New River Regional Association
New River Regional Landfill

Facility ID No.: 1250008
Union County

Title V Air Operation Permit Revision

DRAFT Permit No.: 1250008-002-AV
Revision to Title V Air Operation Permit No.: 1250008-001-AV

Permitting and Compliance Authority:
Department of Environmental Protection
Northeast District Air Program
7825 Baymeadows Way, Suite B-200
Jacksonville, Florida 32256-7590
Telephone: 904/807-3300
Fax: 904/448-4363

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Department of
Environmental Protection

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

Jeb Bush
Governor

Colleen Castille
Secretary

Permittee:
New River Solid Waste Association
New River Regional Landfill

DRAFT Permit No.: 1250008-002-AV
Facility ID No.: 1250008
SIC Nos.: 4953
Project: Title V Air Operation Permit

Revision

This permit revision is being issued for the purpose of including the recordkeeping requirements of 40 CFR 60.758(a) in Subsections A and B of the initial Title V Permit No. 1250008-001-AV. The New River Regional Landfill is located at Route 1, Box 375, Raiford, Union County. UTM Coordinates: Zone 17, 382.8 km East; 3330.3 km N.

This Title V Air Operation Permit Revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210 and 62-213. The above named permittee is hereby authorized to operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Referenced attachments made a part of this permit:
APPENDIX TV-5, TITLE V CONDITIONS version dated 03/28/05
40 CFR Part 60, Subpart A, General Provisions
40 CFR Part 61, Subpart A, General Provisions
40 CFR Part 63, Subpart A, General Provisions
Candlestick Flare System Startup and Shutdown Procedures

Effective Date:
Renewal Application Due Date:
Expiration Date: **June 7, 2009**

Christopher L. Kirts, P.E.
District Air Program Administrator

CLK:RFS

Section I. Facility Information.

Subsection A. Facility Description.

The New River Regional Landfill, a municipal solid waste landfill, has a total site area of 200± acres, of which approximately 48.5 acres is used for disposal of Class I solid waste and 16 acres for disposal of Class III solid waste. Emissions of methane, non-methane organic compounds (NMOC), sulfur compounds, and other gases occur as a result of microbial decomposition of the landfill wastes.

The Class I Landfill consists of four cells, Cells 1, 2, 3, and 4. Cell 1 opened for waste deposition on July 1, 1992. Cell 2 was permitted for construction in 1995. Cell 3 opened for waste deposition in July 2000 and ceased waste acceptance in July 2002. Cell 4 (20.50 acres) opened for waste deposition on June 10, 2002.

All of Cell 1 and part of Cell 2 is enclosed (15.5 acres total) and connected to an active, vacuum landfill gas collection system. The collection system is routed to a candlestick utility flare that thermally destructs the collected landfill gas.

The flare commenced operation in July 2002. The addition of liquids to bioreactor began on May 30, 2003.

The remainder of Cell 2, and all of Cell 3 are not enclosed and fugitive nonmethane organic compound (NMOC) emissions are emitted. This area is approximately 13 acres.

The Class III Landfill began waste acceptance in 1992 and is currently actively accepting waste. It is an active asbestos waste disposal site.

The Class I and Class III Landfills have a design capacity equal to 2.5 million megagrams by mass (2.476 Mg). The initial solid waste construction permit for the Class I landfill was issued on June 1, 1990. The landfill was modified in 2001. The permitted waste acceptance for the Class I landfill is 2000 tons per day (average) and 2500 tons per day (maximum), and 100 tons per day for the Class III landfill. The NMOC emissions from the Class I and Class III landfills are calculated to be less than 50 megagrams per year. The maximum projected NMOC emission rate is 37.2 Mg/year in the year 2003 based upon EPA Landfill modeling results. Therefore, at this time a landfill gas (LFG) collection and control system pursuant to 40 CFR Part 60, Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills is not required for this facility.

A waste tire collection center is also included at this landfill.

Based on the initial Title V permit application received June 20, 2002, this facility is not a major source of hazardous air pollutants (HAPS) nor is it collocated with a major source of HAPs. Based on the additional information received November 15, 2002, this facility is a major source due to potential CO emissions of 205 tons per year*

*Based on a maximum operation flow rate of 1600 scfm of LFG consisting of a maximum of 65% methane.

Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s).

E.U. ID No.	Brief Description
001	Class I landfill /Bioreactor/ gas collection system/ non-assisted, utility flare
002	Fugitive NMOC emissions and hazardous air pollutants (HAP) emission from the natural decomposition reactions associated with the landfill which are not collected by the landfill gas collection system
003	Class III Landfill

Subsection C. Relevant Documents.

The documents listed below are not a part of this permit; however, they are specifically related to this permitting action.

These documents are provided to the permittee for information purposes only:
Table 1-1, Summary of Air Pollutant Standards and Terms
Table 2-1, Summary of Compliance Requirements
Appendix A-1: Abbreviations, Acronyms, Citations, and Identification Numbers
Statement of Basis

These documents are on file with permitting authority:
Initial Title V Permit Application received June 20, 2002
Additional Information Request dated August 19, 2002
Additional Information Response received November 15, 2002
Additional Information Request dated December 13, 2002
Additional Information Response received June 11, 2003
Additional Information Request dated July 10, 2003
Additional Information Response received October 17, 2003
Additional Information Request dated November 13, 2003
Additional Information Response received November 26, 2003
Comments from Applicant received March 5, 2004
Re-Open for Cause Letter dated August 16, 2005

Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

1. APPENDIX TV-5, TITLE V CONDITIONS, is a part of this permit.
{Permitting note: APPENDIX TV-5, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}

2. [Not federally enforceable.] General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall cause, suffer, allow, or permit the discharge of air pollutants, which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.]

3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]

4. Prevention of Accidental Releases (Section 112(r) of CAA).
a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center
Post Office Box 3346
Merrifield, VA 22116-3346
Telephone: 703/816-4434

b. The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.
[40 CFR 68]

5. General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.

"Nothing was deemed necessary and ordered at this time."

[Rule 62-296.320(1)(a), F.A.C. and, initial Title V permit application received June 20, 2002]

6. Emissions of Unconfined Particulate Matter. Pursuant to Rules 62-296.320(4)(c)1., 3. & 4., F.A.C., reasonable precautions to prevent emissions of unconfined particulate matter at this facility include the following requirements (see Condition 57. of APPENDIX TV-5, TITLE V CONDITIONS):

The following requirements are "not federally enforceable":

a. Establishment of vegetative cover on slopes;
b. Paving of the entrance to the facility;
c. Treatment of unpaved roads with water or dust control spray, as needed;

[Rule 62-296.320(4)(c)2., F.A.C.; and, proposed by the applicant in additional information response received November 15, 2002 for the Initial Title V permit application]

7. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.
[Rule 62-213.440, F.A.C.]

8. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., shall be submitted to the Department and EPA within 60 (sixty) days after the end of the calendar year using DEP Form No. 62-213.900(7), F.A.C.
[Rules 62-213.440(3) and 62-213.900, F.A.C.]

{Permitting Note: This condition implements the requirements of Rules 62-213.440(3)(a)2. & 3., F.A.C. (see Condition 51. of APPENDIX TV-5, TITLE V CONDITIONS.}"

9. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Northeast District Office.

Department of Environmental Protection
Northeast District Office
7825 Baymeadows Way, Suite B-200
Jacksonville, Florida 32256
Telephone: 904/807-3300
Fax: 904/448-4363

10. Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Air and EPCRA Enforcement Branch, Air Enforcement Section
61 Forsyth Street
Atlanta, Georgia 30303
Telephone: 404/562-9155, Fax: 404/562-9163

11. Certification by Responsible Official (RO). In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information.
[Rule 62-213.420(4), F.A.C.]

Subsection A. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
003	Class III Landfill

{Permitting note: The emissions unit is regulated under 40 CFR, Part 61, Subpart M, National Emission Standard for Asbestos**.**

A.1. Permitted Capacity**.** The maximum volume of waste to be accepted at the Class III facility shall not exceed 100 tons.
[Rule 62-4.160(2),F.A.C.; 62-210.200(PTE), F.A.C.; Solid Waste Permit No. 13500-008-SC]

A.2. Hours of Operation. The facility shall be limited to operating from 7:00 A.M. to 6:00 P.M. Monday through Friday and from 7:00 A.M. to 12:00 P.M Saturday.
[Rule 62-4.160(2),F.A.C.; 62-210.200(PTE), F.A.C.; Solid Waste Permit No. 13500-008-SC]

Emission Limitations and Standards

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

A.3. Accepted Asbestos. Regulated asbestos accepted for disposal at the landfill shall be in a wetted condition and double bagged in 6-mil plastic bags to prevent escape of the material to the outside air.

