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DIVISION OF AIR
RESOURCE MANAGEMENT

APPLICATION FOR TITLE V AIR OPERATION PERMIT RENEWAL

Medley Landfill

Prepared For: Waste Management, Inc. of Florida
2700 NW 48th Street
Pompano Beach, FL 33073

Submitted By: Golder Associates Inc.
6026 NW 1st Place
Gainesville, FL 32607 USA

Distribution: 4 Copies – Florida Department of Environmental Protection
2 Copies – Waste Management, Inc.
2 Copies – Golder Associates Inc.

October 2013

133-87608

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**APPLICATION FOR AIR PERMIT
LONG - FORM**



Department of Environmental Protection

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Division of Air Resource Management

NOV 04 2013

APPLICATION FOR AIR PERMIT - LONG FORM

DIVISION OF AIR RESOURCE MANAGEMENT

I. APPLICATION INFORMATION

Air Construction Permit – Use this form to apply for an air construction permit:

- For any required purpose at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air operation permit;
- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment new source review, or maximum achievable control technology (MACT);
- To assume a restriction on the potential emissions of one or more pollutants to escape a requirement such as PSD review, nonattainment new source review, MACT, or Title V; or
- To establish, revise, or renew a plantwide applicability limit (PAL).

Air Operation Permit – Use this form to apply for:

- An initial federally enforceable state air operation permit (FESOP); or
- An initial, revised, or renewal Title V air operation permit.

To ensure accuracy, please see form instructions.

Identification of Facility

1. Facility Owner/Company Name: Waste Management, Inc. of Florida	
2. Site Name: Medley Landfill	
3. Facility Identification Number: 0250615	
4. Facility Location... Street Address or Other Locator: 9350 NW 89th Avenue City: Medley County: Dade Zip Code: 33178	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Title V Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Application Contact

1. Application Contact Name: Jim Christiansen, Environmental Protection Manager	
2. Application Contact Mailing Address... Organization/Firm: Waste Management of Florida Street Address: 7382 Talona Drive City: West Melbourne State: Florida Zip Code: 32904	
3. Application Contact Telephone Numbers... Telephone: (321) 704-4162 ext. Fax: (321) 984-8170	
4. Application Contact E-mail Address: jchristi@wm.com	

Application Processing Information (DEP Use)

1. Date of Receipt of Application: 11-4-2013	3. PSD Number (if applicable):
2. Project Number(s): 0250615-014-A1	4. Siting Number (if applicable):

APPLICATION INFORMATION

Purpose of Application

This application for air permit is being submitted to obtain: (Check one)

Air Construction Permit

- Air construction permit.
- Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).
- Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.

Air Operation Permit

- Initial Title V air operation permit.
- Title V air operation permit revision.
- Title V air operation permit renewal.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)

- Air construction permit and Title V permit revision, incorporating the proposed project.
- Air construction permit and Title V permit renewal, incorporating the proposed project.

Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:

- I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.

Application Comment

The purpose of this application is to renew the facility's existing Title V permit (FDEP Permit No. 0250615-011-AV). The permit renewal includes the most recent expansion of the landfill. Please refer to Part B of the application for specifics regarding the landfill expansion capacity.

APPLICATION INFORMATION

Owner/Authorized Representative Statement

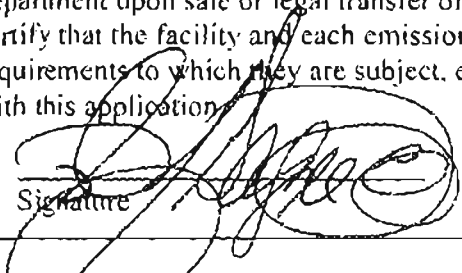
Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name :
2. Owner/Authorized Representative Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
3. Owner/Authorized Representative Telephone Numbers... Telephone: () ext. Fax: ()
4. Owner/Authorized Representative E-mail Address:
5. Owner/Authorized Representative Statement: <i>I, the undersigned, am the owner or authorized representative of the corporation, partnership, or other legal entity submitting this air permit application. To the best of my knowledge, the statements made in this application are true, accurate and complete, and any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department.</i> _____ Signature Date

APPLICATION INFORMATION

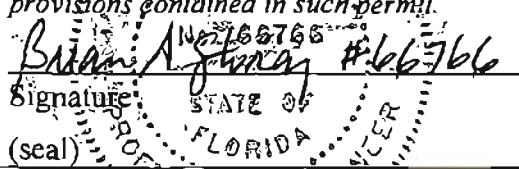
Application Responsible Official Certification

Complete if applying for an initial, revised, or renewal Title V air operation permit or concurrent processing of an air construction permit and revised or renewal Title V air operation permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible Official Name: Joe Gagne, District Manager
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input checked="" type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source or CAIR source.
3. Application Responsible Official Mailing Address... Organization/Firm: Waste Management, Inc. of Florida Street Address: 9350 NW 89th Avenue City: Medley State: Florida Zip Code: 33178
4. Application Responsible Official Telephone Numbers... Telephone: (305) 883-7670 ext. Fax: (866) 438-3573
5. Application Responsible Official E-mail Address: jjgagne1@wm.com
6. Application Responsible Official Certification: I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application. Signature:  Date: <u>11/1/13</u>

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: Brian A. Storey, P.E. Registration Number: 66766
2. Professional Engineer Mailing Address... Organization/Firm: Golder Associates Inc.** Street Address: 6026 NW 1st Place City: Gainesville State: FL Zip Code: 32607
3. Professional Engineer Telephone Numbers... Telephone: (352) 336-5600 ext. Fax: (352) 336-6603
4. Professional Engineer E-mail Address: bstorey@golder.com
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> <i>(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and</i> <i>(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.</i> <i>(3) If the purpose of this application is to obtain a Title V air operation permit (check here <input checked="" type="checkbox"/> , if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.</i> <i>(4) If the purpose of this application is to obtain an air construction permit (check here <input type="checkbox"/> , if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here <input type="checkbox"/> , if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.</i> <i>(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here <input type="checkbox"/> , if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.</i> <i>Brian A. Storey #66766</i> Signature: _____ Date: <i>November 1, 2013</i> (seal) 

* Attach any exception to certification statement.

**Board of Professional Engineers Certificate of Authorization #00001670.

Facility Regulatory Classifications

Check all that would apply *following* completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions to distinguish between a “major source” and a “synthetic minor source.”

1.	<input type="checkbox"/> Small Business Stationary Source	<input type="checkbox"/> Unknown
2.	<input type="checkbox"/> Synthetic Non-Title V Source	
3.	<input checked="" type="checkbox"/> Title V Source	
4.	<input checked="" type="checkbox"/> Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)	
5.	<input type="checkbox"/> Synthetic Minor Source of Air Pollutants, Other than HAPs	
6.	<input type="checkbox"/> Major Source of Hazardous Air Pollutants (HAPs)	
7.	<input type="checkbox"/> Synthetic Minor Source of HAPs	
8.	<input checked="" type="checkbox"/> One or More Emissions Units Subject to NSPS (40 CFR Part 60)	
9.	<input type="checkbox"/> One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)	
10.	<input checked="" type="checkbox"/> One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)	
11.	<input type="checkbox"/> Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))	
12.	Facility Regulatory Classifications Comment: <p>The facility is subject to the following regulations:</p> <ul style="list-style-type: none">• 40 CFR 60 Subpart A, General Provisions• 40 CFR 60 Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills• 40 CFR 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines• 40 CFR 61 Subpart M, National Emission Standards for Asbestos• 40 CFR 63 Subpart A, General Provisions• 40 CFR 63 Subpart AAAA, National Emission Standards for Hazardous Air Pollutants for Municipal Solid Waste Landfills• 40 CFR 63 Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
Carbon Monoxide (CO)	A	N
Nitrogen Oxides (NOX)	A	N
Total Particulate Matter (PM)	B	N
Particulate Matter < 10um (PM10)	B	N
Particulate Matter < 2.5um (PM2.5)	B	N
Sulfur Dioxide (SO2)	A	N
Volatile Organic Compounds (VOC)	B	N
Non-methane Organic Compounds (NMOC)	B	N
Total Hazardous Air Pollutants (HAP)	B	N
Greenhouse Gases (GHG)	B	N

C. FACILITY ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>MLF-FI-C1</u> <input type="checkbox"/> Previously Submitted, Date: _____
2. Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>MLF-FI-C2</u> <input type="checkbox"/> Previously Submitted, Date: _____
3. Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>MLF-FI-C3</u> <input type="checkbox"/> Previously Submitted, Date: _____

Additional Requirements for Air Construction Permit Applications

1. Area Map Showing Facility Location: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable (existing permitted facility)
2. Description of Proposed Construction, Modification, or Plantwide Applicability Limit (PAL): <input type="checkbox"/> Attached, Document ID: _____
3. Rule Applicability Analysis: <input type="checkbox"/> Attached, Document ID: _____
4. List of Exempt Emissions Units: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable (no exempt units at facility)
5. Fugitive Emissions Identification: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
6. Air Quality Analysis (Rule 62-212.400(7), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
7. Source Impact Analysis (Rule 62-212.400(5), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
8. Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
9. Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for FESOP Applications

