Manatee County Utility Operations Department
Manatee County Lena Road Landfill

Facility ID No. 0810055
Manatee County

Title V Air Operation Permit Renewal

Permit No. 0810055-012-AV

(Renewal of Title V Air Operation Permit No. 0810055-008-AV)

Permitting Authority:

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Department of Environmental Protection
Division of Air Resource Management
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SECRETARY

Title V Air Operation Permit Renewal

Permit No. 0810055-012-AV

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PERMITTEE:
Manatee County Utility Operations Department
4410 66th Street West
Bradenton, Florida 34206-5010

Permit No. 0810055-012-AV
Manatee County Lena Road Landfill
Facility ID No. 0810055
Title V Air Operation Permit Renewal

The purpose of this permit is to renew the Title V air operation permit for the above referenced facility. The existing Manatee County Lena Road Landfill is located in Manatee County at 3333 Lena Road, Bradenton. UTM Coordinates are: Zone 17, 357.01 km East and 3039.08 km North. Latitude is: 27° 28' 03.8754" North; and, Longitude is: 82° 26' 49.8723" 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, and 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: February 24, 2015
Renewal Application Due Date: July 13, 2019
Expiration Date: February 23, 2020

Executed in Tallahassee, Florida.

for Jeffery F. Koerner, Program Administrator
Office of Permitting and Compliance
Division of Air Resource Management

JFK/dr/ejs/jpd

Subsection A. Facility Description.

This facility is engaged in landfilling of municipal solid waste (MSW). This Class I disposal facility (landfill) consists of three areas: Stage I (approximately 132 acres) which is a closed area; Stage III (approximately 66 acres) which is the active area (became active in January of 2004); and Stage II (approximately 118 acres), which is an undeveloped expansion area which will be the last area to be used. Stage I and Stage III have an active landfill gas (LFG) collection system with an open candlestick LFG flare control device. A thermal sludge dryer also utilizes LFG from the landfill as a supplemental fuel. This facility does not include a bioreactor.

A LFG-to-energy generator set is included at this landfill. It consists of a LFG treatment system and four-stroke lean burn (4SLB) spark ignition (SI) reciprocating internal combustion engine (RICE) rated at 2,233 bhp that is fired exclusively with LFG from the Lena Road Landfill. The generator that is part of this set produces a nominal 1.6 megawatts (MW) of electricity. The operation of this generator is not limited to emergency situations.

This facility also includes a wastewater treatment plant and the associated thermal sludge drying and pelletizing operations. The wastewater treatment plant is designated as the Manatee County Southeast Water Reclamation Facility (SEWRF).

This MSW landfill is subject to the Emission Guidelines contained in Rule 62-204.800(9)(c), F.A.C. (which adopts by reference and implements the requirements of 40 CFR 60 Subpart Cc – Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills) since it has a design capacity greater than 2.5 million megagrams (Mg). This rule requires that this MSW landfill meet specific requirements of 40 CFR 60 Subpart WWW - New Source Performance Standards (NSPS) for Solid Waste Landfills. This landfill is subject to the collection and control system requirements of Subpart WWW since current emissions of NMOC (Non-methane Organic Compounds) are greater than 50 Mg/year. This facility is also subject to 40 CFR 63 Subpart AAAA - National Emission Standards for Hazardous Air Pollutants (NESHAP) from Municipal Solid Waste Landfills, and 40 CFR 61 (NESHAP) Subpart M – National Emission Standard for Asbestos. The thermal sludge dryer is subject to NESHAP 40 CFR 61 Subpart E – National Emission Standards for Mercury.

Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities associated with the landfilling operations and the wastewater treatment plant which is also located at this site.

The existing emergency stationary compression ignition (CI) RICE at this facility (not including those which are in or on a portable or transportable piece of equipment which remains at this facility for $\leq$ 12 consecutive months) are subject to NSPS 40 CFR 60 Subpart IIII or NESHAP 40 CFR 63 Subpart ZZZZ for RICE, as revised in the March 3, 2010 Federal Register.

Subsection B. Summary of Emissions Units.

EU No.	Brief Description
Regulated Emissions Units	
003	Municipal Solid Waste Landfill
004	Sludge Dryer
005	Dried Product (Sludge/Pellets) Handling System
006	Two Dried Product (Pellet) Storage Silos
007	Dried Product (Pellet) Truck Load out Station
012	LFG-Fired Engine Generator Set (with LFG Gas Treatment System)
013	Landfill Gas (LFG) Flare
014	Three Diesel Emergency Generators (NSPS)
015	Four Diesel Emergency Generators (Pre-NSPS)

Also included in this permit are miscellaneous insignificant emissions units and/or activities (see Appendix I, List of Insignificant Emissions Units and/or Activities).

Subsection C. Applicable Regulations.

Based on the Title V permit renewal application received on September 30, 2014, this facility is not a major source of hazardous air pollutants (HAPs). The existing facility is not a prevention of significant deterioration (PSD) major source of air pollutants in accordance with Rule 62-212.400, F.A.C. A summary of applicable regulations is shown in the following table.

Regulation	**EU No(s).**
Federal Rule Citations	
40 CFR 60, Subpart A, NSPS General Provisions	003, 004, 005, 006, 007, 012, 013, 014
40 CFR 60, Subpart Cc, Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills	003
40 CFR 60, Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills	003, 004, 012, 013
40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	014
40 CFR 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines	012
40 CFR 61, Subpart A, General Provisions	003, 004
40 CFR 61, Subpart E, National Emission Standard for Mercury	004
40 CFR 61, Subpart M, National Emission Standard for Asbestos	003
40 CFR 63, Subpart A, General Provisions	003, 004, 012, 014, 015
40 CFR 63, Subpart AAAA, National Emissions Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills	003, 004, 012
40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	012, 014, 015
40 CFR 98, Mandatory Greenhouse Gas Reporting Requirements	003, 004, 005, 006, 007, 012, 013
State Rule Citations	
Rule 62-204.800(8)(b)75. (40 C.F.R. Part 60, Subpart WWW, Municipal Solid Waste Landfills), F.A.C.	003
Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297, F.A.C.	All

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. Not federally Enforceable. 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.]

{Permitting Note: Nothing is deemed necessary and ordered at this time.}

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. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b), 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. Posting and enforcing of speed limits on all roads inside the landfill to minimize fugitive dust emissions generated by vehicles.
b. Use of a water truck to wet unpaved roads to surpress dust. The frequency of watering will vary with weather conditions at the landfill site.

[Rule 62-296.320(4)(c), F.A.C.; and, proposed by applicant in Title V air operation permit renewal application received September 30, 2014.]

Annual Reports and Fees

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

FW6. Electronic Annual Operating Report and Title V Annual Emissions Fees. The information required by the Annual Operating Report for Air Pollutant Emitting Facility [Including Title V Source Emissions Fee Calculation] (DEP Form No. 62-210.900(5)) shall be submitted by April 1 of each year, for the previous calendar year, to the Department of Environmental Protection's Division of Air Resource Management. Each Title V source shall submit the annual operating report using the DEP's Electronic Annual Operating Report (EAOR) software, unless the Title V source claims a technical or financial hardship by submitting DEP Form No. 62-210.900(5) to the DEP Division of Air Resource Management instead of using the reporting software. Emissions shall be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C. Each Title V source must pay between January 15 and April 1 of each year an annual emissions fee in an amount determined as set forth in subsection 62-213.205(1), F.A.C. The annual fee shall only apply to those regulated pollutants, except carbon monoxide and greenhouse gases, for which an allowable numeric emission-limiting standard is specified in the source's most recent construction permit or operation permit. Upon completing the required EAOR entries, the EAOR Title V Fee Invoice can be printed by the source

showing which of the reported emissions are subject to the fee and the total Title V Annual Emissions Fee that is due. The submission of the annual Title V emissions fee payment is also due (postmarked) by April 1st of each year. A copy of the system-generated EAOR Title V Annual Emissions Fee Invoice and the indicated total fee shall be submitted to: **Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070.** Additional information is available 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. [Rules 62-210.370(3), 62-210.900 & 62-213.205, F.A.C.; and, §403.0872(11), Florida Statutes (2013)]

{Permitting Note: Resources to help you complete your AOR are available on the electronic AOR (EAOR) website at: http://www.dep.state.fl.us/air/emission/eaor. If you have questions or need assistance after reviewing the information posted on the EAOR website, please contact the Department by phone at (850) 717-9000 or email at eaor@dep.state.fl.us.}

{Permitting Note: The Title V Annual Emissions Fee form (DEP Form No. 62-213.900(1)) has been repealed. ***A separate Annual Emissions Fee form is no longer required to be submitted by March 1st each year.****}*

FW7. 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 (b), F.A.C.]

FW8. 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 electronically through EPA's Central Data Exchange system at the following address: https://cdx.epa.gov. Information on electronically submitting risk management plans using the Central Data Exchange system is available at: http://www.epa.gov/osweroe1/content/rmp/index.htm. The RMP Reporting Center can be contacted at: 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]

FW9. Mandatory Greenhouse Gas Reporting. This facility is subject to the mandatory greenhouse gas reporting requirements of 40 CFR 98, Subpart A (General Provisions), and Subpart HH (Municipal Solid Waste Landfills). The report shall be submitted electronically, in accordance with the instructions in 40 CFR 98.

Subsection A. Emissions Unit 003

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

EU No.	Brief Description
003	Municipal Solid Waste Landfill

This emission unit is a Class I municipal waste disposal facility (landfill) consisting of three areas: Stage I (approximately 132 acres) which is a closed area; Stage III (approximately 66 acres) which is the active area (became active in January of 2004); and Stage II (approximately 118 acres), which is an undeveloped expansion area which will be the last area to be used. Stage I and Stage III have an active landfill gas (LFG) collection system which includes a blower, vertical LFG gas extraction wells, and a force main collection system. A vacuum exerted on the system by the blower pulls the LFG into the wells and then into the force-main collection system surrounding Stages I and III of the landfill. A knockout tank is used to separate moisture and particulates from the LFG stream. After passing through the knockout tank the LFG is subject to controlled combustion in the candlestick flare LFG control device, or diverted to the sludge dryer LFG gas treatment system for use a supplemental fuel in the sludge dryer *(see EU 004 in Subsection C.)*. (Note - Three portable self-igniting battery operated landfill gas vent flares are also used to reduce the migration of landfill gas from areas not connected to the landfill collection system and combust landfill gas that accumulates near leachate collection system components.) This landfill includes areas where asbestos containing waste materials have been deposited. This landfill does not contain any cells or areas that are operated as a bioreactor (as defined in NESHAP 40 CFR 63 Subpart AAAA).

{Permitting note: This emission unit is regulated under NSPS 40 CFR 60, Subpart WWW, "Standards of Performance for Municipal Solid Waste Landfills", adopted and incorporated by reference in Rule 62-204.800(8)(b), F.A.C. This emission unit is also regulated under NESHAP 40 CFR 63, Subpart AAAA "National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills". This emission unit is also subject to the requirements of 40 CFR 61 National Emission Standard for Hazardous Air Pollutants (NESHAP) Subpart M (National Emission Standard for Asbestos), as adopted and incorporated by reference in Rule 62-204.800(10)(b) 8., F.A.C., as they apply to asbestos disposal}

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.]

A.2. Asbestos Disposal. Permittee is subject to the requirements of 40 CFR 61.154 for the disposal of covered asbestos containing wastes. [40 CFR 61.154]

A.3. Asbestos Disposal Permittee shall comply with at least one of the following requirements of a, b or c:
a) There must be no visible emissions to the outside air from any active waste disposal site where asbestos-containing waste material has been deposited, or
b) At the end of each operating day, or at least once every 24-hour period while the site is in continuous operation, the asbestos-containing waste material that has been deposited at the site during the operating day or previous 24-hour period shall:
(1) Be covered with at least 15 centimeters (6 inches) of compacted non-asbestos-containing material, or
(2) Be covered with a resinous or petroleum-based dust suppression agent that effectively binds dust and controls wind erosion. Such an agent shall be used in the manner and frequency recommended for the particular dust by the dust suppression agent manufacturer to achieve and maintain dust control. Other equally effective dust suppression agents may be used with prior approval by the Administrator. For purposes of the paragraph, any used, spent, or other waste oil is not considered a dust suppression agent.
c) Use an alternative emissions control method that has received prior written approval by the Administrator.

Unless a natural barrier adequately deters access by the general public, either warning signs or fencing must be installed and maintained, or the requirements of (b)(1) above must be met. [40 CFR 61.154(a), (b), (c) and (d)]

40 CFR Part 63, Subpart AAAA

A.4. Subject to 40 CFR Part 63, Subpart AAAA. You are subject to this subpart if you meet the criteria in paragraph (a) or (b) of 40 CFR 63.1935.

