Volusia County Solid Waste Services Division
Tomoka Farms Road Landfill

Facility ID No. 1270117
Volusia County

Title V Air Operation Permit Renewal

Permit No. 1270117-008-AV
(Renewal of Title V Air Operation Permit No. 1270117-006-AV)

Permitting Authority:

State of Florida
Department of Environmental Protection
Division of Air Resource Management
Office of Permitting and Compliance
2600 Blair Stone Road
Mail Station #5505
Tallahassee, Florida 32399-2400

Telephone: (850) 717-9000
Fax: (850) 717-9097

Compliance Authority:

DEP Central District Office

3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

Telephone: (407) 897-4100
Fax: (850) 412-0455

Title V Air Operation Permit Renewal

Permit No. 1270117-008-AV

Table of Contents

Section **Page Number**

Placard Page 1

I. Facility Information.
A. Facility Description. 2
B. Summary of Emissions Units. 2
C. Applicable Regulations. 2

II. Facility-wide Conditions. 4

III. Emissions Units and Conditions.
A. Municipal Solid Waste Landfill Gas Collection System and Fugitive Emissions 7
B. 4,000 SCFM Perennial Energy Open Flare 25
C. Two New CI Emergency Diesel Generators 30
D. Three Existing CI Emergency Diesel Generators 34

IV. Appendices. ..... See Appendices Document
Appendix A, Glossary.
Appendix G, Alternate Operating Parameter Values for Specified Gas Extraction Wells
Appendix I, List of Insignificant Emissions Units and/or Activities.
Appendix NESHAP, Subpart A of 40 CFR 61 – General Provisions.
Appendix NESHAP, Subpart M – National Emission Standards for Asbestos.
Appendix NESHAP, Subpart A of 40 CFR 63 – General Provisions.
Appendix NESHAP, Subpart AAAA of 40 CFR 63 – NESHAP for MSW Landfills
Appendix NESHAP, Subpart ZZZZ – NESHAP for Stationary Reciprocating Internal Combustion Engines.
Appendix NSPS, Subpart A of 40 CFR 60 – General Provisions.
Appendix NSPS, Subpart WWW – Standards of Performance for MSW Landfills.
Appendix NSPS, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.
Appendix RR, Facility-wide Reporting Requirements.
Appendix TR, Facility-wide Testing Requirements.
Appendix TV, Title V General Conditions.

Referenced Attachments. ..... See Appendices Document
Figure 1, Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance (40 CFR 60, July, 1996).
Table H, Permit History.
Table 1, Summary of Monitoring Requirements for MSW Landfills.
Table 2, Summary of Recordkeeping Requirements for MSW Landfills.
Table 3, Summary of Reporting Requirements for MSW Landfills.

Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Jonathan P. Steverson
Secretary

PERMITTEE:
Volusia County Solid Waste Services Division
1990 Tomoka Farms Road
Port Orange, Florida 32128

Permit No. 1270117-008-AV
Tomoka Farms Road Landfill
Facility ID No. 1270117
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 Tomoka Farms Road Landfill is located in Volusia County at 1990 Tomoka Farms Road, Port Orange. UTM Coordinates are: Zone 17, 491.54 East and 3222.2 km North. Latitude is: 29º 07' 41.7754'' North; and, Longitude is: 81º 05' 13.0191'' West.

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

1270117-008-AV Effective Date: May 23, 2016
Renewal Application Due Date: October 10, 2020
Expiration Date: May 23, 2021

David Lyle Read, P.E.
2016.05.23 13:43:11
-04'00'

For:

Syed Arif, P.E., Program Administrator
Office of Permitting and Compliance
Division of Air Resource Management

SA/dlr/sh

Subsection A. Facility Description.

The Tomoka Farms Road Landfill is a Class I and Class III municipal solid waste landfill with a design capacity of greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters of solid waste. The landfill has been in operation since 1969 and receives residential, commercial, industrial, and agricultural waste. Also at the site is a tire and white goods storage area, household hazardous waste collection facility, yard waste processing facility, municipal wastewater sludge storage/dewatering area, and a recycling drop-off facility. The facility also accepts asbestos-containing waste into the Class III cell. The landfill contains closed and active disposal cells, and is subject to the Landfill Emission Guidelines (40 CFR 60, Subpart Cc), NSPS (40 CFR 60, Subpart WWW), and NESHAP (40 CFR 63, Subpart AAAA).

Emissions of non-methane organic compounds (NMOC) and methane are controlled by one non-assisted 4,000 SCFM Perennial Energy open flare, Model FL-16C, manufactured in 2006. The flare station is equipped with two separate blowers, each with a capacity of 2,000 SCFM.

The facility formerly operated four (4) Caterpillar 3516 SITA landfill gas-fired reciprocating internal combustion engines. However, these engines ceased operation on December 31, 2014 and have since been removed from the facility. Therefore, all of the collected landfill gas is routed to the flare for emissions control. Volusia County will obtain an air construction permit prior to installing any new landfill gas-fired engines at the facility.

This facility also has five (5) stationary emergency generators to provide backup power to various components at the landfill. These emergency generators are fired on diesel fuel and are each routinely readiness tested for approximately 15-30 minutes per month. Two (2) of the engines are subject to 40 CFR Part 60 Subpart IIII, and three (3) of the engines are subject to 40 CFR Part 63 Subpart ZZZZ.

Subsection B. Summary of Emissions Units.

EU No.	Brief Description
Regulated Emissions Units	
001	Municipal Solid Waste Landfill Gas Collection System and Fugitive Emissions
004	4,000 SCFM Perennial Energy Flare
005	230 HP New Emergency Diesel Generator (Fleet)
006	470 HP New Emergency Diesel Generator (WWTP)
007	90 HP Existing Emergency Diesel Generator (Admin)
008	36 HP Existing Emergency Diesel Generator (Scale House)
009	325 HP Existing Emergency Diesel Generator (Flare)

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 air operation permit renewal application received December 9, 2015 this facility is not a major source of hazardous air pollutants (HAP). 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	001, 004, 005, 006
40 CFR 60, Subpart Cc and WWW, NSPS Municipal Solid Waste Landfills	001, 004

40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	005, 006
40 CFR 61, Subpart A, NESHAP General Provisions	001
40 CFR 61, Subpart M, National Emissions Standard for Asbestos	001
40 CFR 63, Subpart A, NESHAP General Provisions	001, 004, 007, 008, 009
40 CFR 63, Subpart AAAA, NESHAP Municipal Solid Waste Facilities	001, 004
40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants: Stationary Reciprocating Internal Combustion Engines	007, 008, 009
State Rule Citations	
Rule 62-4, Florida Administrative Code (F.A.C.) (Permitting Requirements)	001, 004, 005, 006, 007, 008, 009
Rule 62-204, F.A.C. (Ambient Air Quality Requirements, PSD Increments, and Federal Regulations Adopted by Reference)	
Rule 62-210, F.A.C. (Permits Required, Public Notice, Reports, Stack Height Policy, Circumvention, Excess Emissions, and Forms)	
Rule 62-213, F.A.C. (Title V Air Operation Permits for Major Sources of Air Pollution)	
Rule 62-297, F.A.C. (Test Methods and Procedures, Continuous Monitoring Specifications, and Alternate Sampling Procedures)	

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. Odor Remediation Plan. The facility shall be operated to control objectionable odors in accordance with subsection 62-296.320(2), F.A.C. After being notified by the Department that objectionable odors have been confirmed beyond the landfill property boundary, the owner or operator shall:

a. Immediately take steps to reduce the objectionable odors. Such steps may include applying or increasing initial cover, reducing the size of the working face, and ceasing operations in the areas where odors have been detected;
b. Submit to the Department for approval an odor remediation plan for the gas releases. The plan shall describe the nature and extent of the problem and the proposed long-term remedy. The remedy shall be initiated within 30 days of approval.
c. Implement a routine odor monitoring program to determine the timing and extent of any off-site odors, and to evaluate the effectiveness of the odor remediation plan.

