

INTEROFFICE MEMORANDUM

(Draft)

Date:
From: Mike Halpin TAL
Dept:
Tel No:

To: Scott Sheplak TAL (SHEPLAK_S)
CC: Venkata Panchakarla TAL (PANCHAKARL_V)
CC: Michael Hewett TAL (HEWETT_M)
CC: Cindy Phillips TAL (PHILLIPS_C)

Subject: Key West Southernmost Waste-to-Energy Facility

Scott -

I wanted to let you know that this morning at 8:30a.m. I spoke with Mr. David Fernandez (the Authorized Rep. for the subject facility) about the Title V Draft.

I related to Mr. Fernandez that the main purpose of my call was to advise him that we had passed the public comment phase and no comments were received, even from The City of Key West (permittee).

I told him that we were prepared to move into the next phase (Proposed) of the process which would require EPA review and that I wanted to be sure that they were comfortable with the Draft and had no questions or issues (with it) before we did so, offering this opportunity to discuss it. Mr. Fernandez stated that they had reviewed the Draft, were comfortable with it and had no questions or issues to discuss with me.

I then indicated that there *are* some issues with monitoring required on the landfill, and noted that they had received a request from us (Venkata Panchakarla) over a month ago to submit an "initial design capacity report" which we had still not received. I recommended that this be provided very soon to keep Key West out of any potential trouble. He did not seem very familiar with this report, but indicated that he thought that the subject report had been provided. He then asked if this report was still required to be submitted in light of the fact that the subject landfill had been "closed". I stated that the report is required and that it in addition to having relevance to the Title V permit [pending the receipt of this report, the landfill may not require 40 CFR 60 subpart WWW permitting as has been done in the draft], of more importance was the fact that their facility was technically out of compliance as the report had not been submitted by 12/31/96 as required by state reg's. He seemed a bit puzzled at this point and I recommended that he review 62-204.800(c)5 for more information related to the requirements. I additionally recommended that he consider having a registered engineer (P.E.) submit the report and that this should be done ASAP in order to be sure that no "compliance" issues result. At this point, he began to get a bit short (saying "Goodbye" twice) and said that he would take care of it.

After speaking with Mr. Fernandez, I am still uncomfortable that they understand the monitoring requirements of the landfill, but hope that my phone call will cause them to look more closely at it.

December 4, 1998

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. E. David Fernandez
Utilities Director
The City of Key West
Southernmost Waste to Energy Facility
5701 W. Junior College Road
Key West, Florida 33040

Re: DEP File No. 0870047-002-AC
Soot Blowing Modification

Dear Mr. Fernandez:

The Department reviewed your request to allow manual soot blowing in Units 1 and 2, municipal solid waste combustors, as described in the application received on September 4, 1998. The Department's analysis was discussed in the technical evaluation distributed with the Intent to Issue Air Construction Permit Modification. The existing operation permits numbered AO 44-207778 and AO 44-207781 are hereby modified by this construction permit as follows:

NEW SPECIFIC CONDITION

The permittee may manually soot blow with compressed air in each of the external boiler soot ports in lieu of automatically soot blowing with steam. The permittee shall maintain at the facility a copy of the current procedure for manually soot blowing. [Rule 62-4.070(3), F.A.C.]

This permit modification is issued pursuant to Chapter 403, Florida Statutes. Any party to this order (permit modification) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

Howard L. Rhodes, Director
Division of Air Resources
Management

Mr. E. David Fernandez
DEP File No. 0870047-002-AC
December 4, 1998
Page 2 of 2

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this PERMIT was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on _____ to the person(s) listed:

Mr. E. David Fernandez, SWTE *
Mr. David Knowles, South District
Mr. Jim Edds, South District, Marathon

Clerk Stamp

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

(Clerk)

(Date)



Mike Halpern

Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

P.E. Certification Statement

Permittee:
City of Key West
Southernmost Waste to Energy Facility

DRAFT Permit No.: 0870047-001-AV
Facility ID No.: 0870047

Project type: Initial Title V Air Operation Permit

I HEREBY CERTIFY that the engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).

Scott M. Sheplak

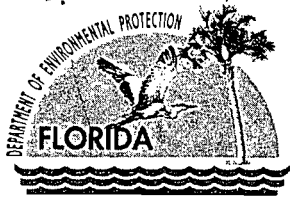
Scott M. Sheplak, P.E.

Registration Number: 0048866

10/28/98
date

Permitting Authority:

Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/921-9532
Fax: 850/922-6979



Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

October 28, 1998

Mr. E. David Fernandez
Utilities Director
City of Key West
P.O. Box 1409
Key West, Florida 33041-1409

Re: DRAFT Title V Permit No.: 0870047-001-AV
Southernmost Waste To Energy Facility

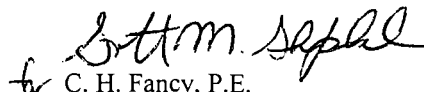
Dear Mr. Fernandez:

One copy of the DRAFT Title V Air Operation Permit for the Southernmost Waste To Energy Facility located at 5701 West Junior College Road, Key West, Monroe County, is enclosed. The permitting authority's "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" and the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" must be published as soon as possible. Proof of publication, i.e., newspaper affidavit, must be provided to the permitting authority's office within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the permitting authority's proposed action to Scott M. Sheplak, P.E., at the above letterhead address. If you have any other questions, please contact Michael P. Halpin, P.E. at 850/921-9530.

Sincerely,


C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

CHF/sms/mph

Enclosures

cc: Ms. Carla E. Pierce, U.S. EPA, Region 4 (INTERNET E-mail Memorandum)
Ms. Gracy Danois, U.S. EPA, Region 4 (INTERNET E-mail Memorandum)

In the Matter of an
Application for Permit by:

City of Key West
P.O. Box 1409
Key West, Florida 33041-1409

DRAFT Permit No.: 0870047-001-AV
Southernmost Waste To Energy Facility
Monroe County

INTENT TO ISSUE TITLE V AIR OPERATION PERMIT

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue a Title V air operation permit (copy of DRAFT Permit enclosed) for the Title V source detailed in the application specified above, for the reasons stated below.

The applicant, City of Key West, applied on June 12, 1996, to the permitting authority for a Title V air operation permit for the Southernmost Waste To Energy Facility located at 5701 West Junior College Road, Key West, Monroe County.

The permitting authority has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-213. This source is not exempt from Title V permitting procedures. The permitting authority has determined that a Title V air operation permit is required to commence or continue operations at the described facility.

The permitting authority intends to issue this Title V air operation permit based on the belief that reasonable assurances have been provided to indicate that operation of the source will not adversely impact air quality, and the source will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C.

Pursuant to Sections 403.815 and 403.087, F.S., and Rules 62-110.106 and 62-210.350(3), F.A.C., you (the applicant) are required to publish at your own expense the enclosed "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT." The notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the permitting authority at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-1344; Fax: 850/922-6979), within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit pursuant to Rule 62-110.106, F.A.C.

The permitting authority will issue the Title V PROPOSED Permit, and subsequent Title V FINAL Permit, in accordance with the conditions of the attached Title V DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT." Written comments should be provided to the permitting authority office. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the permitting authority shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/488-9730; Fax: 850/487-4938). Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the permitting authority for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the permitting authority's action is based must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number, if known;

(b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;

(c) A statement of how and when each petitioner received notice of the agency action or proposed action;

(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;

(e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and,

(f) A demand for relief.

A petition that does not dispute the material facts upon which the permitting authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation will not be available in this proceeding.

In addition to the above, a person subject to regulation has a right to apply to the Department of Environmental Protection for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542, F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information:

- (a) The name, address, and telephone number of the petitioner;
- (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any;
- (c) Each rule or portion of a rule from which a variance or waiver is requested;
- (d) The citation to the statute underlying (implemented by) the rule identified in (c) above;
- (e) The type of action requested;
- (f) The specific facts that would justify a variance or waiver for the petitioner;
- (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and,
- (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2), F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the United States Environmental Protection Agency and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Finally, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 (sixty) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to issuance of any permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460.

Executed in Tallahassee, Florida.

**STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION**


for C. H. Fancy, P.E.

Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE TITLE V AIR OPERATION PERMIT (including the PUBLIC NOTICE and the DRAFT permit) and all copies were sent by certified mail before the close of business on 10/29/98 to the person(s) listed:

E. David Fernandez, City of Key West

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of this INTENT TO ISSUE TITLE V AIR OPERATION PERMIT (including the PUBLIC NOTICE and the DRAFT permit) were sent by U.S. mail on the same date to the person(s) listed:

Marie Whitman Mahan, P.E.
Mr. David Knowles, P.E. (DEP/SD)

Clerk Stamp

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

Barbara J. Boutwell 10/29/98
(Clerk) (Date)

PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Title V DRAFT Permit No.: 0870047-001-AV
Southernmost Waste To Energy
Monroe County

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue a Title V air operation permit to City of Key West for the Southernmost Waste To Energy Facility located at 5701 West Junior College Road, Key West, Monroe County. The applicant's name and address are: E. David Fernandez, City of Key West, P.O. Box 1409, Key West, Florida 33041-1409.

The permitting authority will issue the Title V PROPOSED Permit, and subsequent Title V FINAL Permit, in accordance with the conditions of the Title V DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed Title V DRAFT Permit issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the permitting authority shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 of the Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/488-9730; Fax: 850/487-4938). Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of the notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the permitting authority for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the applicable time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code (F.A.C.).

A petition that disputes the material facts on which the permitting authority's action is based must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number, if known;

(b) The name, address and telephone number of the petitioner; name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how petitioner's substantial rights will be affected by the agency determination;

(c) A statement of how and when the petitioner received notice of the agency action or proposed action;

(d) A statement of all disputed issues of material fact. If there are none, the petition must so state;

(e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle petitioner to relief; and

(f) A demand for relief.

A petition that does not dispute the material facts upon which the permitting authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available for this proceeding.

In addition to the above, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 (sixty) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to issuance of any permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Permitting Authority:

Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-0114
Fax: 850/922-6979

Affected District/Local Program:

Department of Environmental Protection
South District Office
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901
Telephone: 941/332-6975
Fax: 941/332-6969

The complete project file includes the DRAFT Permit, the application, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Scott M. Sheplak, P.E., at the above address, or call 850/921-9532, for additional information.

V DRAFT

Initial Title V Air Operation Permit
DRAFT Permit No.: 0870047-001-AV

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Section I. Facility Information.

Subsection A. Facility Description.

This facility consists of two identical municipal solid waste combustors (Unit Nos. 1 and 2) which are mass-fired waterwall boilers; an approximately twenty acre municipal solid waste landfill is contiguous (although it is no longer accepting waste); storage and handling facilities for ash; oil storage tanks; cooling tower; and ancillary support equipment. Also, included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities. Based on the initial Title V permit application received June 12, 1996, this facility is a major source of hazardous air pollutants (HAPs).

Subsection B. Summary of Emissions Unit ID Nos. and Brief Descriptions.

E.U. ID Nos.	Brief Description
001	Municipal Waste Combustor No. 1
002	Municipal Waste Combustor No. 2
003	Municipal Solid Waste Landfill

Unregulated Emissions Units and/or Activities

E.U. ID No.	Brief Description
xxx	See Appendix U-1, List of Unregulated Emissions Units and/or Activities.

Please reference the Permit No., Facility ID No., and Appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, Applications, etc.

Subsection C. Relevant Documents.

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

These documents are provided to the permittee for information purposes only:

Table 1, Summary of Air Pollutant Standards and Terms.

Table 2, Summary of Compliance Requirements.

Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers (version dated 2/05/97).

Appendix H-1, Permit History/ID Number Changes.

These documents are on file with the permitting authority:

Initial Title V Permit Application received June 12, 1996.

Section II. Facility-wide Conditions.

The following Conditions apply facility-wide:

1. APPENDIX TV-1, TITLE V CONDITIONS, is a part of this permit.
{Permitting note: APPENDIX TV-1, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}
2. **Not federally enforceable. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited.** No person shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.]
3. **General Particulate Emission Limiting Standards. General Visible Emissions Standard.** Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]
4. **Prevention of Accidental Releases (Section 112(r) of CAA).** If required by 40 CFR 68, the permittee shall submit to the implementing agency:
 - a. a risk management plan (RMP) when, and if, such requirement becomes applicable; and,
 - b. certification forms and/or RMPs according to the promulgated rule schedule.[40 CFR 68]
5. **Unregulated Emissions Units and/or Activities.** Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit.
[Rule 62-213.440(1), F.A.C.]
6. **Insignificant Units and/or Activities.** Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.
[Rules 62-213.440(1), 62-213.430(6) and 62-4.040(1)(b), F.A.C.]
7. **General Pollutant Emission Limiting Standards. Volatile Organic Compounds Emissions or Organic Solvents Emissions.** The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.
[Rule 62-296.320(1)(a), F.A.C.]

{Permitting Note: The Department has not ordered any control devices or systems under the referenced rule}.

8. Not federally enforceable. Reasonable Precautions. The following techniques shall be used to control unconfined particulate matter emissions on an as needed basis:

- a. Chemical or water application to unpaved road and unpaved yard and landfill areas;
- b. Paving and maintenance of roads, parking areas and yards;
- c. Landscaping or planting of vegetation;
- d. Confining abrasive blasting where possible and appropriate,

[Rule 62-296.320(4)(c)2., F.A.C.]

{Note: This condition implements the requirements of Rule 62-296.320(4)(c)1., 3., & 4. F.A.C. (Appendix TV-1, Title V Conditions, Condition No. 58)}

9. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.

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

10. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's South District office:

Department of Environmental Protection
South District Office
2295 Victoria Avenue, Suite 364
Fort Myers, FL 33902-2549
Telephone: 941/332-6975
Fax: 941/332-6969

and

Department of Environmental Protection
South District Branch Office
2796 Overseas Highway, Suite 221
Marathon, FL 33050
Telephone: 305/289-2310

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

United States Environmental Protection Agency
Region 4
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Section III. Emissions Unit(s) and Conditions.

Subsection A. This section addresses the following emissions units.

E.U. ID No.	Brief Description
001	Municipal Solid Waste Combustor No. 1
002	Municipal Solid Waste Combustor No. 2

These emission units are solid waste combustors and are designated as Combustor Nos. 1 and 2. They are custom built units by Montenay International Corporation and each is rated at a maximum of 6250 pounds per hour (75 tpd or 68 megagrams/day) of mixed municipal solid waste (per unit). Emissions from the combustors are controlled by electrostatic precipitators and combustion controls. Odor is controlled by drawing combustion air from the refuse area. The combustors share a stack. Combustor Nos. 1 and 2 began commercial operation in 1987.

