



Florida Department of Environmental Protection

Central District
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Orlando, Florida 32803-3767

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

NOTICE OF FINAL TITLE V AIR OPERATION PERMIT

In the Matter of an
Application for Permit:

Mr. Leonard Marion, Director
Volusia County Solid Waste Services Division
3151 New York Avenue
DeLand, Florida 32724

Final Permit No.: 1270117-006-AV
Volusia County

Enclosed is the FINAL Permit, No. 1270117-006-AV. The purpose is for the renewal and revision of the Title V Air Operation Permit No. 1270117-005-AV. The facility is located at 1990 Tomoka Farms Road, Port Orange, Volusia County. This permit renewal and revision is issued pursuant to Chapter 403, Florida Statutes (F.S.). There were no comments received from Region 4, U.S. EPA, regarding the PROPOSED Permit.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; and, by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Orange County, Florida.

Caroline D. Shine
District Air Program Administrator

CDS/jr

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL TITLE V AIR OPERATION PERMIT (including the FINAL Determination and the FINAL Permit) was sent electronically before the close of business on 7/29/11 to the person(s) listed:

Mr. Leonard Marion, Director, Volusia County Solid Waste Services Division:

lm Marion@co.volusia.fl.us

Mr. Carlo Lebron, P.E., VP and Project Manager, HDR Engineering, Inc.: carlo.lebron@hdrinc.com

Ms. Teri Liermann, EIT, Project Designer, HDR Engineering, Inc.: theresa.liermann@hdrinc.com

Ms. Jennifer Stirk, Environmental Specialist, Volusia County Solid Waste Services Division:

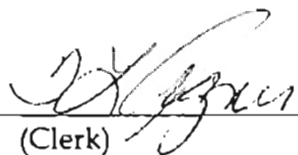
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Ms. Ana Oquendo, EPA Region 4: oquendo.ana@epamail.epa.gov

Ms. Barbara Friday, DEP BAR: barbara.friday@dep.state.fl.us (for posting with U.S. EPA, Region 4)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED,
on this date, pursuant to §120.52(7), Florida
Statutes, with the designated Department Clerk,
receipt of which is hereby acknowledged.


(Clerk)

7/29/11
(Date)

FINAL DETERMINATION

Title V Air Operation Permit Renewal and Revision
FINAL Permit No.: 1270117-006-AV
Tomoka Farms Road Landfill
Page 1 of 1

I. Comment(s).

No comments were received from the USEPA during their 45-day review period of the PROPOSED Permit.

II. Conclusion.

In conclusion, the permitting authority hereby issues the FINAL Permit.

STATEMENT OF BASIS

Title V Air Operation Permit Renewal and Revision Permit No. 1270117-006-AV

APPLICANT

The applicant for this project is Volusia County Solid Waste Services Department. The applicant's responsible official and mailing address are:

Mr. Leonard Marion, Director
Volusia County Solid Waste Services Department
3151 New York Avenue
DeLand, Florida 32724

FACILITY DESCRIPTION

The applicant operates the Tomoka Farms Road Landfill, which is located at 1990 Tomoka Farms Rd. in Port Orange, Florida.

This facility is a municipal solid waste disposal facility (landfill) with an active gas collection system. The collection system terminates in a candlestick flare destruction device (utility flare) or generator set of 4 Caterpillar 3516 SITA engines.

EU 001 is subject to the following: 40 CFR Part 60, Subparts A (General Provisions) and WWW (Standards of Performance for Municipal Solid Waste Landfills); 40 CFR Part 63, Subparts A (General Provisions) and AAAA (National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills); with the exception of the candlestick flare control system, which shall have no visible emissions per 40 CFR Part 60.18(c)(1), The facility is subject to the General Visible Emissions (VE) limit of less than 20 percent per Rule 62-296.320(4)(b)1., F.A.C., VE testing of the candlestick flare is required annually; the General Volatile Organic Compound (VOC) standard per Rule 62-296.320(1)(a), F.A.C.; and the Objectionable Odor Rule per Rule 62-296.320(2), F.A.C.

EU 002 (generator set of 4 Caterpillar 3516 engines) is subject to 40 CFR 63, Subpart ZZZZ.