A.4. Asbestos Waste Disposal. Regulated asbestos waste shall only be disposed in a designated asbestos disposal area, within the class III area, while an authorized, qualified landfill employee supervises the activity.
[Solid Waste Permit No. 13500-008-SC]

A.5. Cover. Asbestos waste shall immediately be covered with either one foot of clean soil or three feet of solid waste that does not contain asbestos with a minimum of six inches of daily cover.
[40 CFR 61.154(c)(1), subsumed, Solid Waste Permit No. 13500-008-SC]

A.6. Warning Signs. Warning signs and fencing must be installed and maintained as follows:

(1) Warning signs must be displayed at all entrances and at intervals of 100 m (330 ft) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material is deposited. The warning signs must:

(i) Be posted in such a manner and location that a person can easily read the legend; and

(ii) Conform to the requirements of 51 cm × 36 cm (20&inch;×14&inch;) upright format signs specified in 29 CFR 1910.145(d)(4) and this paragraph; and

(iii) Display the following legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified in this paragraph.

Legend	Notation
Asbestos Waste Disposal Site.....	2.5 cm (1 inch) Sans Serif, Gothic or Block.
Do Not Create Dust.....	1.9 cm (\3/4\ inch) Sans Serif, Gothic or Block.
Breathing Asbestos is Hazardous to Your Health.	14 Point Gothic.

Spacing between any two lines must be at least equal to the height of the upper of the two lines.

(2) The perimeter of the disposal site must be fenced in a manner adequate to deter access by the general public.

[40 CFR 61.154(b)(1) and (2), Solid Waste Permit No. 13500-008-SC]

Recordkeeping

A.7. Records. For all asbestos-containing waste material received, the owner or operator of the active waste disposal site shall:

(1) Maintain waste shipment records, using a form similar to that shown in Figure 4 below, and include the following information:

(i) The name, address, and telephone number of the waste generator.

(ii) The name, address, and telephone number of the transporter(s).

(iii) The quantity of the asbestos-containing waste material in cubic meters (cubic yards).

(iv) The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers. Report in writing to the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and, if different, the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the disposal site, by the following working day, the presence of a significant amount of improperly enclosed or uncovered waste. Submit a copy of the waste shipment record along with the report.

(v) The date of the receipt.

(2) As soon as possible and no longer than 30 days after receipt of the waste, send a copy of the signed waste shipment record to the waste generator.

(3) Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received, attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, immediately report in writing to the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and, if different, the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the disposal site. Describe the discrepancy and attempts to reconcile it, and submit a copy of the waste shipment record along with the report.

(4) Retain a copy of all records and reports required by this paragraph for at least 2 years.

Generator	1. Work site name and mailing address	Owner's name	Owner's telephone no.
	2. Operator's name and address		Operator's telephone no.
	3. Waste disposal site (WDS) name, mailing address, and physical site location		WDS phone no.
	4. Name, and address of responsible agency		
	5. Description of materials	6. Containers No. Type	7. Total quantity m^3 (yd^3)
	8. Special handling instructions and additional information		
	9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.		
	Printed/typed name & title	Signature	Month Day Year
Transporter	10. Transporter 1 (Acknowledgment of receipt of materials)		
	Printed/typed name & title Address and telephone no.	Signature	Month Day Year
	11. Transporter 2 (Acknowledgment of receipt of materials)		
	Printed/typed name & title Address and telephone no.	Signature	Month Day Year
Disposal Site	12. Discrepancy indication space		
	13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.		
	Printed/typed name & title	Signature	Month Day Year

(Continued)

Figure 4. Waste Shipment Record

[40 CFR 61.154(e), Solid Waste Permit No. 13500-008-SC]

A.8. Maintain, until closure, records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area.
[40 CFR 61.154(f), Solid Waste Permit No. 13500-008-SC]

A.9. Records – Inspections. Furnish upon request, and make available during normal business hours for inspection by the Administrator, all records required under 40 CFR 61.154.
[40 CFR 61.154(i); Solid Waste Permit No. 13500-008-SC]

Reporting Requirements

A.10. Closure- Disposal Locations/Quantities. Submit to the Administrator, upon closure of the facility, a copy of records of asbestos waste disposal locations and quantities.
[40 CFR 61.154(h)]

A.11. Notification of Excavation. Notify the Administrator in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the Administrator at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice:

(1) Scheduled starting and completion dates.

(2) Reason for disturbing the waste.

(3) Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material. If deemed necessary, the Administrator may require changes in the emission control procedures to be used.

(4) Location of any temporary storage site and the final disposal site. (Secs. 112 and 301(a) of the Clean Air Act as amended (42 U.S.C. 7412, 7601(a))

[40 CFR 61.154(j)]

40 CFR 60 Subpart WWW Requirements.

A.12. NMOC Emission Rate Recalculation. The permittee shall recalculate the NMOC emission rate on an annual basis using the procedures specified in Condition A.14. until such time as the calculated NMOC emission rate is equal to or greater than 50 megagrams per year or the landfill is closed.

(A) If the NBMOC emission rate, upon recalculation required above is equal to or greater than 50 megagrams per year, the owner or operator shall install a collection and control system in compliance with 40 CFR 752(b)(2).

(B) If the landfill is permanently closed, a closure notification shall be submitted to the Administrator as provided for in 40 CFR 60.757(d).

[40 CFR 60.752(b)(1)(ii)]

A.13. Landfill Closure. When the landfill is closed, the permittee is no longer subject to the requirement to maintain an operating permit under 40 CFR Part 70 or 71 for the landfill if the landfill is not otherwise subject to the requirements of either 40 CFR Part 70 or 71 and if either of the following conditions are met:

(1) The landfill was never subject to the requirement for a control system under paragraph (b)(2) of this section; or

(2) The owner or operator meets the conditions for control system removal specified in paragraph (b)(2)(v) of this section.

[40 CFR 60.752(d)]

Test Methods and Procedures

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

A.14. NMOC Emission Rate Calculation. The permittee shall calculate the NMOC emission rate using either the equation provided in paragraph (i) of this Condition or the equation provided in paragraph (ii) of this Condition. Both equations may be used if the actual year-to-year solid waste acceptance rate is known, as specified in paragraph (i), for part of the life of the landfill and the actual year-to- year solid waste acceptance rate is unknown, as specified in paragraph (ii), for part of the life of the landfill. The values to be used in both equations are 0.05 per year for k, 170 cubic meters per megagram for L_o, and 4,000 parts per million by volume as hexane for the C_{NMOC}. For landfills located in geographical areas with a thirty year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorologic site, the k value to be used is 0.02 per year.

(i) The following equation shall be used if the actual year-to-year solid waste acceptance rate is known.

$$M_{NMOC} = \sum_{i=1}^{n} 2kL_oM_i\left(e^{-kt}i\right)\left(C_{NMOC}\right)\left(3.6X10^{-9}\right)$$

where,

M_{NMOC} = Total NMOC emission rate from the landfill, megagrams per year
k = methane generation rate constant, $year^{-1}$
L_o = methane generation potential, cubic meters per megagram solid waste
Mi = mass of solid waste in the i^{th} section, megagrams
t_i = age of the i^{th} section, years
C_{NMOC} = concentration of NMOC, parts per million by volume as hexane
3.6 x 10^{-9} = conversion factor
The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value for M_i if documentation of the nature and amount of such wastes is maintained.

(ii) The following equation shall be used if the actual year-to- year solid waste acceptance rate is unknown.

$$M_{NMOC} = 2L_o R (e^{-kc} - e^{-kt}) (C_{NMOC}) (3.6 \times 10^{-9})$$

where,

M_{NMOC} = mass emission rate of NMOC, megagrams per year
L_o = methane generation potential, cubic meters per megagram solid waste
R = average annual acceptance rate, megagrams per year
k = methane generation rate constant, $year^{-1}$
t = age of landfill, years
C_{NMOC} = concentration of NMOC, parts per million by volume as hexane
c = time since closure, years. For active landfill c = O and $e^{-kc}=1$
3.6 x 10^{-9} = conversion factor
The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating a value for R, if documentation of the nature and amount of such wastes is maintained.
[60.754(a)(1)]

Recordkeeping Requirements

A.15. Except as provided in § 60.752(b)(2)(i)(B), the Permittee shall keep for at least 5 years up-to-date, readily accessible, on-site 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. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.
[40 CFR 60.758(a)]

Reporting Requirements

A.16. NMOC Annual Emission Report. The permittee shall submit an annual emission report to the Administrator except as provided for in Condition A.17. (1)(ii).
[40 CFR 60.752(b)(1)(i); 40 CFR 60.757(b)(1)(i)]

A.17. NMOC Emission Rate Report. The Permittee shall submit an NMOC emission rate report to the Administrator on an annual basis, except as provided for in paragraph (1)(ii) of this Condition. The Administrator may request such additional information as may be necessary to verify the reported NMOC emission rate.

(1) The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures Condition A.12.