{Permitting notes: These emissions units are regulated under Rules 62-210.300, Permits Required, and 62-204.800(7)(b)5, F.A.C. These emissions units are subject to 40 CFR 60, Subpart E, Standards of Performance for Incinerators. Each combustor’s exhaust is ducted to a Belco Model RE19 electrostatic precipitator (ESP), after which each ESP exhausts to a common 140 ft. high stack.}

The following specific Conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum input rate (operation rate) is as follows:

E.U. ID No.	Pounds per hour	Fuel Type
001	6250	Mixed municipal waste
002	6250	Mixed municipal waste

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

{Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit’s rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability.}

A.2. Emissions Unit Operating Rate Limitation After Testing. See Specific Condition **A.12.**

[Rule 62-297.310(2), F.A.C.]

A.3. Methods of Operation - Fuels. Only mixed municipal solid waste shall be fired in the combustors. The daily charging rates shall be recorded. These incinerators shall not be used for the disposal of radioactive materials.

[Rule 62-213.410(1), F.A.C., 40 CFR 60.53(a), and AO44-207778 and AO44-207781]

A.4. Hours of Operation. These emission units may operate continuously, i.e., 8,760 hours/year. The hours of operation shall be recorded.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C., 40 CFR 60.53(a)]

Emission Limitations and Standards

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

A.5. Visible Emissions. No visible emissions (5 percent opacity) are allowed from these emission units except that visible emissions not exceeding 20 percent opacity are allowed for up to three (3) minutes in any one hour period.

[Rule 62-296.401, F.A.C.]

A.6. Particulate Emissions. Particulate matter emissions shall not exceed 0.08 gr./dscf corrected to 50% excess air.

[AO44-207778 and AO44-207781]

A.7. Dust, odor and run-off. This facility shall be operated in such a fashion to preclude objectionable odors. All fugitive dust at this site shall be adequately controlled. There shall be no discharges of liquid effluents or contaminated run-off from the plant site. The applicant shall comply with all provisions of the solid waste rules applicable to ash disposal.

[AO44-207778 and AO44-207781]

Excess Emissions

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of an NSPS or NESHAP provision.}

A.8. Excess emissions resulting from malfunction, startup or shutdown shall be permitted providing:

(1) best operational practices to minimize emissions are adhered to and

(2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.

[Rule 62-210.700(1), F.A.C.]

A.9. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.]

Test Methods and Procedures

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

A.10. These combustors are regulated individually and must be tested individually. Due to the common stack, one unit must be shut down while the other unit is being tested.

[Rules 62-4.070(3) and 62-213.440(1), F.A.C.]

A.11. The test method for visible emissions shall be EPA Method 9, as published in 40 CFR-60, Appendix A, or State approved equivalent method. The test method for particulate emissions shall be EPA Method 5 as published in 40 CFR-60, Appendix A, or State approved equivalent method.
[Rules 62-296.401.(1)(c) , 62-297.401, F.A.C., AO44-207778 and AO44-207781]

A.12. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity (i.e., at less than 90 percent of the maximum operation rate allowed by the permit); in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(b), F.A.C.]

Recordkeeping and Reporting Requirements

A.13. Malfunction Reporting. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department's South District office in accordance with Appendix TV-1, Title V Condition No. 9. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
[Rule 62-210.700(6), F.A.C.]

A.14. Test Reports.

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department's South District office on the results of each such test.
 - (b) The required test report shall be filed with the Department's South District office as soon as practical but no later than 45 days after the last sampling run of each test is completed.
 - (c) Notification and reporting requirements of this permit shall also be sent to the Marathon DEP office.
 - (d) Reporting shall comply with Common Condition **C.9**.
- [Rule 62-297.310(8), F.A.C., AO44-207778 and AO44-207781]

Subsection B. This section addresses the following emissions unit.

E.U. ID No.	Brief Description
003	Municipal Solid Waste Landfill

{Permitting note(s): This emissions unit is regulated under 40 CFR 60.752, Standards for air emissions from municipal solid waste landfills.}

The following specific Conditions apply to the emissions units listed above:

Sections 60.752(a)-(d) Standards for air emissions from municipal solid waste landfills.

B.1. Reporting of design capacity.

(a) Each owner or operator of an MSW landfill having a design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume shall submit an initial design capacity report to the Administrator as provided in 40 CFR 60.757(a). The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions shall be documented and submitted with the report. For purposes of part 70 permitting, a landfill with a design capacity less than 2.5 million megagrams or 2.5 million cubic meters does not require an operating permit under part 70 of this chapter. Submittal of the initial design capacity report shall fulfill the requirements of this subpart except as provided for in paragraphs (a)(1) and (a)(2) of this section.

(1) The owner or operator shall submit to the Administrator an amended design capacity report, as provided for in 40 CFR 60.757(a)(3), when there is any increase in the design capacity of a landfill subject to the provisions of this subpart, whether the increase results from an increase in the area or depth of the landfill, a change in the operating procedures of the landfill, or any other means.

(2) If any increase in the maximum design capacity of a landfill exempted from the provisions of 40 CFR 60.752(b) through 40 CFR 60.759 of this subpart on the basis of the design capacity exemption in paragraph (a) of this section results in a revised maximum design capacity equal to or greater than 2.5 million megagrams or 2.5 million cubic meters, the owner or operator shall comply with the provision of paragraph (b) of this section.

B.2. Determination of non-methane organic compounds.

(b) Each owner or operator shall either comply with condition (2) below or calculate an NMOC emission rate for the landfill using the procedures specified in section 60.754 of this permit. The NMOC emission rate shall be recalculated annually, except as provided in condition 60.757(b)(1)(ii).

(1) If the calculated NMOC emission rate is less than 50 megagrams per year, the owner or operator shall:

(i) Submit an annual emission report to the Administrator, except as provided for in condition 60.757(b)(1)(ii); and

(ii) Recalculate the NMOC emission rate annually using the procedures specified in condition 60.754(a)(1) until such time as the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, or the landfill is closed.

(A) If the NMOC emission rate, upon recalculation required in paragraph (b)(1)(ii) of this section, is equal to or greater than 50 megagrams per year, the owner or operator shall install a collection and control system in compliance with condition (2) below.

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

(2) If a NMOC emission rate for the landfill, using the procedures specified in section 60.754 of this permit, has not been calculated or the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, the owner or operator shall:

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

(A) The collection and control system as described in the plan shall meet the design requirements of condition (b)(2)(ii) of this permit.

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

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

(D) The Administrator shall review the information submitted under conditions (2)(i) (A),(B) and (C) above and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only, leachate collection components, and passive systems.

(ii) Install a collection and control system that captures the gas generated within the landfill as required by paragraphs (b)(2)(ii)(A) or (B) and (b)(2)(iii) of this section within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the emission rate is less than 50 megagrams per year, as specified in section 60.757(c)(1) or (2).

(A) An active collection system shall:

(1) Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment;

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

(i) 5 years or more if active; or

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

(3) Collect gas at a sufficient extraction rate;

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

(B) A passive collection system shall:

(1) Comply with the provisions specified in conditions (2)(ii)(A) (1), (2), and (4) above.

(2) Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners shall be installed as required under 40 CFR 258.40.

(iii) Route all the collected gas to a control system that complies with the requirements in either of the following conditions (2)(iii) (A), (B) or (C).

(A) An open flare designed and operated in accordance with 40 CFR 60.18;

(B) A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in section 60.754(d).

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

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

(C) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of condition (2)(iii) (A) or (B) above.

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

(v) The collection and control system may be capped or removed provided that all the conditions of paragraphs (2)(v) (A), (B), and (C) below are met:

(A) The landfill shall be a closed landfill as defined in section 60.751. A closure report shall be submitted to the Administrator as provided in section 60.757(d);

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

(C) Following the procedures specified in condition 60.754(b) of this permit, the calculated NMOC gas produced by the landfill shall be less than 50 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.

[Rule 62-204.800, F.A.C.; 40 CFR 60.752(b)]

B.3. Requirement to obtain a Title V Permit.

(c) For purposes of obtaining a Title V Operation Permit, the owner or operator of a MSW landfill subject to this subpart with a design capacity less than 2.5 million megagrams or 2.5 million cubic meters is not subject to the requirement to obtain a Title V Operation Permit, unless the landfill is otherwise subject to Title V. For purposes of submitting a timely application for a Title V operation permit, the owner or operator of a MSW landfill subject to subpart WWW with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters, and not otherwise subject to Title V, must submit an application, regardless of when the design capacity report is actually submitted, no later than:

(1) (Reserved)

(2) Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commence construction, modification, or reconstruction on or after March 12, 1996.

[Rule 62-204.800, F.A.C.; 40 CFR 60.752(c)]

B.4. Closure of landfill.

(d) When a MSW landfill subject to this subpart is closed, the owner or operator is no longer subject to the requirement to maintain a Title V Operation Permit for the landfill if the landfill is not otherwise subject to Title V and if either one of the following conditions are met:

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

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.752(d)]

Section 60.753 Operational standards for collection and control systems.

B.5. Length of time required to operate control system.

(a) Each owner or operator of a MSW landfill with a gas collection and control system used to comply with the provisions of section 60.752(b)(2)(ii) above shall operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:

(1) 5 years or more if active; or

(2) 2 years or more if closed or at final grade.

[Rule 62-204.800, F.A.C.; 40 CFR 60.753(a)]

B.6. Collection system pressure requirements.

(b) Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of condition 60.752(b)(2)(ii) above shall operate the collection system with negative pressure at each wellhead except under the following conditions:

(1) A fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in condition 60.757(f)(1);

(2) Use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan;

(3) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Administrator.

[Rule 62-204.800, F.A.C.; 40 CFR 60.753(b)]

B.7. Collection system temperature, oxygen and nitrogen requirements.

(c) Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of condition 60.752(b)(2)(ii) above shall operate each interior wellhead in the collection system with a landfill gas temperature less than 55 °C and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The owner or operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.

(1) The nitrogen level shall be determined using Method 3C, unless an alternative test method is established as allowed by condition 60.752(b)(2)(i) above.

(2) Unless an alternative test method is established as allowed by condition 60.752(b)(2)(i) above, the oxygen shall be determined by an oxygen meter using Method 3A except that:

(i) The span shall be set so that the regulatory limit is between 20 and 50 percent of the span;

(ii) A data recorder is not required;

(iii) Only two calibration gases are required, a zero and span, and ambient air may be used as the span;

(iv) A calibration error check is not required;

(v) The allowable sample bias, zero drift, and calibration drift are ± 10 percent.

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

B.8. Collection system background methane requirements.

(d) Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of condition 60.752(b)(2)(ii) above shall operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30 meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.

[Rule 62-204.800, F.A.C.; 40 CFR 60.753(d)]

B.9. Collection system venting requirements.

(e) Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of condition 60.752(b)(2)(ii) above shall operate the system such that all collected gases are vented to a control system designed and operated in compliance with condition 60.752(b)(2)(iii) above. In the event

the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour. [Rule 62-204.800, F.A.C.; 40 CFR 60.753(e)]

B.10. Requirement for continuous operation.

(f) Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of condition 60.752(b)(2)(ii) above shall operate the control or treatment system at all times when the collected gas is routed to the system. [Rule 62-204.800, F.A.C.; 40 CFR 60.753(f)]

B.11. Requirement to take corrective action.

(g) If monitoring demonstrates that the operational requirements in conditions (b), (c), or (d) of this section are not met, corrective action shall be taken as specified in section 60.755(a)(3) through (a)(5) or Sec. 60.755(c) of this permit. If corrective actions are taken as specified in section 60.755, the monitored exceedance is not a violation of the operational requirements in this section. [Rule 62-204.800, F.A.C.; 40 CFR 60.753(g)]

Section 60.754 Test methods and procedures.

B.12. Method of calculation of NMOC emissions when actual solid waste acceptance rates are unknown.

(a)(1) The landfill owner or operator shall calculate the NMOC emission rate using either the equation provided in condition (a)(1)(i) below or the equation provided in condition (a)(1)(ii) below. Both equations may be used if the actual year-to-year solid waste acceptance rate is unknown, as specified in (a)(1)(ii), for part of the life of the landfill. The values to be used in both equations are 0.05 per year for k , 170 cubic meters per megagram for L_0 , and 4,000 parts per million by volume as hexane for the C_{NMOC} . For landfills located in geographical areas with a thirty year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorologic site, the k value to be used is 0.02 per year.

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

$$M_{NMOC} = \sum_{i=1}^n 2kL_0M_i(e^{-kt_i})(C_{NMOC})(3.6 \times 10^{-9})$$

where,

M_{NMOC} = Total NMOC emission rate from the landfill, megagrams per year

k = methane generation rate constant, year⁻¹

L_0 = methane generation potential, cubic meters per megagram solid waste

M_i = mass of solid waste in the i^{th} section, megagrams

t_i = age of the i^{th} section, years

C_{NMOC} = concentration of NMOC, parts per million by volume as hexane

3.6×10^{-9} = conversion factor

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

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

$$M_{NMOC} = 2L_0R(e^{-kc} - e^{-kt})(C_{NMOC})(3.6 \times 10^{-9})$$

where,

M_{NMOC} = mass emission rate of NMOC, megagrams per year
 L_0 = methane generation potential, cubic meters per megagram solid waste
 R = average annual acceptance rate, megagrams per year
 k = methane generation rate constant, year⁻¹
 t = age of landfill, years
 C_{NMOC} = concentration of NMOC, parts per million by volume as hexane
 c = time since closure, years. For active landfill $c = 0$ and $e^{-kc} = 1$
 3.6×10^{-9} = conversion factor

The mass of nondegradable solid waste may be subtracted from the average annual acceptance rate when calculating a value for R , if documentation of the nature and amount of such wastes is maintained.
[Rule 62-204.800, F.A.C.; 40 CFR 60.754(a)(1)]

B.13. Requirements if calculated NMOC emissions are less than 50 megagrams per year.

(a)(2) Tier 1. The owner or operator shall compare the calculated NMOC mass emission rate to the standard of 50 megagrams per year.

(i) If the NMOC emission rate calculated in condition (a)(1) of this section is less than 50 megagrams per year, then the landfill owner shall submit an emission rate report as provided in condition 60.757(b)(1), and shall recalculate the NMOC mass emission rate annually as required under condition 60.752(b)(1).

(ii) If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, then the landfill owner shall either comply with condition 60.752(b)(2), or determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the procedures provided in specific condition (a)(3) below.