PROJECT DESCRIPTION

The purpose of this permitting project is to renew and revise the existing Title V permit(s) to incorporate the terms and conditions of Air Construction Permit 1270117-007-AC for the above referenced facility.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Application(s) Received on: July 22, 2010
Additional Information Requested (No. 1) on: 09/20/2010
Additional Information Received on: 10/21/2010
Additional Information Requested (No. 2) on: 11/18/2010
Additional Information Received on: 11/18/2010
Applications(s) Complete: 11/18/2010

STATEMENT OF BASIS

PRIMARY REGULATORY REQUIREMENTS

Title III: The facility is not identified as a major source of hazardous air pollutants (HAP).

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

PSD: The facility is not a Prevention of Significant Deterioration (PSD)-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The facility does operate units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

NESHAP: The facility does operate units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63.

CAIR: The facility is not subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

CAM: Compliance Assurance Monitoring (CAM) does not apply to any of the units at the facility.

PROJECT REVIEW

This project incorporates the terms and conditions of Air Construction Permit 1270117-007-AC into the Title V air operation permit. The Air Construction Permit removes previous condition A8 and removes the enclosed flare as it is being decommissioned. Additionally, the Title V air operation Permit No. 1270117-006-AV is a renewal and revision of Permit No. 1270117-005-AV and the permit has been reformatted.

CONCLUSION

This project renews and revises Title V air operation permit No. 1270117-005-AV, which was issued on October 17, 2007. This Title V air operation permit renewal and revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210 and 62-213, F.A.C.

Volusia County Solid Waste Services Division
Tomoka Farms Road Landfill

Facility ID No. 1270117
Volusia County

Title V Air Operation Permit Renewal and Revision

Permit No. 1270117-006-AV
(Renewal and Revision of Title V Air Operation Permit No. 1270117-005-AV)



Permitting Authority:

State of Florida
Department of Environmental Protection
Air Resource Management, Central District
3319 Maguire Blvd., Suite 232
Orlando, Florida 32803-3767
Telephone: (407) 893-3333
Fax: (850) 412-0455

Compliance Authority:

State of Florida
Department of Environmental Protection
Air Resource Management, Central District
3319 Maguire Blvd., Suite 232
Orlando, Florida 32803-3767
Telephone: (407) 893-3333
Fax: (850) 412-0455

Title V Air Operation Permit Renewal and Revision

Permit No. 1270117-006-AV

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FINAL PERMIT

PERMITTEE:

Volusia County Solid Waste Services Division
3151 New York Avenue
DeLand, Florida 32724

Permit No. 1270117-006-AV
Tomoka Farms Road Landfill
Facility ID No. 1270117
Title V Air Operation Permit Renewal and Revision

The purpose of this permit is to renew and to revise the Title V air operation permit for the above referenced facility. The existing Tomoka Farms Road Landfill is located in Volusia County at 1990 Tomoka Farms Rd., Port Orange, Florida. UTM Coordinates are: Zone 17, 491.54 East and 3222.2 North. Latitude is: 29° 07' 41.78" North; and, Longitude is: 81° 05' 13.02" West.

The Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213. The above named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

Effective Date: July 26, 2011
Renewal Application Due Date: December 14, 2015
Expiration Date: July 26, 2016



Caroline D. Shine
District Air Program Administrator
Central District

CDS/jr

SECTION I. FACILITY INFORMATION.

Subsection A. Facility Description.

This facility consists of an active, Class I municipal solid waste disposal facility (landfill). The design capacity of the landfill is greater than 2.5 million megagrams by mass or 2.5 million cubic meters by volume. There is no bioreactor at the landfill. Non-methane organic compound (NMOC) emissions are calculated to be equal to or greater than 50 megagrams per year. Landfill gas emissions are collected and controlled by one utility flare or a generator set of 4 Caterpillar 3516 SITA engines. Recent actions that have taken place or will take place soon include connection of a backup electrical source from an existing generator to the open flare, installation of a regulated pressure valve to improve flare and system performance, and decommissioning of the original enclosed flare.

Subsection B. Summary of Emissions Units.

EU No.	Brief Description
<i>Regulated Emissions Units</i>	
001	Municipal Solid Waste Landfill with one flare
002	Generator Set - 4 Caterpillar 3516 SITA engines

Subsection C. Applicable Regulations.

Based on the Title V air operation permit renewal and revision application received on July 22, 2010, this facility is **NOT** a major source of hazardous air pollutants (HAP).

A summary of applicable regulations is shown in the following table.