(a) You are subject to this subpart if you own or operate a MSW landfill that 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 40 CFR 63.1935:

(3) Your 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 40 CFR60.754(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 your landfill.

[40 CFR 63.1935]

A.5. Affected Source of 40 CFR Part 63, Subpart AAAA.

(a) An affected source of this subpart is a MSW landfill, as defined in 40 CFR 63.1990, that meets the criteria in 40 CFR 63.1935(a) or (b). 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.

(b) A new affected source of this subpart is an affected source that commenced construction or reconstruction after November 7, 2000. An affected source is reconstructed if it meets the definition of reconstruction in 40 CFR 63.2 of subpart A.

(c) An affected source of this subpart is existing if it is not new. [40 CFR 63.1940]

Control Technology

A.6. Landfill Gas Collection and Control System. Install a collection and control system that captures the gas generated within the landfill that complies with the following requirements of 40 CFR 60.752.

(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 (b)(2)(ii)(A)(*1*), (*2*), and (2)(ii)(A)(*4*) of 40 CFR 60.752.

(*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 40 CFR 258.40.

(c) Route all the collected gas to a control system that complies with the following requirements of 40 CFR 60.752.

(1) An open flare designed and operated in accordance with 40 CFR 60.18 except as noted in 40 CFR 60.754(e);

(2) 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 40 CFR 60.754(d).

(*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 40 CFR 60.756;

(3) 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 (b)(2)(iii) (A) or (B) of 40 CFR 60.752.

(d) Operate the collection and control device installed to comply with this subpart in accordance with the provisions of 40 CFR 60.753, 60.755 and 60.756.

(e) The collection and control system may be capped or removed provided that all the following conditions of 40 CFR 60.752 are met:

(1) The landfill shall be a closed landfill as defined in 40 CFR 60.751 of this subpart. A closure report shall be submitted to the Administrator as provided in 40 CFR 60.757(d);

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

(3) Following the procedures specified in 40 CFR 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]

A.7. Landfill Closure. When a MSW landfill subject to this subpart is closed, the owner or operator is no longer subject to the requirement to maintain an operating permit under part 70 or 71 of this chapter for the landfill if the landfill is not otherwise subject to the requirements of either 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 40 CFR 60.752; or

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

A.8. No Longer Required to Comply with 40 CFR Part 63, Subpart AAAA. You are no longer required to comply with the requirements of this subpart when you are 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]

Specifications for Active Collection Systems

A.9. Specifications.

(a) Each owner or operator seeking to comply with 40 CFR 60.752(b)(2)(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 40 CFR 60.752(b)(2)(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 40 CFR 60.759 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 (a)(1) of 40 CFR 60.759 shall control all gas producing areas, except as provided by paragraphs (a)(3)(i) and (a)(3)(ii) of 40 CFR 60.759.

(i) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under 40 CFR 60.758(d). 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:

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

where,

Q_i = NMOC emission rate from the i^{th}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 (this 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 40 CFR 60.754(a)(1) or the alternative values from 40 CFR 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 (a)(3)(i) of 40 CFR 60.759.

(b) Each owner or operator seeking to comply with 40 CFR 60.752(b)(2)(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.

(c) Each owner or operator seeking to comply with 40 CFR 60.752(b)(2)(i)(A) shall convey the landfill gas to a control system in compliance with 40 CFR 60.752(b)(2)(iii) through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the 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 (c)(2) of 40 CFR 60.759 shall be used.
  (2) For new collection systems, the maximum flow rate shall be in accordance with 40 CFR 60.755(a)(1). [40 CFR 60.759]

<u>Operational Standards for Collection and Control Systems</u>

A.10. <u>Operational Standards</u>. Each owner or operator of an MSW landfill with a gas collection and control system used to comply with the provisions of 40 CFR 60.752(b)(2)(ii) of this subpart 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;
(b) 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 40 CFR 60.757(f)(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;
(c) Operate each interior wellhead in the collection system with a landfill gas temperature less than 55 °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 40 CFR 60.752(b)(2)(i) of this subpart.

(2) Unless an alternative test method is established as allowed by 40 CFR 60.752(b)(2)(i) of this subpart, 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.

(d) 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.

(e) Operate the system such that all collected gases are vented to a control system designed and operated in compliance with 40 CFR 60.752(b)(2)(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

(f) Operate the control or treatment system at all times when the collected gas is routed to the system.

(g) If monitoring demonstrates that the operational requirements in paragraphs (b), (c), or (d) of 40 CFR 60.753 are not met, corrective action shall be taken as specified in 40 CFR 60.755(a)(3) through (5) or 40 CFR 60.755(c) of this subpart. If corrective actions are taken as specified in 40 CFR 60.755, the monitored exceedance is not a violation of the operational requirements in 40 CFR 60.753. [40 CFR 60.753]

<u>Compliance Provisions</u>

A.11. <u>Gas Collection System</u>. Except as provided in 40 CFR 60.752(b)(2)(i)(B), the specified methods in paragraphs (a)(1) through (a)(6) of 40 CFR 60.752 shall be used to determine whether the gas collection system is in compliance with 40 CFR 60.752(b)(2)(ii).

(1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with 40 CFR 60.752(b)(2)(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 40 CFR 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:

$$Q_m = 2L_oR\,(e^{-kc} - e^{-kt})$$

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:

$$Q_M = \sum_{i=1}^{n} 2\,k\,L_o\,M_i\left(e^{-kt_i}\right)$$

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 (a)(1) (i) and (ii) of 40 CFR 60.755. 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 (a)(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 40 CFR 60.752(b)(2)(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 40 CFR 60.752(b)(2)(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 40 CFR 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 (a)(3) of 40 CFR 60.755 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 40 CFR 60.753(c). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. 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 40 CFR 60.752(b)(2)(ii)(A)(*4*) through the use of a collection system not conforming to the specifications provided in 40 CFR 60.759 shall provide information satisfactory to the Administrator as specified in 40 CFR 60.752(b)(2)(i)(C) demonstrating that off-site migration is being controlled. [40 CFR 60.755(a)]

A.12. Well Installation. For purposes of compliance with 40 CFR 60.753(a), 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 40 CFR 60.752(b)(2)(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)]

A.13. Surface Methane Monitoring. The following procedures shall be used for compliance with the surface methane operational standard as provided in 40 CFR 60.753(d).

(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 paragraph (d) of 40 CFR 60.755.

(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 40 CFR 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 (c)(4) (i) through (v) of 40 CFR 60.755 shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of 40 CFR 60.753(d).

(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 (c)(4)(v) of 40 CFR 60.755 shall be taken, and no further monitoring of that location is required until the action specified in paragraph (c)(4)(v) has been taken.

(iv) Any location that initially showed an exceedance but has a methane concentration less than 500 parts per million (ppm) methane above background at the 10-day re-monitoring specified in paragraph (c)(4) (ii) or (iii) of 40 CFR 60.755 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 (c)(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)]

A.14. Surface Methane Monitoring Instrumentation. Each owner or operator seeking to comply with the provisions in paragraph (c) of 40 CFR 60.755 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 40 CFR 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 40 CFR 60, the instrument evaluation procedures of section 4.4 of Method 21 of appendix A of 40 CFR 60 shall be used.

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

A.15. Startup – Shutdown – Malfunction. 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 of free venting for treatment or control devices. [40 CFR 60.755(e)]

A.16. Requirements of 40 CFR Part 63, Subpart AAAA. (a) You must fulfill one of the requirements in paragraph (a)(1) or (2) of 40 CFR 63.1955, whichever is applicable:

(1) Comply with the requirements of 40 CFR part 60, subpart WWW.

(a) 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 40 CFR 63.1960 through 63.1985 and with the general provisions of 40 CFR 63 specified in table 1 of this subpart.

(b) 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 40 CFR 63 as specified in Table 1 of this subpart and all affected sources must submit compliance reports every 6 months as specified in 40 CFR 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. [40 CFR 63.1955(a)(1)(b) and (c)]

A.17. Determining Compliance with 40 CFR Part 63, Subpart AAAA. 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 subpart and have deviated from the requirements of this subpart. Finally, you must develop 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 or maintain a copy of the SSM plan is a deviation from the requirements of this subpart. [40 CFR 63.1960]

A.18. Deviation for 40 CFR Part 63, Subpart AAAA. A deviation is defined in 40 CFR 63.1990. For the purposes of the landfill monitoring and SSM plan requirements, deviations include the items in paragraphs (a) through (c) of 40 CFR 63.1965.

(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 or maintained on site. [40 CFR 63.1965]

Monitoring of Operations

A.19. Monitoring of Operations. Each owner or operator seeking to comply with 40 CFR 60.752(b)(2)(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 40 CFR 60.755(a)(3); and
(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in 40 CFR 60.755(a)(5); and
(3) Monitor temperature of the landfill gas on a monthly basis as provided in 40 CFR 60.755(a)(5). [40 CFR 60.756(a)]

A.20. Monitoring of Operations. Each owner or operator seeking to install a collection system that does not meet the specifications in 40 CFR 60.759 or seeking to monitor alternative parameters to those required by 40 CFR 60.753 through 40 CFR 60.756 shall provide information satisfactory to the Administrator as provided in 40 CFR 60.752(b)(2)(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)]

A.21. Monitoring of Operations. Each owner or operator seeking to demonstrate compliance with 40 CFR 60.755(c), shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in 40 CFR 60.755(d). 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)]

Test Methods and Procedures

A.22. Test Methods. When required, tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
18	Measurement of Gaseous Organic Compound Emissions by Gas Chromatography
25C	Determination of nonmethane organic compounds (NMOC) in MSW landfill gases

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. [Rule 62-297.401, F.A.C.]

A.23. 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.24. Additional Compliance Test Requirements. After the installation of a collection and control system in compliance with 40 CFR 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 40 CFR 60.752(b)(2)(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, Q_{LFG}, 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 40 CFR 60.

(2) The average NMOC concentration, C_{NMOC}, 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 40 CFR 60. If using Method 18 of appendix A of 40 CFR 60, 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 40 CFR 60 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)]

A.25. Additional Compliance Test Requirements. When calculating emissions for PSD purposes, the owner or operator of each MSW landfill subject to the provisions of this subpart shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in 40 CFR 51.166 or 52.21 of this chapter using AP–42 or other approved measurement procedures. [40 CFR 60.754(c)]

Recordkeeping and Reporting Requirements

A.26. Reporting Schedule. The following reports and notifications shall be submitted to the Compliance Authority:

Report	Reporting Deadline	Related Condition(s)
Facility Closure Report	within 30 days of Waste Acceptance Cessation	A.28.
Equipment Removal Report	30 days prior to removal or cessation of operation of the control equipment	A.29.
Collection and Control System Reporting Requirements	initially and every 6 months thereafter	A.30.

[Rule 62-213.440(1)(b), F.A.C.]

A.27. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

A.28. Facility Closure Report. 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. If a closure report has been submitted to the Administrator, no additional wastes may be placed into the landfill. [40 CFR 60.757(d)]

A.29. Equipment Removal Report. 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 40 CFR 60.757;
   (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 40 CFR 60.752(b)(2)(v) have been met. [40 CFR 60.757(e)]

A.30. Collection and Control System Reporting Requirements. Each owner or operator of a landfill seeking to comply with 40 CFR 60.752(b)(2) using an active collection system designed in accordance with 40 CFR 60.752(b)(2)(ii) shall submit to the Administrator semi-annual reports of the recorded information in (f)(1) through (f)(6) of this paragraph. For enclosed combustion devices and flares, reportable exceedances are defined under 40 CFR 60.758(c).

(1) Value and length of time for exceedance of applicable parameters monitored under 40 CFR 60.756(a), (b), (c), and (d).
(2) Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under 40 CFR 60.756.
(3) Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating.
(4) All periods when the collection system was not operating in excess of 5 days.
(5) The location of each exceedance of the 500 parts per million methane concentration as provided in 40 CFR 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 paragraphs (a)(3), (b), and (c)(4) of 40 CFR 60.755. [40 CFR 60.757(f)]

A.31. Landfill Records.

(a) Except as provided in 40 CFR 60.752(b)(2)(i)(B), each owner or operator of an MSW landfill subject to the provisions of 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.

(b) Except as provided in 40 CFR 60.752(b)(2)(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 (b)(1) through (b)(4) of 40 CFR 60.758 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 40 CFR 60.752(b)(2)(ii):

(i) The maximum expected gas generation flow rate as calculated in 40 CFR 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 40 CFR 60.759(a)(1).