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(a)(2)]

B.14. Method for determining site-specific NMOC emissions.

(a)(3) Tier 2. The landfill owner or operator shall determine the NMOC concentration using the following sampling procedure. The landfill owner or operator shall install at least two sample probes per hectare of landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator shall collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using Method 25C or Method 18 of 40 CFR 60 Appendix A. If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). If composite sampling is used, equal volumes shall be taken from each sample probe. If more than the required number of samples are taken, all samples shall be used in the analysis. The landfill owner or operator shall divide the NMOC concentration from Method 25C by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

(i) The landfill owner or operator shall recalculate the NMOC mass emission rate using the equations provided in condition (a)(1)(i) or (a)(1)(ii) of this section and using the average NMOC concentration from the collected samples instead of the default value in the equation provided in specific condition (a)(1) of this section.

(ii) If the resulting mass emission rate calculated using the site-specific NMOC concentration is equal to or greater than 50 megagrams per year, then the landfill owner or operator shall either comply with condition 60.752(b)(2), or determine the site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the procedure specified in specific condition (a)(4) of this section.

(iii) If the resulting NMOC mass emission rate is less than 50 megagrams per year, the owner or operator shall submit a periodic estimate of the emission rate report as provided in

condition 60.757(b)(1) and retest the site-specific NMOC concentration every 5 years using the methods specified in this section.

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(a)(3)]

B.15. Method for determining site-specific methane emissions.

(a)(4) Tier 3. The site-specific methane generation rate constant shall be determined using the procedures provided in Method 2E of 40 CFR 60 Appendix A. The landfill owner or operator shall estimate the NMOC mass emission rate using equations in condition (a)(1)(i) or (a)(1)(ii) of this section and using a site-specific methane generation rate constant k , and the site-specific NMOC concentration as determined in condition (a)(3) of this section instead of the default values provided in condition (a)(1) of this section. The landfill owner or operator shall compare the resulting NMOC mass emission rate to the standard of 50 megagrams per year.

(i) If the NMOC mass emission rate as calculated using the site-specific methane generation rate and concentration of NMOC is equal to or greater than 50 megagrams per year, the owner or operator shall comply with condition 60.752(b)(2).

(ii) If the NMOC mass emission rate is less than 50 megagrams per year, then the owner or operator shall submit a periodic emission rate report as provided in condition 60.757(b)(1) and shall recalculate the NMOC mass emission rate annually, as provided in condition 60.757(b)(1) using the equations in condition (a)(1) of this section and using the site-specific methane generation rate constant and NMOC concentration obtained in condition (a)(3) of this section. The calculation of the methane generation rate constant is performed only once, and the value obtained from this test shall be used in all subsequent annual NMOC emission rate calculations.

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(a)(4)]

B.16. Alternative methods.

(a)(5) The owner or operator may use other methods to determine the NMOC concentration or a site-specific k as an alternative to the methods required in conditions (a)(3) and (a)(4) of this section if the method has been approved by the Administrator.

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(a)(5)]

B.17. Calculating NMOC rate to determine when a collection and control system may be removed.

(b) After the installation of a collection and control system in compliance with section 60.755, the owner or operator shall calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in condition 60.752(b)(2)(v), using the following equation:

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

where,

M_{NMOC} = mass emission rate of NMOC, megagrams per year

Q_{LFG} = flow rate of landfill gas, cubic meters per minute

C_{NMOC} = NMOC concentration, parts per million by volume as hexane

(1) The flow rate of landfill gas, Q_{LFG} , shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions of Section 4 of Method 2E of 40 CFR 60 Appendix A.

(2) The average NMOC concentration, C_{NMOC} , shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25C or Method 18 of 40 CFR 60 Appendix A. If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The sample location on the common header pipe shall be before any condensate removal or

other gas refining units. The landfill owner or operator shall divide the NMOC concentration from Method 25C by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(b)]

B.18. Calculating emissions for PSD purposes.

(c) When calculating emissions for PSD purposes, the owner or operator of each MSW landfill subject to the provisions of this subpart shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in 40 CFR 51.166 or 40 CFR 52.21 using AP-42 or other approved measurement procedures. If a collection system, which complies with the provisions in Sec. 60.752(b)(2) is already installed, the owner or operator shall estimate the NMOC emission rate using the procedures provided in condition (b) of this section.

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(c)]

B.19. Performance test methods.

(d) For the performance test required in condition 60.752(b)(2)(iii)(B), Method 25C or Method 18 of 40 CFR 60 Appendix A shall be used to determine compliance with 98 weight-percent efficiency or the 20 ppmv outlet concentration level, unless another method to demonstrate compliance has been approved by the Administrator as provided by condition 60.752(b)(2)(i)(B). If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The following equation shall be used to calculate efficiency:

$$\text{Control Efficiency} = (\text{NMOC}_{\text{in}} - \text{NMOC}_{\text{out}}) / (\text{NMOC}_{\text{in}})$$

where,

NMOC_{in} = mass of NMOC entering control device

NMOC_{out} = mass of NMOC exiting control device

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(d)]

Section 60.755 Compliance provisions.

Except as provided in condition 60.752(b)(2)(i)(B), the specified methods in paragraphs (a)(1) through (a)(6) of this section shall be used to determine whether the gas collection system is in compliance with Sec. 60.752(b)(2)(ii).

B.20. Methods for ensuring collection system accuracy.

(a)(1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with condition 60.752(b)(2)(ii)(A)(1), one of the following equations shall be used. The k and L_0 kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site specific values demonstrated to be appropriate and approved by the Administrator. If k has been determined as specified in condition 60.754(a)(4), the value of k determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.

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

$$Q_m = 2L_0R(e^{-kc} - e^{-kt})$$

where,

- Q_m = maximum expected gas generation flow rate, cubic meters per year
- L_o = methane generation potential, cubic meters per megagram solid waste
- R = average annual acceptance rate, megagrams per year
- k = methane generation rate constant, year⁻¹
- t = age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure, t is the age of the landfill at installation, years
- c = time since closure, years (for an active landfill $c = 0$ and $e^{-kc} = 1$)

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

$$Q_m = \sum_{i=1}^n 2kL_oM_i(e^{-kti})$$

where,

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

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(1)]

(a)(2) For the purposes of determining sufficient density of gas collectors for compliance with condition 60.752(b)(2)(ii)(A)(2), the owner or operator shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Administrator, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(2)]

(a)(3) For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with condition 60.752(b)(2)(ii)(A)(3), the owner or operator shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under condition 60.753(b). If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval.

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(3)]

(a)(4) Owners or operators are not required to expand the system as required in condition (a)(3) during the first 180 days after gas collection system startup.
[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(4)]

(a)(5) For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature and nitrogen or oxygen as provided in condition 60.753(c). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval.
[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(5)]

(a)(6) An owner or operator seeking to demonstrate compliance with condition 60.752(b)(2)(ii)(A)(4) through the use of a collection system not conforming to the specifications provided in section 60.759 of this permit shall provide information satisfactory to the Administrator as specified in condition 60.752(b)(2)(i)(C) demonstrating that off-site migration is being controlled.
[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(6)]

B.21. Installation according to design plan.

(b) For purposes of compliance with condition 60.753(a), each owner or operator of a controlled landfill shall place each well or design component as specified in the approved design plan as provided in condition 60.752(b)(2)(i). Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:

- (1) 5 years or more if active; or
- (2) 2 years or more if closed or at final grade.

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

B.22. Surface methane requirements.

(c) The following procedures shall be used for compliance with the surface methane operational standard as provided in condition 60.753(d).

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

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

(3) Surface emission monitoring shall be performed in accordance with Section 4.3.1 of Method 21 of 40 CFR 60 Appendix A, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.

(4) Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified in conditions (c)(4) (i) through (v) of this section shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of condition 60.753(d).

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

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

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

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

(v) For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Administrator for approval.

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

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

B.23. Method for ensuring accuracy of surface methane measurements.

(d) Each owner or operator seeking to comply with the provisions in condition 60.755(c) above shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

(1) The portable analyzer shall meet the instrument specifications provided in Section 3 of 40 CFR 60 Appendix A Method 21, except that "methane" shall replace all references to VOC.

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

(3) To meet the performance evaluation requirements in Section 3.1.3 of Method 21, the instrument evaluation procedures of Section 4.4 of Method 21 shall be used.

(4) The calibration procedures provided in Section 4.2 of Method 21 shall be followed immediately before commencing a surface monitoring survey.

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(d)]

B.24. Applicability of permit provisions.

(e) The provisions of this permit apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices.

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(e)]

Section 60.756 Monitoring of operations.

B.25. Active gas collection system.

(a) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to comply with condition 60.752(b)(2)(ii)(A) for an active gas collection system shall install a sampling port and a thermometer or other temperature measuring device, or an access port for temperature measurements at each wellhead and:

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

(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in condition 60.755(a)(5); and

(3) Monitor temperature of the landfill gas on a monthly basis as provided in condition 60.755(a)(5).
[Rule 62-204.800, F.A.C.; 40 CFR 60.756(a)]

B.26. Enclosed combustor.

(b) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to comply with condition 60.752(b)(2)(iii) using an enclosed combustor shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment.

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

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

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

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.756(b)]

B.27. Open flare.

(c) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to comply with condition 60.752(b)(2)(iii) using an open flare shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

(1) A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.

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

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

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.756(c)]

B.28. Other control devices.

(d) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to demonstrate compliance with condition 60.752(b)(2)(iii) using a device other than an open flare or an enclosed combustor shall provide information satisfactory to the Administrator as provided in condition 60.752(b)(2)(i)(B) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator shall review the information and either approve it, or request that additional information be submitted. The Administrator may specify additional appropriate monitoring procedures.

[Rule 62-204.800, F.A.C.; 40 CFR 60.756(d)]

B.29. Alternate methods of compliance.

(e) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to install a collection system that does not meet the specifications in Section 60.759 or seeking to monitor alternative parameters to those required by Section 60.753 through Section 60.756 shall provide information satisfactory to the Administrator as provided in conditions 60.752(b)(2)(i) (B) and (C) describing the design and operation of the

collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator may specify additional appropriate monitoring procedures. [Rule 62-204.800, F.A.C.; 40 CFR 60.756(e)]

B.30. Surface methane operational standard.

(f) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to demonstrate compliance with condition 60.755(c), shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in condition 60.755(d). Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring. [Rule 62-204.800, F.A.C.; 40 CFR 60.756(f)]

Section 60.757 Reporting requirements.

B.31. Notification of any increase in design capacity.

(a) An amended design capacity report shall be submitted to the Administrator providing notification of any increase in the design capacity of the landfill, whether the increase results from an increase in the permitted area or depth of the landfill, a change in the operating procedures, or any other means which results in an increase in the maximum design capacity of the landfill above 2.5 million megagrams or 2.5 million cubic meters. The amended design capacity report shall be submitted within 90 days of the issuance of an amended construction or operating permit, or the placement of waste in additional land, or the change in operating procedures which will result in an increase in maximum design capacity, whichever occurs first. An amended design capacity report shall be submitted to the Administrator providing notification of an increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill to or above 2.5 million megagrams and 2.5 million cubic meters. This increase in design capacity may result from an increase in the permitted volume of landfill or an increase in the density as documented in the annual recalculation required in section 60.758(f). [Rule 62-204.800, F.A.C.; 40 CFR 60.757(a)]

B.32. Annual NMOC emission rate.

(b) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator subject to the requirements of this subpart shall submit an annual NMOC emission rate report to the Administrator, except as provided for in condition (b)(1)(ii) or (b)(3) of this section. The Administrator may request such additional information as may be necessary to verify the reported NMOC emission rate.

(1) The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in condition 60.754(a) or (b), as applicable.

(i) The initial NMOC emission rate report may be combined with the initial design capacity report and shall be submitted no later than ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction on or after March 12, 1996. Subsequent NMOC emission rate reports shall be submitted annually thereafter, except as provided for in conditions (b)(1)(ii) and (b)(3) of this section.

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

shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

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

(3) Each owner or operator subject to the requirements of this subpart is exempted from the requirements of conditions (b)(1) and (2) of this section, after the installation of a collection and control system in compliance with condition 60.752(b)(2), during such time as the collection and control system is in operation and in compliance with Section 60.753 and Section 60.755.

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(b)]

B.33. Collection and control system design plan.

(c) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator subject to the provisions of condition 60.752(b)(2)(i) shall submit a collection and control system design plan to the Administrator within 1 year of the first report, in which the emission rate exceeds 50 megagrams per year, except as follows:

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

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(c)]

B.34. Closure report.

(d) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall submit a closure report to the Administrator within 30 days of waste acceptance cessation. The Administrator may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the Administrator, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 60.7(a)(4).

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(d)]

B.35. Equipment removal report.

(e) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall submit an equipment removal report to the Administrator 30 days prior to removal or cessation of operation of the control equipment.

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

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

(ii) A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired; and

(iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year.

(2) The Administrator may request such additional information as may be necessary to verify that all of the conditions for removal in condition 60.752(b)(2)(v) have been met.
[Rule 62-204.800, F.A.C.; 40 CFR 60.757(e)]

B.36. Active collection system annual reports.

(f) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator of a landfill seeking to comply with condition 60.752(b)(2) using an active collection system designed in accordance with condition 60.752(b)(2)(ii) shall submit to the Administrator annual reports of the recorded information in (f)(1) through (f)(6) below. The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under 40 CFR 60.8. For enclosed combustion devices and flares, reportable exceedances are defined under condition 60.758(c).

(1) Value and length of time for exceedance of applicable parameters monitored under conditions 60.756(a), (b), (c), and (d).

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

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

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

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

(6) The date of installation and the location of each well or collection system expansion added pursuant to conditions (a)(3), (b), and (c)(4) of Section 60.755.

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(f)]

B.37. Passive collection system reporting.

(g) Each owner or operator seeking to comply with section 60.752(b)(2)(iii) shall include the following information with the initial performance test report required under 40 CFR 60.8:

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

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

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

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

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

(6) The provisions for the control of off-site migration.

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(g)]

Section 60.758 Recordkeeping requirements.

B.38. Capacity and acceptance reports.

(a) Except as provided in section 60.752(b)(2)(i)(B), each owner or operator of an MSW landfill subject to the provisions of condition 60.752(b) shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered section 60.752(b), the current amount of solid waste in-place, and

the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.
[Rule 62-204.800, F.A.C.; 40 CFR 60.758(a)]

B.39. Control equipment test results.