1. List of Exempt Emissions Units:
 Attached, Document ID: _____ Not Applicable (no exempt units at facility)

Additional Requirements for Title V Air Operation Permit Applications

1. List of Insignificant Activities: (Required for initial/renewal applications only)
 Attached, Document ID: MLF-FI-CV1 Not Applicable (revision application)
2. Identification of Applicable Requirements: (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought)
 Attached, Document ID: Part B
 Not Applicable (revision application with no change in applicable requirements)
3. Compliance Report and Plan: (Required for all initial/revision/renewal applications)
 Attached, Document ID: _____
Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing.
4. List of Equipment/Activities Regulated under Title VI: (If applicable, required for initial/renewal applications only)
 Attached, Document ID: _____
 Equipment/Activities Onsite but Not Required to be Individually Listed
 Not Applicable
5. Verification of Risk Management Plan Submission to EPA: (If applicable, required for initial/renewal applications only)
 Attached, Document ID: _____ Not Applicable
6. Requested Changes to Current Title V Air Operation Permit:
 Attached, Document ID: _____ Not Applicable

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Facilities Subject to Acid Rain, CAIR, or Hg Budget Program

1. Acid Rain Program Forms:

Acid Rain Part Application (DEP Form No. 62-210.900(1)(a)):

Attached, Document ID: _____ Previously Submitted, Date: _____

Not Applicable (not an Acid Rain source)

Phase II NO_x Averaging Plan (DEP Form No. 62-210.900(1)(a)1.):

Attached, Document ID: _____ Previously Submitted, Date: _____

Not Applicable

New Unit Exemption (DEP Form No. 62-210.900(1)(a)2.):

Attached, Document ID: _____ Previously Submitted, Date: _____

Not Applicable

2. CAIR Part (DEP Form No. 62-210.900(1)(b)):

Attached, Document ID: _____ Previously Submitted, Date: _____

Not Applicable (not a CAIR source)

Additional Requirements Comment

**ATTACHMENT MLF-FI-C1
FACILITY PLOT PLAN**

G:\PROJECTS\Waste_Management\Medley_Facility\133_87608_Title\RenewalAppA_Report\Figures\13387608_A002_SiteFeatures.mxd



LEGEND

- Property Boundary (Approximate)
- ▨ Future Site Expansion

REFERENCES

1. Property Boundary, Miami-Dade County GIS, 2013
2. Site Features, Waste Management and Golder Associates Inc., 2013
3. Coordinate System: NAD 1983 StatePlane Florida East FIPS 0901 Feet



REV	DATE	DES	REVISION DESCRIPTION	GIS	CHK	RWW

PROJECT
**MEDLEY LANDFILL
 WASTE MANAGEMENT OF FLORIDA, INC.**

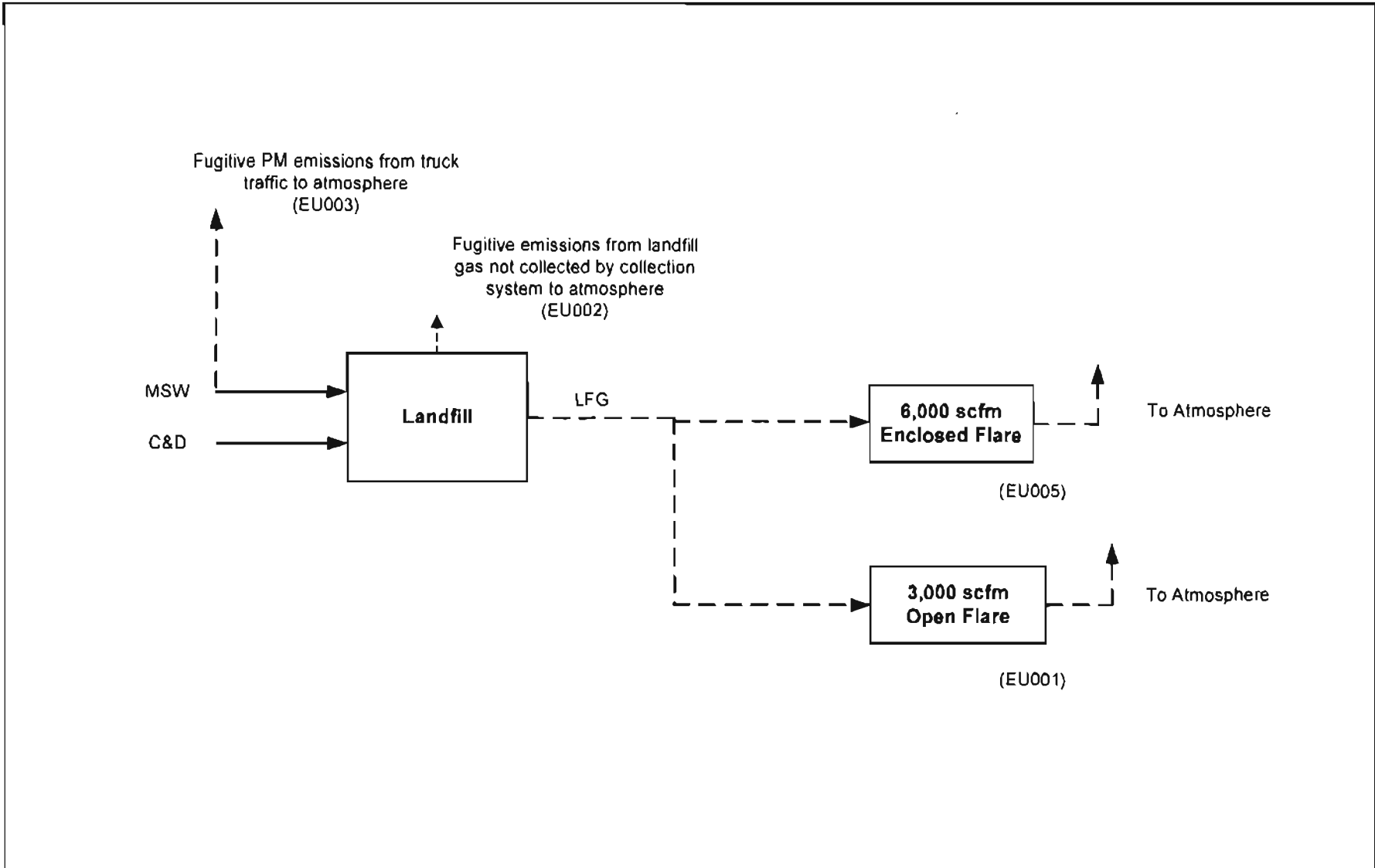
TITLE
SITE PLOT PLAN





PROJECT NO. 133-87608			FILE No. 13387608_A002		
DESIGN	BS	18 Jun. 2013	SCALE: AS SHOWN	REV 0	ATTACHMENT MLF-FI-CI
GIS	NRL	19 Jun. 2013			
CHECK	BS	28 Jun. 2013			
REVIEW	BS	28 Jun. 2013			



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community

**ATTACHMENT MLF-FI-C2
PROCESS FLOW DIAGRAM**



<p>Attachment MLF-FI-C2 Process Flow Diagram Medley Landfill, Medley, Florida Source: Golder 2013.</p>	<p>Process Flow Legend Solid  Liquid  Gas </p>	<p>CLF-FI-C2.VSD 10/28/13</p>	
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ATTACHMENT MLF-FI-C3
PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER

ATTACHMENT MLF-FI-C3
PRECAUTIONS TO PREVENT EMISSIONS OF
UNCONFINED PARTICULATE MATTER

The following measures are undertaken at the Medley Landfill to minimize fugitive particulate matter emissions, in accordance with Rule 62-296.320(4)(c), F.A.C.

- Paving and maintenance of roads, parking areas, and yards
- Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing
- Application of asphalt, water, oil, chemicals, or other dust suppressants to unpaved roads, yards, open stock piles, and similar activities
- Removal of particulate matter from paved roads and other paved areas under the control of Medley Landfill to prevent re-entrainment; and from buildings or work areas to prevent particulate matter from becoming airborne
- Landscaping or planting of vegetation

**ATTACHMENT MLF-FI-CV1
LIST OF INSIGNIFICANT ACTIVITIES**

ATTACHMENT MLF-FI-CV1
LIST OF INSIGNIFICANT ACTIVITIES

The following listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

1. Hydraulic oil storage tanks
2. Motor oil storage tanks
3. Gear oil storage tanks
4. Propane gas tanks
5. Parts washer in the maintenance shop
6. Various pumps (mobile sources)
7. Painting rollers
8. Leachate storage tanks
9. Sludge holding tanks
10. Filter press treatment
11. Sump, oil/water separator
12. Dirt/ash screening
13. Storing of diesel fuel and refueling operation on the active phase
14. Mulching operations
15. Welding, cutting and grinding operation in the maintenance shop
16. Various products/chemicals at maintenance shop
17. Removal of wash pad liquids to leachate collection system
18. Underground Injection well

EMISSIONS UNIT INFORMATION

Section [1]

EU1 - Flare No. 1 (EU 001)

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application - Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

EMISSIONS UNIT INFORMATION

Section [1]

EU1 - Flare No. 1 (EU 001)

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)
- The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
- The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)
- This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
- This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
- This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
Flare No. 1: 3,000 scfm open utility (candle type) flare

3. Emissions Unit Identification Number: **001**

4. Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 49
--	--------------------------------	--------------------------	--

8. Federal Program Applicability: (Check all that apply)

- Acid Rain Unit
- CAIR Unit

9. Package Unit:
Manufacturer: _____ Model Number: _____

10. Generator Nameplate Rating: **MW**

11. Emissions Unit Comment:
3,000-scfm candle-type open flare, manufactured by LFG Specialties, used during periods of increased landfill gas generation, or during outages of Flare No. 3 (EU 005).