(2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with 40 CFR 60.752(b)(2)(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 40 CFR 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.

(c) Except as provided in 40 CFR 60.752(b)(2)(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 40 CFR 60.756 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

(1) 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 40 CFR 60.756.

(2) 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 40 CFR 60.756(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

(d) Except as provided in 40 CFR 60.752(b)(2)(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 40 CFR 60.755(b).

(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 40 CFR 60.759(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in 40 CFR 60.759(a)(3)(ii).

(e) Except as provided in 40 CFR 60.752(b)(2)(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 40 CFR 60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance. [40 CFR 60.758(a), (b)(1) and (4), (c) (2) and (4), (d)(1) and (2) and (e)]

A.32. Asbestos Records and Reports. Permittee shall maintain records and reports in accordance with 40 CFR 61.154(e) and for a period of at least five years. [40 CFR 61.154(e)]

A.33. Asbestos Location Records. Permittee shall maintain, until closure, location records of the asbestos containing waste subject to 40 CFR 61.154 in accordance with 40 CFR 61.154(f). [40 CFR 61.154(f)]

A.34. 40 CFR Part 63, Subpart AAAA Records.

(a) 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: You must submit the annual report described in 40 CFR 60.757(f) every 6 months.

(b) You must also keep records and reports as specified in the general provisions of 40 CFR part 60 and 40 CFR 63 as shown in Table 1 of 40 CFR 63.

Applicable records in the general provisions include items such as SSM plans and the SSM plan reports. [40 CFR 63.1980]

Other Requirements

A.35. Implementation and Enforcement of 40 CFR Part 63, Subpart AAAA.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or tribal agency. If the EPA Administrator has delegated authority to a State, local, or tribal agency, then that agency as well as the U.S. EPA has the authority to implement and enforce this subpart. Contact the applicable EPA Regional Office to find out if this subpart is delegated to a State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of 40 CFR 63, the authorities contained in paragraph (c) of 40 CFR 63.1985 are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are as follows. Approval of alternatives to the standards in 40 CFR 63.1955. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart. [40 CFR 63.1985]

A.36. Table 1 to Subpart AAAA of Part 63. As stated in 40 CFR 63.1955 and 63.1980, you must meet each requirement in the following table that applies to you.

Table 1 to Subpart AAAA of Part 63—Applicability of NESHAP General Provisions to Subpart AAAA

Part 63 Citation	Description	Explanation
63.1(a)	Applicability: general applicability of NESHAP in 40 CFR 63	Affected sources are already subject to the provisions of paragraphs (a)(10)–(12) through the same provisions under 40 CFR, part 60 subpart A.
63.1(b)	Applicability determination for stationary sources	
63.1(e)	Title V permitting	
63.2	Definitions	
63.4	Prohibited activities and circumvention	Affected sources are already subject to the provisions of paragraph (b) through the same provisions under 40 CFR, part 60 subpart A.
63.5(b)	Requirements for existing, newly constructed, and reconstructed sources	
63.6(e)	Operation and maintenance requirements, startup, shutdown and malfunction plan provisions	
63.6(f)	Compliance with nonopacity emission standards	Affected sources are already subject to the provisions of paragraphs (f)(1) and (2)(i) through the same provisions under 40 CFR, part 60 subpart A.
63.10(b)(2)(i)–(b)(2)(v)	General recordkeeping requirements	
63.10(d)(5)	If actions taken during a startup, shutdown and malfunction plan are consistent with the procedures in the startup, shutdown and malfunction plan, this information shall be included in a semi-annual startup, shutdown and malfunction plan report. Any time an action taken during a startup, shutdown and malfunction plan is not consistent with the startup, shutdown and malfunction plan, the source shall report actions taken within 2 working days after commencing such actions, followed by a letter 7 days after the event	
63.12(a)	These provisions do not preclude the State from adopting and	

	enforcing any standard, limitation, etc., requiring permits, or requiring emissions reductions in excess of those specified	
63.15	Availability of information and confidentiality	

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

EU No.	Brief Description
013	Landfill Gas (LFG) Flare

This emission unit is an open candlestick LFG flare control device. After passing through the knockout tank the LFG is subject to controlled combustion in the candlestick flare LFG control device, or diverted to the sludge dryer LFG gas treatment system for use a supplemental fuel in the sludge dryer *(see EU 004 in Subsection C.)*. (Note - Three portable self-igniting battery operated landfill gas vent flares are also used to reduce the migration of landfill gas from areas not connected to the landfill collection system and combust landfill gas that accumulates near leachate collection system components.)

{Permitting Note: This emissions unit is regulated under 40 CFR 60, Subpart A, the General Control Device and Work Practice Requirements adopted in Rule 62.204.800(8)(b), F.A.C. and 40 CFR 60, Subpart WWW, "Standards of Performance for Municipal Solid Waste Landfills", adopted and incorporated by reference in Rule 62-204.800(8)(b), F.A.C.}

Essential Potential to Emit (PTE) Parameters

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

B.2. Flare Opacity Limit. See Specific Condition **B.5.**

B.3. Permitted Capacity. The maximum landfill gas flowrate to the flare shall not exceed 3,000 standard cubic feet per minute of landfill gas, averaged hourly.
[Rule 62-210.200(203 PTE); FAC]

General Control Device and Work Practice Requirements

B.4. Operational Standards. Operate the control or treatment system at all times when the collected gas is routed to the system. [40 CFR 60.753(f)]

B.5. General Control Device and Work Practice Requirements.

(1) Flares shall be designed for and operated with no visible emissions as determined by the methods specified in 40 CFR 60.18(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 40 CFR 60.18(f).

(3) An owner/operator has the choice of adhering to either the heat content specifications in 40 CFR 60.18(c)(3)(ii) of this section and the maximum tip velocity specifications in 40 CFR 60.18(c)(4) of this section, or adhering to the requirements in 40 CFR 60.18(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:

$$V_{max}=(X_{H2}-K_1)* K_2$$

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.

X_{H2} = 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 40 CFR 60.17).

(B) The actual exit velocity of a flare shall be determined by the method specified in 40 CFR 60.18(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 40 CFR 60.18(f)(3).

(4)

(i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4) of this section, less than 18.3 m/sec (60 ft/sec), except as provided in 40 CFR 60.18(c)(4) (ii) and (iii).

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18(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 40 CFR 60.18(f)(4), less than the velocity, V_{max}, as determined by the method specified in 40 CFR 60.18 (f)(5), and less than 122 m/sec (400 ft/sec) are allowed.

(5) *Reserved*

(6) Flares used to comply with this section shall be steam-assisted, air-assisted, or nonassisted. [40 CFR 60.18(c)]

B.6. General Control Device and Work Practice Requirements. Owners or operators of flares used to comply with the provisions of 40 CFR 60 shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. Applicable subparts of 40 CFR 60 will provide provisions stating how owners or operators of flares shall monitor these control devices. . [40 CFR 60.18(d)]

B.7. General Control Device and Work Practice Requirements. Flares used to comply with provisions of 40 CFR 60 shall be operated at all times when emissions may be vented to them. [40 CFR 60.18(e)]

B.8. General Control Device and Work Practice Requirements.

(1) Method 22 of appendix A to 40 CFR 60 shall be used to determine the compliance of flares with the visible emission provisions of 40 CFR 60. 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:

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

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;

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

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

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 40 CFR 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 40 CFR 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 40 CFR 60.18 (c)(4)(iii) shall be determined by the following equation.

$$\text{Log}_{10}(V_{max})=(H_T+28.8)/31.7$$

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

28.8 = Constant

31.7 = Constant

H_T = The net heating value as determined in 40 CFR 60.18 (f)(3).

[40 CFR 60.18(f)]

Monitoring of Operations

B.9. Monitoring of operations. Each owner or operator seeking to comply with 40 CFR 60.752(b)(2)(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)]

Test Methods and Procedures

B.10. Test Methods. When required, tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
3C	Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources
22	Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares

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. [Rule 62-297.401, F.A.C.]

B.11. 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.12. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), each EU shall be tested to demonstrate compliance with the emissions standards for opacity. [Rule 62-297.310(7), F.A.C.]

B.13. Test Methods and Procedures for Methane Concentration. For the performance test required in 40 CFR 60.752(b)(2)(iii)(A), the net heating value of the combusted landfill gas as determined in 40 CFR 60.18(f)(3) is calculated from the concentration of methane in the landfill gas as measured by Method 3C. A minimum of three 30-minute Method 3C samples are determined. The measurement of other organic components, hydrogen, and carbon monoxide is not applicable. Method 3C may be used to determine the landfill gas molecular weight for calculating the flare gas exit velocity under 40 CFR 60.18(f)(4). [40 CFR 60.754(e)]

B.14. Test Methods and Procedures for Opacity. See Specific Condition **B.8.**

Recordkeeping and Reporting Requirements

B.15. Reporting Schedule. The following reports and notifications shall be submitted to the Compliance Authority:

Report	Reporting Deadline	Related Condition(s)
Equipment Removal	30 days prior to removal or cessation	**B.17.**
Semi-annual Reports	30 days after the end of the semi-annual period	**B.18.**

[Rule 62-213.440(1)(b), F.A.C.]

B.16. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

B.17. Equipment Removal Reporting Requirement. 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 40 CFR 60.752(b)(2)(v) have been met. [40 CFR 60.757(e)]

B.18. Semi-annual Reports. Each owner or operator of a landfill seeking to comply with 40 CFR 60.752(b)(2) using an active collection system designed in accordance with 40 CFR 60.752(b)(2)(ii) shall submit to the Administrator semi-annual reports of the recorded information in (f)(1) through (f)(6) of this paragraph. For enclosed combustion devices and flares, reportable exceedances are defined under 40 CFR 60.758(c).

(1) Value and length of time for exceedance of applicable parameters monitored under 40 CFR 60.756(a), (b), (c), and (d).
(2) Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under 40 CFR 60.756.
(3) Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating.
(4) All periods when the collection system was not operating in excess of 5 days.
(5) The location of each exceedance of the 500 parts per million methane concentration as provided in 40 CFR 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 paragraphs (a)(3), (b), and (c)(4) of 40 CFR 60.755. [40 CFR 60.757(f)]

B.19. Flare Records. Except as provided in 40 CFR 60.752(b)(2)(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 (b)(1) through (b)(4) of this section 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 40 CFR 60.752(b)(2)(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 40 CFR 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)(4)]

B.20. Operation Parameter Records. Except as provided in 40 CFR 60.752(b)(2)(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 40 CFR 60.756 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

(1) 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 40 CFR 60.756.
(2) 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 40 CFR 60.756(c), 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)(2) and (4)]

B.21. Exceedance Records. Except as provided in 40 CFR 60.752(b)(2)(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 40 CFR 60.753, the reading in the

subsequent month whether or not the second reading is an exceedance, and the location of each exceedance. [40 CFR 60.758(e)]

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

EU No.	Brief Description
004	Sludge Dryer

This emission unit is the sludge dryer and associated operations at the Manatee County Southeast Water Reclamation Facility (SEWRF), which is co-located with the MSW landfill at this facility. Dewatered sewage cake (sludge) from the dewatering building is pumped to the wet cake bin located inside the Pelletizer/Dryer building. The two (2) cake-receiving bins located on the south side of the Pelletizer/Dryer building may receive sludge from other wastewater treatment plants from two sludge truck unloading stations. Sludge in the two (2) cake-receiving bins is then pumped to a cake bin located inside the Pelletizer/Dryer building. Sludge in the cake bin is then transferred to a mixer (pug mill) at an approximate maximum rate of 8.33 tons/hour with recycled dried sludge from a recycle bin at an approximate rate of 20.45 tons/hour. The mixer then transfers the sludge to the entrance chute of a triple pass rotating drum dryer at a maximum total combined input rate of 28.8 tons/hour based on a daily average. Although the maximum design material (dried sludge/pellets) output rate of the dryer is 21.9 dry tons/hour, the maximum final material production rate is 1.33 dry tons/hour and 11,680 dry tons/year.

The sludge in the dryer is introduced to heated process air from a direct-fired furnace. The direct-fired furnace is fired with a mixture of landfill gas and natural gas, natural gas, or landfill gas at a maximum total heat input rate of 20.4 MMBTU/hour based on a monthly average. The sludge comes in direct contact with the dryer and the approximate 1,000 °F heated process air, creating pellets as the material travels through the rotating drum. An induced draft fan along with flights inside the drum provides the motive force to move the sludge through the dryer.