(b) Except as provided in section 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in conditions (b)(1) through (b)(4) of this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.

(1) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with condition 60.752(b)(2)(ii):

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

(ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in condition 60.759(a)(1).

(2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with condition 60.752(b)(2)(iii) through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity greater than 44 megawatts:

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

(ii) The percent reduction of NMOC determined as specified in condition 60.752(b)(2)(iii)(B) achieved by the control device.

(3) Where an owner or operator seeks to demonstrate compliance with condition 60.752(b)(2)(iii)(B)(1) through use of a boiler or process heater of any size: a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.

(4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with condition 60.752(b)(2)(iii)(A) through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.

[Rule 62-204.800, F.A.C.; 40 CFR 60.758(b)]

B.40. Equipment operating parameters.

(c) Except as provided in section 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill subject to the provisions of this subpart shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in Section 60.756 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

(1) The following constitute exceedances that shall be recorded and reported under condition 60.757(f):

(i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28 °C below the average combustion temperature during the most recent performance test at which compliance with condition 60.752(b)(2)(iii) was determined.

(ii) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under condition (b)(3)(i) of this section.

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

(3) Each owner or operator who uses a boiler or process heater with a design heat input capacity of 44 megawatts or greater to comply with condition 60.752(b)(2)(iii) shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater. (Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other State, local, or Federal regulatory requirements.)

(4) Each owner or operator seeking to comply with the provisions of this permit by use of an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under condition 60.756(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

[Rule 62-204.800, F.A.C.; 40 CFR 60.758(c)]

B.41. Plot map.

(d) Except as provided in section 60.752(b)(2)(i)(B), each owner or operator shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.

(1) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under condition 60.755(b).

(2) Each owner or operator subject to the provisions of this subpart shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in condition 60.759(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in condition 60.759(a)(3)(ii).

[Rule 62-204.800, F.A.C.; 40 CFR 60.758(d)]

B.42. Exceedances.

(e) Except as provided in section 60.752(b)(2)(i)(B), each owner or operator shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in condition 60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

[Rule 62-204.800, F.A.C.; 40 CFR 60.758(e)]

B.43. Design capacity calculations.

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.758(f)]

Section 60.759 Specifications for active collection systems.

B.44. Placement of collection devices.

(a) Each owner or operator seeking to comply with condition 60.752(b)(2)(i) shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Administrator as provided in conditions 60.752(b)(2)(i)(C) and (D):

(1) The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat.

(2) The sufficient density of gas collection devices determined in condition (a)(1) above shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.

(3) The placement of gas collection devices determined in condition (a)(1) above shall control all gas producing areas, except as provided by conditions (a)(3)(i) and (a)(3)(ii) below.

(i) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under condition 60.758(d). The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and shall be provided to the Administrator upon request.

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

$$Q_i = 2kL_oM_i(e^{-kt_i})(C_{NMOC})(3.6 \times 10^{-9})$$

where,

Q_i = NMOC emission rate from the i^{th} section, megagrams per year

k = methane generation rate constant, year⁻¹

L_o = methane generation potential, cubic meters per megagram solid waste

M_i = mass of the degradable solid waste in the i^{th} section, megagram

t_i = age of the solid waste in the i^{th} section, years

C_{NMOC} = concentration of nonmethane organic compounds, parts per million by volume

3.6×10^{-9} = conversion factor

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.759(a)]

B.45. Design of collection devices.

(b) Each owner or operator seeking to comply with condition 60.752(b)(2)(i)(A) shall construct the gas collection devices using the following equipment or procedures:

(1) The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with

emission and migration standards. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration.

(2) Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.759(b)]

B.46. Capacity of collection system.

(c) Each owner or operator seeking to comply with condition 60.752(b)(2)(i)(A) shall convey the landfill gas to a control system in compliance with condition 60.752(b)(2)(iii) through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:

(1) For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in condition (c)(2) below shall be used.

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.759(c)]

Subsection C. Common Conditions.

E.U. ID No.	Brief Description
001	Municipal Solid Waste Combustor No. 1
002	Municipal Solid Waste Combustor No. 2

The following Conditions apply to the emissions unit(s)/activities listed above:

Essential Potential to Emit (PTE) Parameters

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

Monitoring of Operations

C.2. Determination of Process Variables.

(a) **Required Equipment.** The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) **Accuracy of Equipment.** Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5), F.A.C.]

Test Methods and Procedures

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

C.3. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) **General Compliance Testing.**

3. Except as otherwise specified in an applicable subsection, the owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

- a. Did not operate; or
- b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.

4. During each federal fiscal year (October 1 -- September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

- a. Visible emissions, if there is an applicable standard;
- b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits

or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and

5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.

8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.

9. The owner or operator shall notify the Department's South District office, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.
[Rule 62-297.310(7), F.A.C.; and, SIP approved]

C.4. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured ;provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance.
[Rule 62-297.310(1), F.A.C. and 40 CFR 60.8]

C.5. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule.
[Rule 62-297.310(3), F.A.C.]

C.6. Applicable Test Procedures.

(a) Required Sampling Time.

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.

2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur.

Exceptions to these requirements are as follows:

c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

(c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.

(d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1.

(e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

[Rule 62-297.310(4), F.A.C.]

C.7. Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities (version dated 10/07/96), attached to this permit.

[Rule 62-297.310(6), F.A.C.]

Record Keeping and Reporting Requirements

C.8. Malfunctions - Notification. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department's South District office in accordance with Appendix TV-1, Title V Condition No. 9, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department's South District office.

[Rule 62-210.700(6), F.A.C.]

C.9. Test Reports. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department's South District office to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.

4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

C.10. Acid Rain Part Application. For any unit which was a solid waste incinerator, burning less than 20 percent fossil fuel as described in 40 CFR 72.6(b)(7), adopted and incorporated by reference at Rule 62-204.800, F.A.C. the designated representative of the source containing the unit shall submit a complete Acid Rain Part application governing such unit to the Department before the later of January 1, 1998, or March 1 of the year following the three calendar year period in which the incinerator consumed 20 percent or more fossil fuel on a British thermal unit (BTU) basis.

[Chapter 62-214.320(1)(h), F.A.C.]

C.11. The permittee shall comply with the requirements contained in Appendix 40 CFR 60, Subpart A, attached to this permit.

[Rule 62-204.800(7)(d), F.A.C.]

C DRAFT

Initial Title V Air Operation Permit
DRAFT Permit No.: 0870047-001-AV

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Section I. Facility Information.

Subsection A. Facility Description.

This facility consists of two identical municipal solid waste combustors (Unit Nos. 1 and 2) which are mass-fired waterwall boilers; an approximately twenty acre municipal solid waste landfill is contiguous (although it is no longer accepting waste); storage and handling facilities for ash; oil storage tanks; cooling tower; and ancillary support equipment. Also, included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities. Based on the initial Title V permit application received June 12, 1996, this facility is a major source of hazardous air pollutants (HAPs).

Subsection B. Summary of Emissions Unit ID Nos. and Brief Descriptions.

E.U. ID Nos.	Brief Description
001	Municipal Waste Combustor No. 1
002	Municipal Waste Combustor No. 2
003	Municipal Solid Waste Landfill

Unregulated Emissions Units and/or Activities

E.U. ID No.	Brief Description
xxx	See Appendix U-1, List of Unregulated Emissions Units and/or Activities.

Please reference the Permit No., Facility ID No., and Appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, Applications, etc.

Subsection C. Relevant Documents.

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

These documents are provided to the permittee for information purposes only:

Table 1, Summary of Air Pollutant Standards and Terms.

Table 2, Summary of Compliance Requirements.

Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers (version dated 2/05/97).

Appendix H-1, Permit History/ID Number Changes.

These documents are on file with the permitting authority:

Initial Title V Permit Application received June 12, 1996.

Section II. Facility-wide Conditions.

The following Conditions apply facility-wide:

1. APPENDIX TV-1, TITLE V CONDITIONS, is a part of this permit.
{Permitting note: APPENDIX TV-1, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}
2. **Not federally enforceable.** General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.]
3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]
4. Prevention of Accidental Releases (Section 112(r) of CAA). If required by 40 CFR 68, the permittee shall submit to the implementing agency:
 - a. a risk management plan (RMP) when, and if, such requirement becomes applicable; and,
 - b. certification forms and/or RMPs according to the promulgated rule schedule.[40 CFR 68]
5. Unregulated Emissions Units and/or Activities. Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit.
[Rule 62-213.440(1), F.A.C.]
6. Insignificant Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.
[Rules 62-213.440(1), 62-213.430(6) and 62-4.040(1)(b), F.A.C.]
7. General Pollutant Emission Limiting Standards. Volatile Organic Compounds Emissions or Organic Solvents Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.
[Rule 62-296.320(1)(a), F.A.C.]

{Permitting Note: The Department has not ordered any control devices or systems under the referenced rule}.

8. Not federally enforceable. Reasonable Precautions. The following techniques shall be used to control unconfined particulate matter emissions on an as needed basis:

- a. Chemical or water application to unpaved road and unpaved yard and landfill areas;
- b. Paving and maintenance of roads, parking areas and yards;
- c. Landscaping or planting of vegetation;
- d. Confining abrasive blasting where possible and appropriate,

[Rule 62-296.320(4)(c)2., F.A.C.]

{Note: This condition implements the requirements of Rule 62-296.320(4)(c)1., 3., & 4. F.A.C. (Appendix TV-1, Title V Conditions, Condition No. 58)}

9. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.

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

10. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's South District office:

Department of Environmental Protection
South District Office
2295 Victoria Avenue, Suite 364
Fort Myers, FL 33902-2549
Telephone: 941/332-6975
Fax: 941/332-6969

and

Department of Environmental Protection
South District Branch Office
2796 Overseas Highway, Suite 221
Marathon, FL 33050
Telephone: 305/289-2310

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

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Operating Permits Section
61 Forsyth Street
Atlanta, Georgia 30303
Telephone: 404/562-9099
Fax: 404/562-9095

Section III. Emissions Unit(s) and Conditions.

Subsection A. This section addresses the following emissions units.

E.U. ID No.	Brief Description
001	Municipal Solid Waste Combustor No. 1
002	Municipal Solid Waste Combustor No. 2

These emission units are solid waste combustors and are designated as Combustor Nos. 1 and 2. They are custom built units by Montenay International Corporation and each is rated at a maximum of 6250 pounds per hour (75 tpd or 68 megagrams/day) of mixed municipal solid waste (per unit). Emissions from the combustors are controlled by electrostatic precipitators and combustion controls. Odor is controlled by drawing combustion air from the refuse area. The combustors share a stack. Combustor Nos. 1 and 2 began commercial operation in 1987.

{Permitting notes: These emissions units are regulated under Rules 62-210.300, Permits Required, and 62-204.800(7)(b)5, F.A.C. These emissions units are subject to 40 CFR 60, Subpart E, Standards of Performance for Incinerators. Each combustor's exhaust is ducted to a Belco Model RE19 electrostatic precipitator (ESP), after which each ESP exhausts to a common 140 ft. high stack.}

The following specific Conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum input rate (operation rate) is as follows:

E.U. ID No.	Pounds per hour	Fuel Type
001	6250	Mixed municipal waste
002	6250	Mixed municipal waste

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

{Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability.}

A.2. Emissions Unit Operating Rate Limitation After Testing. See Specific Condition **A.12.**

[Rule 62-297.310(2), F.A.C.]

A.3. Methods of Operation - Fuels. Only mixed municipal solid waste shall be fired in the combustors. The daily charging rates shall be recorded. These incinerators shall not be used for the disposal of radioactive materials.

[Rule 62-213.410(1), F.A.C., 40 CFR 60.53(a), and AO44-207778 and AO44-207781]

A.4. Hours of Operation. These emission units may operate continuously, i.e., 8,760 hours/year. The hours of operation shall be recorded.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C., 40 CFR 60.53(a)]

Emission Limitations and Standards

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

A.5. Visible Emissions. No visible emissions (5 percent opacity) are allowed from these emission units except that visible emissions not exceeding 20 percent opacity are allowed for up to three (3) minutes in any one hour period.

[Rule 62-296.401, F.A.C.]

A.6. Particulate Emissions. Particulate matter emissions shall not exceed 0.08 gr./dscf corrected to 50% excess air.

[AO44-207778 and AO44-207781]

A.7. Dust, odor and run-off. This facility shall be operated in such a fashion to preclude objectionable odors. All fugitive dust at this site shall be adequately controlled. There shall be no discharges of liquid effluents or contaminated run-off from the plant site. The applicant shall comply with all provisions of the solid waste rules applicable to ash disposal.

[AO44-207778 and AO44-207781]

Excess Emissions

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of an NSPS or NESHAP provision.}

A.8. Excess emissions resulting from malfunction, startup or shutdown shall be permitted providing:

(1) best operational practices to minimize emissions are adhered to and

(2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.

[Rule 62-210.700(1), F.A.C.]

A.9. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.]

Test Methods and Procedures

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

A.10. These combustors are regulated individually and must be tested individually. Due to the common stack, one unit must be shut down while the other unit is being tested.

[Rules 62-4.070(3) and 62-213.440(1), F.A.C.]

A.11. The test method for visible emissions shall be EPA Method 9, as published in 40 CFR-60, Appendix A, or State approved equivalent method. The test method for particulate emissions shall be EPA Method 5 as published in 40 CFR-60, Appendix A, or State approved equivalent method.
[Rules 62-296.401.(1)(c) , 62-297.401, F.A.C., AO44-207778 and AO44-207781]

A.12. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity (i.e., at less than 90 percent of the maximum operation rate allowed by the permit); in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(b), F.A.C.]

Recordkeeping and Reporting Requirements

A.13. Malfunction Reporting. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department's South District office in accordance with Appendix TV-1, Title V Condition No. 9. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
[Rule 62-210.700(6), F.A.C.]

A.14. Test Reports.

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department's South District office on the results of each such test.
 - (b) The required test report shall be filed with the Department's South District office as soon as practical but no later than 45 days after the last sampling run of each test is completed.
 - (c) Notification and reporting requirements of this permit shall also be sent to the Marathon DEP office.
 - (d) Reporting shall comply with Common Condition **C.9**.
- [Rule 62-297.310(8), F.A.C., AO44-207778 and AO44-207781]

Subsection B. This section addresses the following emissions unit.

E.U. ID No.	Brief Description
003	Municipal Solid Waste Landfill

{Permitting note(s): This emissions unit is regulated under 40 CFR 60.752, Standards for air emissions from municipal solid waste landfills.}

The following specific Conditions apply to the emissions units listed above:

Sections 60.752(a)-(d) Standards for air emissions from municipal solid waste landfills.