(ii) If the estimated NMOC emission rate as reported in the annual report to the Administrator is less than 50 megagrams per year in each of the next 5 consecutive years, the owner or operator may elect to submit an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based shall be provided to the Administrator. This estimate shall be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate shall be submitted to the Administrator. The revised estimate shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

(2) The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions.
[40 CFR 60.757(b)(1) and (2)]

Landfill Closure Requirements

A.18. Upon closure, the owner or operator shall comply with all the following conditions for inactive waste disposal sites.
[40 CFR 61.154(g)]

A.19. Comply with one of the following:

(1) Either discharge no visible emissions to the outside air from an inactive waste disposal site subject to this paragraph; or

(2) Cover the asbestos-containing waste material with at least 15 centimeters (6 inches) of compacted nonasbestos-containing material, and grow and maintain a cover of vegetation on the area adequate to prevent exposure of the asbestos-containing waste material. In desert areas where vegetation would be difficult to maintain, at least 8 additional centimeters (3 inches) of well-graded, nonasbestos crushed rock may be placed on top of the final cover instead of vegetation and maintained to prevent emissions; or

(3) Cover the asbestos-containing waste material with at least 60 centimeters (2 feet) of compacted nonasbestos-containing material, and maintain it to prevent exposure of the asbestos-containing waste; or

(4) For inactive waste disposal sites for asbestos tailings, a resinous or petroleum-based dust suppression agent that effectively binds dust to control surface air emissions may be used instead of the methods in paragraphs (1), (2), and (3) of this Condition. Use the agent in the manner and frequency recommended for the particular asbestos tailings by the manufacturer of the dust suppression agent to achieve and maintain dust control. Obtain prior written approval of the Administrator to use other equally effective dust suppression agents. For purposes of this paragraph, any used, spent, or other waste oil is not considered a dust suppression agent.
[40 CFR 61.151(a)]

A.20. Warning Signs. Unless a natural barrier adequately deters access by the general public, install and maintain warning signs and fencing as follows, or comply with paragraph (2) or (3).

(1) Display warning signs at all entrances and at intervals of 100 m (328 ft) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material was deposited. The warning signs must:

(i) Be posted in such a manner and location that a person can easily read the legend; and

(ii) Conform to the requirements for 51 cm×36 cm (20&inch;×14&inch;) upright format signs specified in 29 CFR 1910.145(d)(4) and this paragraph; and

(iii) Display the following legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified in this paragraph.

Legend	Notation
Asbestos Waste Disposal Site.....	2.5 cm (1 inch) Sans Serif, Gothic or Block
Do Not Create Dust.....	1.9 cm (\3/4\ inch) Sans Serif, Gothic or Block
Breathing Asbestos is Hazardous to Your Health.	14 Point Gothic.

Spacing between any two lines must be at least equal to the height of the upper of the two lines.

(2) Fence the perimeter of the site in a manner adequate to deter access by the general public.

(3) When requesting a determination on whether a natural barrier adequately deters public access, supply information enabling the Administrator to determine whether a fence or a natural barrier adequately deters access by the general public.
[40 CFR 61.151(b)]

A.21. Alternative Control Methods. The owner or operator may use an alternative control method that has received prior approval of the Administrator rather than comply with the requirements of Conditions A.19. and A.20.
[40 CFR 61.151(c)]

A.22. Excavation. Notify the Administrator in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site under this section, and follow the procedures specified in the notification. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the Administrator at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice:

(1) Scheduled starting and completion dates.

(2) Reason for disturbing the waste.

(3) Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material. If deemed necessary, the Administrator may require changes in the emission control procedures to be used.

(4) Location of any temporary storage site and the final disposal site.
[40 CFR 61.151(d)]

A.23. Deed Notation. Within 60 days of a site becoming inactive and after the effective date of Conditions A.19. through A.23., record, in accordance with State law, a notation on the deed to the facility property and on any other instrument that would normally be examined during a title search; this notation will in perpetuity notify any potential purchaser of the property that:

(1) The land has been used for the disposal of asbestos-containing waste material;

(2) The survey plot and record of the location and quantity of asbestos-containing waste disposed of within the disposal site required in Condition A.8. have been filed with the Administrator; and

(3) The site is subject to 40 CFR Part 61, Subpart M.
[40 CFR 61.151(e)]

General Provisions

A.24. This emissions unit is also subject to the applicable requirements in 40 CFR Part 60, Subpart A.

A.25. This emissions unit is also subject to the applicable requirements in 40 CFR Part 61, Subpart A.

Subsection B. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
001	Class I landfill /Bioreactor/ gas collection system/ non-assisted, utility flare
002	Fugitive NMOC emissions and hazardous air pollutants (HAP) emission from the natural decomposition reactions associated with the landfill which are not collected by the landfill gas collection system

The Florida Bioreactor Demonstration Project is located at the New River Regional Landfill Cell Nos. 1 and 2. An active, vacuum landfill gas collection system draws the collected landfill gas to a candlestick flare for destruction. The operating throughput rate of the landfill gas collection and flare system will vary due to the nature of operations in the landfill. The utility flare has a maximum flow of 1,600 SCFM.

{Permitting note: The emissions unit is regulated under 40 CFR, Part 60, Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills, adopted by reference in Rule 62-204.800(7)(b) 72, F.A.C. and 40 CFR Chapter 1 Part 60, Subpart Cc adopted by reference in Rule 62-204.800(8)(c), F.A.C.

Because liquid other than leachate is added in combination with recirculating leachate to the waste mass such that the maximum average moisture content is 35 percent by weight, the bioreactor does not meet the 40 CFR 63.1990 definition of a bioreactor. Therefore, the facility is not currently subject to the requirements of 40 CFR, Part 63, Subpart AAAA, National Emission Standards for Hazardous Air Pollutants Municipal Solid Waste Landfills. Should the moisture content reach 40 percent by weight, the landfill will be subject to the requirements of 40 CFR, Part 63, Subpart AAAA, National Emission Standards for Hazardous Air Pollutants Municipal Solid Waste Landfills at that time.

The Class I and Class III Landfills have a design capacity equal to 2.5 million megagrams by mass (2.476 Mg). The initial solid waste construction permit for the Class I landfill was issued on June 1, 1990. The landfill was modified in 2001. The permitted waste acceptance for the Class I landfill is 2000 tons per day (average) and 2500 tons per day (maximum), and 100 tons per day for the Class III landfill. The NMOC emissions from the Class I and Class III landfills are calculated to be less than 50 megagrams per year. The maximum projected NMOC emission rate is 37.2 Mg/year in the year 2003 based upon EPA Landfill modeling results. Therefore, at this time a landfill gas (LFG) collection and control system pursuant to 40 CFR Part 60, Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills is not required for this facility.}

The following specific conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity - Flare. The process rate shall not exceed 1,600 SCFM at 65 percent methane of landfill gas. The heat input rate shall not exceed 43.7 MMBtu/hr.
[Rule 62-4.160(2) and 62-210.200(PTE), F.A.C.]

B.2. Hours of Operation. This emissions unit is allowed to operate continuously 8,760 hours/year.
[Rule 62-4.160(2) and 62-210.200(PTE), F.A.C.]

B.3. Methods of Operation - Flare. Pilot fuel for the flare shall be LPG. LPG shall be used only for the purpose of igniting the flare and not be utilized as a supplemental fuel. The flare shall be operated at all times with a flame present and when emissions may be vented to it.
[Rule 62-4.160(2) and 62-210.200(PTE), F.A.C.; 62-4.070(3), F.A.C.]

Emission Limitations and Standards

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

{Permitting Note: Unless otherwise specified, the averaging time for these conditions is based on the specified averaging time of the applicable test method.}

B.4. Visible Emissions –Flare. Visible emissions from the flare shall not exceed 5% Opacity.
[Rule 62-296.320(4)(b)1., F.A.C., subsumed Applicant Request dated November 15, 2002]

B.5. NMOC Concentration Retest. The Permittee shall retest the site-specific NMOC concentration every 5 years[1] using the methods specified in 40 CFR 60.754.

[1] Class I Cell 1 and 2 Tier II conducted on August 6, 2002. Class I Cell 3 and 2 Tier II conducted on April 28, 2003. Cell 4 initial test has yet to be conducted.
[40 CFR 60.754(3)(iii)]

B.6. NMOC Emission Rate Recalculation. The permittee shall recalculate the NMOC emission rate on an annual basis using the procedures specified in Condition B.13. until such time as the calculated NMOC emission rate is equal to or greater than 50 megagrams per year or the landfill is closed.

(a) If the NMOC emission rate, upon recalculation required above is equal to or greater than 50 megagrams per year, the owner or operator shall install a collection and control system in compliance with Condition C.1.

(b) If the landfill is permanently closed, a closure notification shall be submitted to the Administrator as provided for in 40 CFR 60.757(d).

The average NMOC concentration from the Tier II results conducted on August 6, 2002 and April 28, 2003 shall be used instead of the default value in the equation.
[40 CFR 60.752(b)(1)(ii)]

B.7. Landfill Closure. When the landfill is closed, the permittee is no longer subject to the requirement to maintain an operating permit under 40 CFR Part 70 or 71 for the landfill if the landfill is not otherwise subject to the requirements of either 40 CFR Part 70 or 71 and if either of the following conditions are met:

(1) The landfill was never subject to the requirement for a control system under 40 CFR 60.752(b)(2); or

(2) The owner or operator meets the conditions for control system removal specified in 40 CFR 60.752(b)(2)(v).

[40 CFR 60.752(d)]

Monitoring of Operations

B.8. Flare. The facility shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment:

(a) A thermal dispersion mass flow meter that shall record the flow of landfill gas to the flare at least every 15 minutes;

(b) A thermocouple and UV detection device, at the pilot light or the flame itself, to monitor the continuous presence of a flame on the flare.