Air that exits the dryer passes first (along with the dried sludge) through a pre-separator & polycyclone and then through a saturator. Airflow exiting the saturator is divided into two air streams. The first air stream, which is approximately 75% of the total airflow, is recycled back to the dryer's furnace. The second air stream, which is approximately 25% of the total airflow, continues through a venturi scrubber. The saturator and venturi scrubber reduce particulate matter emissions. The airflow exiting the venturi scrubber then enters a regenerative thermal oxidizer (RTO). The RTO, which is located outside the Pelletizer/Dryer building, has a design minimum volatile organic compound destruction efficiency of 98% and is only fired with natural gas at a maximum heat input rate of 0.75 MMBTU/hr. based on a monthly average. The RTO also functions to reduce emissions of ammonia and odors. Air in the RTO's combustion chamber has a design minimum residence time of 1 second and is maintained at a minimum temperature of 1400 °F before being exhausted through a 60-65 foot high stack at a design rate of 8,713 acfm (6,213 + 2,500).

The landfill gas (LFG) used in the sludge dryer is processed through a gas treatment system prior to being piped to the sludge dryer burner. This gas treatment system is considered the LFG control system in accordance with Rule 62-204.800(9)(c), F.A.C. (Emission Guidelines – MSW Landfills) and NSPS 40 CFR 60 Subpart WWW. The sludge dryer LFG gas treatment system consists of the following processes/equipment to filter, dewater, compress and control the temperature of the LFG:

1. A <u>condensate knock-out vessel</u> which is designed to filter and remove 99% of remaining* entrained condensates and particulate matter of 10 microns or larger from the landfill gas. Any free liquid will be stripped out by the knock-out tank's internal steel mist pad. (<u>Note</u> – There is a similar knockout vessel located at the LFG flare station, which the LFG passes through before reaching the sludge dryer LFG gas treatment system – so the LFG has little moisture or particulate left in it when it gets to the sludge dryer LFG gas treatment system knockout vessel.)
2. A <u>booster blower</u> designed to compress the gas to a discharge pressure of 4.0 psig. The gas design conditions at the boost blower discharge will be: Temperature of 180ºF; Pressure of 4.0 psig; Moisture content of 16% RH (relative humidity).

3. An after cooler installed at the end of the booster blower to control the gas temperature. The after cooler is designed to maintain a gas delivery temperature of 140ºF to the sludge dryer furnace. The gas design conditions at the after cooler discharge will be: Temperature of 140ºF; Pressure of 3.0 psig; Moisture content of 41% RH. No condensates are expected to drop out unless the gas temperature drops down to below 106ºF.

The components of the LFG gas treatment system will not be equipped with atmospheric vents. Therefore, all of the LFG passing through the gas treatment system will be piped to the sludge dryer furnace for use as fuel.

Should the sludge dryer LFG gas treatment system booster blower shut down, a flow control valve at the booster blower inlet will close. The LFG flare control valve will sense an increase in pressure and prompt the valve to open allowing all collected LFG to be sent to the landfill flare. Therefore untreated LFG will never go to the sludge dryer furnace.

{Permitting Note: This emissions unit is regulated under Rules 62-296.320(2), (4)(a), and (4)(b), F.A.C; and NESHAP 40 CFR 61 Subpart E – National Emission Standards for Mercury as referenced by Rule 62-204.800(10)(c), F.A.C. since drying sludge from the wastewater treatment plant is subject to the mercury emission standards of this NESHAP. The landfill gas (LFG) used in the sludge dryer's furnace is regulated by the applicable provisions of NSPS 40 CFR 60 Subpart WWW (New Source Performance Standards (NSPS) for Municipal Solid Waste Landfills), adopted and incorporated by reference in Rule 62-204.800(8)(b), F.A.C.); NESHAP 40 CFR 63 Subpart AAAA (National Emission Standards for Hazardous Air Pollutants (NESHAP) from Municipal Solid Waste Landfills) adopted and incorporated by reference in Rule 62-204.800(11)(b), F.A.C.; and the Subpart A General Provisions for 40 CFR 60 and 63 adopted and incorporated by reference in Rules 62-204.800(8)(d) and (11)(d), F.A.C.}

Essential Potential to Emit (PTE) Parameters

C.1. Permitted Capacity.

a. The total sludge input rate to the sludge dryer shall not exceed 28.8 tons/hour, based on a daily average.
b. The natural gas heat input rate to the sludge dryer's furnace shall not exceed 20.4 MMBTU/hour, based on a monthly average.
c. The landfill gas heat input rate to the sludge dryer's furnace shall not exceed 20.4 MMBTU/hour, based on a monthly average.
d. When a blend of the landfill gas and natural gas is used in the sludge dryer's furnace, the total combined heat input rate shall not exceed 20.4 MMBTU/hour, based on a monthly average.
e. The natural gas heat input rate to the sludge dryer's RTO shall not exceed 0.75 MMBTU/hour, based on a monthly average.

[Rules 62-4.160(2), 62-204.800, and 62-210.200 (Potential to Emit), F.A.C.; Permit No. 0810055-007-AC]

C.2. 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.]

C.3. Methods of Operation. *Fuels.* The fuels that are allowed to be burned in this unit/these units are:

a. The sludge dryer's furnace shall be only fired with natural gas, landfill gas, or a blend of natural gas and landfill gas.
b. The RTO shall be only fired with natural gas.
c. When drying sewage sludge, the RTO shall operate at a minimum temperature of 1400 degrees F.

[Rules 62-4.160(2) and 62-210.200 (Potential to Emit), F.A.C.; Permit No. 0810055-007-AC]

*(Permitting Note – See also Specific Condition **C.22.** for LFG gas treatment system operation requirements.)*

C.4. Hours of Operation. This emissions unit may operate continuously (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C., Permit No. 0810055-007-AC]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions **C.5. - C.7.** are based on the specified averaging time of the applicable test method.

C.5. Visible Emissions. Visible emissions (VE) shall not be equal to or exceed 20% opacity. [Rule 62-296.320(4)(b)1. (General Visible Emission Standard), F.A.C.]

C.6. PM Emissions. Particulate matter (PM) emissions from this emission unit (at the exit of the RTO) shall not exceed the allowable PM emissions per the Process Weight Table of Rule 62-296.320(4)(a), F.A.C., and 5.0 pounds/hour* (equivalent to 21.9 tons/year), whichever is more stringent. The Process Weight Table becomes more stringent when the sludge (dewatered and recycled) input rate to the dryer is less than 1.7 tons/hour. When the Process Weight Table becomes applicable, the allowable PM emissions shall be determined by using the following equation:

$$E = 3.59 \times P^{0.62},$$

Where: E = allowable PM emissions in lbs./hour
P = sludge (dewatered and recycled) input rate to the dryer in tons/hour
[Rule 62-296.320(4)(a), F.A.C.; Permit No. 0810055-007-AC]

C.7. Mercury Emissions. Mercury (Hg) emissions from this emission unit (at the exit of the RTO) shall not exceed 3200 grams/24 hour period (equivalent to 0.29 pounds/hour* and 1.29 tons/year), pursuant to 40 CFR 61.52(b). [40 CFR Part 61, Subpart E adopted and incorporated by reference in Rule 62-204.800(10)(b)3., F.A.C.; Construction Permit 0810055-007-AC]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

C.8. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

C.9. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

C.10. RTO Temperature Monitoring Requirements. The permittee shall operate adequate instrumentation to continuously monitor and record the regenerative thermal oxidizer (RTO) operating temperature. The temperature monitoring device shall be equipped with a continuous recorder and have a minimum accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ±0.5 degrees C, whichever is greater.
[Rule 62-4.070(3), F.A.C.; Construction Permit 0810055-007-AC]

C.11. Landfill Gas Flow Rate Monitoring Requirements. The permittee shall install, calibrate, and maintain a landfill gas flow rate measuring device that shall record the flow to the LFG gas treatment system at least every 15 minutes. [Rule 62-210.800(8)(b), F.A.C; 40 CFR 60.756(b)(2)]

*(Permitting Note - See also Specific Condition **C.25.** for additional LFG gas treatment system monitoring requirements.)*

Test Methods and Procedures

C.12. Test Methods. When required, tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
5	Determination of Particulate Matter Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
101A	Determination of Particulate and Gaseous Mercury Emissions from Sewage Sludge Incinerators
105	Determination of Mercury in Wastewater Treatment Plant Sewage Sludges

EPA Methods 1, 2, 3, 4, 5, and 9 are contained in 40 CFR 60, Appendix A, adopted by reference in Chapter 62-297, F.A.C. EPA Methods 101A and 105 are contained in 40 CFR 61, Appendix B, adopted by Chapter 62-297, F.A.C. The EPA Method 9 test shall be conducted by a certified observer and be at least 30 minutes in duration. The visible emission test observation period shall include the period during which the highest opacity can reasonably be expected to occur. Mercury testing shall be consistent with the requirements of 40 CFR 61.53(d). Particulate matter and mercury emission testing shall be conducted downstream from the point where the airflow from the baghouse controlling Emission Unit No. 005 enters the common stack. Visible emission testing shall be conducted when Emission Unit No. 005 is simultaneously operating and at the exit of the stack. The minimum requirements for stationary point source emissions test procedures and reporting shall be in accordance with Chapter 62-297, F.A.C., 40 CFR 60, Appendix A, and 40 CFR 61, Appendix B.
[Rules 62-297.310(4)(a)2., and 62-297.401, F.A.C.; Construction Permit 0810055-007-AC]

C.13. 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.]

C.14. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), each EU shall be tested to demonstrate compliance with the emissions standards for opacity. [Rule 62-297.310(7), F.A.C.; Permit No. 0810055-007-AC]

C.15. Compliance Tests Prior To Renewal. In addition to the annual compliance tests specified above, compliance tests shall also be performed for mercury and particulate matter between 365 days and 270 days prior to the expiration date of this permit prior to obtaining a renewed operation permit to demonstrate compliance with the emission limits in Specific Conditions **C.6.** and **C.7.** [Rule 62-297.310(7), F.A.C.; Permit No. 0810055-007-AC]

{Permitting Note: Tests which are only required once during the term of a permit prior to obtaining a renewed permit should be performed roughly five years from the previous test.}

C.16. Additional Compliance Test Requirements. Testing of emissions shall be conducted within 90-100% of the maximum permitted total material input rate of 28.8 tons/hour to the sludge dryer as stipulated in Specific Condition **C.1.a**. The visible emission test shall also be conducted when Emission Unit No. 005 is operating within 90-100% of its permitted capacity. If it is impractical to test at the permitted capacity, an emission unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110% of the tested input rate 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 up to the maximum permitted capacity. [Rule 62-297.310(2), F.A.C.; Construction Permit 0810055-007-AC]

Recordkeeping and Reporting Requirements

C.17. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

C.18. Sludge Input Rate Requirements. The total sludge input rate to the sludge dryer shall be determined daily by the following calculation and procedures:

$$M = \frac{C\,(\%R - \%C)}{(\%R - \%M)}$$

Where:

M = Dryer Total Sludge Input Rate (lbs./hr.)
C = Wet Sludge Feed Cake to Pugmill (lbs./hr.)
%M = Percent Solids of Dryer Input (Feed)
%C = Percent Solids of Wet Sludge Feed Cake
%R = Percent Solids of Recycled Dry Material to Pugmill

a. Continuously monitor and record hourly the wet sludge feed cake to the pugmill.
b. Perform dry solids tests every two hours on the dryer feed, the wet sludge feed cake, and recycled dry material.
c. At the end of the day, the average for each of the above measurements shall be applied to the formula above and the dryer input (feed) rate calculation shall be completed and recorded.

The above procedure shall provide a daily average dryer input (feed) rate. This procedure will be used each day of operation and shall be used during compliance testing where the calculations shall be completed and reported for the actual period of the test and not the entire operating day.
[Rule 62-4.070(3), F.A.C.; Construction Permit 0810055-007-AC]

C.19. Heat Input Rate Requirements. In order to determine compliance with the fuel heat input limitations of Specific Condition **C.1.**, the permittee shall record the following:
a. the monthly average natural gas heat input rate to the sludge dryer's furnace, in MMBTU/hour;
b. the monthly average landfill gas* heat input rate to the sludge dryer's furnace, in MMBTU/hour;
c. the monthly average blend of natural gas and landfill gas* combined total heat input rate to the sludge dryer's furnace, in MMBTU/hour; and
d. the monthly average natural gas heat input rate to the RTO, in MMBTU/hour.

* For each month landfill gas is used, the permittee shall by the end of that month sample, analyze and determine the "heat content" of the landfill gas. The "heat content" determined shall then be used for determining the monthly average heat input rate for that month .