B.1. Reporting of design capacity.

(a) Each owner or operator of an MSW landfill having a design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume shall submit an initial design capacity report to the Administrator as provided in 40 CFR 60.757(a). The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions shall be documented and submitted with the report. For purposes of part 70 permitting, a landfill with a design capacity less than 2.5 million megagrams or 2.5 million cubic meters does not require an operating permit under part 70 of this chapter. Submittal of the initial design capacity report shall fulfill the requirements of this subpart except as provided for in paragraphs (a)(1) and (a)(2) of this section.

(1) The owner or operator shall submit to the Administrator an amended design capacity report, as provided for in 40 CFR 60.757(a)(3), when there is any increase in the design capacity of a landfill subject to the provisions of this subpart, whether the increase results from an increase in the area or depth of the landfill, a change in the operating procedures of the landfill, or any other means.

(2) If any increase in the maximum design capacity of a landfill exempted from the provisions of 40 CFR 60.752(b) through 40 CFR 60.759 of this subpart on the basis of the design capacity exemption in paragraph (a) of this section results in a revised maximum design capacity equal to or greater than 2.5 million megagrams or 2.5 million cubic meters, the owner or operator shall comply with the provision of paragraph (b) of this section.

B.2. Determination of non-methane organic compounds.

(b) Each owner or operator shall either comply with condition (2) below or calculate an NMOC emission rate for the landfill using the procedures specified in section 60.754 of this permit. The NMOC emission rate shall be recalculated annually, except as provided in condition 60.757(b)(1)(ii).

(1) If the calculated NMOC emission rate is less than 50 megagrams per year, the owner or operator shall:

(i) Submit an annual emission report to the Administrator, except as provided for in condition 60.757(b)(1)(ii); and

(ii) Recalculate the NMOC emission rate annually using the procedures specified in condition 60.754(a)(1) until such time as the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, or the landfill is closed.

(A) If the NMOC emission rate, upon recalculation required in paragraph (b)(1)(ii) of this section, is equal to or greater than 50 megagrams per year, the owner or operator shall install a collection and control system in compliance with condition (2) below.

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

(2) If a NMOC emission rate for the landfill, using the procedures specified in section 60.754 of this permit, has not been calculated or the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, the owner or operator shall:

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

(A) The collection and control system as described in the plan shall meet the design requirements of condition (b)(2)(ii) of this permit.

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

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

(D) The Administrator shall review the information submitted under conditions (2)(i) (A),(B) and (C) above and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only, leachate collection components, and passive systems.

(ii) Install a collection and control system that captures the gas generated within the landfill as required by paragraphs (b)(2)(ii)(A) or (B) and (b)(2)(iii) of this section within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the emission rate is less than 50 megagrams per year, as specified in section 60.757(c)(1) or (2):

(A) An active collection system shall:

(1) Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment;

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

(i) 5 years or more if active; or

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

(3) Collect gas at a sufficient extraction rate;

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

(B) A passive collection system shall:

(1) Comply with the provisions specified in conditions (2)(ii)(A) (1), (2), and (4) above.

(2) Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners shall be installed as required under 40 CFR 258.40.

(iii) Route all the collected gas to a control system that complies with the requirements in either of the following conditions (2)(iii) (A), (B) or (C).

(A) An open flare designed and operated in accordance with 40 CFR 60.18;

(B) A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in section 60.754(d).

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

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

(C) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of condition (2)(iii) (A) or (B) above.

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

(v) The collection and control system may be capped or removed provided that all the conditions of paragraphs (2)(v) (A), (B), and (C) below are met:

(A) The landfill shall be a closed landfill as defined in section 60.751. A closure report shall be submitted to the Administrator as provided in section 60.757(d);

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

(C) Following the procedures specified in condition 60.754(b) of this permit, the calculated NMOC gas produced by the landfill shall be less than 50 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.

[Rule 62-204.800, F.A.C.; 40 CFR 60.752(b)]

B.3. Requirement to obtain a Title V Permit.

(c) For purposes of obtaining a Title V Operation Permit, the owner or operator of a MSW landfill subject to this subpart with a design capacity less than 2.5 million megagrams or 2.5 million cubic meters is not subject to the requirement to obtain a Title V Operation Permit, unless the landfill is otherwise subject to Title V. For purposes of submitting a timely application for a Title V operation permit, the owner or operator of a MSW landfill subject to subpart WWW with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters, and not otherwise subject to Title V, must submit an application, regardless of when the design capacity report is actually submitted, no later than:

(1) (Reserved)

(2) Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commence construction, modification, or reconstruction on or after March 12, 1996.

[Rule 62-204.800, F.A.C.; 40 CFR 60.752(c)]

B.4. Closure of landfill.

(d) When a MSW landfill subject to this subpart is closed, the owner or operator is no longer subject to the requirement to maintain a Title V Operation Permit for the landfill if the landfill is not otherwise subject to Title V and if either one of the following conditions are met:

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

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.752(d)]

Section 60.753 Operational standards for collection and control systems.

B.5. Length of time required to operate control system.

(a) Each owner or operator of a MSW landfill with a gas collection and control system used to comply with the provisions of section 60.752(b)(2)(ii) above shall operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:

(1) 5 years or more if active; or

(2) 2 years or more if closed or at final grade.

[Rule 62-204.800, F.A.C.; 40 CFR 60.753(a)]

B.6. Collection system pressure requirements.

(b) Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of condition 60.752(b)(2)(ii) above shall operate the collection system with negative pressure at each wellhead except under the following conditions:

(1) A fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in condition 60.757(f)(1);

(2) Use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan;

(3) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Administrator.

[Rule 62-204.800, F.A.C.; 40 CFR 60.753(b)]

B.7. Collection system temperature, oxygen and nitrogen requirements.

(c) Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of condition 60.752(b)(2)(ii) above shall operate each interior wellhead in the collection system with a landfill gas temperature less than 55 °C and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The owner or operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.

(1) The nitrogen level shall be determined using Method 3C, unless an alternative test method is established as allowed by condition 60.752(b)(2)(i) above.

(2) Unless an alternative test method is established as allowed by condition 60.752(b)(2)(i) above, the oxygen shall be determined by an oxygen meter using Method 3A except that:

(i) The span shall be set so that the regulatory limit is between 20 and 50 percent of the span;

(ii) A data recorder is not required;

(iii) Only two calibration gases are required, a zero and span, and ambient air may be used as the span;

(iv) A calibration error check is not required;

(v) The allowable sample bias, zero drift, and calibration drift are ± 10 percent.

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

B.8. Collection system background methane requirements.

(d) Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of condition 60.752(b)(2)(ii) above shall operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30 meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.

[Rule 62-204.800, F.A.C.; 40 CFR 60.753(d)]

B.9. Collection system venting requirements.

(e) Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of condition 60.752(b)(2)(ii) above shall operate the system such that all collected gases are vented to a control system designed and operated in compliance with condition 60.752(b)(2)(iii) above. In the event

the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour. [Rule 62-204.800, F.A.C.; 40 CFR 60.753(e)]

B.10. Requirement for continuous operation.

(f) Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of condition 60.752(b)(2)(ii) above shall operate the control or treatment system at all times when the collected gas is routed to the system. [Rule 62-204.800, F.A.C.; 40 CFR 60.753(f)]

B.11. Requirement to take corrective action.

(g) If monitoring demonstrates that the operational requirements in conditions (b), (c), or (d) of this section are not met, corrective action shall be taken as specified in section 60.755(a)(3) through (a)(5) or Sec. 60.755(c) of this permit. If corrective actions are taken as specified in section 60.755, the monitored exceedance is not a violation of the operational requirements in this section. [Rule 62-204.800, F.A.C.; 40 CFR 60.753(g)]

Section 60.754 Test methods and procedures.

B.12. Method of calculation of NMOC emissions when actual solid waste acceptance rates are unknown.

(a)(1) The landfill owner or operator shall calculate the NMOC emission rate using either the equation provided in condition (a)(1)(i) below or the equation provided in condition (a)(1)(ii) below. Both equations may be used if the actual year-to-year solid waste acceptance rate is unknown, as specified in (a)(1)(ii), for part of the life of the landfill. The values to be used in both equations are 0.05 per year for k , 170 cubic meters per megagram for L_0 , and 4,000 parts per million by volume as hexane for the C_{NMOC} . For landfills located in geographical areas with a thirty year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorologic site, the k value to be used is 0.02 per year.

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

$$M_{NMOC} = \sum_{i=1}^n 2kL_0M_i(e^{-kti})(C_{NMOC})(3.6 \times 10^{-9})$$

where,

M_{NMOC} = Total NMOC emission rate from the landfill, megagrams per year

k = methane generation rate constant, year⁻¹

L_0 = methane generation potential, cubic meters per megagram solid waste

M_i = mass of solid waste in the i^{th} section, megagrams

t_i = age of the i^{th} section, years

C_{NMOC} = concentration of NMOC, parts per million by volume as hexane

3.6×10^{-9} = conversion factor

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

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

$$M_{NMOC} = 2L_0R(e^{-kc} - e^{-kt})(C_{NMOC})(3.6 \times 10^{-9})$$

where,

M_{NMOC} = mass emission rate of NMOC, megagrams per year

L_0 = methane generation potential, cubic meters per megagram solid waste

R = average annual acceptance rate, megagrams per year

k = methane generation rate constant, year⁻¹

t = age of landfill, years

C_{NMOC} = concentration of NMOC, parts per million by volume as hexane

c = time since closure, years. For active landfill $c = 0$ and $e^{-kc} = 1$

3.6×10^{-9} = conversion factor

The mass of nondegradable solid waste may be subtracted from the average annual acceptance rate when calculating a value for R , if documentation of the nature and amount of such wastes is maintained.
[Rule 62-204.800, F.A.C.; 40 CFR 60.754(a)(1)]

B.13. Requirements if calculated NMOC emissions are less than 50 megagrams per year.

(a)(2) Tier 1. The owner or operator shall compare the calculated NMOC mass emission rate to the standard of 50 megagrams per year.

(i) If the NMOC emission rate calculated in condition (a)(1) of this section is less than 50 megagrams per year, then the landfill owner shall submit an emission rate report as provided in condition 60.757(b)(1), and shall recalculate the NMOC mass emission rate annually as required under condition 60.752(b)(1).

(ii) If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, then the landfill owner shall either comply with condition 60.752(b)(2), or determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the procedures provided in specific condition (a)(3) below.

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(a)(2)]

B.14. Method for determining site-specific NMOC emissions.

(a)(3) Tier 2. The landfill owner or operator shall determine the NMOC concentration using the following sampling procedure. The landfill owner or operator shall install at least two sample probes per hectare of landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator shall collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using Method 25C or Method 18 of 40 CFR 60 Appendix A. If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). If composite sampling is used, equal volumes shall be taken from each sample probe. If more than the required number of samples are taken, all samples shall be used in the analysis. The landfill owner or operator shall divide the NMOC concentration from Method 25C by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

(i) The landfill owner or operator shall recalculate the NMOC mass emission rate using the equations provided in condition (a)(1)(i) or (a)(1)(ii) of this section and using the average NMOC concentration from the collected samples instead of the default value in the equation provided in specific condition (a)(1) of this section.

(ii) If the resulting mass emission rate calculated using the site-specific NMOC concentration is equal to or greater than 50 megagrams per year, then the landfill owner or operator shall either comply with condition 60.752(b)(2), or determine the site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the procedure specified in specific condition (a)(4) of this section.

(iii) If the resulting NMOC mass emission rate is less than 50 megagrams per year, the owner or operator shall submit a periodic estimate of the emission rate report as provided in

condition 60.757(b)(1) and retest the site-specific NMOC concentration every 5 years using the methods specified in this section.

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(a)(3)]

B.15. Method for determining site-specific methane emissions.

(a)(4) Tier 3. The site-specific methane generation rate constant shall be determined using the procedures provided in Method 2E of 40 CFR 60 Appendix A. The landfill owner or operator shall estimate the NMOC mass emission rate using equations in condition (a)(1)(i) or (a)(1)(ii) of this section and using a site-specific methane generation rate constant k , and the site-specific NMOC concentration as determined in condition (a)(3) of this section instead of the default values provided in condition (a)(1) of this section. The landfill owner or operator shall compare the resulting NMOC mass emission rate to the standard of 50 megagrams per year.

(i) If the NMOC mass emission rate as calculated using the site-specific methane generation rate and concentration of NMOC is equal to or greater than 50 megagrams per year, the owner or operator shall comply with condition 60.752(b)(2).

(ii) If the NMOC mass emission rate is less than 50 megagrams per year, then the owner or operator shall submit a periodic emission rate report as provided in condition 60.757(b)(1) and shall recalculate the NMOC mass emission rate annually, as provided in condition 60.757(b)(1) using the equations in condition (a)(1) of this section and using the site-specific methane generation rate constant and NMOC concentration obtained in condition (a)(3) of this section. The calculation of the methane generation rate constant is performed only once, and the value obtained from this test shall be used in all subsequent annual NMOC emission rate calculations.

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(a)(4)]

B.16. Alternative methods.

(a)(5) The owner or operator may use other methods to determine the NMOC concentration or a site-specific k as an alternative to the methods required in conditions (a)(3) and (a)(4) of this section if the method has been approved by the Administrator.

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(a)(5)]

B.17. Calculating NMOC rate to determine when a collection and control system may be removed.

(b) After the installation of a collection and control system in compliance with section 60.755, the owner or operator shall calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in condition 60.752(b)(2)(v), using the following equation:

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

where,

M_{NMOC} = mass emission rate of NMOC, megagrams per year

Q_{LFG} = flow rate of landfill gas, cubic meters per minute

C_{NMOC} = NMOC concentration, parts per million by volume as hexane

(1) The flow rate of landfill gas, Q_{LFG} , shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions of Section 4 of Method 2E of 40 CFR 60 Appendix A.

(2) The average NMOC concentration, C_{NMOC} , shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25C or Method 18 of 40 CFR 60 Appendix A. If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The sample location on the common header pipe shall be before any condensate removal or

other gas refining units. The landfill owner or operator shall divide the NMOC concentration from Method 25C by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(b)]

B.18. Calculating emissions for PSD purposes.

(c) When calculating emissions for PSD purposes, the owner or operator of each MSW landfill subject to the provisions of this subpart shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in 40 CFR 51.166 or 40 CFR 52.21 using AP-42 or other approved measurement procedures. If a collection system, which complies with the provisions in Sec. 60.752(b)(2) is already installed, the owner or operator shall estimate the NMOC emission rate using the procedures provided in condition (b) of this section.