Regulation	EU Nos.
40 CFR 60, Subpart A, NSPS General Provisions	001
40 CFR 60, Subpart WWW, NSPS Municipal Solid Waste Landfills	001
40 CFR 63, Subpart A, NESHAP General Provisions	001, 002
40 CFR 63, Subpart AAAA, NESHAP Municipal Solid Waste Facilities	001
40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants: Stationary Reciprocating Internal Combustion Engines {Permitting Note: Even though the facility is NOT considered a major source of HAPs, it still meets the definition of an <u>area</u> source of HAPs.}	002

SECTION II. FACILITY-WIDE CONDITIONS.

The following conditions apply facility-wide to all emission units and activities:

FW1. Appendices. The permittee shall comply with all documents identified in Section IV, Appendices, listed in the Table of Contents. Each document is an enforceable part of this permit unless otherwise indicated. [Rule 62-213.440, F.A.C.]

Emissions and Controls

FW2. Objectionable Odor Prohibited. No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance.

[Rule 62-296.320(2) and 62-210.200(Definitions), F.A.C.]

FW3. General 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 or organic solvents without applying known and existing vapor emission control devices or systems deemed-necessary and ordered by the Department.

[Rule 62-296.320(1), F.A.C.]

FW4. General Visible Emissions. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. This regulation does not impose a specific testing requirement.

[Rule 62-296.320(4)(b)1, F.A.C.]

FW5. Unconfined Particulate Matter. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction; alteration; demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

- a. Application of asphalt, water, chemicals, or other dust suppressants to unpaved roads, yards, open stock piles, and similar activities;
- b. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne;
- c. Landscaping or planting of vegetation; and
- d. Other techniques, as necessary.

[Rule 62-296.320(4)(c), F.A.C.]

Annual Reports and Fees

See Appendix RR, Facility-wide Reporting Requirements for additional details.

SECTION II. FACILITY-WIDE CONDITIONS.

- FW6. Annual Operating Report.** The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by April 1st of each year.
[Rule 62-210.370(3), F.A.C.]
- FW7. Annual Emissions Fee Form and Fee.** The annual Title V emissions fees are due (postmarked) by March 1st of each year. The completed form and calculated fee shall be submitted to: Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070. The forms are available for download by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site:
<http://www.dep.state.fl.us/air/emission/tvfee.htm>.
[Rule 62-213.205, F.A.C.]
- FW8. Annual Statement of Compliance.** The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit within 60 days after the end of each calendar year during which the Title V permit was effective.
[Rules 62-213.440(3)(a)2. & 3. and (3)(b), F.A.C.]
- FW9. Prevention of Accidental Releases (Section 112(r) of CAA).** If and when the facility becomes subject to 112(r), the permittee shall:
- a. Submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center
Post Office Box 10162
Fairfax, VA 22038
Telephone: (703) 227-7650
 - b. 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]
- FW10. Permit Renewal.** At least 225 days prior to the expiration date of this permit, the permittee shall submit to the Permitting Authority four copies of the air permit application, DEP Form No. 62-210.900(1). (See Attached Appendix TV, Specific Condition TV18)
[Rules 62-4.090 and 62-213.420(1)(a)2., F.A.C.]
- FW11. Monitoring Reports.** The permittee shall submit reports of any required monitoring at least every six (6) months. All instances of deviations from permit requirements must be clearly identified in such reports.
[Rule 62-213.440(1)(b)3.a., F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
001	Municipal Solid Waste Landfill with one flare

Essential Potential to Emit (PTE) Parameters

- A.1. Hours of Operation. This emissions unit may operate continuously (8,760 hours/year).
[Rule 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

- A.2. Visible Emissions. The flare control system shall be designed for and operated with no visible emissions except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours.
[40 CFR 60.18(c)(1)]

Monitoring of Operations

- A.3. Operational Monitoring. The flare control system shall be operated with a flame present at all times, as determined by a thermocouple or any other equivalent device to detect the presence of a flame. Owners or operators of flares used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators of flares shall monitor these control devices.
[40 CFR 60.18(b) through (f)]

Notification Requirements

- A.4. Test Notification. The permittee shall notify the Compliance Authority, 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 permittee.
[Rules 62-4.070(3) and 62-297.310(7)(a)9., F.A.C.]

Test Methods and Procedures

- A.5. Test Methods. Required tests shall be performed in accordance with the following reference methods:

EPA Method	Description of Method and Comments
22	Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares: Observation period is two (2) hours.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department.