EMISSIONS UNIT INFORMATION

Section [1]

EU1 - Flare No. 1 (EU 001)

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

EMISSIONS UNIT INFORMATION

Section |1|

EU1 - Flare No. 1 (EU 001)

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate:	3,000 scfm	
2. Maximum Production Rate:		
3. Maximum Heat Input Rate:	million Btu/hr	
4. Maximum Incineration Rate:	pounds/hr tons/day	
5. Requested Maximum Operating Schedule:	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year
6. Operating Capacity/Schedule Comment:		

EMISSIONS UNIT INFORMATION

Section [1]

EU1 - Flare No. 1 (EU 001)

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: Flare		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: Open flare			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: V	6. Stack Height: 58 feet	7. Exit Diameter: 2 feet	
8. Exit Temperature: °F	9. Actual Volumetric Flow Rate: 3,000 acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment:			

EMISSIONS UNIT INFORMATION

Section [1]

EU1 - Flare No. 1 (EU 001)

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): Waste Disposal: Solid Waste Disposal - Commercial/Institutional: Landfill Dump: Waste Gas Flare		
2. Source Classification Code (SCC): 5-02-006-01		3. SCC Units: Million cubic feet waste gas burned (MMcf)
4. Maximum Hourly Rate: 0.18	5. Maximum Annual Rate: 1,576.8	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: Maximum hourly rate = (3,000 scfm) x (60 min/hr) x (1 MMcf/1 x 10⁶ cf) = 0.18 MMcf/hr Maximum annual rate = (0.18 MMcf/hr) x (8,760 hr/yr) = 1,576.8 MMcf/yr		

Segment Description and Rate: Segment ____ of ____

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

EMISSIONS UNIT INFORMATION

Section [1]

EU1 - Flare No. 1 (EU 001)

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
CO			NS
NOX			NS
SO2			NS
PM			NS
PM10			NS
PM2.5			NS
NMOC			NS
VOC			NS
HAP			NS
GHG			NS

EMISSIONS UNIT INFORMATION

Section [1]

EU1 - Flare No. 1 (EU 001)

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: 5 min/2 hour	
4. Method of Compliance: EPA Method 22	
5. Visible Emissions Comment:	

Visible Emissions Limitation: Visible Emissions Limitation ____ of ____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

EMISSIONS UNIT INFORMATION

Section [1]

EU1 - Flare No. 1 (EU 001)

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>MLF-FI-C2</u> <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>Part B</u> <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records: <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>April 30, 2013</u> Test Date(s)/Pollutant(s) Tested: <u>Opacity</u> <u>Test performed by TRC-Air Measurements</u> <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

EMISSIONS UNIT INFORMATION

Section 17

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EU2 - Fugitive NMOC and HAP emissions (EU 002)

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application - Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

EMISSIONS UNIT INFORMATION

Section [2]

EU2 - Fugitive NMOC and HAP emissions (EU 002)

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)
- The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
- The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)
- This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
- This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
- This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
Fugitive NMOC and HAP emissions

3. Emissions Unit Identification Number: **002**

4. Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 49
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8. Federal Program Applicability: (Check all that apply)
- Acid Rain Unit
- CAIR Unit

9. Package Unit:
Manufacturer: _____ Model Number: _____

10. Generator Nameplate Rating: **MW**

11. Emissions Unit Comment:
Fugitive NMOC and HAP emissions from the natural decomposition reactions associated with the landfill which are not collected by the landfill gas collection system.

EMISSIONS UNIT INFORMATION

Section [2]

EU2 - Fugitive NMOC and HAP emissions (EU 002)

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:

2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:

2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:

2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:

2. Control Device or Method Code:

EMISSIONS UNIT INFORMATION

Section [2]

EU2 - Fugitive NMOC and HAP emissions (EU 002)

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: 8,896 scfm
2. Maximum Production Rate:
3. Maximum Heat Input Rate: million Btu/hr
4. Maximum Incineration Rate: pounds/hr tons/day
5. Requested Maximum Operating Schedule: 24 hours/day 7 days/week 52 weeks/year 8,760 hours/year
6. Operating Capacity/Schedule Comment: Maximum process rate based on the most recent LandGEM model (Version 3.02) of the expanded landfill capacity. Maximum process rate represents the landfill gas generated in year 2034. Approximately 6,672 scfm of landfill gas will be collected, assuming a collection efficiency of 75 percent.

EMISSIONS UNIT INFORMATION

Section [2]

EU2 - Fugitive NMOC and HAP emissions (EU 002)

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: NA		2. Emission Point Type Code: 4	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: Fugitive emissions only			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: F	6. Stack Height: NA feet	7. Exit Diameter: NA feet	
8. Exit Temperature: °F	9. Actual Volumetric Flow Rate: acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment:			

EMISSIONS UNIT INFORMATION

Section [2]

EU2 - Fugitive NMOC and HAP emissions (EU 002)

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): Waste Disposal: Solid Waste Disposal - Commercial/Institutional: Landfill Dump: Municipal: Fugitive Emissions		
2. Source Classification Code (SCC): 5-02-006-02		3. SCC Units: Acre-years landfill existing
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 5,035	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: Maximum annual rate based on 132.5 acres of landfill area, and an approximate age of 38 years.		

Segment Description and Rate: Segment ____ of ____

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

EMISSIONS UNIT INFORMATION

Section [2]

EU2 - Fugitive NMOC and HAP emissions (EU 002)

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>MLF-FI-C2</u> <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records: <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

EMISSIONS UNIT INFORMATION

Section [3]

EU3 - Fugitive PM emissions (EU 003)

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application - Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

EMISSIONS UNIT INFORMATION

Section [3]

EU3 - Fugitive PM emissions (EU 003)

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)
- The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
 - The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)
- This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
 - This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
 - This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
Fugitive PM emissions generated by daily vehicular traffic on unpaved roads within the facility

3. Emissions Unit Identification Number: **010**

4. Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 49
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8. Federal Program Applicability: (Check all that apply)
- Acid Rain Unit
 - CAIR Unit

9. Package Unit:
Manufacturer: _____ Model Number: _____

10. Generator Nameplate Rating: _____ MW

11. Emissions Unit Comment:

EMISSIONS UNIT INFORMATION

Section [3]

EU3 - Fugitive PM emissions (EU 003)

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

EMISSIONS UNIT INFORMATION

Section [3]

EU3 - Fugitive PM emissions (EU 003)

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate:	70,600 trucks per year	
2. Maximum Production Rate:		
3. Maximum Heat Input Rate:	million Btu/hr	
4. Maximum Incineration Rate:	pounds/hr	
	tons/day	
5. Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year
6. Operating Capacity/Schedule Comment:		
	The maximum number of trucks per year is based on the recorded number of trucks in 2012 plus a conservative estimated growth of 10 percent (i.e., 64,200 trucks/yr x 110%)	

EMISSIONS UNIT INFORMATION

Section [3]

EU3 - Fugitive PM emissions (EU 003)

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: NA		2. Emission Point Type Code:	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: Fugitive emissions only			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: F	6. Stack Height: na feet	7. Exit Diameter: na feet	
8. Exit Temperature: °F	9. Actual Volumetric Flow Rate: acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment:			

EMISSIONS UNIT INFORMATION

Section [3]

EU3 - Fugitive PM emissions (EU 003)

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment **1** of **1**

1. Segment Description (Process/Fuel Type): Waste Disposal: Solid Waste Disposal - Government: Landfill Dump: Unpaved Road Traffic		
2. Source Classification Code (SCC): 5-01-004-02		3. SCC Units: Miles waste is hauled
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 115,784	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: Maximum annual rate = 1.64 miles roundtrip at site x 70,600 trucks/yr = 115,784 mi/yr		

Segment Description and Rate: Segment ____ of ____

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

EMISSIONS UNIT INFORMATION

Section [3]

EU3 - Fugitive PM emissions (EU 003)

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM			NS
PM10			NS
PM2.5			NS

EMISSIONS UNIT INFORMATION

Section [3]

EU3 - Fugitive PM emissions (EU 003)

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>MLF-FI-C2</u> <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records: <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

EMISSIONS UNIT INFORMATION

Section [4]

EU4 - Flare No. 3 (EU 005)

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application - Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

EMISSIONS UNIT INFORMATION

Section [4]

EU4 - Flare No. 3 (EU 005)

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)
<input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
<input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)
<input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section: Flare No. 3: 6,000 scfm enclosed primary flare
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3. Emissions Unit Identification Number: 005

4. Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 49
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8. Federal Program Applicability: (Check all that apply)
<input type="checkbox"/> Acid Rain Unit
<input type="checkbox"/> CAIR Unit

9. Package Unit: Manufacturer: _____ Model Number: _____

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment: 6,000 scfm enclosed flare, manufactured by LFG Specialties.