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(c)]

B.19. Performance test methods.

(d) For the performance test required in condition 60.752(b)(2)(iii)(B), Method 25C or Method 18 of 40 CFR 60 Appendix A shall be used to determine compliance with 98 weight-percent efficiency or the 20 ppmv outlet concentration level, unless another method to demonstrate compliance has been approved by the Administrator as provided by condition 60.752(b)(2)(i)(B). If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The following equation shall be used to calculate efficiency:

$$\text{Control Efficiency} = (\text{NMOC}_{\text{in}} - \text{NMOC}_{\text{out}}) / (\text{NMOC}_{\text{in}})$$

where,

NMOC_{in} = mass of NMOC entering control device

NMOC_{out} = mass of NMOC exiting control device

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(d)]

Section 60.755 Compliance provisions.

Except as provided in condition 60.752(b)(2)(i)(B), the specified methods in paragraphs (a)(1) through (a)(6) of this section shall be used to determine whether the gas collection system is in compliance with Sec. 60.752(b)(2)(ii).

B.20. Methods for ensuring collection system accuracy.

(a)(1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with condition 60.752(b)(2)(ii)(A)(1), one of the following equations shall be used. The k and L_0 kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site specific values demonstrated to be appropriate and approved by the Administrator. If k has been determined as specified in condition 60.754(a)(4), the value of k determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.

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

$$Q_m = 2L_0R(e^{-kc} - e^{-kt})$$

where,

Q_m = maximum expected gas generation flow rate, cubic meters per year
 L_o = methane generation potential, cubic meters per megagram solid waste
 R = average annual acceptance rate, megagrams per year
 k = methane generation rate constant, year⁻¹
 t = age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure, t is the age of the landfill at installation, years
 c = time since closure, years (for an active landfill $c = 0$ and $e^{-kc} = 1$)

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

$$Q_m = \sum_{i=1}^n 2kL_oM_i(e^{-kti})$$

where,

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

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(1)]

(a)(2) For the purposes of determining sufficient density of gas collectors for compliance with condition 60.752(b)(2)(ii)(A)(2), the owner or operator shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Administrator, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(2)]

(a)(3) For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with condition 60.752(b)(2)(ii)(A)(3), the owner or operator shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under condition 60.753(b). If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval.

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(3)]

(a)(4) Owners or operators are not required to expand the system as required in condition (a)(3) during the first 180 days after gas collection system startup.
[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(4)]

(a)(5) For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature and nitrogen or oxygen as provided in condition 60.753(c). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval.
[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(5)]

(a)(6) An owner or operator seeking to demonstrate compliance with condition 60.752(b)(2)(ii)(A)(4) through the use of a collection system not conforming to the specifications provided in section 60.759 of this permit shall provide information satisfactory to the Administrator as specified in condition 60.752(b)(2)(i)(C) demonstrating that off-site migration is being controlled.
[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(6)]

B.21. Installation according to design plan.

(b) For purposes of compliance with condition 60.753(a), each owner or operator of a controlled landfill shall place each well or design component as specified in the approved design plan as provided in condition 60.752(b)(2)(i). Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:

- (1) 5 years or more if active; or
- (2) 2 years or more if closed or at final grade.

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

B.22. Surface methane requirements.

(c) The following procedures shall be used for compliance with the surface methane operational standard as provided in condition 60.753(d).

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

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

(3) Surface emission monitoring shall be performed in accordance with Section 4.3.1 of Method 21 of 40 CFR 60 Appendix A, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.

(4) Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified in conditions (c)(4) (i) through (v) of this section shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of condition 60.753(d).

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

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

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

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

(v) For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Administrator for approval.

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

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

B.23. Method for ensuring accuracy of surface methane measurements.

(d) Each owner or operator seeking to comply with the provisions in condition 60.755(c) above shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

(1) The portable analyzer shall meet the instrument specifications provided in Section 3 of 40 CFR 60 Appendix A Method 21, except that "methane" shall replace all references to VOC.

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

(3) To meet the performance evaluation requirements in Section 3.1.3 of Method 21, the instrument evaluation procedures of Section 4.4 of Method 21 shall be used.

(4) The calibration procedures provided in Section 4.2 of Method 21 shall be followed immediately before commencing a surface monitoring survey.

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(d)]

B.24. Applicability of permit provisions.

(e) The provisions of this permit apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices.

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(e)]

Section 60.756 Monitoring of operations.

B.25. Active gas collection system.

(a) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to comply with condition 60.752(b)(2)(ii)(A) for an active gas collection system shall install a sampling port and a thermometer or other temperature measuring device, or an access port for temperature measurements at each wellhead and:

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

(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in condition 60.755(a)(5); and

(3) Monitor temperature of the landfill gas on a monthly basis as provided in condition 60.755(a)(5).
[Rule 62-204.800, F.A.C.; 40 CFR 60.756(a)]

B.26. Enclosed combustor.

(b) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to comply with condition 60.752(b)(2)(iii) using an enclosed combustor shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment.

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

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

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

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.756(b)]

B.27. Open flare.

(c) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to comply with condition 60.752(b)(2)(iii) using an open flare shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

(1) A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.

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

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

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.756(c)]

B.28. Other control devices.

(d) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to demonstrate compliance with condition 60.752(b)(2)(iii) using a device other than an open flare or an enclosed combustor shall provide information satisfactory to the Administrator as provided in condition 60.752(b)(2)(i)(B) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator shall review the information and either approve it, or request that additional information be submitted. The Administrator may specify additional appropriate monitoring procedures.

[Rule 62-204.800, F.A.C.; 40 CFR 60.756(d)]

B.29. Alternate methods of compliance.

(e) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to install a collection system that does not meet the specifications in Section 60.759 or seeking to monitor alternative parameters to those required by Section 60.753 through Section 60.756 shall provide information satisfactory to the Administrator as provided in conditions 60.752(b)(2)(i) (B) and (C) describing the design and operation of the

collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator may specify additional appropriate monitoring procedures. [Rule 62-204.800, F.A.C.; 40 CFR 60.756(e)]

B.30. Surface methane operational standard.

(f) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to demonstrate compliance with condition 60.755(c), shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in condition 60.755(d). Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring. [Rule 62-204.800, F.A.C.; 40 CFR 60.756(f)]

Section 60.757 Reporting requirements.

B.31. Notification of any increase in design capacity.

(a) An amended design capacity report shall be submitted to the Administrator providing notification of any increase in the design capacity of the landfill, whether the increase results from an increase in the permitted area or depth of the landfill, a change in the operating procedures, or any other means which results in an increase in the maximum design capacity of the landfill above 2.5 million megagrams or 2.5 million cubic meters. The amended design capacity report shall be submitted within 90 days of the issuance of an amended construction or operating permit, or the placement of waste in additional land, or the change in operating procedures which will result in an increase in maximum design capacity, whichever occurs first. An amended design capacity report shall be submitted to the Administrator providing notification of an increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill to or above 2.5 million megagrams and 2.5 million cubic meters. This increase in design capacity may result from an increase in the permitted volume of landfill or an increase in the density as documented in the annual recalculation required in section 60.758(f). [Rule 62-204.800, F.A.C.; 40 CFR 60.757(a)]

B.32. Annual NMOC emission rate.

(b) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator subject to the requirements of this subpart shall submit an annual NMOC emission rate report to the Administrator, except as provided for in condition (b)(1)(ii) or (b)(3) of this section. The Administrator may request such additional information as may be necessary to verify the reported NMOC emission rate.

(1) The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in condition 60.754(a) or (b), as applicable.

(i) The initial NMOC emission rate report may be combined with the initial design capacity report and shall be submitted no later than ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction on or after March 12, 1996. Subsequent NMOC emission rate reports shall be submitted annually thereafter, except as provided for in conditions (b)(1)(ii) and (b)(3) of this section.

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

shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

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

(3) Each owner or operator subject to the requirements of this subpart is exempted from the requirements of conditions (b)(1) and (2) of this section, after the installation of a collection and control system in compliance with condition 60.752(b)(2), during such time as the collection and control system is in operation and in compliance with Section 60.753 and Section 60.755.

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(b)]

B.33. Collection and control system design plan.

(c) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator subject to the provisions of condition 60.752(b)(2)(i) shall submit a collection and control system design plan to the Administrator within 1 year of the first report, in which the emission rate exceeds 50 megagrams per year, except as follows:

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

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(c)]

B.34. Closure report.

(d) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall submit a closure report to the Administrator within 30 days of waste acceptance cessation. The Administrator may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the Administrator, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 60.7(a)(4).

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(d)]

B.35. Equipment removal report.

(e) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall submit an equipment removal report to the Administrator 30 days prior to removal or cessation of operation of the control equipment.

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

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

(ii) A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired; and

(iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year.

(2) The Administrator may request such additional information as may be necessary to verify that all of the conditions for removal in condition 60.752(b)(2)(v) have been met.
[Rule 62-204.800, F.A.C.; 40 CFR 60.757(e)]

B.36. Active collection system annual reports.

(f) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator of a landfill seeking to comply with condition 60.752(b)(2) using an active collection system designed in accordance with condition 60.752(b)(2)(ii) shall submit to the Administrator annual reports of the recorded information in (f)(1) through (f)(6) below. The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under 40 CFR 60.8. For enclosed combustion devices and flares, reportable exceedances are defined under condition 60.758(c).

(1) Value and length of time for exceedance of applicable parameters monitored under conditions 60.756(a), (b), (c), and (d).

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

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

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

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

(6) The date of installation and the location of each well or collection system expansion added pursuant to conditions (a)(3), (b), and (c)(4) of Section 60.755.

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(f)]

B.37. Passive collection system reporting.

(g) Each owner or operator seeking to comply with section 60.752(b)(2)(iii) shall include the following information with the initial performance test report required under 40 CFR 60.8:

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

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

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

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

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

(6) The provisions for the control of off-site migration.

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(g)]

Section 60.758 Recordkeeping requirements.

B.38. Capacity and acceptance reports.

(a) Except as provided in section 60.752(b)(2)(i)(B), each owner or operator of an MSW landfill subject to the provisions of condition 60.752(b) shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered section 60.752(b), the current amount of solid waste in-place, and

the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.
[Rule 62-204.800, F.A.C.; 40 CFR 60.758(a)]

B.39. Control equipment test results.

(b) Except as provided in section 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in conditions (b)(1) through (b)(4) of this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.

(1) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with condition 60.752(b)(2)(ii):

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

(ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in condition 60.759(a)(1).

(2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with condition 60.752(b)(2)(iii) through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity greater than 44 megawatts:

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

(ii) The percent reduction of NMOC determined as specified in condition 60.752(b)(2)(iii)(B) achieved by the control device.

(3) Where an owner or operator seeks to demonstrate compliance with condition 60.752(b)(2)(iii)(B)(1) through use of a boiler or process heater of any size: a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.

(4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with condition 60.752(b)(2)(iii)(A) through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.

[Rule 62-204.800, F.A.C.; 40 CFR 60.758(b)]

B.40. Equipment operating parameters.

(c) Except as provided in section 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill subject to the provisions of this subpart shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in Section 60.756 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

(1) The following constitute exceedances that shall be recorded and reported under condition 60.757(f):

(i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28 °C below the average combustion temperature during the most recent performance test at which compliance with condition 60.752(b)(2)(iii) was determined.

(ii) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under condition (b)(3)(i) of this section.

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

(3) Each owner or operator who uses a boiler or process heater with a design heat input capacity of 44 megawatts or greater to comply with condition 60.752(b)(2)(iii) shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater. (Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other State, local, or Federal regulatory requirements.)

(4) Each owner or operator seeking to comply with the provisions of this permit by use of an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under condition 60.756(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

[Rule 62-204.800, F.A.C.; 40 CFR 60.758(c)]

B.41. Plot map.

(d) Except as provided in section 60.752(b)(2)(i)(B), each owner or operator shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.

(1) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under condition 60.755(b).

(2) Each owner or operator subject to the provisions of this subpart shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in condition 60.759(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in condition 60.759(a)(3)(ii).

[Rule 62-204.800, F.A.C.; 40 CFR 60.758(d)]

B.42. Exceedances.

(e) Except as provided in section 60.752(b)(2)(i)(B), each owner or operator shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in condition 60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

[Rule 62-204.800, F.A.C.; 40 CFR 60.758(e)]

B.43. Design capacity calculations.

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.758(f)]

Section 60.759 Specifications for active collection systems.

B.44. Placement of collection devices.

(a) Each owner or operator seeking to comply with condition 60.752(b)(2)(i) shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Administrator as provided in conditions 60.752(b)(2)(i)(C) and (D):

(1) The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat.

(2) The sufficient density of gas collection devices determined in condition (a)(1) above shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.

(3) The placement of gas collection devices determined in condition (a)(1) above shall control all gas producing areas, except as provided by conditions (a)(3)(i) and (a)(3)(ii) below.

(i) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under condition 60.758(d). The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and shall be provided to the Administrator upon request.

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

$$Q_i = 2kL_oM_i(e^{-kt_i})(C_{NMOC})(3.6 \times 10^{-9})$$

where,

Q_i = NMOC emission rate from the i^{th} section, megagrams per year

k = methane generation rate constant, year⁻¹

L_o = methane generation potential, cubic meters per megagram solid waste

M_i = mass of the degradable solid waste in the i^{th} section, megagram

t_i = age of the solid waste in the i^{th} section, years

C_{NMOC} = concentration of nonmethane organic compounds, parts per million by volume

3.6×10^{-9} = conversion factor

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.759(a)]

B.45. Design of collection devices.

(b) Each owner or operator seeking to comply with condition 60.752(b)(2)(i)(A) shall construct the gas collection devices using the following equipment or procedures:

(1) The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with

emission and migration standards. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration.

(2) Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.759(b)]

B.46. Capacity of collection system.

(c) Each owner or operator seeking to comply with condition 60.752(b)(2)(i)(A) shall convey the landfill gas to a control system in compliance with condition 60.752(b)(2)(iii) through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:

(1) For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in condition (c)(2) below shall be used.

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.759(c)]

Subsection C. Common Conditions.

E.U. ID No.	Brief Description
001	Municipal Solid Waste Combustor No. 1
002	Municipal Solid Waste Combustor No. 2

The following Conditions apply to the emissions unit(s)/activities listed above:

Essential Potential to Emit (PTE) Parameters

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

Monitoring of Operations

C.2. Determination of Process Variables.