[Rule 62-701.530(3)(b), F.A.C.]

FW4. 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.]

FW5. 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.]

FW6. 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. Paving and maintenance of roads, parking areas and yards as needed;
b. Application of water or other dust suppressants as necessary to minimize particulate matter emissions from miscellaneous activities onsite;
c. Landscaping and maintenance of vegetation; and,
d. Other techniques, as necessary.

[Rule 62-296.320(4)(c), F.A.C.; and, proposed by applicant in Title V air operation permit renewal application received December 9, 2015]

Annual Reports and Fees

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

FW7. 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.****}*

FW8. Annual Statement of Compliance. The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit and to the US. EPA at the address shown below within 60 days after the end of each calendar year during which the Title V air operation permit was effective. (See also Appendix RR, Conditions RR1 and RR7.) [Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

U.S. Environmental Protection Agency, Region 4
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303
Attn: Air Enforcement Branch

FW9. Prevention of Accidental Releases (Section 112(r) of CAA). If, and when, the facility becomes subject to 112(r), the permittee shall:

a. Submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent 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://www2.epa.gov/rmp. 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]

Back to Table of Contents

Subsection A. Emissions Unit 001

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

EU No.	Brief Description
-001	Municipal Solid Waste Landfill Gas Collection System and Fugitive Emissions

Emissions Unit 001 consists of a municipal solid waste (MSW) landfill with a design capacity of greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters of solid waste. The landfill consists of active and closed Class I cells, as well as a Class III cell. A gas collection and control system has been installed on the Class I cells. Asbestos containing waste is received in the Class III area, which is not connected to the gas collection system.

The South Cell is a 114-acre closed Class I landfill which began accepting waste in 1978 and was closed in 1999. The LFG collection and control system was installed and put into operation on the South Cell in March 1997. The South Cell is subject to Emission Guidelines for MSW Landfills, 40 CFR 60, Subpart Cc. This cell is not equipped with a bottom liner because it was not required at the time of construction.

North Cell is an 87-acre active Class I disposal site constructed in 1999 and is subject to the NSPS for MSW Landfills, 40 CFR 60 Subpart WWW. The North Cell's LFG collection system continues to be expanded and has been tied into the South Cell's existing collection and control system. Leachate from the North Cell is collected in various sumps and treated and properly disposed. The North Cell is equipped with a bottom liner system.

The facility is subject to the NESHAP for MSW Landfills, 40 CFR 63, Subpart AAAA. The existing landfill gas collection system is operated under negative pressure to collect non-methane organic compounds (NMOC), methane, and other gases that are generated by the landfill. The facility does not operate a bioreactor. Fugitive emissions from the landfill, to include the uncaptured portion of the landfill gas as well as fugitive particulate matter emissions, are addressed in this subsection.

The collected landfill gas is controlled by one non-assisted 4,000 SCFM Perennial Energy open flare, Model FL-16C, manufactured in 2006. The specific conditions for the flare are addressed in Subsection B of this permit.

Essential Potential to Emit (PTE) Parameters

A.1. Hours of Operation. The landfill and gas collection systems may operate continuously (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C.]

Control Technology

A.2. Landfill Gas Collection Systems. The owner or operator shall install, maintain and operate collection and control systems that capture the gas generated within the landfill and that meet the following requirements:

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:
      (a) 5 years or more if active; or
      (b) 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 a.(1), (2) and (4).
   (2) Be installed with liners (North Cell) 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. Link to 40 CFR 258.40

c. Route all the collected gas to a control system that complies with the requirements in either paragraph (1) or (2).

(1) An open flare designed and operated in accordance with 40 CFR 60.18, except as noted in 40 CFR 60.754(e) (See Subsection B).
(2) 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 (1).

d. Operate the collection and control systems in accordance with the provisions of 40 CFR 60.753, 60.755 and 60.756 (See **Specific Conditions A.8.**, **A.15. – A.19.** and **A.12. – A.14.**, respectively).

e. The collection and control system may be capped or removed provided that all of the following conditions are met:
(1) The landfill shall be a closed landfill as defined in 40 CFR 60.751. A closure report shall be submitted to the Administrator as provided in 40 CFR 60.757(d) (see **Specific Condition A.27.**);
(2) The collection and control systems shall have been in operation a minimum of 15 years; and
(3) Following the procedures specified in 40 CFR 60.754(b) (see **Specific Condition A.11.**), the calculated NMOC gas produced by the landfill shall be less than 50 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.

[40 CFR 60.752(b)(2)(ii), (iii)(A), (iii)(C), (iv) & (v); 40 CFR 63.1955(b); and Rule 62-204.800(9)(c)3., F.A.C.]

A.3. Landfill Closure. When this landfill is closed, the owner or operator is no longer subject to the requirement to maintain a Title V Air operation permit under 40 CFR 70 or 71 for the landfill if the landfill is not otherwise subject to the requirements of 40 CFR 70 or 71 and if the owner or operator meets the conditions for control system removal specified in **Specific Condition A.2.e.** [40 CFR 60.752(d)]

A.4. No Longer Required to Comply with 40 CFR Part 63, Subpart AAAA. You are no longer required to comply with the requirements of this 40 CFR 63, Subpart AAAA when you are no longer required to apply controls as specified in **Specific Condition A.2.e**. [40 CFR 63.1950]

A.5. Specifications for Active Collection Systems. To comply with **Specific Condition A.2.**, the owner or operator shall:

a. 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 expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat. [40 CFR 60.759(a)(1)]
(2) The sufficient density of gas collection devices determined in paragraph a.(1) 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. [40 CFR 60.759(a)(2)]
(3) The placement of gas collection devices determined in paragraph a.(1) shall control all gas producing areas, except as provided by paragraphs (3)(a) and (3)(b).
(a) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under 40 CFR 60.758(d) (see **Specific Condition A.32.d.(2)**). 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.

(b) Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material shall be documented and provided to the Administrator upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section shall be computed using the following equation:

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

where,

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

(c) 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).

[40 CFR 60.759(a)(3)]

b. 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. [40 CFR 60.759(b)(1)]

(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. [40 CFR 60.759(b)(2)]

(3) Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.

[40 CFR 60.759(b)(3)]

c. Convey the landfill gas to a control system in compliance with 40 CFR 60.752(b)(2)(iii) (see **Specific Condition A.2.c**.) through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:
   (1) For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in paragraph (2) shall be used.
   (2) For new collection systems, the maximum flow rate shall be in accordance with 40 CFR 60.755(a)(1) (see **Specific Condition A.15.**).