EMISSIONS UNIT INFORMATION

Section [4]

EU4 - Flare No. 3 (EU 005)

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:

2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:

2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:

2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:

2. Control Device or Method Code:

EMISSIONS UNIT INFORMATION

Section [4]

EU4 - Flare No. 3 (EU 005)

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate:	6,000 scfm	
2. Maximum Production Rate:		
3. Maximum Heat Input Rate:	million Btu/hr	
4. Maximum Incineration Rate:	pounds/hr	
	tons/day	
5. Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year
6. Operating Capacity/Schedule Comment:		

EMISSIONS UNIT INFORMATION

Section [4]

EU4 - Flare No. 3 (EU 005)

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: Flare		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: Enclosed flare			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: V	6. Stack Height: 59 feet	7. Exit Diameter: 12.5 feet	
8. Exit Temperature: 1,400°F	9. Actual Volumetric Flow Rate: 3,181 acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: The flare dimensions included herein are based on dimensions reported during the stack test conducted by TRC on April 1, 2013. The flare exit temperature and actual flow rate are averages based on three measurements made during testing.			

EMISSIONS UNIT INFORMATION

Section [4]

EU4 - Flare No. 3 (EU 005)

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): Waste Disposal: Solid Waste Disposal - Commercial/Institutional; Landfill Dump: Waste Gas Flares		
2. Source Classification Code (SCC): 5-02-006-01	3. SCC Units: Million cubic feet waste gas burned (MMcf)	
4. Maximum Hourly Rate: 0.36	5. Maximum Annual Rate: 3,153.6	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: Maximum hourly rate = (6,000 scfm) x (60 min/hr) x (1 MMcf/1 x 10⁶ cf) = 0.36 MMcf/hr Maximum annual rate = (0.36 MMcf/hr) x (8,760 hr/yr) = 3,153.6 MMcf/yr		

Segment Description and Rate: Segment ____ of ____

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

EMISSIONS UNIT INFORMATION

Section [4]

EU4 - Flare No. 3 (EU 005)

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
CO			NS
NOX			NS
SO2			NS
PM			NS
PM10			NS
PM2.5			NS
NMOC			NS
VOC			NS
HAP			NS
GHG			NS

EMISSIONS UNIT INFORMATION

Section [4]

EU4 - Flare No. 3 (EU 005)

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: 5 min/2 hour	
4. Method of Compliance: EPA Method 22	
5. Visible Emissions Comment:	

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

EMISSIONS UNIT INFORMATION

Section [4]

EU4 - Flare No. 3 (EU 005)

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>MLF-FI-C2</u> <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records: <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>April 30, 2013</u> Test Date(s)/Pollutant(s) Tested: <u>NMOC, Opacity</u> <u>Test performed by TRC - Air Measurements</u> <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

ATTACHMENT 1

PART B

The Medley Landfill (landfill) is an open Class I landfill owned and operated by Waste Management of Florida, Inc. (WMIF), and located in Medley, Miami-Dade County, Florida. The landfill has been open and accepting municipal solid waste (MSW) prior to 1980. The landfill has a design capacity greater than 2.5 million megagrams by mass (2.5 million cubic meters by volume). The non-methane organic compound (NMOC) emissions are calculated to be greater than 50 megagrams per year. The landfill gas emissions are collected and controlled through an extraction well field system with flares. The current permitted size of the landfill is 33,963,000 cubic yards (25,966,578.1 cubic meters).

The landfill was issued a Title V Air Operation Permit by the Miami-Dade County Department of Environmental Resources Management (DERM) Air Quality Management Division (Permit No. 0250615-011-AV). The permit was issued on June 19, 2009, and expires on June 18, 2013. The following regulated and unregulated emission units (EUs) have been identified in the permit:

- EU 001 – 3,000 standard cubic feet per minute (scfm) open flare (Flare No. 1) (regulated)
- EU 002 – Fugitive NMOC and hazardous air pollutant (HAP) emissions from the natural decomposition reactions associated with the landfill which are not collected by the landfill gas collection system (regulated)
- EU 003 – Fugitive particulate matter (PM) emissions generated by daily vehicular traffic on unpaved roads with the facility (unregulated)
- EU 005 – 6,000 scfm enclosed flare (Flare No. 3) (regulated)

Flare No. 1 (EU 001) was installed in 1990 and was manufactured by LFG Specialties. The open flare is currently used during periods of increased landfill gas generation or during outages of Flare No. 3. Flare No. 3 (EU 005) was installed in 2003 and manufactured by LFG Specialties. Historically, the landfill included an additional open flare installed in 2002 but the flare was removed in 2007.

Current landfill gas emission rate estimates predict the maximum landfill gas rate to be 8,896 scfm, occurring in 2034, with a corresponding maximum collection rate of 6,672 scfm based on 75-percent collection efficiency of the gas system. This estimation was made using the US Environmental Protection Agency's (EPA's) Landfill Gas Emissions Model (LandGEM) Version 3.02.

The landfill received 64,153 trucks in 2012. The trucks travel approximately 1.6 miles (roundtrip) while on-site (0.8 miles full, 0.8 miles empty). In addition, the landfill accepts and recycles construction and demolition (C&D) waste. In 2012, the landfill accepted 89,613 tons of C&D waste. The landfill accepts asbestos containing material which is buried at the active face.

The landfill has been issued a solid waste permit to expand the footprint of the waste disposal area into two phases. In 2015 the landfill expects to begin accepting waste into Phase 1 of this expansion. The Phase 2 expansion will include moving the existing open and enclosed flares to a new location. The

flares will then be located at the previously permitted landfill gas-to-energy project location. The landfill will submit the proper notifications to the Florida Department of Environmental Protection (FDEP) once the relocation of the flares is required. Refer to Attachment MLF-FI-C1 for specific information related to the expansion and the new flare locations. The current permitted landfill expansion is 39,094,020 cubic yards (29,889,524.6 cubic meters) which is to be included in this Title V permit.

REGULATORY APPLICABILITY

The landfill is subject to the following federal and state regulations:

- 40 CFR 60, Subpart A *General Provisions*
- 40 CFR 60, Subpart IIII *Standards of performance for Stationary Compression Ignition Internal Combustion Engines*
- 40 CFR 60, Subpart WWW *Standards of Performance for Municipal Solid Waste Landfills*
- 40 CFR 61, Subpart M *National Emission Standards for Asbestos*
- 40 CFR 63, Subpart A *General Provisions*
- 40 CFR 63, Subpart AAAA *National Emission Standards for Hazardous Air Pollutants for Municipal Solid Waste Landfills*
- 40 CFR 63, Subpart ZZZZ *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*

As a corporate policy regarding greenhouse gas (GHG) emissions, WMIF includes discussions on GHGs in Title V application renewals which are presented in Attachment 1.

40 CFR 60

The landfill remains as currently permitted in accordance with 40 CFR 60, Subparts A and WWW. The landfill maintains two emergency generators at the site. The first emergency generator is located at the facility flare station and includes a diesel-fired reciprocating internal combustion engine (RICE) manufactured by Detroit Diesel in June 2006. This engine is subject to the requirements of 40 CFR 60, Subpart IIII. The following information about the engine has been provided by the engine manufacturer.

- Manufacturer: Detroit Diesel
- Model number: 4M4021
- Serial number: 2100142
- Engine use: Emergency
- Brake horsepower: 635 hp (maximum)
- Displacement per cylinder: 2.33 L

The engine is an EPA certified engine. The landfill maintains compliance with Subpart IIII by operating and maintaining the engine in accordance with the manufacturer's emission-related instructions.

40 CFR 61

The landfill remains as currently permitted in accordance with 40 CFR 61, Subpart M.

40 CFR 63

The landfill remains as currently permitted in accordance with 40 CFR 63, Subparts A and AAAA.

In addition to being subject to 40 CFR 60, Subpart IIII, the emergency generator located at the flare station, is subject to 40 CFR 63, Subpart ZZZZ. This engine demonstrates compliance with Subpart ZZZZ by being in compliance with NSPS, 40 CFR 60, Subpart IIII.