[Rule 62-4.070(3), F.A.C.; Construction Permit 0810055-007-AC]

C.20. Test Report Requirements. Test reports shall be submitted to the Air Compliance Section of the Department's Southwest District Office within 45 days of such testing. All test reports shall include, at a minimum, the information required by Rule 62-297.310(8), F.A.C. and the following:

- The hourly material input rate to the sludge dryer during the test period;
- The hourly combined landfill gas and natural gas heat input rate to the furnace during the test period;
- The hourly natural gas heat input rate to the RTO during the test period;
- A copy of the RTO's continuous temperature monitor recording for the test day(s); and
- A copy of the hourly and daily logs (see below) for the test day(s).

Failure to submit the above information, or operating at conditions, which do not reflect normal operating conditions may invalidate the test and fail to provide reasonable assurance of compliance.

[40 CFR 61.53(d)(5) and 40 CFR 61.54(f); Rules 62-297.310(8) and 62-4.070(3), F.A.C.; Construction Permit 0810055-007-AC]

Other Requirements

(Rule 204.800(9)(c), F.A.C. and NESHAP 40 CRFR 63 Subpart AAAA Note – The landfill gas (LFG) used as a supplemental fuel for the sludge dryer is subject to the requirements of Rule 204.800(9)(c), F.A.C. (Emission Guidelines - Municipal Solid Waste Landfills), which references NSPS Subpart 40 CFR 60 Subpart WWW; and NESHAP 40 CRFR 63 Subpart AAAA (National Emission Standards for Hazardous Air Pollutants (NESHAP): Municipal Solid Waste Landfills). The sludge dryer LFG gas treatment system is considered the LFG gas treatment system for the purposes of meeting these standards. See Specific Conditions A.2. and A.3. for applicable requirement references.)

C.21. Federal NESHAP 40 CFR 61 Subpart E Mercury Requirements. This emission unit is subject to and shall comply with the applicable requirements *(see below)* of 40 CFR 61 National Emission Standard for Hazardous Air Pollutants (NESHAP) Subpart E (National Emission Standard for Mercury), and Subpart A (General Provisions for 40 CFR 61)), as adopted and incorporated by reference in Rule 62-204.800(10), F.A.C.) and made a part of this permit in the attached Appendix NESHAP 40 CFR 61 Subpart E and Appendix NESHAP 61 Subpart A.

The applicable portions of 40 CFR 61 Subpart E are shown below*:

61.50 Applicability.
(Entire section)
61.51 Definitions.
(All definitions as shown)
61.52 Emission Standard.
(b)
61.53 Stack Sampling.
(d)(1)
(d)(2)(ii) – (d)(6)
61.54 Sludge Sampling.
(a)
(a)(2) – (g)
61.55 Monitoring of emissions and operations.
(a)
(c) – (c)(7)
61.56 Delegation of authority.
(All sections as shown)

(Applicable Provisions Note. The applicable provisions, as listed above, are based upon the application and subsequent additional information, submitted for Construction Permit 0810055-005-AC, which authorized construction of the sludge dryer and associated operations. Any change in the operation, or in the information contained in the application or additional information submittals may change the applicable provisions listed above.)*

[Rule 62-204.800(10), F.A.C.; 40 CFR 61 Subparts A and E; Construction Permits 0810055-005-AC and 0810055-007-AC]

C.22. (NSPS Subpart WWW) LFG Gas Treatment System Operation Requirements. In order to meet the LFG control requirements of Rule 62-204.800(9)(c), F.A.C. (Emission Guidelines - Municipal Solid Waste Landfills), and the referenced requirements of New Source Performance Standards (NSPS) 40 CFR 60 Subpart WWW* (Standards of Performance for Municipal Solid Waste Landfills), which apply to the municipal solid waste landfill located at this facility (the Manatee County Lena Road Landfill), the landfill

gas (LFG) fired in the wastewater treatment plant sludge dryer furnace shall be processed through the sludge dryer LFG gas treatment system which meets the following requirements.

a. All of the LFG to be used in the sludge dryer furnace shall be processed through the LFG gas treatment system prior to routing to the sludge dryer furnace for use (40 CFR 60.752(b)(2)(iii)C.). The LFG gas treatment system shall dewater, filter, compress and control the temperature of the LFG prior to routing to the sludge dryer furnace for firing.
b. The LFG gas treatment system shall be in operation and operating properly at all times when collected LFG is routed to the LFG gas treatment system. This applies at all times except during periods of start-up, shut down, or malfunction, provided that the duration of start-up, shutdown or malfunction shall not exceed 1 hour for the LFG gas treatment system (40 CFR 60.755).
c. All emissions from any atmospheric vent from the LFG gas treatment system* shall be subject to the LFG control requirements of 40 CFR 60.752(b)(2)(iii)(A) *(open flare)* or (B) *(control device)* (40 CFR 60.752(b)(2)(iii)C.). *(* LFG Gas Treatment System Vent Note - The LFG gas treatment system as installed does not include any atmospheric vents.)*
d. No treated LFG shall be routed from the LFG gas treatment system to the atmosphere uncombusted or uncontrolled.
e. All of the equipment included in the LFG gas treatment system shall be operated and maintained in accordance with the applicable equipment manufacturers operation and maintenance procedures.
f. The permittee shall operate the LFG gas treatment system to maintain system operating parameters at a level that indicates proper performance of the LFG gas treatment system in terms of filtering, dewatering, compressing and controlling the temperature of the LFG. The operating parameters shall be the following (unless alternatives are established in subsequent the Title V operation permits).
    (1) pressure drop across the knockout tank shall be $\geq$ 0.02 and $\leq$ 5 inches of water column; and
    (2) after cooler discharge gas temperature shall be < 145ºF (hourly average basis).

[Rules 62-4.070(3) 62-210.650 (Circumvention), 62-204.800(8)(b), 62-204.800(9)(c), and 62-204.800(11)(b), F.A.C.; NSPS Subpart WWW 40 CFR 60.752(b)(2), 60.755 and 60.756(d); Construction Permit 0810055-007-AC]

C.23. Alternative LFG Gas Treatment System Operating Parameter. As part of an application for a Title V operation permit revision or renewal, the permittee may request alternative operating parameters and/or operation range which indicate proper performance of the LFG treatment processes performed in the LFG gas treatment system. Any proposed alternatives to the sludge dryer LFG gas treatment system operating parameters, or parameter operating ranges, shall be accompanied by a justification as to how the proposed alternatives indicate proper performance of the LFG gas treatment system. The proposed alternatives should also include appropriate monitoring and recordkeeping procedures to document proper operation.
[Rule 62-204.800(8)(b), F.A.C.; NSPS Subpart WWW 40 CFR 60.752(b)(2)(i)(B), 60.756(d), and 60.758(c); Construction Permit 0810055-007-AC]

C.24. Sludge Dryer Furnace Burner and LFG Gas Treatment System Operating Hour Records. In order to document compliance with the requirements of Specific Condition B.21., the permittee shall maintain the following daily records:

a. Date of the record.
b. Sludge dryer furnace burner operation information including
    (1) operating hours, including start time, stop time; and
    (2) fuel being fired in the furnace burner during operation, including start and stop time of periods of firing landfill gas (LFG); and
c. Status of the operation of the sludge dryer LFG gas treatment system including:
    (1) hours of operation of the LFG gas treatment system (start time and stop time); and

(2) any periods of time that the LFG gas treatment system was not in operation or not operating properly, along with the reason for it being out of service.

The above daily records shall be completed within three (3) business days. These records shall be recorded on site in a permanent form suitable for inspection by the Department upon request, and shall be retained for at least a five (5) year period.

[Rules 62-4.070(3) and 62-213.440(1)(b)2.b., F.A.C; Construction Permit 0810055-007-AC.]

C.25. (NSPS Subpart WWW) LFG Gas Treatment System Monitoring Requirements. In accordance with 40 CFR 60.756(d), the permittee shall continuously monitor the sludge dryer LFG gas treatment system operating parameters specified in Specific Condition **C.22.f.**, or approved alternatives as included in the facility Title V operation permit. Monitor data collection shall be conducted at intervals no greater than 15 minutes. Monitoring data shall be reported on an averaging basis consistent with the parameter operating range requirements.
[Rules 62-4.070(3), 62-210.650 (Circumvention), 62-204.800(8)(b), F.A.C.; NSPS Subpart WWW 40 CFR 60.756(d)]

C.26. (NSPS Subpart WWW and NESHAP Subpart AAAA) LFG Gas Treatment System Recordkeeping and Reporting Requirements.

a. Operating Parameter Recordkeeping. In accordance with 40 CFR 60.758(c), the permittee shall keep up-to-date, readily accessible continuous records of the sludge dryer LFG gas treatment system operating parameters (or approved alternatives as included in the facility Title V operation permit.), as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries are exceeded, as well as actions taken to address and correct this condition. The records shall be retained for at least 5 years.
b. Semi-Annual Exceedance Reports. In accordance with 40 CFR 60.757(f) and 40 CFR 63.1980(a), every 6 months the permittee shall submit to the Southwest District Office's Air Resource Management Section reports of the value and length of time of exceedances of the applicable sludge dryer LFG gas treatment system operating parameters specified in Specific Condition B.21.f., or approved alternatives as included in the facility Title V operation permit (see Specific Condition B.22.). The report shall include the reasons for the exceedance(s) and the actions taken to address and correct it.

[Rules 62-4.070(3), 62-210.650 (Circumvention), 62-204.800(8)(b) and 62-204.800(11)(b), F.A.C.; NSPS Subpart WWW 40 CFR 60.758(c) and 60.757(f); NESHAP Subpart AAAA 40 CFR 63.1980(a)]

C.27. Facility Startup, Shutdown and Malfunction (SSM) Plan. The permittee shall include the sludge dryer LFG gas treatment system in the facility Startup, Shutdown and Malfunction (SSM) Plan required by NESHAP Subpart A 40 CFR 63.6(e)(3). The permittee shall maintain at the affected source a current startup, shutdown, and malfunction plan and must make the plan available upon request for inspection and copying by the Department.
[Rule 62-204.800(11)(d), F.A.C; NESHAP Subpart A 40 CFR 63.6(e)(3)]

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

EU No.	Brief Description
005	Dried Product (Sludge/Pellets) Handling System
006	Two Dried Product (Pellet) Storage Silos
007	Dried Product (Pellet) Truck Load out Station

Emission Unit ID No. 005 – Dried Product (Sludge/Pellet) Handling System

A dried product (sludge/pellets) handling system is located inside the Pelletizer/Dryer building. The dried sludge from the 2-stage separation process (pre-separator & polycyclone) following the dryer passes through a vibrating screen at a maximum design rate of 21.85 dry tons/hour, which separates the dried sludge into 4 streams. The 4 streams are: 1) trash; 2) recycled undersized pellets; 3) recycled oversized pellets; and 4) the final product pellets (maximum 1.33 dry tons/hour). The oversized pellets are passed through a crusher before being combined with the undersized pellets. The combined crushed oversized pellets and undersized pellets are passed through a screw conveyor before being sent to an elevator that transfers the pellets to the recycle bin at a maximum design rate of 20.45 dry tons/hour. The final product pellets (correct sized material) exiting the vibrating screen are transferred to a separate elevator before passing through a pellet cooler and then transporter. From the transporter the cooled final product pellets are then pneumatically conveyed to one of two pellet storage silos at a maximum rate of 1.33 tons of pellets/hour. The silos are designated as Emission Unit No. 006 and described further below.

Particulate matter emissions from the recycle bin, two elevators, crusher, screw conveyor that handles the oversized and undersized pellets, pellet cooler, and transporter are controlled by Baghouse No. 1. The baghouse has a design airflow rate to the atmosphere of 2,500 acfm and vents through the same stack as the dryer's RTO, but downstream of where the dryer's RTO's emissions enter the stack.

If the amount of undersized and crushed oversized material is insufficient to sustain the level in the recycle bin, final product material in the screen may be temporarily diverted through the crusher and on to the recycle bin.

(Note - For safety reasons the recycle bin may be purged with nitrogen from a liquid nitrogen storage tank located outside the Pelletizer/Dryer building. Also, for safety reasons the baghouse may continue to operate after the dryer is shutdown to provide air movement through the equipment associated with this emission unit to help prevent the buildup of moisture and heat within the emission unit while the equipment is idle.)

Emission Unit ID No. 006 – Two Dried Product (Pellet) Storage Silos

Two pellet storage silos are located outside on the east side of the Pelletizer/Dryer building. Only one of the two silos may receive pellets from the dried product handling system at any one time at a maximum rate of 1.33 tons of pellets/hour. Emissions from filling the silos are controlled by a common baghouse. The baghouse is designated as Baghouse No. 2 and has a design airflow rate to the atmosphere of 2,000 acfm.