[40 CFR 60.759]

A.6. Landfill Gas Extraction Wells Addition/Removal. Landfill Gas Extraction Wells can be added to or removed from this emission unit with notification to the Compliance Authority and a copy to the Permitting Authority prior to usage. The notification shall include an updated list of all landfill gas extraction wells and a drawing showing well locations. [40 CFR 60.755(a)(3), (b), and (c)(4); and, Rule 62-204.800(9)(c)3., F.A.C.]

A.7. Gas Collection System Removal. Until the landfill gas collection systems are either capped or removed in accordance with 40 CFR 60, Subpart WWW (**Specific Condition A.2.e**.), they shall be maintained and operated to ensure that all collected landfill gas is directed to the flares or to an approved treatment system. In no case shall collected/uncontrolled landfill gas be vented directly to the atmosphere. [Rules 62-210.200(PTE) and 62-213.440(1), F.A.C.; and Permit Nos. 1270117-007-AC]

Operational Standards

A.8. Operational Standards for Collection and Control Systems. The owner or operator 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 semi-annual reports as provided in 40 CFR 60.757(f) (see **Specific Condition A.29.**);
   (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 positive static 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) (see **Specific Condition A.3.**)
   (2) Unless an alternative test method is established as allowed by 40 CFR 60.752(b)(2)(i), the oxygen shall be determined by an oxygen meter using Method 3A except that:
      (a) The span shall be set so that the regulatory limit is between 20 and 50 percent of the span;
      (b) A data recorder is not required;
      (c) Only two calibration gases are required, a zero and span, and ambient air may be used as the span;
      (d) A calibration error check is not required;

(e) 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 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) (see **Specific Condition A.2.**). In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour.

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 requirement in conditions b., c., or d. of this condition are not met, corrective action shall be taken as specified in 40 CFR 60.755(a)(3) through (a)(5) or 60.755(c) (see **Specific Condition A.15.** or **A.17.**). If corrective actions are taken as specified in 40 CFR 60.755, the monitored exceedance is not a violation of the operational requirements in this condition.

[40 CFR 60.753 and Rule 62-204.800(9)(c)4., F.A.C.]

A.9. Operational Standards for Active Asbestos Waste Disposal Sites. Because this facility receives asbestos-containing waste material from sources such as: asbestos mills; manufacturing, fabricating, demolition, renovation, and spraying operations; and operations that convert asbestos-containing waste material into non-asbestos (asbestos-free) material, the owner or operator shall meet the following requirements:

a. The owner or operator shall immediately cover any Asbestos-containing waste material that has been deposited at the site with at least 15 centimeters (6 inches) of compacted soil cover material.

b. For all asbestos-containing waste material received, the owner or operator shall:

(1) Maintain waste shipment records, using a form similar to that shown in Figure 4 of 40 CFR 61.149 [Link to 40 CFR 61.149], and include the following information:

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

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

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

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

(e) The date of the receipt.

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

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

for the disposal site. Describe the discrepancy and attempts to reconcile it, and submit a copy of the waste shipment record along with the report.

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

c. Maintain, until closure, records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area.

d. Upon closure, comply with all the applicable provisions of 40 CFR 61.151 (see **Specific Condition A.10.**).

e. Submit to the Administrator, upon closure of the facility, a copy of records of asbestos waste disposal locations and quantities.

f. Furnish upon request, and make available during normal business hours for inspection by the Administrator, all records required under this permit.

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

(1) Scheduled starting and completion dates.

(2) Reason for disturbing the waste.

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

(4) Location of any temporary storage site and the final disposal site.

[40 CFR 61.149 and 40 CFR 61.154]

A.10. Standards for Inactive Asbestos Waste Disposal Sites. For the closed portions of the landfill that contain asbestos-containing waste material, that the owner or operator shall:

a. Cover the asbestos-containing waste material with at least 15 centimeters (6 inches) of compacted soil material, and grow and maintain a cover of vegetation on the area adequate to prevent exposure of the asbestos-containing waste material. *{Permitting Note: The existing final cover system on the South Cell meets the requirements of this condition.};*

b. Notify the Administrator in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site under this section, and follow the procedures specified in the notification. (See **Specific Condition A.30**.) If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the Administrator at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice:

(1) Scheduled starting and completion dates.

(2) Reason for disturbing the waste.

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

(4) Location of any temporary storage site and the final disposal site.

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

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

(2) The survey plot and record of the location and quantity of asbestos-containing waste disposed of within the disposal site required in §61.154(f) have been filed with the Administrator; and
(3) The site is subject to 40 CFR Part 61, Subpart M.

[40 CFR 61.151 & 154(g)]

Monitoring of Operations

A.11. Removal of Collection System. 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) (see **Specific Condition A.2.e**), 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

a. 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 40 CFR 60 Appendix A. Link to 40 CFR 60 Appendices
b. The average NMOC concentration, CNMOC, shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25C or Method 18 of 40 CFR 60 Appendix A. If using Method 18 of 40 CFR 60 Appendix A, 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 40 CFR 60 Appendix A, by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.
c. 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.
d. When calculating emissions for PSD purposes, the owner or operator of each shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in 40 CFR 51.166 or 52.21 using AP-42 or other approved measurement procedures.

[40 CFR 60.754(b) & (c)]

A.12. Wellhead Monitoring. The owner or operator shall maintain and operate a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:

a. Measure the gauge pressure in the gas collection header on a monthly basis as provided in 40 CFR 60.755(a)(3) (see **Specific Condition A.15.c.**); and
b. Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in 40 CFR 60.755(a)(5) (see **Specific Condition A.15.e.**); and
c. Monitor temperature of the landfill gas on a monthly basis as provided in 40 CFR 60.755(a)(5) (see **Specific Condition A.15.e.**).

[40 CFR 60.752(b)(2)(iv) & 60.756(a); and, Rule 62-204.800(9)(c)4., F.A.C.]

A.13. Alternative Parameters. Each owner or operator seeking to install a collection system that does not meet the specifications in 40 CFR 60.759 (see **Specific Condition A.5.**) or seeking to monitor alternative parameters to those required by 40 CFR 60.753 through 40 CFR 60.756 (see **Specific Conditions A.6., A.8., A.11., A.12., A.14., A.15., A.17. & A.18.**) 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) and Rule 62-204.800(9)(c)4., F.A.C.]

A.14. Monitoring of Methane Surface Concentration. Each owner or operator seeking to demonstrate compliance with 40 CFR 60.755(c) (see **Specific Condition A.17.**), shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in 40 CFR 60.755(d) (see **Specific Condition A.18.**). Any closed landfill cell that has no monitored exceedences 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) and Rule 62-204.800(9)(c)4., F.A.C.]

A.15. Gas Collection System. Except as provided in 40 CFR 60.752(b)(2)(i)(B), the specified methods in paragraphs a. through f. shall be used to determine whether the gas collection system is in compliance with 40 CFR 60.752(b)(2)(ii) (see **Specific Condition A.2.**).

a. 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*) (see **Specific Condition A.2.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.