The second emergency generator at the landfill is located at the leachate collection building. The generator includes a diesel-fired RICE manufactured by Caterpillar. This generator was previously located at another WMIF landfill, and was manufactured prior to the 2005 manufacture date of NSPS, Subpart IIII. The following information is known about the engine:

- Manufacturer: Caterpillar
- Model number: 4M4200
- Serial number: 62BT

The engine is subject to 40 CFR 63, Subpart ZZZZ. This engine is classified as an "existing, emergency engine, located at an area source of HAP emissions", as defined by Subpart ZZZZ. Specifically, in accordance with Table 2d of Subpart ZZZZ, Item 4, the landfill must comply with the following subpart requirements:

- Change oil and filter every 500 hours of operation or annually, whichever comes first
- Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first and replace as necessary
- Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary

If the facility should ever become a major source of HAP emissions, this engine will be replaced with a new certified engine.

PERMIT REVISIONS

The following permit revisions are requested during this Title V renewal period.

Insignificant Activities

The landfill requests that the currently permitted insignificant activities list be modified to accurately reflect current landfill operations. The following listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), Florida Administrative Code (F.A.C.).

- Hydraulic oil storage tanks
- Motor oil storage tanks
- Gear oil storage tanks
- Propane gas tanks
- Parts washer in the maintenance shop
- Various pumps (mobile sources)
- Painting rollers
- Leachate storage tanks
- Sludge holding tanks
- Filter press treatment
- Sump, oil/water separator
- Dirt/ash screening
- Storing of diesel fuel and refueling operation on the active phase
- Mulching operations
- Welding, cutting, and grinding operation in the maintenance shop
- Various products/chemicals at the maintenance shop
- Removal of wash pad liquids to leachate collection system
- Underground Injection well

This information is provided in Attachment MLF-FI-CV1 of the permit renewal application.

RICE Regulations

The landfill requests that the two previously mentioned diesel-fired emergency generators be incorporated into the Title V permit renewal in accordance with the Florida Department of Environmental Protection's (FDEP's) guidance memorandum DARM-PER-44, issued in 2008.

ATTACHMENT 1

New Source Review (NSR) Major Stationary Source Status

This facility is an existing landfill facility that is a major stationary source under the New Source Review (NSR) program. Landfills are not included among the list of 28 source categories that are regulated under a 100 ton per year (TPY) threshold for “regulated New Source Review (NSR) pollutants” to determine “major stationary source” status. 40 CFR 52.21(b)(1)(i)(a). Because this existing landfill facility does not fall within the 28 listed categories, it is subject to a 250 TPY threshold for “regulated NSR pollutants,” excluding fugitive emissions, to determine NSR major stationary source status. 40 CFR 52.21(b)(1)(i)(b). This facility emits or has the potential to emit (PTE) 250 TPY or more of at least one regulated NSR pollutant, and it is therefore is an existing major stationary source for NSR purposes.

“Regulated NSR pollutants” for this facility currently include: nitrogen oxides, sulfur dioxide, particulate matter (PM), PM₁₀, carbon monoxide, volatile organic compounds, and nonmethane organic compounds. See 40 CFR 52.21(b)(50) for definition of “regulated NSR pollutant.” This facility’s potential to emit at least one of these pollutants is more than 250 TPY, and it is therefore an NSR major stationary source.

Regardless of whether a facility has the potential to emit any other regulated NSR pollutants above 250 TPY, a facility’s emissions of greenhouse gases (GHGs) (the aggregate group of carbon dioxide (CO₂), methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons, and perfluorocarbons emissions) are considered to be a “regulated NSR pollutant” only when the GHGs are “subject to regulation” for the facility. 40 CFR 52.21(b)(49). This facility’s GHGs are not “subject to regulation” at this time, and therefore the facility’s GHGs are not a “regulated NSR pollutant” at this time.

At an existing stationary source, such as this landfill facility, GHGs may be “subject to regulation” for NSR program purposes only when the facility proposes to undertake a physical change or a change in the method of operation. 40 CFR 52.21(b)(49)(v)(b)(“At an existing stationary source ... **when** such stationary source undertakes a physical change or change in the method of operation ...”); see also 75 Fed. Reg. 31514 (June 3, 2010). If no physical change or change in method of operation is proposed for an existing facility, then the facility’s GHGs are not “subject to regulation.” At the time an existing facility proposes a physical change or a change in the method of operation, the facility’s GHG emissions will be subject to evaluation to determine whether the GHGs would be “subject to regulation.” Each project increasing GHG emissions will be evaluated to determine if the GHGs are “subject to regulation” (and therefore a “regulated NSR pollutant”) – for purposes of only the project under evaluation.

Hypothetical Example of a GHG Emissions Analysis for NSR Applicability

At an existing source such as this landfill, which is currently an NSR major stationary source, if the owner/operator were to propose a physical change or change in the method of operation, it would be appropriate at that time to evaluate the facility’s GHG emissions for purposes of NSR program applicability. While no physical change or change in the method of operation of this facility is being proposed at this time, the following information is provided to demonstrate the

type of emissions analysis that would be required to determine NSR applicability based on GHGs.

NSR Triggered “Anyway”

If there is a physical change or change in the method of operation at an existing major stationary source that results in a “significant increase” and a “significant net emissions increase” in one or more criteria pollutant emissions, the project is a “major modification” which triggers NSR. 40 CFR 52.21(a)(2)(iv)(a), (b)(2)(i), (b)(2)(ii). However, to determine NSR applicability to GHG emissions, there must first be a determination as to whether the GHGs are “subject to regulation.” 40 CFR 52.21(b)(49).

At an existing major stationary source implementing a major modification which triggers NSR for criteria pollutant emissions, the GHGs are “subject to regulation” if there is an “emissions increase” and a “net emissions increase” of at least 75,000 TPY carbon dioxide equivalent (CO₂e) emissions (sum of all six pollutants’ emissions, taking into account the global warming potential of each pollutant). 40 CFR 52.21(b)(49)(iii), (iv). Currently, biogenic CO₂ emissions are not included as part of this emissions calculation until July 21, 2014, although this exclusion could become permanent based on EPA’s final determination.¹ 76 Fed. Reg. 43490 (July 20, 2011). If the project results in an “emissions increase” and a “net emissions increase” of at least 75,000 TPY CO₂e, the GHGs are “subject to regulation.” Because the GHGs are “subject to regulation,” they are a “regulated NSR pollutant” and NSR applicability must be determined. NSR will be triggered by the GHGs as a regulated NSR pollutant if both of two additional criteria are met: the project must result in an “emissions increase” and a “net emissions increase” in mass GHGs above zero. A calculation of the mass GHGs includes the sum of the six GHG pollutants without regard to global warming potential, and excludes biogenic CO₂ until July 21, 2014, or later based on EPA’s final determination. 40 CFR 52.21(b)(2)(i), (b)(2)(ii), (b)(23)(ii). If all of the above-referenced criteria are met, then the GHGs associated with the project would be subject to NSR (PSD) permitting.

If the emissions increase or net emissions increase in GHGs is less than 75,000 TPY CO₂e, or if the project results in no emissions increase and no net emissions increase in mass GHGs above zero, then the GHGs are not “subject to regulation,” and therefore not a “regulated NSR pollutant.” NSR would not be triggered for GHGs for the project.

¹ Depending on the outcome and timing of EPA’s determination, it is possible that EPA could undertake a new rulemaking with an earlier date that would supersede the current rule language.

NSR Not Otherwise Triggered

If there is a physical change or change in the method of operation at an existing major stationary source that does not otherwise trigger NSR (i.e., the criteria pollutants do not result in a “major modification”), the GHGs will be “subject to regulation” only if: (1) the project would result in an “emissions increase” and a “net emissions increase” of at least 75,000 TPY of CO₂e emissions and (2) either the existing facility emits or has the potential to emit at least 100,000 TPY CO₂e, or the project itself has the potential to emit at least 100,000 TPY CO₂e. 40 CFR 52.21(b)(49)(v), (b)(1)(i)(c). If these criteria are not met, then the GHGs are not subject to regulation and will not trigger NSR. If these criteria are met, then the facility’s GHGs are “subject to regulation” and are therefore a “regulated NSR pollutant.”

If the relevant criteria are met and GHGs are a “regulated NSR pollutant,” NSR applicability to the project must be determined. The GHGs will trigger NSR if two additional criteria are met: there must be an “emissions increase” and a “net emissions increase” in mass GHGs (without regard to global warming potential). If these criteria are met, then NSR is triggered for the project. If there is no “emissions increase” or no “net emissions increase” in mass GHGs, then NSR is not triggered for the project.

Unlike other pollutants, GHGs are not “subject to regulation” under the NSR program unless the facility is new or there is a physical change or change in method of operation at an existing facility (and other emission-based criteria are met). Because GHGs at an existing facility where the owner/operator is not currently proposing a physical change in or change in method of operation cannot be “subject to regulation” and therefore cannot be a “regulated NSR pollutant,” the facility also cannot trigger NSR or be considered a major stationary source due to its GHGs. This explanation of NSR applicability for GHGs is confirmed through the attached question and answer document developed by EPA and entitled “Triggering PSD at Non-Anyways Sources and Modifications” (available on the EPA website at <http://www.epa.gov/nsr/ghgdocs/TriggeringPSDatnonAnywaysSourcesandMods.pdf>).