[62-4.070(3), F.A.C.]

Test Methods and Procedures

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

B.9. Visible Emissions – Flare. The test method for visible emissions shall be in accordance with EPA Method 9, adopted and incorporated by reference in Chapter 62-297, F.A.C. The required minimum period of observation shall be thirty (30) minutes. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur.

Initial testing shall be conducted within 60 days of the effective date of this permit. Subsequent testing shall be conducted on an annual basis, once each federal fiscal year.
[Rules 62-297.310(4)(a)2., 62-297.310(7)(a)4.a., 62-296.320(4)(b)4., F.A.C.]

B.10. Operating Rate during Compliance Testing**.** Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit operating at permitted capacity as defined below. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

(b) All Other Sources. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit.

[Rules 62-297.310(2) and 62-297.310(2)(b), F.A.C.]

B.11. Compliance Test Notification. The Department shall be notified at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the source.
[Rule 62-297.310(7)9., F.A.C.]

B.12. Test Report Submittal. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.
[Rule 62-297.310(8)(b), F.A.C.]

B.13. NMOC Emission Rate Calculation. The permittee shall calculate the NMOC emission rate using either the equation provided in paragraph (i) of this Condition or the equation provided in paragraph (ii) of this Condition. Both equations may be used if the actual year-to-year solid waste acceptance rate is known, as specified in paragraph (i), for part of the life of the landfill and the actual year-to- year solid waste acceptance rate is unknown, as specified in paragraph (ii), for part of the life of the landfill. The values to be used in both equations are 0.05 per year for k, 170 cubic meters per megagram for L_o, and 4,000 parts per million by volume as hexane for the C_{NMOC}. For landfills located in geographical areas with a thirty year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorologic site, the k value to be used is 0.02 per year.

(i) The following equation shall be used if the actual year-to-year solid waste acceptance rate is known.

where:

$$M_{NMOC} = \sum_{i=1}^{n} 2kL_oM_i\left(e^{-kt}i\right)\left(C_{NMOC}\right)\left(3.6X10^{-9}\right)$$

M_{NMOC} = Total NMOC emission rate from the landfill, megagrams per year
k = methane generation rate constant, $year^{-1}$
L_o = methane generation potential, cubic meters per megagram solid waste
Mi = mass of solid waste in the i^{th} section, megagrams
t_i = age of the i^{th} section, years
C_{NMOC} = concentration of NMOC, parts per million by volume as hexane
3.6 x 10^{-9} = conversion factor

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value for M_i if documentation of the nature and amount of such wastes is maintained.

(ii) The following equation shall be used if the actual year-to- year solid waste acceptance rate is unknown.

$$M_{NMOC} = 2L_o R (e^{-kc} - e^{-kt}) (C_{NMOC}) (3.6 \times 10^{-9})$$

Where:

M_{NMOC} = mass emission rate of NMOC, megagrams per year
L_o = methane generation potential, cubic meters per megagram solid waste
R = average annual acceptance rate, megagrams per year
k = methane generation rate constant, $year^{-1}$
t = age of landfill, years
C_{NMOC} = concentration of NMOC, parts per million by volume as hexane
c = time since closure, years. For active landfill c = O and e^{-kc}=1
3.6 x 10^{-9} = conversion factor

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating a value for R, if documentation of the nature and amount of such wastes is maintained.
[60.754(a)(1)]

Recordkeeping

B.14. Flare. The owner or operator shall maintain up-to-date, readily accessible records of the following information. The records, including support information such as calibration and maintenance records and original continuous monitoring instrumentation recordings, shall be retained for a period of at least 5 years from the date of measurement:

a. landfill gas flow rate measurements as required by Condition B. 8.;
b. continuous records of the flare pilot flame or flare flame monitoring as required by Condition B.8.;
c. Description and duration of all periods when the flare is not in operation;
d. Description and duration of all periods of operations during which the pilot flame or the flare flame is absent.

[Rule 62-4.070(3), F.A.C.; Rule 62-213.440(1)(b)2.b., F.A.C.]

B.15. Except as provided in 40 CFR 60.752(b)(2)(i)(B), the Permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered 40 CFR 60.752(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.
[40 CFR 60.758(a)]

B.16. Bioreactor. The Permittee shall maintain a record of calculations showing that the percent moisture by weight expected in the waste mass to which liquid is added is less than 40 percent. The calculation must consider the waste mass, moisture content of the incoming waste, mass of water added to the waste including leachate recirculation and other liquids addition and precipitation, and the mass of water removed through leachate or other water losses. Moisture level sampling or mass balances calculations can be used. The calculations and the basis of any assumptions must be documented. A record of the calculations shall be kept until liquids addition has been ceased.
[40 CFR 63.1980(g)]

Reporting Requirements

B.17. NMOC Annual Emission Report. The permittee shall submit an annual emission report to the Administrator except as provided for in Condition B.18.(1)(i).
[40 CFR 60.752(b)(1)(i); 40 CFR 60.757(b)(1)(i)]

B.18. NMOC Emission Rate Report. The Permittee shall submit an NMOC emission rate report to the Administrator on an annual basis, except as provided for in paragraph (1)(i) of this Condition. The Administrator may request such additional information as may be necessary to verify the reported NMOC emission rate.

(1) The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures Condition B.13.

(i) If the estimated NMOC emission rate as reported in the annual report to the Administrator is less than 50 megagrams per year in each of the next 5 consecutive years, the owner or operator may elect to submit an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based shall be provided to the Administrator. This estimate shall be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate shall be submitted to the Administrator. The revised estimate shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

(2) The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions.
[40 CFR 60.757(b)(1) and (2)]

B.19. Flare. The permittee shall submit reports of the monitoring information required in Condition B.14. at least every six (6) months.
[Rule 62-213.440(1)(b)3.a., F.A.C.]

B.20. Bioreactor. If moisture content is calculated to establish the date the bioreactor is required to begin operating the collection and control system under Sec. 63.1947(a)(2) or (c)(2), a record of the calculations including the information specified in Condition B.16 shall be kept for 5 years. Within 90 days after the bioreactor achieves 40 percent moisture content, the Permittee shall report the results of the calculation, the date the bioreactor achieved 40 percent moisture content by weight, and the date the facility plans to begin collection and control system operation pursuant to the requirements of 40 CFR 63 Subpart AAAA National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills.
[40 CFR 63.1980 (h)]

General Provisions

B.21. This emissions unit is also subject to the applicable requirements in 40 CFR Part 60, Subpart A.

40 CFR 63 Subpart AAAA Applicable Requirements

B.22. This emissions unit shall also become subject to the applicable requirements of Subsection D, in addition to the requirements of this Subsection, upon either the bioreactor meets the 40 CFR 63.1990 definition of a bioreactor, estimated uncontrolled NMOC emissions are equal to or greater than 50 megagrams per year (Mg/yr) as calculated according to Sec. 60.754(a) of the MSW landfills new source performance standards in 40 CFR Part 60, Subpart WWW, or the landfill otherwise meets the applicability requirements of 40 CFR 63 Subpart AAAA National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills[1]:

[1] The applicability requirements are stated in Subsection D.
[40 CFR 63.1935(b) and (b)(3)]

Section III. Emissions Units and Conditions.

Subsection C. NSPS Common Conditions.

E.U. ID No.	Brief Description
001	Class I landfill /Bioreactor/ gas collection system/ non-assisted, utility flare
002	Fugitive NMOC emissions and hazardous air pollutants (HAP) emission from the natural decomposition reactions associated with the landfill which are not collected by the landfill gas collection system
003	Class III Landfill

C.0. The following conditions become applicable to the emissions units above beginning on the date that it is determined that the NMOC emission rate from the landfill is equal to or greater than 50 megagrams per year, in accordance with the requirements of Condition B.6.

C.1. If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, the owner or operator shall:

(i) Submit a collection and control system design plan prepared by a professional engineer to the Administrator within 1 year:

(A) The collection and control system as described in the plan shall meet the design requirements of paragraph (ii) of this Condition.

(B) The collection and control system design plan shall include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of §§ 60.753 through 60.758 proposed by the owner or operator.

(C) The collection and control system design plan shall either conform with specifications for active collection systems in § 60.759 or include a demonstration to the Administrator's satisfaction of the sufficiency of the alternative provisions to § 60.759.

(D) The Administrator shall review the information submitted under paragraphs (i) (A),(B) and (C) of this Condition and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only, leachate collection components, and passive systems.

(ii) Install a collection and control system that captures the gas generated within the landfill as required by paragraphs (ii)(A) or (B) and (iii) of this Condition within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the emission rate is less than 50 megagrams per year, as specified in Condition C.23(1) or (2).

(A) An active collection system shall:

(1) 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;

(2) Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of:

(i) 5 years or more if active; or

(ii) 2 years or more if closed or at final grade;

(3) Collect gas at a sufficient extraction rate;

(4) Be designed to minimize off-site migration of subsurface gas.

(B) A passive collection system shall:

(1) Comply with the provisions specified in paragraphs (ii)(A)(1), (2), and (ii)(A)(4) of this condition.

(2) Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners shall be installed as required under § 258.40 of this title.