(1) 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 = 0 and $e^{-kc} = 1$)

(2) 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 ith section, megagrams
t_i = age of the ith section, years

(3) 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) and a.(2). 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) or a.(2) 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.

b. For the purposes of determining sufficient density of gas collectors for compliance with 40 CFR 60.752(b)(2)(ii)(A)(*2*) (see **Specific Condition A.2.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.

c. 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*) (see **Specific Condition A.2.a(3)**), the owner or operator shall measure gauge pressure 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) (see **Specific Condition A.8.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 exceedences of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval.

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

e. 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) (see **Specific Condition A.8.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 exceedences of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval.

f. An owner or operator seeking to demonstrate compliance with 40 CFR 60.752(b)(2)(ii)(A)(4) (see **Specific Condition A.2.a(4)**) through the use of a collection system not conforming to the specifications provided in 40 CFR 60.759 (see **Specific Condition A.5.**) 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) and Rule 62-204.800(9)(c)4., F.A.C.]

A.16. Well Installation. For purposes of compliance with 40 CFR 60.753(a) (see **Specific Condition A.8.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:

a. 5 years or more if active; or

b. 2 years or more if closed or at final grade.

[40 CFR 60.755(b) Rule 62-204.800(9)(c)4., F.A.C.]

A.17. 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) (see **Specific Condition A.8.**)

a. 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 (see **Specific Condition A.18.**)

b. 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.

c. 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. Link to 40 CFR 60 Appendices

d. 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 (see **Specific Condition A.18.**) 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) (see **Specific Condition A.8.**).
   (1) The location of each monitored exceedance shall be marked and the location recorded.
   (2) 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.
   (3) 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.
   (4) Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in paragraph (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.
   (5) 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.

e. 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) and Rule 62-204.800(9)(c)4., F.A.C.]

A.18. Surface Methane Monitoring Instrumentation. Each owner or operator seeking to comply with the provisions in paragraph (c) of 40 CFR 60.755 (see **Specific Condition A.17.**) shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

a. 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.
b. The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.
c. 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. Link to 40 CFR 60 Appendices
d. 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) and Rule 62-204.800(9)(c)4., F.A.C.]

A.19. Startup – Shutdown – Malfunction. The provisions of this permit 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. In addition, this emissions unit shall comply with the start-up, shutdown, or malfunction requirements contained in 40 CFR 63, Subpart A (see **Specific Conditions A.21.**, **A.22.** and **A.39.**). [Rule 62-204.800(9)(c)4., F.A.C.; 40 CFR 60.752(b)(2)(iv) & 60.755(e); and, 40 CFR 63.1955(c)]

A.20. Requirements of 40 CFR Part 63, Subpart AAAA. To comply with 40 CFR 63, Subpart AAAA, you must comply with 40 CFR part 60, Subpart WWW.

a. Because you have a collection and control system installed as required by 40 CFR 60.752(b)(2) of Subpart WWW, 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 (see **Specific Conditions A.22., A.23., A.24., A.25., A.28., A.29., A.32., A.35., A.36. & A.39.**).

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 60, Subpart WWW, these alternatives can be used to comply with this 40 CFR 63, Subpart AAAA, 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 (see **Specific Condition A.39.**) and all affected sources must submit compliance reports every 6 months as specified in 40 CFR 63.1980(a) and (b) (see **Specific Conditions A.29. & A.35.**), 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), (b) & (c)]

A.21. Operation and Maintenance Requirements. At all times, including periods of startup, shutdown, and malfunction, 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. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the owner or operator reduce emissions from the affected source to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section (see **Specific Condition A.22.**)), review of operation and maintenance records, and inspection of the source.

a. Malfunctions must be corrected as soon as practicable after their occurrence. To the extent that an unexpected event arises during a startup, shutdown, or malfunction, an owner or operator must comply by minimizing emissions during such a startup, shutdown, and malfunction event consistent with safety and good air pollution control practices.

b. Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards.

[40 CFR 63.1955(c) and 40 CFR 63.6(e)(1)]

A.22. Startup, Shutdown and Malfunction Plan.

a. The owner or operator must develop and retain a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction; and a program of corrective action for malfunctioning process, air pollution control, and monitoring equipment used to comply with the relevant standard. The startup, shutdown, and malfunction plan does not need to address any scenario that would not cause the source to exceed an applicable emission limitation in the relevant standard. The purpose of the startup, shutdown, and malfunction plan is to:

(1) Ensure that, at all times, the owner or operator operates and maintains each affected source, including associated air pollution control and monitoring equipment, in a manner which satisfies the general duty to minimize emissions established by paragraph a.;
(2) Ensure that owners or operators are prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and
(3) Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

b. When actions taken by the owner or operator during a startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator must keep records for that event which demonstrate that the procedures specified in the plan were followed. These records may take the form of a "checklist," or other effective form of recordkeeping that confirms conformance with the startup, shutdown, and malfunction plan and describes the actions taken for that event. In addition, the owner or operator must keep records of these events as specified in 40 CFR 63.10(b), including records of the occurrence and duration of each startup or shutdown (if the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction of operation and each malfunction of the air pollution control and monitoring equipment. Furthermore, the owner or operator shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual (or more frequent) startup, shutdown, and malfunction report required in 40 CFR 63.10(d)(5). Link to 40 CFR 63.10

c. If an action taken by the owner or operator during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard, then the owner or operator must record the actions taken for that event and must report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with 40 CFR 63.10(d)(5) (unless the owner or operator makes alternative reporting arrangements, in advance, with the Administrator). Link to 40 CFR 63.10

d. The owner or operator must 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 Administrator. In addition, if the startup, shutdown, and malfunction plan is subsequently revised as provided in paragraph g., the owner or operator must maintain at the affected source each previous (i.e., superseded) version of the startup, shutdown, and malfunction plan, and must make each such previous version available for inspection and copying by the Administrator for a period of 5 years after revision of the plan. If at any time after adoption of a startup, shutdown, and malfunction plan the affected source ceases operation or is otherwise no longer subject to the provisions of 40 CFR 63, Subpart A, the owner or operator must retain a copy of the most recent plan for 5 years from the date the source ceases operation or is no longer subject to this part and must make the plan available upon request for inspection and copying by the Administrator. The Administrator may at any time request in writing that the owner or operator submit a copy of any startup, shutdown, and malfunction plan (or a portion thereof) which is maintained at the affected source or in the possession of the owner or operator. Upon receipt of such a request, the owner or operator must promptly submit a copy of the requested plan (or a portion thereof) to the Administrator. The owner or operator may elect to submit the required copy of any startup, shutdown, and malfunction plan to the Administrator in an electronic format. If the owner or operator claims that any portion of such a startup, shutdown, and malfunction plan is confidential business information entitled to protection from disclosure under section 114(c) of the Act or 40 CFR 2.301, the material which is claimed as confidential must be clearly designated in the submission.

e. To satisfy the requirements of this condition to develop a startup, shutdown, and malfunction plan, the owner or operator may use the affected source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection or submitted when requested by the Administrator.