(Note - For safety reasons, the silos may be purged with nitrogen from the same liquid nitrogen storage tank that serves the recycle bin.)

Emission Unit ID No. 007 – Dried Product (Pellet) Truck Load out Station

The truck load out station is located under the two pellet storage silos. The truck loading spout located at the bottom of the silos transfers pellets from one silo at a time to a truck. A slide gate in the chute gravity feeds the pellets to the trucks at a maximum rate of 50 tons of pellets/hour. When trucks are loaded with product, the loading spout drops down into the truck bed. Pellets are loaded through the spout and air is simultaneously drawn in through the outer ring of the spout. The height of the spout can be adjusted as pellets are loaded to keep it near the surface of the truck bed/pellets. Collected air from the spout is vented through Baghouse No. 2, which also controls emissions from the final product silos. In order to assist in controlling particulate emissions, before the

pellets enter a truck, a coating, such as Dustrol 3010 or similar, may be applied to the pellets at a design rate of 2 to 4 gallons per ton.

The trucks will either transfer the pellets to the landfill where they will be mixed with cover dirt and use the mixture for cover dirt on the landfill or deliver the pellets off-site for other uses or to customers. For trucks that are loaded with pellets for transfer to the landfill, the trucks may have an open top design , the pellets are not required to be coated, and displaced air from the truck is not required be vented to Baghouse No. 2.

{Permitting Note: These emissions units are regulated under Rule 62-296.320(4)(b), F.A.C. – General Pollutant Emission Limiting Standards and the requirements established in Permit No. 0810055-005-AC}

Essential Potential to Emit (PTE) Parameters

D.1. Permitted Capacity.

a. The maximum throughput rate of this dried product handling system (EU 005) is considered the same as the sludge dryer's (EU 004) maximum permitted total material input rate of 28.8 tons/hour, based on a daily average (*see Specific Condition **C.1.**).*
b. The maximum final product transfer rate of dried product from the pellet cooler and transporter of the dried product handling system (EU 005) to one of the two dried product (pellet) storage silos (EU 006) is 1.33 tons of dry pellets/hour.
c. The truck load out station (EU 007) is capable of loading a truck at a maximum of 50 tons of pellets/hour. This value is based on only one dried product storage silo at a time being able to transfer pellets.

[Rule 62-210.200 (Potential to Emit), F.A.C.; Construction Permit 0810055-005-AC]

D.2. 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.]

D.3. Methods of Operation.

a. Only one of the two dried product storage silos (EU 006) shall receive material from the dried product handling system at any time.
b. Only one of the two dried product storage silos (EU 006) shall transfer material to a truck at any one time.
c. Only 1 truck may be loaded at any one time (EU 007).
d. The particulate matter emissions from EU 005's Baghouse No. 1 enter the common stack downstream of where the emissions from EU 004 enter the common stack.
e. All of the displaced air from silo loading (EU 006) and air collected from truck loading (EU 007) is vented to Baghouse No. 2*.
(Note – For trucks that are loaded with pellets for transfer to the landfill, the trucks may have an open top design, the pellets are not required to be coated, and displaced air from the truck is not required be vented to Baghouse No. 2.)*

[Rule 62-210.200 (Potential to Emit), F.A.C.; Permit No. 0810055-005-AC]

D.4. Hours of Operation. These emissions units are allowed to operate continuously (i.e. 8,760 hours/year). [Rule 62-210.200(PTE), F.A.C., Permit No. 0810055-005-AC]

Control Technology

D.5. Pellet Coating Requirement - In order to assist in controlling particulate emissions, before the pellets enter a truck, a coating, such as Dustrol 3010 or similar, may be applied to the pellets at a design rate of 2 to 4 gallons per ton. [Rule 62-296.320(4)(c), F.A.C.; Permit No. 0810055-005-AC]

Emission Limitations and Standards

Unless otherwise specified, the averaging time for Specific Condition **D.6.** is based on the specified averaging time of the applicable test method.

D.6. Visible Emissions. Visible emissions from Emission Unit Nos. 005, 006, and 007 shall each not be equal to or exceed 20% opacity. [Rule 62-296.320(4)(b), F.A.C.]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

D.7. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

D.8. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.;]

Test Methods and Procedures

D.9. Test Methods. When required, tests shall be performed in accordance with the following reference methods:

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

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. [Rule 62-297.401, F.A.C. and Permit No. 0810055-005-AC]

D.10. 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.]

D.11. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), each EU shall be tested to demonstrate compliance with the emissions standard for visible emissions. [Rule 62-297.310(7), F.A.C. and Permit No. 0810055-005-AC]

D.12. Additional Compliance Test Requirements. Visible emission testing of each emission unit shall be conducted within 90-100% of its associated maximum permitted capacity as specified in Specific Condition **C.1.** and as follows:

a. Testing of visible emissions from EU 005's baghouse shall be conducted when EU 004 – Sludge Dryer is simultaneously operating at 90 -100% of its permitted capacity per Specific Condition **C.1.** and at the exit of the common stack.
b. Testing visible emissions from Baghouse No. 2 associated with EU's 006 and 007 shall be conducted when pellets are not being coated, emissions from truck loading are being vented by the spout to Baghouse No. 2, and a silo and truck are simultaneously being loaded.

[Rules 62-4.070(3) and 62-297.310(2), F.A.C.; Permit No. 0810055-005-AC]

Recordkeeping and Reporting Requirements

D.13. Recordkeeping Requirements. The permittee shall at a minimum maintain the following logs/records when that affected emission unit is operating.

a. For the dried product handling system (EU 005),

Daily records shall include:

(1) facility name, date, and emission unit (EU) ID number;
(2) the total material input to the sludge dryer, in tons/hour, based on a daily average (see Specific Conditions **C.1.** and **C.18.**), and
(3) the pressure drop across the baghouse (Baghouse No. 1), in inches of water.

Monthly records shall include:

(4) facility name, date, and emission unit (EU) ID number;
(5) the total material input to the dryer (EU 004) for the month (tons);
(6) the most recent consecutive 12-month total of material input to the sludge dryer (tons/consecutive 12-months);
(7) the total hours of operation for the month, and
(8) the most recent consecutive 12-month period total hours of operation.

b. For the two (2) dried product storage silos (EU 006),

Hourly records shall include:

(1) facility name, date, and emission unit (EU) ID number;
(2) the total amount* of dried product (pellets) received, in tons of pellets/hour; and
(* Note -The pneumatic transporter operates as a batch transport mechanism and cycles on and off as needed. When the transporter is full, it cycles on and transports product to the storage silos. The working volume for each cycle is constant and the bulk density of the product is known. The number of cycles the transporter runs is continuously counted and recorded by a computer system that runs the sludge dryer operating system. The number of cycles is factored with the appropriate volume and the appropriate bulk density to determine the mass flow rate to the storage silos. This parameter is available to the operator continuously and is based on the number of cycles the transporter operates per hour.)
(3) the pressure drop across the baghouse (Baghouse No. 2), in inches of water.

Monthly records shall include:

(4) facility name, date, and emission unit (EU) ID number;
(5) total pellets received by the silos for the month;
(6) the most recent consecutive 12 month total of pellets received by the silos, in tons;
(7) total hours of operation; and
(8) most recent consecutive 12-month period total hours of operation.

c. For the dried product truck loadout station (EU 007),

Daily records shall include:
(1) facility name, date, and emission unit (EU) ID number;
(2) for each truck loaded, the type of truck (open top or enclosed) and the total amount* of dried product (pellets) loaded into trucks, in tons of pellets/hour;
(*Note - The truck loading rate is determined by recording the time it takes to load a truck and knowing the weight of the truck before and after loading.)

(3) when a coating is applied, the name of the coating and amount of coating used to coat the pellets prior to being loaded into each truck; and
(4) pressure drop across the baghouse, in inches of water.

Monthly records shall include:

(5) Facility name, date, and emission unit (EU) ID number.
(6) The most recent consecutive 12 month total of pellets loaded into trucks, in tons
(7) Total hours of operation.
(8) Most recent consecutive 12-month period total hours of operation.

[Rule 64-070(3), F.A.C.; Permit No. 0810055-005-AC]

D.14. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

Subsection E. Emissions Units 012

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

EU No.	Brief Description
012	LFG-Fired Engine Generator Set (with LFG Gas Treatment System)

This emissions unit consists of an engine generator set for the generation of electricity. The engine generator set is a Caterpillar generator rated at 1.6 MW powered by a Caterpillar Model G 3520C (DM 5860) 4-stroke lean burn (4SLB) spark ignition (SI) reciprocating internal combustion engine (RICE) rated at 2,233 bhp that will be fired exclusively with landfill gas (LFG) from the Lena Road Landfill. The maximum design heat input rating of the engine is 16.38 MMBtu/hr, based on an expected average heating value of the LFG of 456 Btu/scf (LHV). The LFG is delivered to the engine using the LFG collection system blower set, with the three blowers operating in parallel as needed to supply LFG to the equipment. The LFG for the engine generator set is processed through a LFG treatment system prior to introduction into the engine as fuel. The maximum delivery volume of LFG from the LFG treatment system to the engine is approximately 546 scfm.

Engine Identification	Engine Brake HP	Date of Construction	Model Year	Engine Manufacturer	Model No.
LFG-fired generator	2,146 HP (1,600 kW)	2013	2013	Caterpillar	G 3520C

The LFG Gas Treatment System consists of the following gas treatment equipment and processes:

1. LFG is drawn into the gas treatment skid at vacuum (approximately 30 inches water).
2. A gas compressor increases gas pressure to approximately 5 psig.
3. An air-to-gas heat exchanger reduces the temperature of the compressed gas.
4. A separator removes all condensed moisture and other particulates having a diameter of 5 micrometers or larger.

Essential Potential to Emit (PTE) Parameters

E.1. Permitted Capacity. The landfill gas engine has a maximum power rating of 2,233 brake horsepower (bhp) at 100% load (approximately 16.38 MMBtu/hour). The electrical generator set has a nominal power rating of 1,600 kilowatts. [Rule 62-210.200(PTE), F.A.C.]

E.2. Authorized Fuel. The fuel for this engine shall be limited to LFG from the Manatee County Lena Road Landfill. All of the LFG used by the engine must be processed through the onsite LFG treatment system prior to use. [Rules 62-210.200 (Potential to Emit), and 62-204.800(8)(b), F.A.C.; Permit No. 0810055-009-AC; NSPS Subpart WWW 40 CFR 60.752(b)(iii)(C)]

E.3. Hours of Operation. The hours of operation of this emissions unit are not limited (i.e. 8,760 hours/year). [Rule 62-210.200(PTE), F.A.C.]

E.4. Facility NESHAP Subpart A SSM Plan - Within 60 days of initial operation of the LFG Fired Engine Generator Set, the permittee shall incorporate the Engine Generator Set and the associated LFG Gas Treatment System into the facility SSM Plan required by NESHAP Subpart A 40 CFR 63.6(e)(3). The permittee shall maintain at the affected source a current startup, shutdown, and malfunction plan and must make the plan available upon request for inspection and copying by the Department. [Rule 62-204.800(11)(d), F.A.C; 40 CFR 63.6(e)(3)]

LFG Treatment System

E.5. Engine Generator Set LFG Treatment System Operation Requirements. All LFG fired in the LFG-engine shall be processed through the LFG treatment system which meets the following requirements:

a. The LFG treatment system shall dewater, filter, compress, and cool the LFG prior to routing to the engine for firing. [40 CFR 60.752(b)(2)(iii)(C)]
b. The LFG treatment system shall be in operation and operating properly at all times when collected LFG is routed to it. This applies at all times except during periods of start-up, shut down, or malfunction, provided that the duration of start-up, shutdown or malfunction shall not exceed 1 hour for the LFG treatment system. [40 CFR 60.755]
c. All LFG processed through the LFG treatment system shall be delivered to and combusted by the engine generator set engine or routed back to the facility LFG flare for combustion. No treated LFG shall be routed from the LFG treatment system to the atmosphere uncontrolled. All emissions from any atmospheric vent from the LFG treatment system shall be routed to the LFG-fired engine or a flare. [40 CFR 60.752(b)(2)(iii)(C).]
d. All of the equipment included in the LFG treatment system shall be operated and maintained in accordance with the applicable equipment manufacturer's operation and maintenance procedures. [Permit No. 0810055-009-AC]
e. The permittee shall monitor all parameters identified as necessary for proper operation of the LFG treatment system. Additionally, the permittee shall operate the LFG treatment system to maintain system operating parameters at a level that indicates proper performance of the gas treatment system in terms of filtering, dewatering, compressing and controlling the temperature of the LFG. [40 CFR 60.756(d)] *{Permitting Note – These parameters are summarized in Appendix LFG.}*

[Rules 62-4.070(3), 62-210.650 (Circumvention), 62-204.800(8)(b), 62-204.800(9)(c), and 62-204.800(11)(b), F.A.C.; NSPS Subpart WWW 40 CFR 60.752(b)(2), 60.755 and 60.756(d); NESHAP Subpart AAAA 40 CFR 63.1955 and 63.1960] In order to meet the landfill gas (LFG) control system requirements of Rule 62-204.800(9)(c), F.A.C., and the referenced requirements of NSPS 40 CFR 60 Subpart WWW (Standards of Performance for Municipal Solid Waste Landfills) (see Specific Condition Nos. A.2. and A.3.)