(iii) Route all the collected gas to a control system that complies with the requirements in either paragraph (iii) (A), (B) or (C) of this section.

(A) An open flare designed and operated in accordance with § 60.18;

(B) A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in Condition C.10.

(1) If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.

(2) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in § 60.756;

(C) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of paragraph (iii) (A) or (B) of this section.

(iv) Operate the collection and control device installed to comply with this subpart in accordance with the provisions of § § 60.753, 60.755 and 60.756.

(v) The collection and control system may be capped or removed provided that all the conditions of paragraphs (v) (A), (B), and (C) of this section are met:

(A) The landfill shall be a closed landfill as defined in § 60.751 of this subpart. A closure report shall be submitted to the Administrator as provided in Condition C.24.;

(B) The collection and control system shall have been in operation a minimum of 15 years; and

(C) Following the procedures specified in § 60.754(b) of this subpart, 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.

[40 CFR 60.752(b)(2)]

§ 60.753 Operational standards for collection and control systems.

C.2. Each owner or operator of an MSW landfill with a gas collection and control system used to comply with the provisions of Condition C.1.(ii) shall:
(a) Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:
(1) 5 years or more if active; or
(2) 2 years or more if closed or at final grade;
[40 CFR 60.753(a)]

C.3. Operate the collection system with negative pressure at each wellhead except under the following conditions:
(1) A fire or increased well temperature. The owner or operator 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 Condition C.26.(1);
(2) Use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan;
(3) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Administrator;
[40 CFR 60.753(b)]

C.4. Operate each interior wellhead in the collection system with a landfill gas temperature less than 55º C and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The owner or operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.
(1) The nitrogen level shall be determined using Method 3C, unless an alternative test method is established as allowed by Condition C.1.(i).
(2) Unless an alternative test method is established as allowed by Condition C.1.(i), the oxygen shall be determined by an oxygen meter using Method 3A or 3C except that:
(i) The span shall be set so that the regulatory limit is between 20 and 50 percent of the span;
(ii) A data recorder is not required;
(iii) Only two calibration gases are required, a zero and span, and ambient air may be used as the span;
(iv) A calibration error check is not required;
(v) The allowable sample bias, zero drift, and calibration drift are ±10 percent.
[40 CFR 60.753(c)]

C.5. Operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30 meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.
[40 CFR 60.753(d)]

C.6. Operate the system such that all collected gases are vented to a control system designed and operated in compliance with Condition C.1.(iii). In the event 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 1 hour; and
[40 CFR 60.753(e)]

C.7. Operate the control or treatment system at all times when the collected gas is routed to the system.
[40 CFR 60.753(f)]

C.8. If monitoring demonstrates that the operational requirement in Conditions C.3., C.4., or C.5. are not met, corrective action shall be taken as specified in Condition C.11.(3) through (5) or Condition C.13. If corrective actions are taken as specified in § 60.755, the monitored exceedance is not a violation of the operational requirements in this section.
[40 CFR 60.753(g)]

Test Methods and Procedures

C.9. After the installation of a collection and control system in compliance with § 60.755, the owner or operator shall calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in Condition C.1.(v), using the following equation:

$M_{NMOC} = 1.89 \times 10^{-3} Q_{LFG} C_{NMOC}$

where,
M_{NMOC} = mass emission rate of NMOC, megagrams per year
Q_{LFG} = flow rate of landfill gas, cubic meters per minute
C_{NMOC} = NMOC concentration, parts per million by volume as hexane

(1) The flow rate of landfill gas, QLFG, shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions of section 4 of Method 2E of Appendix A of Part 60.

(2) The average NMOC concentration, CNMOC, shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25C or Method 18 of appendix A of this part. If using Method 18 of appendix A of this part, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The sample location on the common header pipe shall be before any condensate removal or other gas refining units. The landfill owner or operator shall divide the NMOC concentration from Method 25C of appendix A of this part by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

(3) The owner or operator may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Administrator.
[40 CFR 60.754(b)]

C.10. For the performance test required in Condition C.1.(iii)(B), Method 25, 25C or Method 18 of appendix A of this part shall be used to determine compliance with 98 weight-percent efficiency or the 20 ppmv outlet concentration level, unless another method to demonstrate compliance has been approved by the Administrator as provided by Condition C.1.(i)(B). Method 3 or 3A shall be used to determine oxygen for correcting the NMOC concentration as hexane to 3 percent. In cases where the outlet concentration is less than 50 ppm NMOC as carbon (8ppm NMOC as Hexane), Method 25A should be used in place of Method 25. If using Method 18 of appendix A of this part, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The following equation shall be used to calculate efficiency:

Control Efficiency = $(NMOC_{in} - NMOC_{out})/(NMOC_{in})$

where,
$NMOC_{in}$ = mass of NMOC entering control device
$NMOC_{out}$ = mass of NMOC exiting control device
[40 CFR 60.754(d)]

§ 60.755 Compliance provisions.

C.11. Except as provided in Condition C.1.(i)(B), the specified methods in paragraphs (1) through (6) of this Condition shall be used to determine whether the gas collection system is in compliance with Condition C.1.(ii).

(1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with Condition C.1.(ii)(A)(1), one of the following equations shall be used. The k and L_o kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site- specific values demonstrated to be appropriate and approved by the Administrator. If k has been determined as specified in § 60.754(a)(4), the value of k determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.

(i) For sites with unknown year-to-year solid waste acceptance rate:

$Q_m = 2L_o R (e^{-kc} - e^{-kt})$

where,

Q_m = maximum expected gas generation flow rate, cubic meters per year
L_o = methane generation potential, cubic meters per megagram solid waste
R = average annual acceptance rate, megagrams per year
k = methane generation rate constant, $year^{-1}$
t = age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure, t is the age of the landfill at installation, years
c = time since closure, years (for an active landfill c = O and $e^{-kc} = 1$)

(ii) For sites with known year-to-year solid waste acceptance rate:

$$Q_M = \sum_{i=1}^{n} 2kLoMi\left(e^{-kt}i\right)$$

where,

Q_M = maximum expected gas generation flow rate, cubic meters per year
k = methane generation rate constant, $year^{-1}$
L_o = methane generation potential, cubic meters per megagram solid waste
M_i = mass of solid waste in the i^{th} section, megagrams
t_i = age of the i^{th} section, years

(iii) If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in paragraphs (1) (i) and (ii) of this Condition. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equations in paragraphs (1) (i) or (ii) or other methods shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.

(2) For the purposes of determining sufficient density of gas collectors for compliance with Condition C.1.(ii)(A)(2), the owner or operator shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Administrator, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

(3) For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with Condition C.1.(ii)(A)(3), the owner or operator shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under § 60.753(b). 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 alternative timeline for correcting the exceedance may be submitted to the Administrator for approval.

(4) Owners or operators are not required to expand the system as required in paragraph (3) of this Condition during the first 180 days after gas collection system startup.

(5) For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature and nitrogen or oxygen as provided in Condition C.3. 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. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval.

(6) An owner or operator seeking to demonstrate compliance with Condition C.1.(ii)(A)(4) through the use of a collection system not conforming to the specifications provided in § 60.759 shall provide information satisfactory to the Administrator as specified in Condition C.1.(i)(C) demonstrating that off-site migration is being controlled.
[40 CFR 60.755(a)]

C.12. For purposes of compliance with Condition C.2., each owner or operator of a controlled landfill shall place each well or design component as specified in the approved design plan as provided in Condition C.1.(i). Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:

(1) 5 years or more if active; or

(2) 2 years or more if closed or at final grade.
[40 CFR 60.755(b)]

C.13. The following procedures shall be used for compliance with the surface methane operational standard as provided in Condition C.5..

(1) After installation of the collection system, the owner or operator shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in Condition C.14.

(2) The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.

(3) Surface emission monitoring shall be performed in accordance with section 4.3.1 of Method 21 of Appendix A of Part 60, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.

(4) Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified in paragraphs (4)(i) through (v) of this Condition shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of Condition C.5.

(i) The location of each monitored exceedance shall be marked and the location recorded.

(ii) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance.

(iii) If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in paragraph (4)(v) of this Condition shall be taken, and no further monitoring of that location is required until the action specified in paragraph (4)(v) has been taken.

(iv) Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in paragraph (4) (ii) or (iii) of this Condition shall be re-monitored 1 month from the initial exceedance. If the 1-month remonitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month remonitoring shows an exceedance, the actions specified in paragraph (4) (iii) or (v) shall be taken.

(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 to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Administrator for approval.

(5) The owner or operator shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.
[40 CFR 60.755(c)]

C.14. Each owner or operator seeking to comply with the provisions in Condition C.13. shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

(1) The portable analyzer shall meet the instrument specifications provided in section 3 of Method 21 of Appendix A of Part 60, except that ``methane'' shall replace all references to VOC.

(2) The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.

(3) To meet the performance evaluation requirements in section 3.1.3 of Method 21 of Appendix A of Part 60, the instrument evaluation procedures of section 4.4 of Method 21 of Appendix A of Part 60 shall be used.