f. Based on the results of a determination made under **Specific Condition A.22.**, the Administrator may require that an owner or operator of an affected source make changes to the startup, shutdown, and malfunction plan for that source. The Administrator must require appropriate revisions to a startup, shutdown, and malfunction plan, if the Administrator finds that the plan:
   (1) Does not address a startup, shutdown, or malfunction event that has occurred;
   (2) Fails to provide for the operation of the source (including associated air pollution control and monitoring equipment) during a startup, shutdown, or malfunction event in a manner consistent with the general duty to minimize emissions established by **Specific Condition A.22.**;
   (3) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control and monitoring equipment as quickly as practicable; or
   (4) Includes an event that does not meet the definition of startup, shutdown, or malfunction listed in 40 CFR 63.2 - Definitions.

g. The owner or operator may periodically revise the startup, shutdown, and malfunction plan for the affected source as necessary to satisfy the requirements of this permit or to reflect changes in equipment or procedures at the affected source. Unless the permitting authority provides otherwise, the owner or operator may make such revisions to the startup, shutdown, and malfunction plan without prior approval by the Administrator or the permitting authority. However, each such revision to a startup, shutdown, and malfunction plan must be reported in the semiannual report required by 40 CFR 63.10(d)(5) (see **Specific Condition A.29.**). If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the owner or operator must revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment. In the event that the owner or operator makes any revision to the startup, shutdown, and malfunction plan which alters the scope of the activities at the source which are deemed to be a startup, shutdown, or malfunction, or otherwise modifies the applicability of any emission limit, work practice requirement, or other requirement in a standard established under this part, the revised plan shall not take effect until after the owner or operator has provided a written notice describing the revision to the permitting authority.

h. Any revisions made to the startup, shutdown, and malfunction plan in accordance with the procedures established above shall not be deemed to constitute revisions to this Title V air operation permit and the elements of the startup, shutdown, and malfunction plan shall not be considered an applicable requirement as defined in 40 CFR 70.2. Moreover, none of the procedures specified by the startup, shutdown, and malfunction plan for an affected source shall be deemed to fall within the permit shield provision in section 504(f) of the Act.

[40 CFR 63.6(e)(3), 40 CFR 63.10(d)(5), 40 CFR 63.1955(c), and 40 CFR 63.1960]

A.23. Determining Compliance with 40 CFR 63, Subpart AAAA. Compliance is determined in the same manner it is determined for 40 CFR 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(c) of Subpart WWW (see **Specific Condition B.14. and B.15.**), 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) (see **Specific Condition A.22.**). 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.24. 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. and b.

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 a SSM plan is not developed or maintained on site.

[40 CFR 63.1965]

A.25. Compliance Averages for 40 CFR Part 63, Subpart AAAA. 3-hour block averages are calculated in the same way as they are calculated in 40 CFR 60, Subpart WWW, except that the data collected during the events listed in paragraphs a. – d. are not to be included in any average computed under this subpart:

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

[40 CFR 63.1975]

Recordkeeping and Reporting Requirements

A.26. Reporting Schedule. The following reports and notifications shall be submitted to the Compliance Authority: [Rule 62-213.440(1)(b), F.A.C. and Rule 62-204.800(9)(c)5., F.A.C.]

Report	Reporting Deadline	Related Condition(s)
Facility Closure Report	Within 30 of garbage cessation	**A.27.**
Equipment Removal Report	30 Days Prior to removal	**A.28.**
Semiannual Reports	Every 6 Months	**A.29.**
Asbestos Disturbance Notice	45 Days Prior to Disturbance	**A.30.**

A.27. Facility Closure Report. The owner or operator 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) and Rule 62-204.800(9)(c)5., F.A.C.]

A.28. Equipment Removal Report. The owner or operator shall submit an equipment removal report to the Administrator 30 days prior to removal or cessation of operation of the control equipment.

a. The equipment removal report shall contain all of the following items:
   (1) A copy of the closure report submitted in accordance with 40 CFR 60.757(d) (see **Specific Condition A.27.**);
   (2) A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired; and
   (3) 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.
b. 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 (see **Specific Condition**s **A.2. & A.11.**).

[40 CFR 60.757(e) and 40 CFR 63.1980(a); and, Rule 62-204.800(9)(c)5., F.A.C.]

A.29. Semiannual Reports. The owner or operator must submit compliance reports every 6 months as specified in paragraphs a. through f., 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 (see **Specific Conditions A.24.** and **A.25.**).

a. Value and length of time for exceedance of applicable parameters monitored under 40 CFR 60.756(a), (b), (c), and (d) (see **Specific Condition A.12., B.14. and B.15.**).
b. 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 (see **Specific Condition B.15.**)
c. 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.
d. All periods when the collection system was not operating in excess of 5 days.
e. The location of each exceedance of the 500 parts per million methane concentration as provided in 40 CFR 60.753(d) (see **Specific Condition A.8.d**.) and the concentration recorded at each location for which an exceedance was recorded in the previous month.
f. 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 (see **Specific Conditions A.15. – A.18.**).

[40 CFR 60.757(f), 40 CFR 63.1955(b) & (c) and 40 CFR 63.1980(a); and, Rule 62-204.800(9)(c)5., F.A.C.]

A.30. Asbestos Disturbance Notification. The owner or operator must notify the Compliance Authority in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. (See **Specific Condition A.10.b**.) If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the compliance office at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice:

a. Scheduled starting and completion dates.
b. Reason for disturbing the waste.
c. Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material. If deemed necessary, the Administrator may require changes in the emission control procedures to be used.
d. Location of any temporary storage site and the final disposal site.

[40 CFR 61.154(j)]

A.31. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

A.32. Subpart WWW Landfill Records. The owner or operator shall:

a. 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) (see **Specific Condition A.2.**), 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. Keep up-to-date, readily accessible records for the life of the control equipment of the data listed in paragraphs b.(1) and b.(2) 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) (see **Specific Condition A.2.**):
        (a) The maximum expected gas generation flow rate as calculated in 40 CFR 60.755(a)(1) (see **Specific Condition A.15.**). 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.
        (b) 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) (see **Specific Condition A.5.**).

(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 (see **Specific Conditions A.2.** and Error! Reference source not found.**.**), 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. 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 (see **Specific Condition A.12. – A.14.**) 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 (see **Specific Condition A.12. – A.14.**)
   (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) (see **Specific Condition B.14.**), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.
d. 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) 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) (see **Specific Condition A.16.**)
   (2) 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) (see **Specific Condition A.5.**).
e. 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 (see **Specific Condition A.8.**), the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.
f. A copy of the startup, shutdown and maintenance (SSM) plan must be maintained on site. Failure to maintain a copy of the SSM plan is a deviation from the requirements of this permit.

[40 CFR 60.758(a), (b)(1) & (4), (c)(2) & (4), (d)(1) & (2) and (e); 40 CFR 63.1955(c) & 63.1960; and, Rule 62-204.800(9)(c)5., F.A.C.]