(a) **Required Equipment.** The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) **Accuracy of Equipment.** Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5), F.A.C.]

Test Methods and Procedures

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

C.3. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) **General Compliance Testing.**

3. Except as otherwise specified in an applicable subsection, the owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

- a. Did not operate; or
- b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.

4. During each federal fiscal year (October 1 -- September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

- a. Visible emissions, if there is an applicable standard;
- b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits

or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and

5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.

8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.

9. The owner or operator shall notify the Department's South District office, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.
[Rule 62-297.310(7), F.A.C.; and, SIP approved]

C.4. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured ;provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance.
[Rule 62-297.310(1), F.A.C. and 40 CFR 60.8]

C.5. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule.
[Rule 62-297.310(3), F.A.C.]

C.6. Applicable Test Procedures.

(a) Required Sampling Time.

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.

2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur.

Exceptions to these requirements are as follows:

c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

(c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.

(d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1.

(e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

[Rule 62-297.310(4), F.A.C.]

C.7. Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities (version dated 10/07/96), attached to this permit.

[Rule 62-297.310(6), F.A.C.]

Record Keeping and Reporting Requirements

C.8. Malfunctions - Notification. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department's South District office in accordance with Appendix TV-1, Title V Condition No. 9, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department's South District office.

[Rule 62-210.700(6), F.A.C.]

C.9. Test Reports. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department's South District office to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.

4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

C.10. Acid Rain Part Application. For any unit which was a solid waste incinerator, burning less than 20 percent fossil fuel as described in 40 CFR 72.6(b)(7), adopted and incorporated by reference at Rule 62-204.800, F.A.C. the designated representative of the source containing the unit shall submit a complete Acid Rain Part application governing such unit to the Department before the later of January 1, 1998, or March 1 of the year following the three calendar year period in which the incinerator consumed 20 percent or more fossil fuel on a British thermal unit (BTU) basis.

[Chapter 62-214.320(1)(h), F.A.C.]

C.11. The permittee shall comply with the requirements contained in Appendix 40 CFR 60, Subpart A, attached to this permit.

[Rule 62-204.800(7)(d), F.A.C.]



THE CITY OF KEY WEST
P. O. BOX 1409
KEY WEST, FLORIDA 33041-1409

RECEIVED

DEC 27 1995

BUREAU OF
AIR REGULATION

December 21, 1995

Mr. John C. Brown, Jr., P. E.
Administrator
Air Permitting and Standards
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RE: Acid Rain Application, Southernmost Waste To Energy Facility

Dear Mr. Brown:

The City of Key West is in receipt of your letter of November 30, 1995, regarding applications for acid rain permits.

The City of Key West's Southernmost Waste To Energy Facility (Facility) is not by definition an "Acid Rain Source" and thus does not contain an "Acid Rain Unit." Pursuant to Chapter 62-214.320(h), F.A.C., the Facility burns significantly less than 20 percent of fossil fuel as described in 40 C.F.R. 72.6(b)(7).

The Facility operates as a municipal solid waste combustion unit and does not burn fossil fuels.

Should you have any questions regarding this Facility or applicability pursuant to Chapter 62-214, F. A. C., please do not hesitate to contact me.

Sincerely,


E. David Fernandez
Utilities Director

MC\A:\AcidRain.Ltr
December 11, 1995



Camp Dresser & McKee Inc.

environmental
services

2503 Del Prado Boulevard, Suite 200
Cape Coral, Florida 33904-5709
Tel: 941 574-7100 Fax: 941 574-7474

RECEIVED

JUL 29 1996

BUREAU OF
AIR REGULATION

July 24, 1996

Mr. John C. Brown, Jr., P.E.
Administrator, Title V Section
Florida Department of Environmental Protection
Bureau of Air Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: City of Key West
Southernmost Waste to Energy Facility
CDM Project No. 2752-013-PA-APP

Dear Mr. Brown:

The Title V permit application for the referenced facility (ID No. 0870047) was submitted to the Florida Department of Environmental Protection in June 1996. On behalf of the City of Key West, we are requesting that the following information be added to the Title V Permit application:

B. Facility Regulations
List of Applicable Regulations

City of Key West Code of Ordinances - Section 35.11

This applicable regulation was inadvertently omitted from the permit application. Should you have any questions, please do not hesitate to contact me.

Sincerely,

Marie Whitman Mahan, P.E.

MWM/lmw

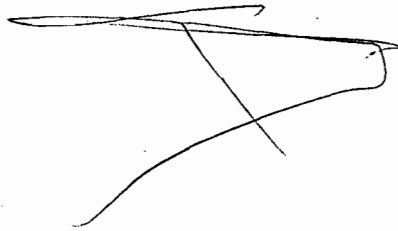
cc: David Fernandez, City of Key West
Cecil Henderson, KCA
Mary Cummings, CDM

CDM

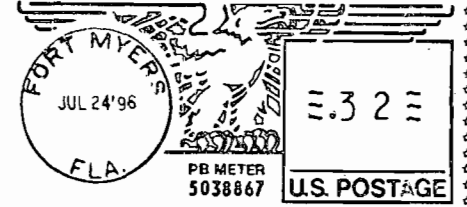
Camp Dresser & McKee Inc.

2503 Del Prado Boulevard, Suite 200
Cape Coral, Florida 33904-5709

Bruce:
we have no provisions
for city ordinances
of key west in
T.47e v permits -
let's discuss. John



Mr. John C. Brown, Jr., P.E.
Administrator Title V Section
Florida Department of Environmental Protection
Bureau of Air Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400



<version dated 04/23/98 >

Recommendation memo from air permit engineer to P.E.

[DEP electronic file location & name v:\formats\xxxxxxx1.mem]

Format/example. (FOR TALLAHASSEE OFFICE USE ONLY)

MEMORANDUM

TO: [P.E.]
FROM: [Air permit engineer]
DATE: October 17, 1996 [NLT Day 60 (30 days remaining)]

Re: Intent package for DRAFT Permit No.: [xxxxxxx-xxx-AV]
[Facility Name]
[Site Name]

Permit Clock: Today is ARMS Day 1
Day 90: December 29, 1996

[Brief project description] This permit is for the initial Title V air operation permit for the subject facility.

[Processing information] Additional information was requested and a satisfactory response received yesterday (October 16, 1996). This application was complete on the same date. Comments **[were/not]** received from the **[District/Local]** office.

[(1) This facility reported that each emissions unit was in compliance at the time of the application. **or (2)** This facility reported noncompliance items at the time of the application and the facility submitted a compliance plan **and either (a)** Compliance has been achieved. **or (b)** Compliance has not yet been achieved therefore, in accordance with Rule 62-213.440(2), F.A.C., a Compliance Plan has been included in this permit].

[If initial operation permit, This is the initial operation permit for this emissions unit/facility. Compliance has been demonstrated with the requirements of the air construction permit].

[Anything unique to this project that you want to bring to my attention]

[Your recommendation to me] I recommend that this Intent to Issue be sent out as attached.

APE/

[electronic file name: xxxxxxx1.mem]

- I would like
one of these
completed.

FIRST
DRAFT

<u>Facility</u> <u>crossings</u>	(cost to 7% O ₂)	
<u>60.356</u>	WRGE	same
	MUC/has	MUC/has
PM	27 mg/dscm	20 mg/dscm
opacity	← 10% →	
cadmium	.04 mg/dscm	.10 mg/dscm
lead	.49	1.6
H ₂ S	← .000 → .000 →	
SO ₂	3/ppm(v)	80ppm(v)
(whichever is less stringent)	or 75% red.	or 50% red
HCl	3/ppm	250ppm
(-)	or 95% red.	or 50% red
dioxin/furans	60 $\frac{\text{nanograms}}{\text{dscm}}$	125 $\frac{\text{nanograms}}{\text{dscm}}$
NO _x (avg. 24hr)	← 200 →	

INITIAL
CAPACITY

200098
1900298

$$75 \text{ tpd} =$$

$$6250 \text{ t/yr} =$$

$$283.5 \text{ kg/yr} =$$

$$6.040 \text{ kg/day} =$$

$$68 \text{ megagrams/day}$$

↑
per unit data

In the Matter of an
Application for Permit by:

City of Key West
5701 West Junior College Road
Key West, Florida 33040

DRAFT Permit No.: 0870047-001 -AV
Southernmost Waste to Energy Facility
Monroe County

INTENT TO ISSUE TITLE V AIR OPERATION PERMIT

The Department of Environmental Protection (Department) gives notice of its intent to issue a Title V air operation permit (copy of DRAFT Permit attached) for the Title V source detailed in the application specified above, for the reasons stated below.

The applicant, the City of Key West, applied on June 12, 1996 to the Department for a Title V air operation permit for the Southernmost Waste to Energy Facility located at 5701 West Junior College Road, Key West, Monroe County.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213, and 62-214. This source is not exempt from Title V permitting procedures. The Department has determined that a Title V air operation permit is required to commence or continue operations at the described facility.

The Department intends to issue this Title V air operation permit based on the belief that reasonable assurances have been provided to indicate that operation of the source will not adversely impact air quality, and the source will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C.

Pursuant to Sections 403.815 and 403.0872, F.S., and Rules 62-103.150 and 62-210.350(3), F.A.C., you (the applicant) are required to publish at your own expense the enclosed "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT." The notice shall be published one time only within 30 (thirty) days in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 904/488-1344; Fax: 904/922-6979), within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit pursuant to Rule 62-103.150(6), F.A.C.

The Department will issue the Title V PROPOSED Permit, and subsequent Title V FINAL Permit, in accordance with the conditions of the enclosed Title V DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT." Written comments should be provided to the permitting authority office. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the Department shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

In addition, any person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 904/488-9730; Fax: 904/487-4938). Petitions filed by the permit applicant and the parties listed below must be filed within 14 (fourteen) days of receipt of this intent. Petitions filed by other persons must be filed within 14 (fourteen) days of publication of the public notice or within 14 (fourteen) days of the receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

The petition shall contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the proposed source will operate; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by petitioner, if any; (e) A statement of facts which the petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement of which rules or statutes the petitioner contends require reversal or modification of the Department's action or proposed action; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this DRAFT Permit. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above, and be filed (received) within 14 (fourteen) days of receipt of this intent in the Office of General Counsel at the address referenced above. Failure to petition within the allowed time frame constitutes a

waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 60Q-2.010, F.A.C.

Executed in Tallahassee, Florida.

**STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION**

C. H. Fancy, P.E.
Chief,
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that copies of this INTENT TO ISSUE TITLE V AIR OPERATION PERMIT (including the PUBLIC NOTICE and the DRAFT permit) were sent by certified mail before the close of business on _____ to the person(s) listed:

E. David Fernandez, City of Key West

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of this INTENT TO ISSUE TITLE V AIR OPERATION PERMIT (including the PUBLIC NOTICE and the DRAFT permit) were sent by U.S. mail on the same date to the person(s) listed:

Marie Mahan, P.E., Camp Dresser & McKee Inc
Gracy Danois, U.S. EPA, Region IV
David Knowles, FDEP, SD
R. J. Hebling, FDEP, SD Branch Office

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

(Clerk)

(Date)

PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Title V DRAFT Permit No.: 0870047-001-AV
Southernmost Waste to Energy Facility
Monroe County

The Department of Environmental Protection (Department) gives notice of its intent to issue a Title V air operation permit to the City of Key West for the Southernmost Waste to Energy Facility located at 5701 West Junior College Road, Key West, Monroe County. A Maximum Achievable Control Technology (MACT) determination was not required. The applicant's name and address are: City of Key West, 5701 West Junior College Road, Key West, Florida 33040.

The Department will issue the Title V PROPOSED Permit, and subsequent Title V FINAL Permit, in accordance with the conditions of the enclosed Title V DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed Title V DRAFT Permit issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the Department shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

In addition, any person whose substantial interests are affected by this proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/488-9730; Fax: 850/487-4938), within 14 (fourteen) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

The Petition shall contain the following information; (a) The name, address, and the telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by petitioner, if any; (e) A statement of facts which petitioner contends warrants reversal or modification of the Department's action or proposed action; (f) A statement of which rules or statutes petitioner contends require reversal or

modification of the Department's action or proposed action; and, (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this DRAFT Permit. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 (fourteen) days of receipt of this notice, in the Office of General Counsel at the address referenced above. Failure to petition within the allotted time frame constitutes a waiver of any rights such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 60Q-2.010, Florida Administrative Code.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-1344
Fax: 850/922-6979

Department of Environmental Protection
South District Office
2295 Victoria Avenue, Suite 364
Fort Meyers, Florida 33901
Telephone: 941/332-6975
Fax: 941/332-6969

Department of Environmental Protection
South District Branch Office
2796 Overseas Highway, Suite 221
Marathon, Florida 33050
Telephone: 305/289-2310

The complete project file includes the Draft Permit, the application, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Mr. Scott M. Sheplak, P.E. at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-1344, for additional information.

<version dated 10/02/98>

Form No. AV-1, Transmittal Letter, "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT," "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT"

USE THIS FORMAT FOR THOSE THAT THE APPLICANT WILL PUBLISH THE PUBLIC NOTICE

[DEP electronic file location & name v:\formats\tallyi_2.doc]

Select items (in [brackets] and **bolded**) are to be completed by the permitting authority.

(Print this page on letterhead)

(FOR TALLAHASSEE OFFICE USE ONLY)

[Date]

[Responsible Official]

[Title]

[Facility Owner/Company Name]

[Mailing address]

[]

Re: DRAFT Title V Permit No.: [xxxxxx-xxx] -AV
[Site Name]

Dear Mr./Ms. [Responsible Official]:

One copy of the DRAFT Title V Air Operation Permit for the [Site Name] located at [Site physical location: street address, city, Name of county] County, is enclosed. [(only if applicable) The previous DRAFT Title V operation permit dated [date], is withdrawn.] The permitting authority's "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" and the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" must be published as soon as possible. This issue is important in order for you to receive your revised Title IV Acid Rain Part by January 1, [1999/2000] [(only if applicable) , for the inclusion of the Phase I/II NO_x limitations pursuant to Rule 62-214.360(6), Florida Administrative Code.] Proof of publication, i.e., newspaper affidavit, must be provided to the permitting authority's office within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the permitting authority's proposed action to Scott M. Sheplak, P.E., at the above letterhead address. If you have any other questions, please contact [Project Engineer] at 850/921-9532.