[40 CFR 60.8 and 62-297.400, F.A.C.]

- A.6. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit.
[Rule 62-297.310, F.A.C.]
- A.7. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), EU 001 shall be tested to demonstrate compliance with the emissions standards for visible emissions specified in Specific Condition A.2.
[Rule 62-297.310(7), F.A.C.]
- A.8. Specific Testing Requirements - Flare. All testing shall be conducted in accordance with the requirements in 40 CFR 60, Subpart A - General Provisions, § 60.18 General control device requirements. The requirements are listed below.

§ 60.18 General control device requirements.

(a) *Introduction.* This section contains requirements for control devices used to comply with applicable subparts of parts 60 and 61. The requirements are placed here for administrative convenience and only apply to facilities covered by subparts referring to this section.

(b) *Flares.* Paragraphs (c) through (f) apply to flares.

(c)(1) Flares shall be designed for and operated with no visible emissions as determined by the methods specified in paragraph (f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

(2) Flares shall be operated with a flame present at all times, as determined by the methods specified in paragraph (f).

(3) An owner/operator has the choice of adhering to either the heat content specifications in paragraph (c)(3)(ii) of this section and the maximum tip velocity specifications in paragraph (c)(4) of this section, or adhering to the requirements in paragraph (c)(3)(i) of this section.

(i)(A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume), or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity, V_{max} , as determined by the following equation:

$$V_{max} = (XH_2 - K_1) * K_2$$

Where:

V_{max} = Maximum permitted velocity, m/sec.

K_1 = Constant, 6.0 volume-percent hydrogen.

K_2 = Constant, 3.9(m/sec)/volume-percent hydrogen.

XH_2 = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in § 60.17).

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (f)(4) of this section.

(ii) Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in paragraph (f)(3) of this section.

(4)(i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4) of this section, less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (c)(4) (ii) and (iii) of this section.

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), less than the velocity, V_{max} , as determined by the method specified in paragraph (f)(5), and less than 122 m/sec (400 ft/sec) are allowed.

(5) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity, V_{max} , as determined by the method specified in paragraph (f)(6).

(6) Flares used to comply with this section shall be steam-assisted, air-assisted, or nonassisted.

(d) Owners or operators of flares used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators of flares shall monitor these control devices.

(e) Flares used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

(f)(1) Method 22 of appendix A to this part shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours and shall be used according to Method 22.

(2) The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

(3) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^n C_i H_i$$

Eq. 1

where:

H_T =Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C;

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

$$K = \text{Constant}, 1.740 \times 10^{-7} \left(\frac{1}{\text{ppm}} \right) \left(\frac{\text{g mole}}{\text{scm}} \right) \left(\frac{\text{MJ}}{\text{kcal}} \right)$$

where the standard temperature for $\left(\frac{\text{g mole}}{\text{scm}} \right)$ is 20°C;

Eq. 2

C_i=Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 or 90 (Reapproved 1994) (Incorporated by reference as specified in § 60.17); and

H_i=Net heat of combustion of sample component i, kcal/g mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in § 60.17) if published values are not available or cannot be calculated.

(4) The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.

(5) The maximum permitted velocity, V_{max}, for flares complying with paragraph (c)(4)(iii) shall be determined by the following equation. $\text{Log}_{10}(V_{\text{max}}) = (HT + 28.8) / 31.7$

V_{max}=Maximum permitted velocity, M/sec

28.8=Constant

31.7=Constant

HT=The net heating value as determined in paragraph (f)(3).

(6) The maximum permitted velocity, V_{max}, for air-assisted flares shall be determined by the following equation. $V_{\text{max}} = 8.706 + 0.7084 (HT)$

V_{max}=Maximum permitted velocity, m/sec

8.706=Constant

0.7084=Constant

HT=The net heating value as determined in paragraph (f)(3).

Recordkeeping and Reporting Requirements

A.9. The type of fuel and the heat input to this source must be entered on the visible emission test report.

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

A.10. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

Other Requirements

A.11. Federal Rule Requirements. In addition to the specific conditions listed above, this emissions unit is also subject to the applicable requirements contained in 40 CFR 60, Subpart A – General Provisions and 40 CFR 60 Subpart WWW – Standards of Performance for Municipal Solid Waste Landfills; 40 CFR 63, Subpart A – General Provisions and 40 CFR 63 Subpart AAAA –

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Facilities.
The conditions are incorporated into this permit (attached and part of this permit).