A.33. Asbestos Records and Reports. Permittee shall maintain records and reports in accordance with 40 CFR 61.154(e) (see **Specific Condition A.9.**) and for a period of at least five years. [40 CFR 61.154(e)]

A.34. 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) (see **Specific Condition A.9.**). [40 CFR 61.154(f)]

A.35. 40 CFR Part 63, Subpart AAAA Records. The owner or operator shall:
a. Keep records and reports as specified in 40 CFR 60, Subpart WWW, with one exception: You must submit the annual report described in 40 CFR 60.757(f) every 6 months (see **Specific Condition A.29.**)
b. Keep records and reports as specified in the general provisions of 40 CFR 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.
c. Keep a record of calculations showing that the percent moisture by weight expected in the waste mass to which liquid is added is less than 40%, if you add any liquids other than leachate in a controlled fashion

to the waste mass. The calculation must consider the waste mass, moisture content of the incoming waste, mass of water added to the waste including leachate recirculation and other liquids addition and precipitation, and the mass of water removed through leachate or other water losses. Moisture level sampling or mass balances calculations can be used. You must document the calculations and the basis of any assumptions. Keep the record of the calculations until you cease liquids addition.

[40 CFR 63.1980(a), (b) & (g) and Rule 62-204.800(9)(c)5., F.A.C.]

Other Requirements

A.36. 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. Because the EPA Administrator has delegated authority to the State, the state as well as the U.S. EPA has the authority to implement and enforce this subpart.

b. In delegating implementation and enforcement authority of this subpart to the State under Subpart E of 40 CFR 63, the following authorities are retained by the EPA Administrator and are not transferred to the State: 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.37. 40 CFR 60, Subpart A – General Provisions. In addition to the above requirements, the owner or operator must also comply with the requirements contained in 40 CFR 60, Subpart A - General Provisions. [Rule 62-213.440, F.A.C. and 40 CFR 60, Subpart A] Link to 40 CFR 60, Subpart A

A.38. 40 CFR 61, Subpart A – General Provisions. In addition to the above requirements, the owner or operator must also comply with the requirements contained in 40 CFR 61, Subpart A - General Provisions. [Rule 62-213.440, F.A.C. and 40 CFR 61, Subpart A] Link to 40 CFR 61, Subpart A

A.39. 40 CFR 63, Subpart A – General Provisions. In addition to the above requirements, the owner or operator must also comply with the following requirements contained in 40 CFR 63, Subpart A - General Provisions. Link to 40 CFR 63, Subpart A

Citation	Description	Explanation
63.1(a)	Applicability: general applicability of NESHAP in this part	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	

Citation	Description	Explanation
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	

[40 CFR 63.1955(b), 63.1980 and Table 1 of Subpart AAAA]

Back to Table of Contents

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

EU No.	Brief Description
-004	4,000 SCFM Perennial Energy Flare

The collected landfill gas is controlled by one non-assisted 4,000 SCFM Perennial Energy open flare, Model FL-16C, manufactured in 2006. The flare has a stack height of 40 feet, exit diameter of 15.25 inches, exit temperature of 1,200 ºF, and a design exit velocity of 53 feet per second. The flare began initial operation in 2007 and has a minimum design destruction efficiency of 98% for NMOC. Landfill gas flow rate and presence of flame are continuously monitored for compliance with 40 CFR 60.18.

{Permitting Note: This emissions unit is regulated under 40 CFR 60, Subpart A, General Control Device and Work Practice Requirements adopted in Rule 62.204.800(8)(b), F.A.C., 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., and 40 CFR 60, Subpart Cc, "Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills", adopted and incorporated in Rule 62-204.800(9)(c)}

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The maximum allowable heat input rate is as follows:

a. The maximum landfill gas flow rate to the Perennial Energy open flare shall not exceed 4,000 scfm, averaged hourly.
b. The flare pilot fuel shall be propane, landfill gas, or natural gas.

[Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), F.A.C.; and Permit No. 1270117-007-AC]

B.2. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(3), F.A.C.]

B.3. Methods of Operation. Landfill gas shall be flared in accordance with the requirements of 40 CFR 60, Subpart WWW. [Rule 62-213.410, F.A.C.; Applicant's request in Title V permit renewal application received December 9, 2015; and, Permit No. 1270117-007-AC.]

B.4. Hours of Operation. This emissions unit may operate continuously (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C., Permit No. 1270117-007-AC]

Control Technology

B.5. Flare. The permittee shall operate and maintain the flare to control emissions as follows:

a. The design destruction efficiency for the flares shall be a minimum of 98% for NMOC.
b. The flare shall be equipped with an automatic pilot system and control panel that monitors the presence and temperature of the pilot flame. The temperature of the pilot flame shall be continuously recorded on a data recorder.
c. The total LFG volumetric flow to each flare shall be continuously measured and recorded on a data recorder.

[Permit No. 1270117-007-AC; Rules 62-4.070(1) and (3), *Reasonable Assurance* and 62-210.200, *Definitions - Potential to Emit (PTE)*, F.A.C.]

Operational Requirements

B.6. Flare Operation. The flares shall be operated with a flame present at all times, as determined by the methods specified in 40 CFR 60.18(f). [Rule 62-204.800(8)(d), F.A.C. and 40 CFR 60.18(c)(2)]

B.7. Flare Compliance Requirements. The owner or operator shall adhere to the heat content specifications in paragraph a. and the maximum tip velocity specifications in paragraph b.

a. *Heat Content Specifications.* 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 **Specific Condition B.9.** (40 CFR 60.18(f)(3)).

b. *Tip Velocity Specifications*

(1) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity, as determined by the methods specified in **Specific Condition B.16** (40 CFR 60.18 (f)(4)), less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs b.(2) and b.(3) (40 CFR 60.18(c)(4) (ii) and (iii)).

(2) 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).

(3) 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.

(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.

[Rule 62-204.800(8)(d), F.A.C. and 40 CFR 60.18(c)(4) & (5)]

B.8. Actual Exit Velocity. The owner or operator shall determine the actual exit velocity of the flare prior to renewal of the Title V operation permit as determined by the methods specified in 40 CFR 60.18(f)(4) and (f)(5). [40 CFR 60.18(f) and Rule 62-4.070(3), F.A.C.]

B.9. Heat Content Determination. 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.

[40 CFR 60.18(f)(3)]

B.10. Circumvention Prohibited. The flare used to comply with provisions of 40 CFR 60, Subpart A shall be operated at all times when emissions are being vented to it.

[Rules 62-204.800(8)(d) and 62-210.650, F.A.C.; and 40 CFR 60.18(e)]

Emission Limitations and Standards

{Permitting Note: The attached Table 1, Summary of Monitoring Requirements for MSW Landfills, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

B.11. Visible Emissions. The flare control system shall be operated with no visible emissions except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours.

[40 CFR 60.18(c)(l)]

Excess Emissions

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

B.12. Excess Emissions. Excess emissions from startup, shutdown, or malfunction shall not exceed:

a. One hour for the flare, or
b. Five days for the LFG collection system.

In case of excess emissions resulting from malfunctions, the owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions including corrective actions taken shall be submitted in a quarterly report.

[40 CFR 60.755(e) and Rule 62-210.700(6)]

B.13. 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

B.14. Presence of Flame Monitoring: The permittee shall install, calibrate, operate, and maintain, according to the manufacturer's specifications, a heat sensing device ultraviolet beam sensor or thermocouple at the pilot light or the flame itself to indicate the continuous presence of a flame.