(4) The calibration procedures provided in section 4.2 of Method 21 of Appendix A of Part 60 shall be followed immediately before commencing a surface monitoring survey.
[40 CFR 60.755(d)]

C.15. The provisions of this subpart 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.
[40 CFR 60.755(e)]

§ 60.756 Monitoring of operations.

Except as provided in Condition C.1.(i)(B),

C.16. Each owner or operator seeking to comply with Condition C.1.(ii)(A) for an active gas collection system shall install a sampling port and a thermometer other temperature measuring device, or an access port for temperature measurements at each wellhead and:

(1) Measure the gauge pressure in the gas collection header on a monthly basis as provided in § 60.755(a)(3); and

(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in Condition C.11.(5); and

(3) Monitor temperature of the landfill gas on a monthly basis as provided in Condition C.11.(5).

[40 CFR 60.756(a)]

C.17. Each owner or operator seeking to comply with Condition C.1.(iii) using an enclosed combustor shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment.

(1) A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ±0.5 degrees C, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts.

(2) A device that records flow to or bypass of the control device. The owner or operator shall either:

(i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or

(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

[40 CFR 60.756(b)]

C.18. Each owner or operator seeking to comply with Condition C.1.(iii) using an open flare shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

(1) 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.

(2) A device that records flow to or bypass of the flare. The owner or operator shall either:

(i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or

(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

[40 CFR 60.756(c)]

C.19. Each owner or operator seeking to demonstrate compliance with Condition C.1.(2)(iii) using a device other than an open flare or an enclosed combustor shall provide information satisfactory to the Administrator as provided in Condition C.1.(i)(B) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator shall review the information and either approve it, or request that additional information be submitted. The Administrator may specify additional appropriate monitoring procedures.
[40 CFR 60.756(d)]

C.20. Each owner or operator seeking to install a collection system that does not meet the specifications in § 60.759 or seeking to monitor alternative parameters to those required by § 60.753 through § 60.756 shall provide information satisfactory to the Administrator as provided in Condition C.1.(i) (B) and (C) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator may specify additional appropriate monitoring procedures.
[40 CFR 60.756(e)]

C.21. Each owner or operator seeking to demonstrate compliance with Condition C.13. shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in Condition C.14. Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.
[40 CFR 60.756(f)]

§ 60.757 Reporting requirements.

Except as provided in Condition C.1.(i)(B),

C.22. Each owner or operator subject to the requirements of this subpart is exempted from the requirements of 40 CFR 60.757(b)(1) and (2), after the installation of a collection and control system in compliance with Condition C.1., during such time as the collection and control system is in operation and in compliance with § § 60.753 and 60.755.
[40 CFR 60.757(b)(3)]

C.23. Each owner or operator subject to the provisions of Condition C.1.(i) shall submit a collection and control system design plan to the Administrator within 1 year of the first report required under 40 CFR 60.757(b), in which the emission rate exceeds 50 megagrams per year, except as follows:

(1) If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in § 60.754(a)(3) and the resulting rate is less than 50 megagrams per year, annual periodic reporting shall be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated emission rate is equal to or greater than 50 megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated emission rate based on NMOC sampling and analysis, shall be submitted within 180 days of the first calculated exceedance of 50 megagrams per year.

(2) If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant (k), as provided in Tier 3 in § 60.754(a)(4), and the resulting NMOC emission rate is less than 50 Mg/yr, annual periodic reporting shall be resumed. The resulting site-specific methane generation rate constant (k) shall be used in the emission rate calculation until such time as the emissions rate calculation results in an exceedance. The revised NMOC emission rate report based on the provisions of § 60.754(a)(4) and the resulting site-specific methane generation rate constant (k) shall be submitted to the Administrator within 1 year of the first calculated emission rate exceeding 50 megagrams per year.
[40 CFR 60.757(c)]

C.24. Each owner or operator of a controlled landfill shall submit a closure report to the Administrator within 30 days of waste acceptance cessation. The Administrator 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. If a closure report has been submitted to the Administrator, no additional wastes may be placed into the landfill without filing a notification of modification as described under § 60.7(a)(4).
[40 CFR 60.757(d)]

C.25. Each owner or operator of a controlled landfill shall submit an equipment removal report to the Administrator 30 days prior to removal or cessation of operation of the control equipment.

(1) The equipment removal report shall contain all of the following items:

(i) A copy of the closure report submitted in accordance with paragraph (d) of this section;

(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.

(2) The Administrator may request such additional information as may be necessary to verify that all of the conditions for removal in Condition C.1.(v) have been met.
[40 CFR 60.757(e)]

C.26. Each owner or operator of a landfill seeking to comply with Condition C.1. using an active collection system designed in accordance with Condition C.1.(ii) shall submit to the Administrator annual reports of the recorded information in (1) through (6) of this paragraph. The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under § 60.8. For enclosed combustion devices and flares, reportable exceedances are defined under Condition C.30.

(1) Value and length of time for exceedance of applicable parameters monitored under Conditions C.16., C.17., C.18. and C.19.

(2) Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under § 60.756.

(3) Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating.

(4) All periods when the collection system was not operating in excess of 5 days.

(5) The location of each exceedance of the 500 parts per million methane concentration as provided in § 60.753(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month.

(6) The date of installation and the location of each well or collection system expansion added pursuant to Conditions C.11.(3), C.12., and C.13.(4).
[40 CFR 60.757(f)]

C.27. Each owner or operator seeking to comply with Condition C.1.(iii) shall include the following information with the initial performance test report required under § 60.8:

(1) A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion;

(2) The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;

(3) The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material;

(4) The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area;
and

(5) The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and

(6) The provisions for the control of off-site migration.
[40 CFR 60.757(g)]

§ 60.758 Recordkeeping requirements.

C.28. Except as provided in Condition C.1.(i)(B), each owner or operator of an MSW landfill subject to the provisions of Condition C.1. (40 CFR 60.752(b)), shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered 40 CFR 60.752(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.
[40 CFR 60.758(a)]

C.29. Except as provided in Condition C.1.(i)(B), each owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in paragraphs (1) through (4) of this Condition as measured during the initial performance test or compliance determination. 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.

(1) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with Condition C.1.(ii):

(i) The maximum expected gas generation flow rate as calculated in § 60.755(a)(1). The owner or operator may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Administrator.

(ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in Condition C.34.(1).

(2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with Condition C.1.(iii) through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity greater than 44 megawatts:

(i) The average combustion temperature measured at least every 15 minutes and averaged over the same time period of the performance test.

(ii) The percent reduction of NMOC determined as specified in Condition C.1.(iii)(B) achieved by the control device.

(3) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with Condition C.1.(iii)(B)(1) through use of a boiler or process heater of any size: a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.

(4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with Condition C.1.(iii)(A) through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), 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 § 60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.

[40 CFR 60.758(b)]

C.30. Except as provided in Condition C.1.(i)(B), each owner or operator of a controlled landfill subject to the provisions of this subpart shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in § 60.756 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

(1) The following constitute exceedances that shall be recorded and reported under Condition C.26.:

(i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28 ºC below the average combustion temperature during the most recent performance test at which compliance with Condition C.1.(iii) was determined.

(ii) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under paragraph (3) of Condition C.29.

(2) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under § 60.756.

(3) Each owner or operator subject to the provisions of this subpart who uses a boiler or process heater with a design heat input capacity of 44 megawatts or greater to comply with Condition C.1.(iii) shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater.
(Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other State, local, Tribal, or Federal regulatory requirements.)

(4) Each owner or operator seeking to comply with the provisions of this subpart by use of an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under Condition C.18., and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.
[40 CFR 60.758(c)]

C.31. Except as provided in Condition C.1.(i)(B), each owner or operator subject to the provisions of this subpart shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.

(1) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under Condition C.12.

(2) Each owner or operator subject to the provisions of this subpart shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in Condition C.34.(3)(i) as well as any nonproductive areas excluded from collection as provided in Condition C.34.(3)(ii).
[40 CFR 60.758(d)]

C.32. Except as provided in Condition C.1.(i)(B), each owner or operator subject to the provisions of this subpart shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in § 60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.
[40 CFR 60.758(e)]

C.33. Landfill owners or operators who convert design capacity from volume to mass or mass to volume to demonstrate that landfill design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, as provided in the definition of ``design capacity'', shall keep readily accessible, on-site records of the annual recalculation of site-specific density, design capacity, and the supporting documentation. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.
[40 CFR 60.758(f)]

§ 60.759 Specifications for active collection systems.

C.34. Each owner or operator seeking to comply with Condition C.1.(i) shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Administrator as provided in Condition C.1.(i)(C) and (D):

(1) 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. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandibility, 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.

(2) The sufficient density of gas collection devices determined in paragraph (a)(1) of this section 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.

(3) The placement of gas collection devices determined in paragraph (1) of this Condition shall control all gas producing areas, except as provided by paragraphs (3)(i) and (3)(ii) of this Condition.

(i) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under Condition C.31. The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and shall be provided to the Administrator upon request.