*{Permitting Note: The applicable general and specific requirements for both the NSPS and NESHAP
referenced above, have been combined and attached as part of this permit.}*

[Rule 62-213.440, F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit 002

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
002	Generator Set – 4 Catepillar 3516 SITA engines

Generator Set of 4 Catepillar 3516 SITA engines. Initial startup date was June 15, 1998. The 3516 engine is designed to reduce thermal NO_x formation during combustion. The treatment system removes moisture and contaminants, maintains temperature and densities in a narrow range, and removes particulate matter (PM) in Landfill Gas (LFG). The engines are fired by landfill gas only. A butterfly valve will serve to channel the LFG to the flare should one of the engines malfunction.

Essential Potential to Emit (PTE) Parameters

- B.1. Methods of Operation. Unless otherwise indicated, the operation of the Generator Set – 4 Catepillar 3516 SITA engines shall be in accordance with the capacities and specifications stated in permit applications submitted to the Department.
[Rule 62-4.070, F.A.C.]
- B.2. Methods of Operation. Fuel fired in the Engine/Generator Sets is limited to LFG (landfill gas). The use of any other fuel will require a modification or amendment to a previous construction permit or a new construction permit.
[Rule 62-4.070, F.A.C.]
- B.3. Hours of Operation. There is no limitation on the annual hours of operation (8,760 hours/year).
[Rule 62-210.200(PTE), F.A.C.]
- B.4. Methods of Operation. Excess landfill gas not used as fuel in an engine must be flared in accordance with the requirements of 40 CFR 60, Subpart WWW.
[Rule 62-4.070, F.A.C.]
- B.5. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements.
[Rule 62-297.310(2), F.A.C.]

Emission Limitations and Standards

- B.6. Visible Emissions. Visible emissions from each source must comply with Rule 62-296.320(4)(b)1., F.A.C., and are limited to less than 20 percent opacity.

Notification Requirements

- B.7. Test Notification: The permittee shall notify the Compliance Authority, 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 permittee. [Rules 62-4.070(3) and 62-297.310(7)(a)9., F.A.C.]

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Test Methods and Procedures

- B.8. Test Methods.** Required tests shall be performed in accordance with the following reference method:

DEP Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary.

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department.

[40 CFR 60.8 and 62-297.400, F.A.C.]

- B.9. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit.

[Rule 62-297.310, F.A.C.]

- B.10. Compliance Tests Required.** EU 002 shall be tested to demonstrate compliance with the emissions standards for visible emissions specified in Specific Condition **B.6.** prior to permit expiration date. The test period shall be 30 minutes.

[Rules 62-297.310(4)(a)2. And 62-297.310(7)(a)4.a., F.A.C.]

Recordkeeping and Reporting Requirements

- B.11.** The type of fuel and the heat input to this source must be entered on the visible emission test report.

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

- B.12. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

Other Requirements

- B.13 Federal Rule Requirements.** In addition to the specific conditions listed above, the engines are subject to the applicable requirements contained in 40 CFR 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. The conditions are incorporated into this permit (attached and part of this permit).

[Rule 62-213.440, F.A.C.]

[Permitting Note: Most of the following text is from 40 CFR 63, Subpart ZZZZ and shows the sections that are applicable for the LFG Engines:

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LFG Engines

As of October 19, 2010 the engines will be subject to the following requirements:

- 40 CFR §63.6595(a)(1), August 20, 2010 revision: "If you have ... an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations ... no later than October 19, 2013.
- 40 CFR §63.6603(a), August 20, 2010 revision: "If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 2b to this subpart which apply to you." Review of Table 2b indicates that it contains no operating limitations applicable to the LFG Engines and the following requirements of Item 11 from Table 2d apply:
 - "You must meet the following requirement, except during periods of startup ...
 - a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;
 - b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and
 - c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first.

During periods of startup you must ...

Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply."

