or
4. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of Forsyth county Air Quality control Ordinance and Technical Code.

G. **Inspection and Entry**

Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the FCEAD, or an authorized representative to perform the following:

1. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
2. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
3. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
4. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.

SECTION 3: SPECIFIC LIMITATIONS AND CONDITIONS:

The air emission source(s) and associated air pollution control device(s) listed in Section 1 are subject to the following specific terms, conditions, and limitations, including the monitoring, record keeping, and reporting requirements as specified herein:

- A. Addition of 3 Caterpillar G35161LE Engine/generators fueled by landfill gas (1,148 IIP each) and Landfill Gas Treatment System
1. **Construction/Operation authorization** - This permit authorizes the construction/operation of the above listed equipment in accordance with the permit application and attendant information. [Rule 3Q .0304(1)]
 2. **30-day notification from start-up** - The permittee shall notify the Department of the actual start-up date of the completed project within 30 days after such date. This notification is to enable the Department to plan an inspection to verify compliance with any applicable standards. [Rule 3A .0103(a)(5)]
 3. **Commencement of construction** - If construction/modification of the project is not commenced within 18 months after the effective date of this permit, or construction activities lapse for a period of 18 months after construction has commenced, the permittee shall reapply to the Department and obtain a permit to construct before commencing or resuming construction. [Rule 3Q .0308(a)]
 4. Any air emission sources or control devices authorized to be constructed in Section 1 must be constructed and maintained in accordance with the provisions contained herein. The Permittee shall comply with applicable Forsyth County Air Quality Control Ordinance and Technical Code Regulations, including Subchapter 3D .0524.
 5. The Permittee shall operate the air emission sources and control devices listed in Section 1 in accordance with provisions contained in Part I of this permit.