(ii) Any nonproductive area of the landfill may be excluded from control, provided that 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. The amount, location, and age of the material shall be documented and provided to the Administrator upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section shall be computed using the following equation:

$$Q_i = 2\ k\ L_o\ M_i\ (e^{-kt}i)\ (C_{NMOC})\ (3.6\ \times 10^{-9})$$

where,

Q_i = NMOC emission rate from the ith section, megagrams per year
k = methane generation rate constant, $year^{-1}$
L_o = methane generation potential, cubic meters per megagram solid waste
M_i = mass of the degradable solid waste in the i^{th} section, megagram
t_i = age of the solid waste in the i^{th} section, years
C_{NMOC} = concentration of nonmethane organic compounds, parts per million by volume
3.6×10^{-9} = conversion factor

(iii) The values for k and C_{NMOC} determined in field testing shall be used if field testing has been performed in determining the NMOC emission rate or the radii of influence (the distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for k, L_O and C_{NMOC} provided in § 60.754(a)(1) or the alternative values from § 60.754(a)(5) shall be used. The mass of nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in paragraph (3)(i) of this Condition.

[40 CFR 60.759(a)]

C.35. Each owner or operator seeking to comply with Condition C.1.(i)(A) shall construct the gas collection devices using the following equipment or procedures:

(1) 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. The collection system shall extend as necessary to comply with emission and migration standards. 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.

(2) Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. 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 including, for example, centering of pipes and placement of gravel backfill. 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. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.

(3) 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.

[40 CFR 60.759(b)]

C.36. Each owner or operator seeking to comply with Condition C.1.(i)(A) shall convey the landfill gas to a control system in compliance with Condition C.1.(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 following procedures:

(1) For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in paragraph (2) of this Condition shall be used.

(2) For new collection systems, the maximum flow rate shall be in accordance with § 60.755(a)(1).

[40 CFR 60.758(c)]

Subsection D. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
001	Class I landfill /Bioreactor/ gas collection system/ non-assisted, utility flare
002	Fugitive NMOC emissions and hazardous air pollutants (HAP) emission from the natural decomposition reactions associated with the landfill which are not collected by the landfill gas collection system
003	Class III Landfill

The Florida Bioreactor Demonstration Project is located at the New River Regional Landfill Cell Nos. 1 and 2. An active, vacuum landfill gas collection system draws the collected landfill gas to a candlestick flare for destruction. The operating throughput rate of the landfill gas collection and flare system will vary due to the nature of operations in the landfill. The utility flare has a maximum flow of 1,600 SCFM.

{Permitting note: The emissions unit is regulated under 40 CFR, Part 60, Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills, adopted by reference in Rule 62-204.800(7)(b) 72, F.A.C. and 40 CFR Chapter 1 Part 60, Subpart Cc adopted by reference in Rule 62-204.800(8)(c), F.A.C.

Because liquid other than leachate is added in combination with recirculating leachate to the waste mass such that the maximum average moisture content is 35 percent by weight, the bioreactor does not meet the 40 CFR 63.1990 definition of a bioreactor. Therefore, the facility is not currently subject to the requirements of 40 CFR, Part 63, Subpart AAAA, National Emission Standards for Hazardous Air Pollutants Municipal Solid Waste Landfills. Should the moisture content reach 40 percent by weight, the landfill will be subject to the requirements of 40 CFR, Part 63, Subpart AAAA, National Emission Standards for Hazardous Air Pollutants Municipal Solid Waste Landfills at that time.

The Class I and Class III Landfills have a design capacity equal to 2.5 million megagrams by mass (2.476 Mg). The initial solid waste construction permit for the Class I landfill was issued on June 1, 1990. The landfill was modified in 2001. The permitted waste acceptance for the Class I landfill is 2000 tons per day (average) and 2500 tons per day (maximum), and 100 tons per day for the Class III landfill. The NMOC emissions from the Class I and Class III landfills are calculated to be less than 50 megagrams per year. Maximum projected NMOC emission rate of 37.2 Mg/year in the year 2003 based upon EPA Landfill modeling results. Therefore, at this time a landfill gas (LFG) collection and control system pursuant to 40 CFR Part 60, Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills is not required for this facility.}

The following specific conditions apply to the emissions unit(s) listed above:

D.0. These emissions units shall become subject to the following applicable requirements of Subsection D when either the bioreactor meets the 40 CFR 63.1990 definition of a bioreactor, estimated uncontrolled NMOC emissions are equal to or greater than 50 megagrams per year (Mg/yr) as calculated according to Sec. 60.754(a) of the MSW landfills new source performance standards in 40 CFR part 60, subpart WWW, or the landfill otherwise meets the applicability requirements of 40 CFR 63 Subpart AAAA National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills as stated below.
[40 CFR 63.1935(b) and (b)(3)]

D.1. Applicability Requirements**.** If the landfill meets either the criteria in paragraph (a) or (b) of this Condition, it is subject to the following requirements of 40 CFR 63, Subpart AAAA.

(a) If a MSW landfill has accepted waste since November 8, 1987 or has additional capacity for waste deposition and meets any one of the three criteria in paragraphs (a)(1) through (3) of this Condition:

(1) The MSW landfill is a major source as defined in 40 CFR 63.2 of Subpart A.

(2) The MSW landfill is collocated with a major source as defined in 40 CFR 63.2 of Subpart A.

(3) The MSW landfill is an area source landfill that has a design capacity equal to or greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters (m^3) and has estimated uncontrolled emissions equal to or greater than 50 megagrams per year (Mg/yr) NMOC as calculated according to Sec. 60.754(a) of the MSW landfills new source performance standards in 40 CFR part 60, subpart WWW, the Federal plan, or an EPA approved and effective State or tribal plan that applies to the landfill.

(b) If a MSW landfill has accepted waste since November 8, 1987 or has additional capacity for waste deposition, that includes a bioreactor, as defined in Sec. 63.1990, and that meets any one of the criteria in paragraphs (b)(1) through (3) of this section:

(1) The MSW landfill is a major source as defined in 40 CFR 63.2 of Subpart A.

(2) The MSW landfill is collocated with a major source as defined in 40 CFR 63.2 of Subpart A.

(3) The MSW landfill is an area source landfill that has a design capacity equal to our greater than 2.5 million Mg and 2.5 million m\3\ and that is not permanently closed as of January 16, 2003.
[40 CFR 63.1935(a) and (b)]

D.2. Affected Source. An affected source is a MSW landfill, as defined in Sec. 63.1990, which meets the criteria Condition D.1. The affected source includes the entire disposal facility in a contiguous geographic space where household waste is placed in or on land, including any portion of the MSW landfill operated as a bioreactor.
[40 CFR 63.1940(a)]

D.3. Compliance Deadline Date. If your landfill is an existing affected source and is an area source meeting the criteria in Sec. 63.1935(a)(3), you must comply with the requirements in Sec. Sec. 63.1955(b) and 63.1960 through 63.1980 by the date your landfill is required to install a collection and control system by 40 CFR 60.752(b)(2) of subpart WWW, the Federal plan, or EPA approved and effective State or tribal plan that applies to your landfill or by January 16, 2004, whichever occurs later.
[40 CFR 63.1945(f)]

D.4. Compliance Deadline Date – Bioreactor. If the bioreactor is at an existing affected source, then the gas collection and control system for the bioreactor shall be installed and begun operating by January 17, 2006 or by the date the bioreactor is required to install a gas collection and control system under 40 CFR part 60, Subpart WWW, the Federal plan, or EPA approved and effective State plan or tribal plan that applies to the landfill, whichever is earlier.
[40 CFR 63.1947(b)]

D.5. The facility is no longer required to comply with the requirements of this Subsection when the facility is no longer required to apply controls as specified in 40 CFR 60.752(b)(2)(v) of Subpart WWW, or the Federal plan or EPA approved and effective State plan or tribal plan that implements 40 CFR part 60, subpart Cc, whichever applies to your landfill.
[40 CFR 63.1950]

D.6. If the landfill includes a bioreactor, the facility is no longer required to comply with the requirements of this Subsection for the bioreactor provided that the conditions of either paragraphs (a) or (b) are met.

(a) The affected source meets the control system removal criteria in 40 CFR 60.752(b)(2)(v) of part 60, subpart WWW or the bioreactor meets the criteria for a nonproductive area of the landfill in 40 CFR 60.759(a)(3)(ii) of Part 60, Subpart WWW.

(b) The bioreactor portion of the landfill is a closed landfill as defined in 40 CFR 60.751, Subpart WWW, the addition of liquids to the bioreactor have permanently ceased, and liquids have not been added to the bioreactor for at least 1 year. A closure report for the bioreactor must be submitted to the Administrator as provided in 40 CFR 60.757(d) of Subpart WWW

(c) Compliance with the bioreactor control removal provisions in this section constitutes compliance with 40 CFR Part 60, Subpart WWW or the Federal plan, whichever applies to the bioreactor.
[40 CFR 63.1952]

Emission Limitation and Requirements

D.7. (a) One of the requirements in paragraph (a)(1) or (2) of this Condition, whichever is applicable shall be met:

(1) Comply with the requirements of 40 CFR Part 60, Subpart WWW.
(2) Comply with the requirements of the Federal plan or EPA approved and effective State plan or tribal plan that implements 40 CFR Part 60, Subpart Cc.