[Rule 62-4.070(3), F.A.C. and 40 CFR 60.756(c)(1)]

B.15. LFG Flow Monitoring: The permittee shall install, calibrate, operate, and maintain, according to the manufacturer's specifications, a device that records flow to or bypass of the flare. The owner or operator shall either:

a. 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
b. 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.

[Rule 62-4.070(3), F.A.C. and 40 CFR 60.756(c)(2)]

Test Methods and Procedures

B.16. Test Methods. When required, tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
EPA Method 2/2A/2C/2D	Determination of Volumetric Flow Rate
EPA Method 3C	Determination Of Methane, Carbon Dioxide, Nitrogen, And Oxygen From Stationary Sources
EPA Method 22	Visual Determination of 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 62-204.800, F.A.C., and Permit No. 1270117-007-AC]

B.17. 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 **Specific Condition B.9.** (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 **Specific Condition B.8**. (40 CFR 60.18(f)(4)). [40 CFR 60.754(e)]

B.18. 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.19. Annual Compliance Tests Required. During each calendar year (January 1st to December 31st), the flare shall be tested to demonstrate compliance with the visible emissions standard in **Specific Condition B.11**. [Rule 62-297.310(8), F.A.C.]

B.20. Compliance Test Prior To Renewal. Except as provided in subparagraph 62-297.310(8)(b)3., F.A.C. (see condition **TR7.**b.(3) in Appendix TR – Facility-wide Testing Requirements), a visible emissions compliance test shall be performed on the flare at least 270 days prior to the expiration date of this permit to demonstrate compliance with the emission limit in **Specific Condition B.11.** If the most recent annual compliance test was performed at any time during the year prior to renewal, the test report may be submitted to fulfill this requirement. [Rules 62-210.300(2)(a) and 62-297.310(8)(b), F.A.C.]

Recordkeeping and Reporting Requirements

B.21. Reporting Schedule. The following reports and notifications shall be submitted to the Compliance Authority:

Report	Reporting Deadline	Related Condition(s)
Startup, Shutdown, and Malfunction Report	Semiannually (postmarked by July 30th and January 30th for each respective calendar half)	B.24.

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

B.22. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

B.23. Monitoring Records. The permittee shall maintain on-site for five years, readily accessible and in permanent form, records of the monitoring required under **Specific Conditions B.5., B.6., B.8., B.9., B.11., B.12., B.15., B.15., and B.20.** of this permit. [40 CFR 60.758(b)(4)]

B.24. Semiannual Report. The permittee shall submit semiannual reports to the Department of recorded information as follows:

a. A description and duration of all periods when the LFG stream was diverted from the flare through a bypass line,
b. A description and duration of all periods when the flare was not operating for a period exceeding 1 hour, and length of time it was not operating, and
c. All periods when the LFG collection system was not operating in excess of 5 days.

[40 CFR 60.757(f) and 63.1980(a)]

Other Requirements

B.25. Startup, Shutdown, and Malfunction (SSM) Plan: The permittee shall maintain a copy of the most current SSM plan on-site in accordance with 40 CFR 63.6(e)(3). 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 the semi-annual startup, shutdown and malfunction plan report. (See **Specific Condition B.24.**) 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.

[40 CFR 63.1960 and Rule 62-213.440(1), F.A.C.]

Back to Table of Contents

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

EU No.	Brief Description
005	230 HP New Emergency Diesel Generator (Fleet)
006	470 HP New Emergency Diesel Generator (WWTP)

The "new" compression ignition (CI) diesel-fired emergency engines provide backup power to various parts of the facility in the event of an outage. Emissions Units 005 and 006 are "new" engines and are subject to 40 CFR 60, Subpart IIII.

The following table provides pertinent details for the engines:

Engine Identification	Engine Brake HP	Date of Manufacture	Displacement liters/cylinder (l/c)	Engine Manufacturer	Model No.
Fleet	230	2008	< 10 l/c	Detroit Diesel	Spectrum 125
WWTP	470	2009	< 10 l/c	Cummins	DOHA-5461283

Back to Table of Contents

{Permitting Notes: These emergency compression ignition reciprocating internal combustion engines (CI RICE) are regulated under 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) and 40 CFR 60, Subpart IIII – Standards of performance for Stationary Compression Ignition Internal Combustion Engines, adopted in Rules 62.204.800(11)(b) & (8)(b), F.A.C., respectively. This permit section addresses "new" stationary emergency CI RICE with a displacement of less than 10 liters per cylinder, located at an area source of HAP, that commenced construction on or after 6/12/2006, and that has a post-2007 model year. 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.} Link to 40 CFR 60, Subpart IIII

Essential Potential to Emit (PTE) Parameters

C.1. Authorized Fuel. This Stationary Internal Combustion Engines (ICE) 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.

[40 CFR 60.4207(b), 80.510(b)]

C.2. Restricted Hours of Operation. The owner or operator must comply with the following limitations for this emergency engine. If you do not operate the engine according to the requirements in paragraphs a. through c. of this condition, the engine will not be considered an emergency engine under 40 CFR 60, Subpart IIII and must meet all requirements for non-emergency engines.

a. *Emergency Situations*. There is no time limit on the use of emergency stationary ICE in emergency situations. [40 CFR 60.4211(f)(1)]
b. *Other Situations*. You may operate this emergency stationary ICE for any combination of the purposes specified in paragraphs b.(1) through (3) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph c. counts as part of the 100 hours per calendar year allowed by this paragraph.
   (1) Maintenance and Testing. This emergency stationary ICE 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. [40 CFR 60.4211(f)(2)(i)]
   (2) Emergency Demand Response. This emergency stationary ICE 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. [40 CFR 60.4211(f)(2)(ii)]
   (3) Voltage or Frequency Deviations. This emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [40 CFR 60.4211(f)(2)(iii)]
c. *Non-emergency Situations*. This emergency stationary ICE 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 cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. 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.
[40 CFR 60.4211(f)(3)]

Emission Limitations

C.3. NMHC + NO_X Emissions. Emissions of non-methane hydrocarbons plus nitrogen oxide shall not exceed 4.0 grams per kilowatt-hour (g/KW-hr).

[40 CFR 60.4205(b), 60.4202(a)(2) & 89.112 Table 1]

C.4. CO Emissions. Emissions of carbon monoxide shall not exceed 3.5 g/KW-hr.

[40 CFR 60.4205(b), 60.4202(a)(2) & 89.112 Table 1]

C.5. PM emissions. Emissions of particulate matter shall not exceed 0.20 g/KW-hr.