Under a permitting action to renew a Title V air operation permit for an existing stationary source, such as this one, where there is no associated physical change in or change in the method of operation, GHGs are not “subject to regulation.” Because the GHGs are not “subject to regulation,” the GHGs are not considered a “regulated NSR pollutant.” **This facility, at the time of this Title V renewal and without an associated physical or operational change, would not trigger applicability of the NSR program.** The analysis of whether the facility has the potential to emit “major source” levels as defined under the Title V rules is separate and not tied to whether the facility would be an NSR major stationary source.

Title V Major Source Emission Levels

The analysis of whether a facility is an NSR major stationary source for GHGs is completely separate from an analysis of whether the facility has the potential to emit GHGs at major source levels for purposes of the Title V program. This facility is subject to the Title V air operations permit program because of the applicability of a New Source Performance Standard (NSPS), and there is no question of Title V applicability. The determination of whether the facility has the potential to emit GHGs at Title V major source emission levels should not be confused with an analysis of whether the facility is an NSR major stationary source.

The federal Title V air operation permit rules provide that the term “major source” includes stationary sources that emit or have the potential to emit at least 100 TPY of any air pollutant “subject to regulation.” Fugitive emissions are included in this amount only if the facility falls within one of 27 listed source categories. 40 CFR 70.2, “major source” (2). As a landfill, this facility does not fall within the listed source categories, and therefore fugitive emissions are not included in calculations to determine major source emission levels under the federal Title V rules.

Under the Title V program, the air pollutants subject to regulation for this facility currently include: nitrogen oxides, sulfur dioxide, particulate matter (PM), PM₁₀, carbon monoxide, volatile organic compounds, and nonmethane organic compounds. Excluding fugitive emissions, this facility has the potential to emit Title V major source emission levels for the following pollutants: sulfur dioxide (SO₂), carbon monoxide (CO), and nitrogen oxides (NO_x).

The federal Title V rules define “subject to regulation” for purposes of greenhouse gases (GHGs) to mean that a stationary source emits or has the potential to emit 100,000 TPY of carbon dioxide equivalent (CO₂e) emissions (sum of all six pollutants’ emissions, taking into account the global warming potential each pollutant). 40 CFR 70.2, “subject to regulation.” As stated above, fugitive emissions are not included in this total to determine major source emission levels, nor are they subject to consideration for inclusion. In addition, currently biogenic CO₂ emissions are not counted as part of this total until July 21, 2014, although this exclusion could become permanent based on EPA’s final determination.² 76 Fed. Reg. 43490 (July 20, 2011).

For purposes of the federal Title V rules, this facility’s anthropogenic GHGs (excluding fugitive emissions and biogenic CO₂ emissions) are estimated at 513TPY of CO₂e, which is less than the 100,000 TPY CO₂e threshold for Title V applicability, and therefore this facility’s GHGs are not “subject to regulation.” Even if this facility’s GHGs were “subject to regulation,” the facility’s potential to emit mass GHGs (aggregate sum of six pollutants, without regard to global warming potential) is estimated at 520.5TPY which is above the Title V major source level of 100 TPY. Therefore this facility has the potential to emit GHGs at Title V major source levels. The biogenic CO₂e for this facility, excluding fugitive emissions, is 203,540 TPY.

² Depending on the outcome and timing of EPA’s determination, it is possible that EPA could undertake a new rulemaking with an earlier date that would supersede the current rule language.

**Waste Management Greenhouse Gas Calculations
Assumptions and Equations Sheet
Medley Landfill Title V Renewal**

Assumptions:

LFG = 50% CH₄ and 50% CO₂

*when calculating potential to emit for criteria pollutants, 50 % CH₄ and 50 % CO₂ are typically used, therefore use these numbers when calculating GHG emissions unless criteria pollutants were calculated on a different basis

Heating value of LFG = 506 BTU/scf

*Pure methane has a heating value of 1012 BTU/scf and the model assumes that Landfill gas is 50% methane, therefore a heating value of 506 BTU/scf for landfill gas. This will need to be adjusted if use a different percent methane content than 50%.

Devices are run for 8760 hours/year

*One year contains 8760 hours, therefore assume the device will run full time. If you are taking a voluntary limit on operating hours, limiting yourself too less than full time operation, enter the number of hours you will limit operators to for one year. This is a rare occurrence and must be Air Director approved.

Global Warming Potential CH₄ = 21

Global Warming Potential N₂O = 310

*Global Warming Potential Taken from TABLE A-1 to Subpart A of Part 98-Global Warming Potentials
40 CFR Parts 86, 87, 89 et al. Mandatory Reporting of Greenhouse Gases; Final Rule

Emission factors:

CO₂ = 52.07 kg/MMBTU

*Taken from TABLE C-1 to Subpart C of Part 98 -Default CO₂ Emission Factors and High Heat Values for Various Types of Fuel,
40 CFR Parts 86, 87, 89 et al. Mandatory Reporting of Greenhouse Gases; Final Rule

CH₄ = 3.20E-03 kg/MMBTU

N₂O = 6.30E-04 kg/MMBTU

*Taken from TABLE C-2 to Subpart C of Part 98 - Default CH₄ and N₂O Emission Factors for Various Types of Fuel,
40 CFR Parts 86, 87, 89 et al. Mandatory Reporting of Greenhouse Gases; Final Rule

Calculations:

Annual throughput (mmscf) = Unit rated throughput (scfm) X 60 min./hour X 24 hr./day X 365 days/year X 0.000001

Annual Methane and CO₂ generation (mmscf) = annual throughput (mmscf) x 0.50 (50 %)

Heat Rate (MMBTU/hr) = Unit rated throughput (scfm) X 60 min/hr. X 506 BTU/scf (heating value of LFG) X 0.000001

Total CO₂ = metric tons of CO₂ generated by combustion of LFG plus passthrough metric tons of CO₂

metric tons of CO₂ due to combustion = heat rate (MMBTU/hr) X 8760 hr/year X emission factor CO₂ (52.07) x 0.001

passthrough metric tons = CO₂ generation (mmscf) X 1,000,000 scf/1mmscf X 1 m³/35.31 scf X 1000 L/1 m³
X 1 mole gas/23.689 L X 44.01 gm/1 mole CO₂ X 1.00 E-6 metric tons/ 1gm.

Total N₂O (metric tons CO₂ eq.) = heat rate (MMBTU/hr) X 8760 hr/year X emission factor N₂O (6.30E-04 kg/MMBTU) x 0.001 X 310 GWP

Total CH₄ (metric tons CO₂ eq.) = heat rate (MMBTU/hr) X 8760 hr/year X emission factor CH₄ (3.20E-03 kg/MMBTU) x 0.001 X 21 GWP

Total metric tons (CO₂ and CO₂ eq.) = Total CO₂ + N₂O metric tons CO₂ eq. + CH₄ metric tons CO₂ eq. X 1.1023

Conversion Factors:

1 gram = 1.000E-06 metric tons

1 mmscf = 1000000 scf

1 mol CO₂ = 44.01 g

1 m³ = 35.31 scf

1 m³ = 1000 L

1 mol gas = 23.69 L

* 23.689 is molar volume of gas at standard pressure of 1 atmosphere at 60 degrees Fahrenheit

pressure = 1 atmosphere as published in the Compendium of Methods for the Determination of Inorganic Compounds in Ambient Air
and the Compendium of Method for the Determination of Toxic Organic Compounds in Ambient Air.

temperature = 60 degrees Fahrenheit as cited in 40 CFR Parts 86, 87, 89 et al. Mandatory Reporting of Greenhouse Gases;
Final Rule

**Waste Management Greenhouse Gas Calculations
Greenhouse Gases Potential-to Emit
Medley Landfill Title V Renewal**

Insert methane concentration of landfill gas: ->leave blank if not known default is 50%
Carbon dioxide concentration of landfill gas:

General Information

Combustion Source	Unit Rated Throughput (scfm)	Annual Potential Throughput (mmscf)	Annual Potential Methane Generation (mmscf)	Annual Potential CO2 Generation (mmscf)
LOS GC = 8896 scfm	6672	3,506.80	1,753.40	1,753.40
Insert your device here		0.00	0.00	0.00
Insert your device here		0.00	0.00	0.00
Insert your device here		0.00	0.00	0.00
Insert your device here		0.00	0.00	0.00
Insert your device here		0.00	0.00	0.00
Insert your device here		0.00	0.00	0.00
Insert your device here		0.00	0.00	0.00
Insert your device here		0.00	0.00	0.00
Insert your device here		0.00	0.00	0.00
Insert your device here		0.00	0.00	0.00
Insert your device here		0.00	0.00	0.00
Insert your device here		0.00	0.00	0.00
Insert your device here		0.00	0.00	0.00
Totals	6672	3,506.80	1,753.40	1,753.40