- 40 CFR §63.6605(a): "You must be in compliance with the emission limitations ... in this subpart that apply to you at all times."
- 40 CFR §63.6605(b): "At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source."
- 40 CFR 63.6612, August 20, 2010 revision: "If you own or operate ... an existing stationary RICE located at an area source of HAP emissions you are subject to the requirements of this section." Review of Tables 4 and 5 indicate that no initial performance test or other initial compliance determination is required for the LFG engines. Therefore, no action is needed in connection with this requirement.
- 40 CFR §63.6625(e), August 20, 2010 revision: "If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and

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operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions: ... (6) An existing non-emergency, non-black start landfill or digester gas stationary RICE located at an area source of HAP emissions;”

- 40 CFR §63.6625(h), August 20, 2010 revision: “If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine’s time spent at idle during startup and minimize the engine’s startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables ... 2d to this subpart apply.” Review of Table 2d indicates that it does not impose any emission limits on the LFG Engines. Therefore, the only applicable portion of this requirement is to minimize idling and restrict startup time to no more than 30 minutes.
- 40 CFR §63.6625(j), August 20, 2010 revision: “If you own or operate a stationary SI engine that is subject to the work, operation or management practices ... in items ... 11 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables ... 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table ... 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.”
- 40 CFR §63.6640(a): “You must demonstrate continuous compliance with each emission limitations ... in Tables ... 2d to this subpart that apply to you according to the methods specified in Table 6 to this subpart.” The following requirements of Item 9 from Table 6 apply:
 - “Complying with the requirement to ... a. Work or Management practices ... You must demonstrate compliance by ...
 - i. Operating and maintaining the stationary RICE according to the manufacturer’s emission-related operation and maintenance instructions; or
 - ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
- 40 CFR §63.6640(b): “You must report each instance in which you did not meet each emission limitation ... in ... Table 2d to this subpart that apply to you. These instances are deviations from the emission limitations ... in this subpart. These deviations must be reported according to the requirements in §63.6650.”
- 40 CFR §63.6640(e): “You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you.”

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- 40 CFR §63.6645(a), August 20, 2010 revision: "You must submit all of the notifications in §§ ... 63.9(b) ... that apply to you by the dates specified if you own or operate any of the following: ... (5) This requirement does not apply if you own or operate ... an existing stationary RICE that is not subject to any numerical emission standards." The LFG Engines are not subject to any numerical emission standards and, therefore, are not required to submit any of the listed notifications, including the initial notification of §63.9(b).
- 40 CFR §63.6650(a), (b), (c)(1) through (4), (d) and (f):
 - (a) You must submit each report in Table 7 of this subpart that applies to you.
 - (b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.
 - (1) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.6595.
 - (2) For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.6595.
 - (3) For semiannual Compliance reports, each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
 - (4) For semiannual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
 - (5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of this section.
 - (6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on December 31.
 - (7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in §63.6595.
 - (8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.
 - (9) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.
 - (c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.

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- (1) Company name and address.
- (2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
- (3) Date of report and beginning and ending dates of the reporting period.
- (4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction.

(d) For each deviation from an emission ... limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission ... limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of this section and the information in paragraphs (d)(1) and (2) of this section.

(1) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

- 40 CFR §63.6655(a)(1), (2), (4), and (5); (d); and e [because of e(2)], August 20, 2010 revision:

(a) If you must comply with the emission ... limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).

(2) Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment.

(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.

(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore

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malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.

(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;

(2) An existing stationary emergency RICE.

- 40 CFR §63.6660:

(a) Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).

- 40 CFR §63.6665: "Table 8 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you."
- The compliance deadline for these requirements is October 19, 2013.

SECTION IV. APPENDICES.

The Following Appendices Are Enforceable Parts of This Permit:

Appendix A, Glossary.
Appendix F – Alternate Operating Procedures
Appendix G – Alternate Operating Parameter Value for Specified Gas Extraction Wells
Appendix I – List of Insignificant Emission Units and/or Activities
Appendix ICE – Requirements for Internal Combustion Engines
Appendix NSPS and NESHAP COMBINED, Subpart A – General Provisions
Appendix NSPS and NESHAP COMBINED, Subpart WWW and Subpart AAAA
Appendix ZZZZ – 40 CFR 63, Subpart ZZZZ
Appendix RR, Facility-wide Reporting Requirements.
Appendix TR, Facility-wide Testing Requirements. {Permitting Note: Deleted Condition TR.2.}
Appendix TV, Title V General Conditions.

REFERENCED ATTACHMENTS.

The Following Attachments Are Included for Applicant Convenience:

Figure 1, Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance (40 CFR 60, July, 1996).

Table H, Permit History.

Table 1, Summary of Monitoring Requirements for MSW Landfills

Table 2, Summary of Recordkeeping Requirements for MSW Landfills

Table 3, Summary of Reporting Requirements for MSW Landfills