[40 CFR 60.4205(b), 60.4202(a)(2) & 89.112 Table 1]

Monitoring Requirements

C.6. Hour Meter. The owner or operator must install a non-resettable hour meter on each engine if one is not already installed. [40 CFR 60.4209(a)]

Testing and Compliance Requirements

C.7. Operation and Maintenance. The owner or operator must operate and maintain these engines according to the manufacturer's written instructions. In addition, owners and operators may only change those settings that are permitted by the manufacturer. These RICE must be maintained and operated to meet the emissions limits in **Specific Conditions C.3- C.5.** over the entire life of the engine. [40 CFR 60.4206 & 4211(a)]

C.8. 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 C.9.** [40 CFR 60.4211(c)]

C.9. Compliance Requirements Due to Loss of Certification. If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you 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 you do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action. [40 CFR 60.4211(c) & (g)]

C.10. Testing Requirements. In the event performance tests are required pursuant to **Specific Condition C.9.**, 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 40 CFR 1039, Subpart F

b. *NTE Standards*. Exhaust emissions from these engines must not exceed the not-to-exceed (NTE) numerical requirements, rounded to the same number of decimal places as the applicable standard (STD) in **Specific Conditions C.3 – C.5.**, determined from the following equation:

NTE Requirement For Each Pollutant = (1.25) x (STD) (Eq. 1)

[40 CFR 60.4212(a) & (c)]

C.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.]

Records and Reports

C.12. Testing Notification. At such time that the requirements of **Specific Condition C.9.** 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.A.C.]

C.13. Hours of Operation Records. The owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner or operator must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214(b)]

C.14. Maintenance Records. To demonstrate conformance with the manufacturer's written instructions for maintaining the certified engine and to document when compliance testing must be performed pursuant to **Specific Conditions C.9.** & **C.10,** the owner or operator must keep the following records:

a. Engine manufacturer data 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.; and, 40 CFR 60.4211(c) & (g)]

C.15. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

General Provisions

C.16. 40 CFR 60, Subpart A - General Provisions. The owner or operator shall comply with the applicable requirements of 40 CFR 60, Subpart A - General Provisions, as specified below.
Link to 40 CFR 60, Subpart A - General Provisions.

General Provisions Citation	Subject of Citation
§ 60.1	General applicability of the General Provisions
§ 60.2	Definitions (see also § 60.4219)
§ 60.3	Units and abbreviations
§ 60.4	Address
§ 60.5	Determination of construction or modification
§ 60.6	Review of plans
§ 60.8	Performance tests, except that § 60.8 only applies if the manufacturer's written instructions are not followed. (see **Specific Conditions C.9.** & **C.10.**)
§ 60.9	Availability of information
§ 60.10	State Authority
§ 60.12	Circumvention
§ 60.14	Modification
§ 60.15	Reconstruction
§ 60.16	Priority list
§ 60.17	Incorporations by reference
§ 60.19	General notification and reporting requirements

[40 CFR 60.4218 and Table 8]

Back to Table of Contents

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

EU No.	Brief Description
007	90 HP Existing Emergency Diesel Generator (Admin)
008	36 HP Existing Emergency Diesel Generator (Scale House)
009	325 HP Existing Emergency Diesel Generator (Flare)

The three existing diesel fired emergency engines provide backup power to various parts of the facility in the event of an outage. These emissions units are "existing" emergency compression-ignition (CI) engines subject to the requirements of 40 CFR 63, Subpart ZZZZ.

The following table provides pertinent details for these engines:

Engine Identification	Engine Brake HP	Date of Manufacture	Displacement liters/cylinder (l/c)	Engine Manufacturer	Model No.
Admin	90	2006 (Pre-Jun 12)	<10 l/c	Cummins	DGCB-5761284
Scale House	36	2006 (Pre-Jun 12)	<10 l/c	Cummins	DKAC-5778438
Flare	325	2001	<10 l/c	Olympian	D200P4

{Permitting Notes: These CI reciprocating internal combustion engines (CI RICE) are regulated under 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) adopted in Rule 62.204.800(11)(b), F.A.C. This permit section addresses "existing" emergency stationary CI RICE engines with a displacement of less than 10 liters per cylinder that are located at an area source of HAP and that commenced construction before 6/12/2006; and, that have not been modified or reconstructed after this date.

Pursuant to 40 CFR 60, Subpart IIII, NSPS for Stationary Compression Ignition RICE, these are "existing" emergency engines that have not been modified or reconstructed after 7/11/2005. Therefore, they are not subject to 40 CFR 60, Subpart IIII.}

Essential Potential to Emit (PTE) Parameters

D.1. Hours of Operation.

a. *Emergency Situations*. There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 63.6640(f)(1)]

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

(1) Maintenance and Testing. This 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. [40 CFR 63.6640(f)(2)(i)]

(2) Emergency Demand Response. This 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. [40 CFR 63.6640(f)(2)(ii)]

(3) Voltage or Frequency Deviations. This 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. [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 cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 63.6640(f)(3)]

D.2. Work or Management Practice Standards.

a. *Oil*. Change oil and filter every 500 hours of operation or annually, whichever comes first. [40 CFR 63.6603(a) & 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. [40 CFR 63.6603(a) & 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. [40 CFR 63.6603(a) & 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. [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. [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. [40 CFR 63.6625(i)]

Monitoring of Operations

D.3. Hour Meter. The owner or operator must install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f)]

Compliance

D.4. Continuous Compliance. Each unit shall be in compliance with the emission limitations and operating standards in this section at all times. [40 CFR 63.6605(a)]

D.5. 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. [40 CFR 63.6605(b)]

Reporting Requirements

D.6. 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 D.2.**, 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. [40 CFR 63, Subpart ZZZZ, Table 2c, footnote 1]

Recordkeeping Requirements

D.7. 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. [40 CFR 63.6655(a)(1)]
b. Records of the occurrence and duration of each malfunction of operation. [40 CFR 63.6655(a)(2)]
c. Records of all required maintenance performed on the hour meter. [40 CFR 63.6655(a)(4)]
d. Records of actions taken during periods of malfunction to minimize emissions in accordance with **Specific Condition D.5.**, including corrective actions to restore malfunctioning process and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.6655(a)(5)]
e. Records of the actions required in **Specific Condition D.2.d.** to show continuous compliance with each emission limitation or operating requirement. [40 CFR 63.6655(d)]
f. Records of the Work or Management Practice Standards specified in **Specific Condition D.2.** [Rule 62-213.440(1)(b)2.a., F.A.C.]
g. Records of the maintenance conducted in order to demonstrate that the RICE was operated and maintained according to your own maintenance plan. [40 CFR 63.6655(e)]
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. [40 CFR 63.6655(f)]

[Rule 62-213.440, F.A.C. and 40 CFR 63.6655]

D.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.

[40 CFR 63.6660 and 40 CFR 63.10(b)(1)]

General Provisions

D.9. 40 CFR 63 Subpart A - General Provisions. The owner or operator shall comply with the following 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. Link to 40 CFR 63, Subpart A - General Provisions

General Provisions Citation	Subject of Citation
§63.1	General applicability of the General Provisions
§63.2	Definitions (additional terms defined in 43 CFR 63.6675)
§63.3	Units and abbreviations
§63.4	Prohibited activities and circumvention
§63.5	Construction and reconstruction
§63.6(a)	Applicability
§63.9(a)	Applicability and State delegation of notification requirements
§63.9(b)(1)-(5)	Initial notifications (except that §63.9(b)(3) is reserved)
§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(f)	Waiver for recordkeeping/reporting
§63.12	State authority and delegations
§63.13	Addresses
§63.14	Incorporation by reference
§63.15	Availability of information

[40 CFR 63.6645(a), 63.6665 & Table 8 to Subpart ZZZZ of Part 63]

Back to Table of Contents