75% gas curve is collected = 6672 scfm thru combustion

Potential Emissions

Combustion Source	Heat Rate (MMBTU/Hr)	Total CO2 (metric tons)	Total CO2 (short tons)	N2O (metric tons CO2 eq.)	N2O (short tons CO2 eq.)	CH4 (metric tons CO2 eq.)	CH4 (short tons CO2 eq.)	Total Potential Emissions CO2 eq. metric tons (CO2+CO2 eq.)	Total Potential Emissions CO2 eq. short tons (U.S tons)
LOS GC = 8896 scfm	202.562	184,649.88	203,539.56	346.55	382.00	119.24	131.44	185,115.67	204,053.00
Insert your device here	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Totals	202.562	184,649.88	203,539.56	346.55	382.00	119.24	131.44	185,115.67	204,053.00

**Waste Management Greenhouse Gas Calculations
Greenhouse Gases Potential-to Emit, Biogenic and Anthropogenic
Medley Landfill Title V Renewal**

Methane concentration of lfg from last tab: 50%
Carbon dioxide concentration from last tab: 50%

General Information

Unit Type	Unit Rated Throughput (scfm)	Annual Potential		
		Annual Potential Throughput (mmscf)	Methane Generation (mmscf)	Annual Potential CO2 Generation (mmscf)
LOS GC = 8896 scfm	6672	3506.80	1753.40	1753.40
Insert your device here	0	0.00	0.00	0.00
Insert your device here	0	0.00	0.00	0.00
Insert your device here	0	0.00	0.00	0.00
Insert your device here	0	0.00	0.00	0.00
Insert your device here	0	0.00	0.00	0.00
Insert your device here	0	0.00	0.00	0.00
Insert your device here	0	0.00	0.00	0.00
Insert your device here	0	0.00	0.00	0.00
Insert your device here	0	0.00	0.00	0.00
Insert your device here	0	0.00	0.00	0.00
Insert your device here	0	0.00	0.00	0.00
Insert your device here	0	0.00	0.00	0.00
Totals	6672	3506.80	1753.40	1753.40

Potential Biogenic Generation

Unit Type	Heat Rate (MMBTU/Hr)	Combustion CO2 (metric tons)	Combustion CO2 (short tons)	Passthrough		Total Biogenic	
				CO2 (metric tons)	Passthrough CO2 (short tons)	CO2 (metric tons)	Total Biogenic CO2 (short tons)
LOS GC = 8896 scfm	202.562	92,395.22	101,847.25	92,254.66	101,692.31	184,649.88	203,639.56
Insert your device here	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.000	0.00	0.00	0.00	0.00	0.00	0.00
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Insert your device here	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Totals	202.562	92,395.22	101,847.25	92,254.66	101,692.31	184,649.88	203,639.56

**Waste Management Greenhouse Gas Calculations
Greenhouse Gases Potential to Emit, Biogenic and Anthropogenic
Medley Landfill Title V Renewal**

Potential Anthropogenic Generation

Unit Type	N2O (metric tons)	N2O (short tons)	CH4 (metric tons)	CH4 (short tons)	N2O (metric tons CO2 eq.)	N2O (short tons CO2 eq.)	CH4 (metric tons CO2 eq.)	CH4 (short tons CO2 eq.)	Total Anthropogenic (metric tons CO2 eq.)	Total Anthropogenic (short tons CO2 eq.)
LOS GC = 8896 scfm	1.12	1.23	5.68	6.26	346.55	382.00	119.24	131.44	465.79	513.44
Insert your device here	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Insert your device here	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Totals	1.12	1.23	5.68	6.26	346.55	382.00	119.24	131.44	465.79	513.44

Combined Biogenic and Anthropogenic Totals

Unit Type	Total CO2 eq. metric tons	Total CO2 eq. short tons
LOS GC = 8896 scfm	185,115.67	204,053.00
Insert your device here	0.00	0.00
Insert your device here	0.00	0.00
Insert your device here	0.00	0.00
Insert your device here	0.00	0.00
Insert your device here	0.00	0.00
Insert your device here	0.00	0.00
Insert your device here	0.00	0.00
Insert your device here	0.00	0.00
Insert your device here	0.00	0.00
Insert your device here	0.00	0.00
Insert your device here	0.00	0.00
Insert your device here	0.00	0.00
Insert your device here	0.00	0.00
Totals	185,115.67	204,053.00

**Waste Management Greenhouse Gas Calculations
Greenhouse Gases, Fugitives
Medley Landfill Title V Renewal**

Uncollected Methane Emissions

Amount of CH ₄ collected during Reporting Period (from D21 on ghg pte tab)	1,753.40 mmscf	
LFG System Collection Efficiency	75.00%	
Amount of Uncollected CH ₄	584.4672 mmscf	
Amount of Uncollected CH ₄	11,207.79 metric tons/year	12,354.35 US tons per year
CH ₄ Oxidation Factor	10.00%	
Uncollected CH ₄ Emitted through cover	526.02048 mmscf	
Uncollected CH ₄ Emitted through cover	10,087.01 metric tons/year	11,118.91 US tons per year

Uncollected CO₂ Emissions

Amount of CO ₂ collected during Reporting Period (from E21 on ghg pte tab)	1,753.40 mmscf	
LFG System Collection Efficiency	75.00%	
Uncollected CO ₂ Emitted through Cover	584.4672 mmscf	
Uncollected CO ₂ Emitted through Cover	30,751.55 metric tons/year	33,897.44 US tons per year
CH ₄ oxidized in cover	1,120.78 metric tons/year	1,235.43 US tons per year
CO ₂ emitted through cover from oxidized methane	3,082.14 metric tons/year	3,397.45 US tons per year

Methane Emissions

Uncollected Emissions of CH₄ 10,087.01 metric ton/yr 11,118.91 US tons per year

	Metric tons	Short
Total Uncollected Methane Emissions from Landfill in CO₂e	CO₂ E/year	tons per
	211,827.27	233,497.20
		year

**Waste Management Greenhouse Gas Calculations
Greenhouse Gases, Fugitives
Medley Landfill Title V Renewal
Carbon Dioxide Emissions**

Uncollected CO₂ Emissions emitted through landfill cover
CO₂ emitted through landfill cover from oxidized methane

30,751.55 metric ton/yr
3,082.14 metric ton/yr

33,897.44 US tons per year
3,397.45 US tons per year

Total Uncollected Carbon Dioxide Emissions from Landfill

	Metric tons CO₂/year	Short tons per year
	33,833.70	37,294.88

CO₂e from Methane and CO₂ for total fugitive

Total Fugitive in CO₂e

270,792.08 **short tons per year**

Total Site-wide Carbon Dioxide Emissions from Landfill

	Short tons per year
	474,845.09

CAA, as well as for potential efforts to address GHG emissions at downstream sources. Information from suppliers of Industrial GHGs is relevant to understanding the quantities and types of gases being supplied to the economy, in particular those that could be emitted downstream which will aid in evaluating action under CAA section 111 as well as various sections of title VI (e.g., 609 and 612) that address substitutes to ozone depleting substances (ODS). Additional discussion on this issue is available in "Mandatory Greenhouse Gas Reporting Rule: EPA's Response to Public Comments, Selection of Source Categories to Report and Level of Reporting" and in "Mandatory Greenhouse Gas Reporting Rule: EPA's Response to Public Comments, Legal Issues."

Finally, we disagree with commenters who argue that we cannot use CAA sections 114 and 208 to gather information on a pollutant until we have issued an endangerment finding for that pollutant, or actually decided to regulate it under the CAA. The statute is not so inflexible.²⁰ For example, the information collected under sections 114 and 208 could inform the contribution element of endangerment determinations (e.g., whether emissions from the relevant sector contribute to air pollution which may reasonably be anticipated to endanger public health or welfare). Similarly, information gathered under these sections could inform decisions on whether to regulate a pollutant or source category. Commenters' interpretation would prevent EPA from gathering information that could be critical to key decisions until after those decisions are made. EPA does not agree with, and will not adopt, such an interpretation.

Thus, as discussed in more detail above and in "Mandatory Greenhouse Gas Reporting Rule: EPA's Response to Public Comments, Legal Issues," EPA has adequate authority to issue this rule.

R. Summary of Comments and Responses on CBI

This section contains a brief summary of major comments and responses on CBI issues. A large number of comments were received covering numerous topics. Responses to significant comments received can be found in "Mandatory Greenhouse Gas Reporting Rule: EPA's Response to Public Comments, Legal Issues."

Comment: EPA received numerous comments addressing the issue of CBI. Industry commenters generally expressed concern that much of the information reported under this rule would be CBI (e.g., production and process data). Many commenters also presented arguments regarding why certain information would not be "emissions data" under the CAA. Among the various recommendations were that the final rule (i) not require the reporting of such information at all, (ii) require only that the source maintain such information on site, but not report it to EPA, and/or (iii) clearly state that some classes of information are CBI. Some commenters expressed concern about EPA's ability to maintain the confidentiality of CBI, and thus suggested that EPA should provide further detail regarding how we will protect CBI from disclosure. The agricultural industry expressed particular concerns about making information about the location of facilities public due to concerns about biosecurity and other potential threats. Other commenters favored the wide dissemination of information, and argued that the information gathered under this rule should be "emissions data" and hence not protected as CBI.