(b) If you are required by 40 CFR 60.752(b)(2) of Subpart WWW, the Federal plan, or an EPA approved and effective State or tribal plan to install a collection and control system, you must comply with the requirements in Sec. Sec. 63.1960 through 63.1985 and with the general provisions of this part specified in table 1 of this subpart.

(c) For approval of collection and control systems that include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions, you must follow the procedures in 40 CFR 60.752(b)(2). If alternatives have already been approved under 40 CFR Part 60 Subpart WWW or the Federal plan, or EPA approved and effective State or tribal plan, these alternatives can be used to comply with this subpart, except that all affected sources must comply with the SSM requirements in Subpart A of this part as specified in Table 1 of this Subpart and all affected sources must submit compliance reports every 6 months as specified in Sec. 63.1980(a) and (b), including information on all deviations that occurred during the 6-month reporting period. Deviations for continuous emission monitors or numerical continuous parameter monitors must be determined using a 3-hour monitoring block average.

(d) If you own or operate a bioreactor that is located at a MSW landfill that is not permanently closed and has a design capacity equal to or greater than 2.5 million Mg and 2.5 million m\3\, then you must meet the requirements of paragraph (a) and the additional requirements in paragraphs (d)(1) and (2) of this Condition.

(1) You must comply with the general provisions specified in Table 1 of this subpart and Sec. Sec. 63.1960 through 63.1985 starting on the date you are required to install the gas collection and control system.

(2) You must extend the collection and control system into each new cell or area of the bioreactor prior to initiating liquids addition in that area, instead of the schedule in 40 CFR 60.752(b)(2)(ii)(A)(2).
[40 CFR 63. 1955]

Compliance Demonstration

D.8. Compliance is determined in the same way it is determined for 40 CFR Part 60, Subpart WWW, including performance testing, monitoring of the collection system, continuous parameter monitoring, and other credible evidence. In addition, continuous parameter monitoring data, collected under 40 CFR 60.756(b)(1), (c)(1), and (d) of Subpart WWW, are used to demonstrate compliance with the operating conditions for control systems. If a deviation occurs, you have failed to meet the control device operating conditions described in this Subsection and have deviated from the requirements of this Subsection. Finally, you must develop and implement a written SSM plan according to the provisions in 40 CFR 63.6(e)(3). A copy of the SSM plan must be maintained on site. Failure to write, implement, or maintain a copy of the SSM plan is a deviation from the requirements of this Subsection.
[40 CFR 63.1960]

D.9. Deviation. A deviation is defined in Sec. 63.1990. For the purposes of the landfill monitoring and SSM plan requirements, deviations include the items in paragraphs (a) through (c) of this Condition.

(a) A deviation occurs when the control device operating parameter boundaries described in 40 CFR 60.758(c)(1) of Subpart WWW are exceeded.

(b) A deviation occurs when 1 hour or more of the hours during the 3-hour block averaging period 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.

(c) A deviation occurs when a SSM plan is not developed, implemented, or maintained on site. [40 CFR 63.1965]

D.10. 3-hour Block Average Calculation. Averages are calculated in the same way as they are calculated in 40 CFR Part 60, Subpart WWW, except that the data collected during the events listed in paragraphs (a), (b), (c), and (d) of this Condition are not to be included in any average computed under this Subsection:

(a) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments.
(b) Startups.
(c) Shutdowns.
(d) Malfunctions.
[40 CFR 63.1975]

Recordkeeping and Reporting Requirements

D.11. (a) The Permittee shall keep records and reports as specified in 40 CFR Part 60, Subpart WWW, or in the Federal plan, EPA approved State plan or tribal plan that implements 40 CFR Part 60, Subpart Cc, whichever applies to your landfill, with one exception: The annual report described in 40 CFR 60.757(f) shall be submitted every 6 months.

(b) The Permittee shall also keep records and reports as specified in the General Provisions of 40 CFR Part 60 and Part 63 as shown in Table 1 of Subpart AAAA. Applicable records in the general provisions include items such as SSM plans and the SSM plan reports.

(c) For bioreactors at new affected sources the initial semiannual compliance report and performance test results described in 40 CFR 60.757(f) shall be submitted within 180 days after the date it is required to begin operating the gas collection and control system by Sec. 63.1947(a)(2) of Subpart AAAA.

(d) For bioreactors at existing affected sources, the initial semiannual compliance report and performance test results described in 40 CFR 60.757(f) shall be submitted within 180 days after the compliance date specified in Condition D.4., unless a compliance report for the bioreactor has been previously submitted as required by 40 CFR Part 60, Subpart WWW, the Federal plan, or an EPA approved and effective State plan or tribal plan.

(e) For bioreactors that are located at existing affected sources, but do not initiate liquids addition until later than the compliance date in Condition D.4., the initial semiannual compliance report and performance tests results described in 40 CFR 60.757(f) shall be submitted within 180 days after the date it is required to begin operating the gas collection and control system by Sec. 63.1947(c) of Subpart AAAA.

(f) If it is required to submit a semiannual compliance report for a bioreactor as well as a semiannual compliance report for a conventional portion of the same landfill, the submittal of a subsequent semiannual compliance report for the bioreactor may be delayed according to paragraphs (f)(1) through (3) of this Condition so that the reports may be submitted on the same schedule.

(1) After submittal of the initial semiannual compliance report and performance test results for the bioreactor, the submittal of the subsequent semiannual compliance report for the bioreactor may be delayed until the date the initial or subsequent semiannual compliance report is due for the conventional portion of the landfill.

(2) The submittal of the subsequent semiannual compliance report may be delayed by no more than 12 months after the due date for submitting the initial semiannual compliance report and performance test results described in 40 CFR 60.757(f) for the bioreactor. The report shall cover the time period since the previous semiannual report for the bioreactor, which would be a period of at least 6 months and no more than 12 months.

(3) After the delayed semiannual report, all subsequent semiannual reports for the bioreactor must be submitted every 6 months on the same date the semiannual report for the conventional portion of the landfill is due.

(g) If any liquids other than leachate is added in a controlled fashion to the waste mass and the facility does not comply with the bioreactor requirements in Sec. Sec. 63.1947, Condition D.7.(c) and Condition D.11.(c) through (f), a record of calculations showing that the percent moisture by weight expected in the waste mass to which liquid is added is less than 40 percent shall be kept. The calculation must consider the waste mass, moisture content of the incoming waste, mass of water added to the waste including leachate recirculation and other liquids addition and precipitation, and the mass of water removed through leachate or other water losses. Moisture level sampling or mass balances calculations can be used. The calculations and the basis of any assumptions must be documented. A record of the calculations shall be kept until liquids addition has been ceased.

(h) If moisture content is calculated to establish the date the bioreactor is required to begin operating the collection and control system under Sec. 63.1947(a)(2) or (c)(2), a record of the calculations including the information specified in paragraph (g) of this Condition shall be kept for 5 years. Within 90 days after the bioreactor achieves 40 percent moisture content, report the results of the calculation, the date the bioreactor achieved 40 percent moisture content by weight, and the date you plan to begin collection and control system operation.
[40 CFR 63.1980]

Definitions

Terms used in this Subsection are defined in the Clean Air Act, 40 CFR Part 60, Subparts A, Cc, and WWW; 40 CFR Part 62, Subpart GGG, and Subpart A of Part 63, and this Subsection that follows:

Bioreactor means a MSW landfill or portion of a MSW landfill where any liquid other than leachate (leachate includes landfill gas condensate) is added in a controlled fashion into the waste mass (often in combination with recirculating leachate) to reach a minimum average moisture content of at least 40 percent by weight to accelerate or enhance the anaerobic (without oxygen) biodegradation of the waste.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including, but not limited to, any emissions limitation (including any operating limit) or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation, (including any operating limit), or work practice standard in this subpart during SSM, regardless of whether or not such failure is permitted by this subpart.

Emissions limitation means any emission limit, opacity limit, operating limit, or visible emissions limit.

EPA approved State plan means a State plan that EPA has approved based on the requirements in 40 CFR part 60, subpart B to implement and enforce 40 CFR part 60, subpart Cc. An approved State plan becomes effective on the date specified in the notice published in the Federal Register announcing EPA's approval.

Federal plan means the EPA plan to implement 40 CFR part 60, subpart Cc for existing MSW landfills located in States and Indian country where State plans or tribal plans are not currently in effect. On the effective date of an EPA approved State or tribal plan, the Federal plan no longer applies. The Federal plan is found at 40 CFR part 62, subpart GGG.

Municipal solid waste landfill or MSW landfill means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. A municipal solid waste landfill may also receive other types of RCRA Subtitle D wastes (see Sec. 257.2 of this chapter) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of a municipal solid waste landfill may be separated by access roads. A municipal solid waste landfill may be publicly or privately owned. A municipal solid waste landfill may be a new municipal solid waste landfill, an existing municipal solid waste landfill, or a lateral expansion.

Tribal plan means a plan submitted by a tribal authority pursuant to 40 CFR parts 9, 35, 49, 50, and 81 to implement and enforce 40 CFR part 60, subpart Cc.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the Clean Air Act.

[40 CFR 63.1990]

General Provisions

D.12. This emissions unit is also subject to the applicable requirements in 40 CFR Part 63, Subpart A.