E.6. LFG Treatment System Recordkeeping Requirements. The permittee shall maintain daily, up-to-date, records of the LFG treatment system performance and operation. These records shall include all parameters required to be monitored under Condition E.4.e., above. The permittee shall also maintain up-to-date, readily accessible records for periods of operation during which the parameter boundaries are exceeded, as well as actions taken to address and correct this condition. These records shall be retained for at least five (5) years. [Rules 62-4.070(3), 62-210.650 (Circumvention), 62-204.800(8)(b), 62-204.800(11)(b), and 62-213.440(1)(b)2.b., F.A.C.; 40 CFR 60.758(c); 40 CFR 63.1960 and 63.1980(a)]

E.7. Semi-Annual NSPS and NESHAP Exceedance Reports. Every 6 months the permittee shall submit to the Compliance Authority reports of the value and length of time of exceedances of the applicable Engine Generator System LFG treatment system operating parameters ranges required in Condition E.4.e. The report shall also include any periods when the engine was operated firing LFG that was not processed by the LFG treatment system (e.g., the engine was operating when the LFG treatment system was out of service). The report shall include the reasons for the exceedance(s) and the actions taken to address and correct it. [Rules 62-4.070(3)m, 62-210.650 (Circumvention), 62-204.800(8)(b) and 62-204.800(11)(b), F.A.C.; NSPS Subpart WWW 40 CFR 60.758(c) and 60.757(f); NESHAP Subpart AAAA 40 CFR 63.1960 and 63.1980]

{Permitting note – This report shall be included as part of the semi-annual exceedance report submitted for the landfill (EU No. 003) in accordance with Subpart WWW 40 CFR 60.757(f).}

Engine Emission Limitations and Standards

{Permitting note: The LFG-fired SI RICE is regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE and 40 CFR 60, Subpart JJJJ, NSPS for Stationary SI RICE, adopted in Rules 62.204.800(11)(b) & (8)(b), F.A.C., respectively. This item addresses stationary lean-burn LFG-fired SI non-emergency RICE manufactured July 1, 2010, or later, with engine power greater than 1,350 HP (1,007 kW). In accordance with provisions of 40

CFR 63.6590(c)(6), meeting the requirements of 40 CFR 60, Subpart JJJJ, satisfies compliance with the requirements of Subpart ZZZZ. Owners or operators of stationary non-certified SI RICE may choose to comply with the emissions standards in units of either grams per horsepower-hour (g/HP-hr) or parts per million by volume, dry, corrected to 15% O_2 (ppmvd @ 15% O_2).}

E.8. Nitrogen Oxides. The emissions of NO_X from the engine shall not exceed 2.0 g/HP-hr or 150 ppmvd @ 15% O_2. [40 CFR 60.4233(e) and Table 1 to Subpart JJJJ of 40 CFR 60]

E.9. Carbon Monoxide. The emissions of CO from the engine shall not exceed 5.0 g/HP-hr or 610 ppmvd @ 15% O_2. [40 CFR 60.4233(e) and Table 1 to Subpart JJJJ of 40 CFR 60]

E.10. Volatile Organic Compounds. The emissions of VOC from the engine shall not exceed 1.0 g/HP-hr or 80 ppmvd @ 15% O_2. [40 CFR 60.4233(e) and Table 1 to Subpart JJJJ of 40 CFR 60]

E.11. Ongoing Compliance. The owner or operator of this engine must operate and maintain the engine such that it achieves the applicable emissions standards over the entire life of the engine. [40 CFR 60.4234]

E.12. Good Air Pollution Control Practice. The permittee shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 60.4243(b)(2)(ii)]

Monitoring of Engine Operations

E.13. Hour Meter. The owner or operator shall install a non-resettable hour meter on the engine if one is not already installed. [Rule 62-204.800(8)(b)81, F.A.C.; and 40 CFR 60.4237(a)]

Test Methods and Procedures for Engine

E.14. Test Methods. When required, tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources *{Note: The method shall be based on a continuous sampling train.}*
25A	Method for Determining Gaseous Organic Concentrations (Flame Ionization)

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. [Rule 62-297.401, F.A.C., Permit No. 0810055-009-AC]

E.15. 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.]

E.16. Periodic Compliance Tests Required. Every 8,760 engine hours or at least once every three years, whichever comes first, the landfill gas engine shall be tested to demonstrate compliance with the applicable emissions standards for CO, NO_X and VOC. Compliance tests shall also be performed prior to obtaining a renewed operation permit to demonstrate compliance with the emission limits. [Rules 62-210.300(2)(a) and 62-297.310(7)(a), F.A.C., and 40 CFR 60.4243(b)(2)(ii)]

E.17. Test Procedures. The following conditions apply to each performance test.

a. Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and in accordance with the requirements of 40 CFR 60.8 (NSPS General Provisions, Performance Tests) and Table 2 to Subpart JJJJ of 40 CFR 60. [40 CFR 60.4244(a)]

b. Performance tests may not be performed during periods of startup, shutdown, or malfunction of this unit, as specified in 40 CFR 60.8. If this SI RICE is non-operational, it is not necessary to start the engine solely to conduct a performance test. However, the test must be conducted immediately upon startup of the engine. [40 CFR 60.4244(b)]

c. Each test must consist of three separate test runs, as specified in 40 CFR 60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least one hour. [40 CFR 60.4244(c)]

d. If the permittee chooses to demonstrate compliance with the mass per unit output (g/HP-hr) form of the emissions standards **E.8**, **E.9** and **E.10**, emissions calculations shall follow the procedures of 40 CFR 60.4244(d), (e), and (f), for NO_X, CO and VOC, respectively. [40 CFR 60.4244(d), (e), and (f)]

E.18. Performance Compliance Test Notification. The permittee shall notify the Compliance Authority in writing at least 30 days prior to any required performance compliance tests. The notification must include the following information: the date, time, and location of each test; the name and telephone number of the facility's contact person who will be responsible for coordinating the test; and the name, company, and the telephone number of the person conducting the test. [Rules 62-4.070(3), 62-204.800(8)(d), and 62-297.310(7)(a)9., F.A.C.; NSPS Subpart A 40 CFR 60.8(d)]

{Permitting Note - The notification should also include the relevant emission unit ID No., test method(s) to be used, and pollutants to be tested.}

Engine Maintenance Requirements

E.19. Maintenance Plan. The permittee shall keep a maintenance plan for this SI RICE. [40 CFR 60.4243(b)(2)(ii)]

E.20. Records of Maintenance. The permittee shall keep records of all conducted maintenance for this SI RICE. [40 CFR 60.4243(b)(2)(ii)]

Engine Recordkeeping and Reporting Requirements

E.21. Recordkeeping Requirements. The permittee shall keep records of the following for this SI RICE:

a. All notifications submitted to comply with the permit conditions in this permit subpart and all documentation supporting any notification. [40 CFR 60.4245(a)(1)]

b. All maintenance conducted on the engine. [40 CFR 60.4245(a)(2)]

c. Documentation that the engine meets all applicable emission standards. [40 CFR 60.4245(a)(4)]

d. Engine operating hours, for each day and a running total since the date of the last compliance testing [40 CFR 60.4245(b) and Permit No. 0810055-009-AC]

E.22. Compliance Test Reports. The permittee shall prepare and submit reports for all required compliance tests in accordance with the requirements specified in Appendix TR (Common Testing Requirements) of this permit. The test report shall include a statement of the engine generator set operating level (in terms of MW or engine HP), and in terms of percent (%) of peak (or highest achievable) load. Test reports shall be filed with the Department no later than 45 days after the testing is completed. [Rule 62-297.310(8), F.A.C., and Permit No. 0810055-009-AC]

Subsection F. Emissions Unit 014

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

EU No.	Brief Description
014	Three Diesel Emergency Generators (NSPS)

Emissions Unit 014 consists of three diesel-fired emergency generators used to provide backup electricity for landfill buildings during power outages (each operated < 100 hours/year).

Engine Identification	Engine Brake HP	Date of Construction	Model Year	Engine Manufacturer	Model No.	Location
200-kW diesel generator	268 HP (200 kW)	2008	2008	Kohler	200REOZJD	Operations office
125-kW diesel generator	167 HP (125 kW)	2011	2011	Caterpillar	D125-6	Community drop-off
80-kW diesel generator	107 HP (80 kW)	2008	2008	Kohler	80REOZJD	Administration office

{Permitting Note: These CI RICE are regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE and 40 CFR 60, Subpart IIII, NSPS for Stationary CI RICE, adopted in Rules 62.204.800(11)(b) & (8)(b), F.A.C., respectively. This permit section addresses stationary CI non-emergency RICE of model year 2007 or later, with a displacement less than 10 liters per cylinder and engine power less than 3,000 HP (2,237 kW). In accordance with provisions of 40 CFR 63.6590(c)(6), meeting the requirements of 40 CFR 60, Subpart IIII, satisfies compliance with the requirements of Subpart ZZZZ.}

Essential Potential to Emit (PTE) Parameters

F.1. Authorized Fuel. These Stationary RICE must use diesel fuel that meets the following requirements for non-road diesel fuel:

a. *Sulfur Content*. The sulfur content shall not exceed 15 ppm = 0.0015% by weight (ultra-low sulfur) for non-road fuel.

b. *Cetane and Aromatic*. The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.

c. *Use of Existing Fuel*. Any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

[Rule 62-204.800, F.A.C.; 40 CFR 60.4207(b) and 80.510(b)]

F.2. Restricted Hours of Operation.

a. *Emergency Situations*. There is no time limit on the use of emergency stationary RICE in emergency situations.

b. *Other Situations*. These emergency stationary RICE may be operated for any combination of the purposes specified in paragraphs **F.2.b.(1)** through **(3)** for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs **F.2.c.** of this section counts as part of the 100 hours per calendar year allowed by this paragraph **F.2.b**.

(1) Maintenance and Testing. Each RICE is authorized to operate for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. [Rule 62-204.800(8)(b)80, F.A.C.; and 40 CFR 60.4211(f)(2)(i)]

(2) Emergency Demand Response. Each RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability

Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [Rule 62-204.800(8)(b)80, F.A.C.; and 40 CFR 60.4211(f)(2)(ii)]

(3) Voltage or Frequency Deviations. Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [Rule 62-204.800(8)(b)80, F.A.C.; and 40 CFR 60.4211(f)(2)(iii)]

c. *Non-emergency Situations*. These RICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph b, above. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(1) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.

(2) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(3) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(4) The power is provided only to the facility itself or to support the local transmission and distribution system.

(5) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator. [Rule 62-204.800(8)(b)80, F.A.C.; and 40 CFR 60.4211(f)(3)]

F.3. Operation and Maintenance. The owner or operator must operate and maintain the stationary CI internal combustion engines according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. This RICE must be maintained and operated to meet the emissions limits in Specific Condition **F.4.** over the entire life of the engine.
[Rule 62-204.800(8)(b)80, F.A.C.; and 40 CFR 60.4206, 4211(a)(1), (2) & (3)]

Emissions Standards

F.4. These engines are subject to the applicable emissions standards in the table below (in units of g/kW-hr):

Engine Identification	Engine Brake HP	Date of Construction	Location	Engine Mfr.	NMHC[a] + NO_X	CO	PM[a]
200-kW diesel generator	268 HP (200 kW)	2008	Operations office	Kohler	4.0	3.5	0.20
125-kW diesel generator	167 HP (125 kW)	2011	Community drop-off	Caterpillar	4.0	5.0	0.30
80-kW diesel generator	107 HP (80 kW)	2008	Administration office	Kohler			

[a]NMHC = non-methane hydrocarbons, PM = particulate matter

[Rule 62-204.800(8)(b)80, F.A.C.; 40 CFR 60.4205(b); and 40 CFR 89.112(a)]

Testing and Compliance Requirements

F.5. Engine Certification Requirements. The owner or operator must comply with the emissions standards specified above by having purchased an engine certified by the manufacturer to meet those limits. The engine

must have been installed and configured according to the manufacturer's emission-related specifications, except as permitted in Specific Condition **F.6.** [Rule 62-204.800(8)(b)80, F.A.C.; and 40 CFR 60.4211(b)]

F.6. Compliance Requirements Due to Loss of Certification. If the owner or operator does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or the owner or operator changes emission-related settings in a way that is not permitted by the manufacturer, the owner or operator must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if the owner or operator does not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or changes the emission-related settings in a way that is not permitted by the manufacturer, the owner or operator must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

[Rule 62-204.800(8)(b)80, F.A.C.; and 40 CFR 60.4211(g)(1)]

F.7. Testing Requirements. In the event performance tests are required pursuant to Specific Condition **F.6.**, the following requirements shall be met:

a. *Testing Procedures*. The performance test must be conducted according to the in-use testing procedures in 40 CFR Part 1039, Subpart F. Link to Subpart F
b. *NTE Standards*. Exhaust emissions from this engine must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power in 40 CFR Part 1039, Subpart B as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR Part 1039. Link to Subpart B

[Rule 62-204.800(8)(b)80, F.A.C.; and 40 CFR 60.4212(a) & (b)]

F.8. Common Testing Requirements. Unless otherwise specified and if required, 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.]