Response: As discussed in Section II.N of this preamble, EPA is finalizing its proposal that EPA verify the information collected by this rule. Data regarding inputs into emissions calculations and monitoring are critical elements of that verification process. Because EPA will routinely need this data in order to verify the information collected under this rule, we are not adopting the recommendation that sources maintain such information on site and only provide it during an inspection or when otherwise specifically requested.

EPA also recognizes the importance of this issue to both reporters and the public. EPA's public information regulations contain a definition of "emissions data" at 40 CFR 2.301, and EPA has discussed in an earlier *Federal Register* notice what data elements constitute emissions data that cannot be withheld as CBI (56 FR 7042-7043, February 21, 1991). We further recognize that while determinations about whether information claimed as CBI meets the definition of CBI, as well as whether it meets the definition of emissions data, are usually made on a case-by-case basis, such an approach would be cumbersome given the scope of this rule and the potential inconsistencies across reporters and source categories and the compelling need to make data that are not CBI, or

are emissions data, available to the public. For this reason, EPA intends to undertake an effort similar to what was done in 1991 for the data elements collected in this rule. Through a notice and comment process, we will establish those data elements that are "emissions data" and therefore will not be afforded the protections of CBI. As part of that exercise, in response to requests provided in comments, we may identify classes of information that are not emissions data, and are CBI. EPA plans to initiate this effort later this year, or in early 2010. We will consider the comments received on this issue as part of that notice and comment process.

As stated in the proposed rule, EPA will protect any information claimed as CBI in accordance with regulations in 40 CFR part 2, subpart B. As we noted previously however, in general the CAA prohibits the treatment of emission data collected under CAA sections 114 and 208 as CBI.

S. Summary of Comments and Responses on Other Legal Issues

This section contains a brief summary of major comments and responses on other legal issues. A large number of other legal issue comments were received covering numerous topics. Responses to significant comments received can be found in "Mandatory Greenhouse Gas Reporting Rule: EPA's Response to Public Comments, Legal Issues."

Comment: We received numerous comments on EPA's statements in the proposed rule that a final rule requiring the monitoring and reporting of GHG emissions would not render GHGs "regulated pollutants" under the CAA. See, e.g., "EPA's Interpretation of Regulations that Determine Pollutants Covered By Federal Prevention of Significant Deterioration (PSD) Permit Program" (Dec. 18, 2008) ("PSD Interpretive Memo). Some agreed, while others took issue with the position in the memorandum.

Response: As we noted in the proposal, EPA is reconsidering the PSD Interpretive Memo and will be seeking public comment on the issues raised in it. That proceeding, not this rulemaking, is the appropriate venue for submitting comments on the substantive issue of whether monitoring regulations under the CAA should make GHGs subject to regulation. At this time however, the PSD Interpretive Memo reflects EPA's current position, and hence, this final rule does not make GHGs subject to regulation under the CAA.

Comment: EPA also received numerous comments about whether the requirements imposed by this rule are

²⁰ We note that the statute is ambiguous, and thus EPA may adopt any reasonable interpretation. See *Chevron v. NRDC et al.*, 467 U.S. 837, 884 (1984).

"applicable requirements" under the title V operating permit program. The majority of the comments took the position that the current definitions of "applicable requirement" at 40 CFR 70.2 and 71.2 do not include a rule such as this, promulgated under CAA section 114(a)(1) and 208. Commenters requested that EPA confirm their interpretation of the regulations.

Response: As currently written, the definition of "applicable requirement" in 40 CFR 70.2 and 71.2 does not include a monitoring rule such as today's action, which is promulgated under CAA sections 114(a)(1) and 208.

III. Reporting and Recordkeeping Requirements for Specific Source Categories

A. Overview

Once a reporter has determined that its facility or supply operation meets any of the reporting rule applicability criteria in 40 CFR 98.2(a), the reporter must calculate and report GHG emissions or alternate information as required (e.g., suppliers report quantities supplied and the quantity of CO₂e that could be emitted when the products they supply are combusted or used). The applicability threshold determination is separately assessed for suppliers (fossil fuel suppliers and industrial GHG suppliers) and downstream source categories (facilities with direct GHG emissions).

The required GHG information must be reported for all source categories at the facility for which there are measurement methods provided. For suppliers (facilities or corporations) that trigger only the applicability criteria for upstream fossil fuel or industrial GHG supply (40 CFR part 98, subparts KK through PP), reporters need only follow the methods and report the information specified in those respective subparts. For downstream facilities that contain exclusively direct emitting source categories covered in 40 CFR part 98, subparts C through JJ, and are not suppliers, reporters must monitor and report GHG emissions the methods presented in each applicable subpart. Some reporters will need to report under multiple subparts because multiple source categories are collocated at their facility. For example, a facility with petrochemical production processes (described in Section III.X of the preamble), should also review Sections III.C (general stationary fuel combustion), III.G (ammonia manufacturing) and III.Y (petroleum refineries) of this preamble. In some cases, such as petroleum refineries that supply petroleum products and also

meet applicability criteria for direct emissions from the refinery, reporters will have to report on both supply operations and direct facility emissions.

Table 2 of this preamble (in the SUPPLEMENTARY INFORMATION section of this preamble) provides a cross walk to aid facilities and suppliers in identifying potentially relevant source categories. The cross-walk table should only be seen as a guide as to the types of source categories that may be present in any given facility and therefore the methodological guidance in Section III of this preamble that should be reviewed. Additional source categories (beyond those listed in Table 2 of this preamble) may be relevant to a given reporter. Similarly, not all listed source categories will be relevant to all reporters.

Consistent with the requirements in the 40 CFR part 98, subpart A, reporters must report GHG emissions from all source categories located at their facility including stationary combustion 40 CFR part 98, subpart C) and process emissions (e.g., from adipic acid production, iron and steel production, and other source categories in 40 CFR subparts C through JJ), as well as the required data for any supplier source categories (KK through PP). The methods presented typically account for normal operating conditions, as well as startup, shutdown, or malfunction (SSM), where significant (e.g., HCFC-22 production and oil and gas systems). Although SSM is not specifically addressed for many source categories, emissions calculation methodologies relying on CEMS or mass balance approaches would capture these different operating conditions.

For many facilities, calculating facility-wide emissions will simply involve adding GHG emissions from combustion sources calculated under Section III.C of this preamble (General Stationary Fuel Combustion Sources) and process GHG emissions calculated under the applicable the source category subpart(s). The rule also clarifies reporting for more complex situations, such as where combustion and process emissions are commingled. See Section II.L of this preamble for a response to comments on the general monitoring and reporting approach for facilities with both combustion and process emissions. See sections III.C through PP of this preamble for discussion of the specific monitoring and reporting requirements for each source category.

B. Electricity Purchases

1. Summary of the Final Rule

The final rule does not require facilities to report their electricity purchases or indirect emissions from electricity consumption.

2. Summary of Major Changes Since Proposal

There have been no changes since proposal. The proposed rule did not require reporting of electricity purchases and neither does the final rule.

3. Summary of Comments and Responses

The proposal preamble (74 FR 16479, April 10, 2009) requested comments on the value of collecting information on electricity purchases under this rule. It also outlined three options for reporting and requested comments on these options:

- *Option 1:* Do not require any reporting on electricity purchases or associated indirect emissions from purchased electricity as part of this rule.
- *Option 2:* Require reporting of purchased electricity from all facilities that are already required to report their GHG emissions under this rule.
- *Option 3:* Require reporting of indirect emissions from purchased electricity for facilities that exceed a prescribed total facility emission threshold (including indirect emissions from the purchased electricity). Reporting under this option could be either in terms of electricity purchases or calculated CO₂e emission based on purchased electricity.

While EPA is not including reporting requirements for electricity purchases in the final rule at this time, below we have provided a brief summary of major comments and our initial responses. As EPA considers next steps, we will be reviewing the public comments and other relevant information.

In Favor of Collecting Data on Electricity Purchases

Comment: Commenters in favor of collecting data on purchased electricity stated that collection of this data, in conjunction with data on direct emissions from facilities, will present a more comprehensive picture of emissions nationwide. They argued that collection of this data will also serve to spur investment in energy efficiency and renewable energy since companies will want to improve their emissions numbers once the information is made public. Several commenters noted that while this reporting should occur, it should happen at the corporate level.

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Europe	+ 356 21 42 30 20
North America	+ 1 800 275 3281
South America	+ 55 21 3095 9500

solutions@golder.com
www.golder.com

Golder Associates Inc.
6026 NW 1st Place
Gainesville, FL 32607 USA
Tel: (352) 336-5600
Fax: (352) 336-6603