Monitoring Requirements

F.9. Hour Meter. The owner or operator must install a non-resettable hour meter if one is not already installed. [Rule 62-204.800(8)(b)80, F.A.C.; and 40 CFR 60.4209(a)]

Records and Reports

F.10. Hours of Operation Records. The owner or operator must keep records of the operation of the engine in emergency and non-emergency services that are recorded through the non-resettable hour meter. The owner or operator must record the time of operation of the engine and the reason the engine was in operation during that time. [Rule 62-204.800(8)(b)80, F.A.C.; and 40 CFR 60.4214(b)]

F.11. Maintenance Records. To demonstrate conformance with the manufacturer's written instructions for maintaining the certified engine and to document if compliance testing must be performed pursuant to Specific Condition **F.6.**, the owner or operator must keep the following records:

a. Engine manufacturer documentation and certification indicating compliance with the standards.
b. A copy of the manufacturer's written instructions for operation and maintenance of the certified engine.
c. A written maintenance log detailing the date and type of maintenance performed on the engine, as well as any deviations from the manufacturer's written instructions.

[Rule 62-213.440(1), F.A.C.]

F.12. Testing Notification. At such time that the requirements of Specific Condition **F.7.** become applicable, the owner or operator shall notify the compliance authority of the date by which the initial compliance test must be performed. [Rule 62-213.440(1)]

F.13. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

Subsection G. Emissions Units 015

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

EU No.	Brief Description
015	Four diesel emergency generators (Pre-NSPS)

Emissions Unit 015 consists of four diesel-fired emergency generators used to provide backup electricity for the scale house and wastewater treatment plant.

Engine Identification	Engine Brake HP	Date of Construction	Model Year	Engine Manufacturer	Model No.	Location
50-kW diesel generator	67 HP (50 kW)	2002	2002	Generac	2710230200	Scale house
2,000-kW diesel generator	2,682 HP (2,000 kW)	2001	2001	Caterpillar	3516	Wastewater treatment plant
Two 1,835-kW diesel generators	2,447 HP (1,825 kW)	1995	1995	Caterpillar	3516	Wastewater treatment plant

{Permitting Note: These CI RICE are regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE, adopted in Rule 62.204.800(11)(b), F.A.C. These RICE are not used for fire pumps. This permit section addresses stationary CI emergency RICE procured before June 12, 2006.}

Essential Potential to Emit (PTE) Parameters

G.1. Authorized Fuel.

a. *Diesel Fuel*. These stationary RICE shall use diesel fuel as their fuel. [40 CFR 63.6675]

b. *Ultra-Low-Sulfur Diesel*. If an emergency RICE with a site rating greater than 100 brake HP (74 kW) is operated for more than 15 hours per year for the purposes specified in Specific Conditions **G.2.b(2)** and **G.2.b(3)**, or for the purpose of supplying power as part of a financial arrangement with another entity as specified in Specific Condition **G.2.c.**, this RICE must use diesel fuel that meets the following requirements for non-road diesel fuel:

(1) *Sulfur Content*. The sulfur content shall not exceed 15 ppm = 0.0015% by weight (ultra-low-sulfur) for non-road fuel.

(2) *Cetane and Aromatic*. The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.

(3) *Use of Existing Fuel*. Any existing diesel fuel purchased, or otherwise obtained, prior to January 1, 2015, may be used until depleted.

[Rule 62-204.800, F.A.C.; 40 CFR 63.6604(b) and 80.510(b)]

G.2. Restricted Hours of Operation.

a. *Emergency Situations*. There is no time limit on the use of emergency stationary RICE in emergency situations. [Rule 62-204.800(11)(b)82, F.A.C.; and 40 CFR 63.6640(f)(1)]

b. *Other Situations*. These emergency stationary RICE may be operated for any combination of the purposes specified in paragraphs **G.2.b.(1)** through **(3)** for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs **G.2.c.** of this section counts as part of the 100 hours per calendar year allowed by this paragraph **G.2.b**.

(1) Maintenance and Testing. Each RICE is authorized to operate for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. [Rule 62-204.800(11)(b)82, F.A.C.; and 40 CFR 63.6640(f)(2)(i)]

(2) Emergency Demand Response. Each RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [Rule 62-204.800(11)(b)82, F.A.C.; and 40 CFR 63.6640(f)(2)(ii)]

(3) Voltage or Frequency Deviations. Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [Rule 62-204.800(11)(b)82, F.A.C.; and 40 CFR 63.6640(f)(2)(iii)]

c. *Non-emergency Situations*. These RICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph b, above. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(1) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.

(2) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(3) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(4) The power is provided only to the facility itself or to support the local transmission and distribution system.

(5) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator. [Rule 62-204.800(11)(b)82, F.A.C.; and 40 CFR 63.6640(f)(4)]

G.3. Work or Management Practice Standards.

a. *Oil*. Change oil and filter every 500 hours of operation or annually, whichever comes first. [Rule 62-204.800(11)(b)82, F.A.C.; and 40 CFR 63.6603 & Table 2d.4.a.]

b. *Air Cleaner*. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first and replace as necessary. [Rule 62-204.800(11)(b)82, F.A.C.; and 40 CFR 63.6603 & Table 2d.4.b.]

c. *Hoses and Belts*. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [Rule 62-204.800(11)(b)82, F.A.C.; and 40 CFR 63.6603 & Table 2d.4.c.]

d. *Operation and Maintenance*. Operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions or 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. [Rule 62-204.800(11)(b)82, F.A.C.; and 40 CFR 63.6625(e), 63.6640(a) & Table 6.9.a.]

e. *Engine Startup*. During periods of startup the owner or operator 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. [Rule 62-204.800(11)(b)82, F.A.C.; and 40 CFR 63.6625(h)]

f. *Oil Analysis*. The owner or operator has the option of using an oil analysis program to extend the oil change requirement. The oil analysis must be performed at the same frequency specified for changing the oil in paragraph **a**., above. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these

parameters are as follows: Total Base Number is less than 30 percent of the Total Base 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. [Rule 62-204.800(11)(b)82, F.A.C.; and 40 CFR 63.6625(i)]

Monitoring of Operations

G.4. Hour Meter. The owner or operator must install a non-resettable hour meter if one is not already installed. [Rule 62-204.800(11)(b)82, F.A.C.; and 40 CFR 63.6625(f)]

Compliance

G.5. Continuous Compliance. Each unit shall be in compliance with the emission limitations and operating standards in this section at all times. [Rule 62-204.800(11)(b)82, F.A.C.; and 40 CFR 63.6605(a)]

G.6. Operation and Maintenance of Equipment. At all times the owner or operator 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. Determination of whether such operation and maintenance procedures are being used will be based on information available to the compliance authority 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. [Rule 62-204.800(11)(b)82, F.A.C.; and 40 CFR 63.6605(b)]

Recordkeeping Requirements

G.7. Notification, Performance and Compliance Records. The owner or operator must keep:

a. A copy of each notification and report that the owner or operator submitted to comply with this section, including all documentation supporting any Initial Notification or Notification of Compliance Status that the owner or operator submitted.
b. Records of the occurrence and duration of each malfunction of operation.
c. Records of all required maintenance performed on the hour meter.
d. Records of actions taken during periods of malfunction to minimize emissions in accordance with Specific Condition **G.6.**, including corrective actions to restore malfunctioning process and monitoring equipment to its normal or usual manner of operation.
e. Records of the actions required in Specific Condition **G.3.d.** to show continuous compliance with each emission limitation or operating requirement.
f. Records of the Work or Management Practice Standards specified in Specific Condition **G.3.**
g. Records of the maintenance conducted in order to demonstrate that the RICE was operated and maintained according to your own maintenance plan.
h. Records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for emergency demand response operation or for periods of voltage or frequency deviations, the owner or operator must keep records of the notification of the emergency situation, and the time of engine operation for these purposes.

[Rule 62-204.800(11)(b)82, F.A.C.; and 40 CFR 63.6655]

G.8. Record Retention.

a. The owner or operator must keep records in a suitable and readily available form for expeditious reviews.

b. The owner or operator 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.

[Rule 62-204.800(11), F.A.C.; and 40 CFR 63.6660 and 40 CFR 63.10(b)(1)]

Reporting Requirements

G.9. Delay of Performing Work Practice Requirements. If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Specific Condition **F.3.**, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable. [Rule 62-204.800(11)(b)82, F.A.C.; and 40 CFR 63, Subpart ZZZZ, Table 2d, footnote 2]

General Provisions

G.10. 40 CFR 63 Subpart A, General Provisions. This engine shall comply with all applicable requirements of 40 CFR 63 Subpart A, General Provisions, which have been adopted by reference in Rule 62-204.800(11)(d)1., F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 63.5(e), 40 CFR 63.5(f), 40 CFR 63.6(g), 40 CFR 63.6(h)(9), 40 CFR 63.6(j), 40 CFR 63.13, and 40 CFR 63.14. This engine shall comply with the applicable portions of Appendix 40 NESHAP Subpart A included with this permit, as specified below.

General Provisions Citation	Subject of Citation
§63.1	General applicability of the General Provisions
§63.2	Definitions
§63.3	Units and abbreviations
§63.4	Prohibited activities and circumvention
§63.5	Construction and reconstruction
§63.6(a)	Applicability
§63.9(i)	Adjustment of submittal deadlines
§63.9(j)	Change in previous information
§63.10(a)	Administrative provisions for recordkeeping/reporting
§63.10(b)(1)	Record retention
§63.10(b)(2)(vi)–(xi)	Records
§63.10(b)(2)(xii)	Record when under waiver
§63.10(b)(2)(xiv)	Records of supporting documentation
§63.10(b)(3)	Records of applicability determination
§63.10(d)(1)	General reporting requirements
§63.10(d)(4)	Progress Reports
§63.10(f)	Waiver for recordkeeping/reporting
§63.12	State authority and delegations

General Provisions Citation	Subject of Citation
§63.13	Addresses
§63.14	Incorporation by reference
§63.15	Availability of information

[40 CFR 63.6665; and, Rule 62-204.800(11)(d)1., F.A.C.]

SECTION IV. APPENDICES.

The Following Appendices Are Enforceable Parts of This Permit:

Appendix A, Glossary.
Appendix I, List of Insignificant Emissions Units and/or Activities.
Appendix LFG, Operating Parameters for Landfill Gas Treatment System.
Appendix NESHAP 40 CFR 61, Subpart A – General Provisions.
Appendix NESHAP 40 CFR 61, Subpart E – National Emission Standard for Mercury
Appendix NESHAP 40 CFR 61, Subpart M – National Emission Standard for Asbestos
Appendix NESHAP 40 CFR 63, Subpart A – General Provisions
Appendix NESHAP 40 CFR 63, Subpart AAAA -- National Emissions Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills
Appendix NESHAP 40 CFR 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
Appendix NSPS, Subpart A – General Provisions. (Include for all units that are subject to an NSPS subpart)
Appendix NSPS, Subpart Cc – Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills
Appendix NSPS, Subpart WWW – Standards of Performance for Municipal Solid Waste Landfills
Appendix NSPS, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
Appendix NSPS, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
Appendix RR, Facility-wide Reporting Requirements.
Appendix TR, Facility-wide Testing Requirements.
Appendix TV, Title V General Conditions.
Appendix U, Unregulated Emissions Units and/or Activities.