Sincerely,

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

CHF/[last name initial]

Enclosures

cc: Ms. Carla E. Pierce, U.S. EPA, Region 4 (INTERNET E-mail Memorandum)
Ms. Gracy Danois, U.S. EPA, Region 4 (INTERNET E-mail Memorandum)

In the Matter of an
Application for Permit by:

[Facility Owner/Company Name]
[Mailing Address]
[“

DRAFT Permit No.: [xxxxxxx-xxx] -AV
[Site Name]
[Name of] County

INTENT TO ISSUE TITLE V AIR OPERATION PERMIT

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue a Title V air operation permit (copy of DRAFT Permit enclosed) for the Title V source detailed in the application specified above, for the reasons stated below.

The applicant, [Facility Owner/Company Name], applied on [Date], to the permitting authority for a Title V air operation permit for the [Site Name] located at [Site physical location: street address, city, Name of county] County. [(only if applicable) The applicant submitted the Phase I/II NO_x Acid Rain Compliance Plan on [Date]. This permit incorporates the Phase I/II NO_x standards into the Title IV Acid Rain Part pursuant to Rule 62-214.360(6), Florida Administrative Code (F.A.C.).]

The permitting authority has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213, and 62-214. This source is not exempt from Title V permitting procedures. The permitting authority has determined that a Title V air operation permit is required to commence or continue operations at the described facility.

The permitting authority intends to issue this Title V air operation permit based on the belief that reasonable assurances have been provided to indicate that operation of the source will not adversely impact air quality, and the source will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C.

Pursuant to Sections 403.815 and 403.087, F.S., and Rules 62-110.106 and 62-210.350(3), F.A.C., you (the applicant) are required to publish at your own expense the enclosed "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT." The notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the permitting authority at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-1344; Fax: 850/922-6979), within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit pursuant to Rule 62-110.106, F.A.C.

The permitting authority will issue the Title V PROPOSED Permit, and subsequent Title V FINAL Permit, in accordance with the conditions of the attached Title V DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT." Written comments should be provided to the permitting authority office. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the permitting authority shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/488-9730; Fax: 850/487-4938). Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the permitting authority for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the permitting authority's action is based must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number, if known;

(b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;

(c) A statement of how and when each petitioner received notice of the agency action or proposed action;

(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;

(e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and,

(f) A demand for relief.

A petition that does not dispute the material facts upon which the permitting authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation will not be available in this proceeding.

In addition to the above, a person subject to regulation has a right to apply to the Department of Environmental Protection for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542, F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information:

(a) The name, address, and telephone number of the petitioner;

(b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any;

(c) Each rule or portion of a rule from which a variance or waiver is requested;

(d) The citation to the statute underlying (implemented by) the rule identified in (c) above;

(e) The type of action requested;

(f) The specific facts that would justify a variance or waiver for the petitioner;

(g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and,

(h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2), F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the United States Environmental Protection Agency and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Finally, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 (sixty) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to issuance of any permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460.

Executed in Tallahassee, Florida.

**STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION**

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE TITLE V AIR OPERATION PERMIT (including the PUBLIC NOTICE and the DRAFT permit) and all copies were sent by certified mail before the close of business on _____ to the person(s) listed:

[R.O.]

[D.R. if not the R.O.]

[(only if applicable) third party]

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of this INTENT TO ISSUE TITLE V AIR OPERATION PERMIT (including the PUBLIC NOTICE and the DRAFT permit) were sent by U.S. mail on the same date to the person(s) listed:

[Applicant's P.E.]

[(only when appropriate) Application Contact]

[(only if applicable) District/Local Program Administrator and office]

Clerk Stamp

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

(Clerk)

(Date)

PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Title V DRAFT Permit No.: [xxxxxxx-xxx] -AV
[Site Name]
[Name of] County

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue a Title V air operation permit to [Facility Owner/Company Name] for the [Site Name] located at [Site physical location: street address, city, Name of county] County. [(only if applicable) This permit incorporates the Phase I/II NO_x standards into the Title IV Acid Rain Part pursuant to Rule 62-214.360(6), Florida Administrative Code (F.A.C.).] The applicant's name and address are: [Facility Owner/Company Name, and RO's Mailing address].

The permitting authority will issue the Title V PROPOSED Permit, and subsequent Title V FINAL Permit, in accordance with the conditions of the Title V DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed Title V DRAFT Permit issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the permitting authority shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 of the Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/488-9730; Fax: 850/487-4938). Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of the notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the permitting authority for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the applicable time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code (F.A.C.).

A petition that disputes the material facts on which the permitting authority's action is based must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number, if known;

(b) The name, address and telephone number of the petitioner; name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how petitioner's substantial rights will be affected by the agency determination;

(c) A statement of how and when the petitioner received notice of the agency action or proposed action;

(d) A statement of all disputed issues of material fact. If there are none, the petition must so state;

(e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle petitioner to relief; and

(f) A demand for relief.

A petition that does not dispute the material facts upon which the permitting authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available for this proceeding.

In addition to the above, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 (sixty) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to issuance of any permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Permitting Authority:

Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-0114
Fax: 850/922-6979

Affected District/Local Program:

**[Affected District/Local Program Name
Physical Address
Telephone: xxx/xxx-xxxx
Fax: xxx/xxx-xxxx]**

The complete project file includes the DRAFT Permit, the application, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Scott M. Sheplak, P.E., at the above address, or call 850/921-9532, for additional information.

Appendix WWW-1, Definitions associated with 40 CFR 60 Subpart WWW (p.1/ 2)

Active collection system means a gas collection system that uses gas mover equipment.

Active landfill means a landfill in which solid waste is being placed or a landfill that is planned to accept waste in the future.

Closed landfill means a landfill in which solid waste is no longer being placed, and in which no additional solid wastes will be placed without first filing a notification of modification as prescribed under Sec. 60.7(a)(4). Once a notification of modification has been filed, and additional solid waste is placed in the landfill, the landfill is no longer closed. A landfill is considered closed after meeting the criteria of Sec. 258.60 of this title.

Closure means that point in time when a landfill becomes a closed landfill.

Commercial solid waste means all types of solid waste generated by stores, offices, restaurants, warehouses, and other nonmanufacturing activities, excluding residential and industrial wastes.

Controlled landfill means any landfill at which collection and control systems are required under this subpart as a result of the nonmethane organic compounds emission rate. The landfill is considered controlled at the time a collection and control system design plan is submitted in compliance with Sec. 60.752(b)(2)(i).

Design capacity means the maximum amount of solid waste a landfill can accept, as indicated in terms of volume or mass in the most recent permit issued by the permitting authority, plus any in-place waste not accounted for in the most recent permit. If the owner or operator chooses to convert the design capacity from volume to mass or from mass to volume to demonstrate its design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the calculation must include a site specific density, which must be recalculated annually.

Disposal facility means all contiguous land and structures, other appurtenances, and improvements on the land used for the disposal of solid waste.

Emission rate cutoff means the threshold annual emission rate to which a landfill compares its estimated emission rate to determine if control under the regulation is required.

Enclosed combustor means an enclosed firebox which maintains a relatively constant limited peak temperature generally using a limited supply of combustion air. An enclosed flare is considered an enclosed combustor.

Flare means an open combustor without enclosure or shroud.

Gas mover equipment means the equipment (i.e., fan, blower, compressor) used to transport landfill gas through the header system.

Household waste means any solid waste (including garbage, trash, and sanitary waste in septic tanks) derived from households (including, but not limited to, single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas).

Industrial solid waste means solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under Subtitle C of the Resource Conservation and Recovery Act, parts 264 and 265 of this title. Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment. This term does not include mining waste or oil and gas waste.

Appendix WWW-1, Definitions associated with 40 CFR 60 Subpart WWW (p. 2/2)

Interior well means any well or similar collection component located inside the perimeter of the landfill waste. A perimeter well located outside the landfilled waste is not an interior well.

Landfill means an area of land or an excavation in which wastes are placed for permanent disposal, and that is not a land application unit, surface impoundment, injection well, or waste pile as those terms are defined under Sec. 257.2 of this title.

Lateral expansion means a horizontal expansion of the waste boundaries of an existing MSW landfill. A lateral expansion is not a modification unless it results in an increase in the design capacity of the landfill.

Modification means an increase in the permitted volume design capacity of the landfill by either horizontal or vertical expansion.

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

Municipal solid waste landfill emissions or *MSW landfill emissions* means gas generated by the decomposition of organic waste deposited in an MSW landfill or derived from the evolution of organic compounds in the waste.

NMOC means nonmethane organic compounds, as measured according to the provisions of Sec. 60.754.

Nondegradable waste means any waste that does not decompose through chemical breakdown or microbiological activity. Examples are, but are not limited to, concrete, municipal waste combustor ash, and metals.

Passive collection system means a gas collection system that solely uses positive pressure within the landfill to move the gas rather than using gas mover equipment.

Sludge means any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant.

Solid waste means any garbage, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits under 33 U.S.C. 1342, or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C 2011 et seq.).

Sufficient density means any number, spacing, and combination of collection system components, including vertical wells, horizontal collectors, and surface collectors, necessary to maintain emission and migration control as determined by measures of performance set forth in this part.

Sufficient extraction rate means a rate sufficient to maintain a negative pressure at all wellheads in the collection system without causing air infiltration, including any wellheads connected to the system as a result of expansion or excess surface emissions, for the life of the blower.

Table 2, Summary of Compliance Requirements

City of Key West
Southernmost Waste To Energy Facility

DRAFT Permit No.: 0870047-001-AV
Facility ID No.: 0870047

E.U. # -001		Municipal Solid Waste Combustor #1					
Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time or Frequency	Frequency Base Date ¹	Min. Compliance Test Time	CMS ²	See Permit Condition(s)
PM Emissions	Mixed municipal waste	EPA Method 5	Annual	N/A	6 hours	No	A.10., A.11.
Visible Emissions	Mixed municipal waste	EPA Method 9	Annual	N/A	1 hour	No	A.10., A.11.

E.U. # -002		Municipal Solid Waste Combustor #2					
Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time or Frequency	Frequency Base Date ¹	Min. Compliance Test Time	CMS ²	See Permit Condition(s)
PM Emissions	Mixed municipal waste	EPA Method 5	Annual	N/A	6 hours	No	A.10., A.11.
Visible Emissions	Mixed municipal waste	EPA Method 9	Annual	N/A	1 hour	No	A.10., A.11.

1 - Frequency base date established for planning purposes only; see guidance memo and Rule 62-297.310, F.A.C.

2 - Continuous Monitoring System.

*delete
signature
and
initials*

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

Table 1, Summary of Air Pollutant Standards and Terms

City of Key West
Southernmost Waste To Energy Facility

DRAFT Permit No.: 0870047-001-AV

Facility ID No.: 0870047

E.U. ID Nos. Brief Description

-001		Solid Waste Combustor Unit #1				Allowable Emissions		Equivalent Emissions		Regulatory Citation(s)	See Permit Condition(s)
Pollutant Name	Fuel(s) *	Hours/ Year *	Standards	lb/ hour	TPY	lb/hour **	TPY **				
PM Emissions	Mixed municipal waste	8760	0.08 gr/dscf			7.60	33.26	AO44-207778 40 CFR 60.52(a)	A.6		
Visible Emissions	Mixed municipal waste	8760	5% Opacity					AO44-207778 Rule 62-296.401, F.A.C.	A.5		

-002		Solid Waste Combustor Unit #2				Allowable Emissions		Equivalent Emissions		Regulatory Citation(s)	See Permit Condition(s)
Pollutant Name	Fuel(s) *	Hours/ Year *	Standards	lb/ hour	TPY	lb/hour **	TPY **				
PM Emissions	Mixed municipal waste	8760	0.08 gr/dscf			7.60	33.26	AO44-207781 40 CFR 60.52(a)	A.6		
Visible Emissions	Mixed municipal waste	8760	5% Opacity					AO44-207781 Rule 62-296.401, F.A.C.	A.5		

** The "Equivalent Emissions" listed are for informational purposes only.

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

Appendix I-1, List of Insignificant Emissions Units and/or Activities.

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, are exempt from the permitting requirements of Chapters 62-210 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rule 62-210.300(3)(a), F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rule 62.210.300(3)(a), F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have the potential to emit any pollutant in such amount as to make the facility a Title V source.

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

1	Ash handling and transfer activities
2	Recyclable handling and processing activities

Appendix U-1. List of Unregulated Emissions Units and/or Activities.

Unregulated Emissions Units and/or Activities. An emissions unit which emits no “emissions-limited pollutant” and which is subject to no unit-specific work practice standard, though it may be subject to regulations applied on a facility-wide basis (e.g., unconfined emissions, odor, general opacity) or to regulations that require only that it be able to prove exemption from unit-specific emissions or work practice standards.

The below listed emissions units and/or activities are neither ‘regulated emissions units’ nor ‘insignificant emissions units’.

Emissions Unit	Description
-xxx	Surface Coating and Solvent Cleaning
-xxx	General Purpose Engines
-xxx	Fuel Storage Tanks
-xxx	Helper Cooling Towers
-xxx	Emergency Generators

Initial Title V Air Operation Permit
DRAFT Permit No.: 0870047-001-AV

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Section I. Facility Information.

Subsection A. Facility Description.

This facility consists of two identical municipal solid waste combustors (Unit Nos. 1 and 2) which are mass-fired waterwall boilers; an approximately twenty acre municipal solid waste landfill is contiguous (although it is no longer accepting waste); storage and handling facilities for ash; oil storage tanks; cooling tower; and ancillary support equipment. Also, included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities. Based on the initial Title V permit application received June 12, 1996, this facility is a major source of hazardous air pollutants (HAPs).

Subsection B. Summary of Emissions Unit ID Nos. and Brief Descriptions.

E.U. ID Nos.	Brief Description
001	Municipal Waste Combustor No. 1
002	Municipal Waste Combustor No. 2
003	Municipal Solid Waste Landfill

Unregulated Emissions Units and/or Activities

E.U. ID No.	Brief Description
xxx	See Appendix U-1, List of Unregulated Emissions Units and/or Activities.

Please reference the Permit No., Facility ID No., and Appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, Applications, etc.

Subsection C. Relevant Documents.

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

These documents are provided to the permittee for information purposes only:

Table 1-1 and Table 1-1A, Summary of Air Pollutant Standards and Terms.

Table 2-1 and Table 2-1A, Summary of Compliance Requirements.

Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers (version dated 2/05/97).

Appendix H-1, Permit History/ID Number Changes.

These documents are on file with the permitting authority:

Initial Title V Permit Application received June 12, 1996.

Section II. Facility-wide Conditions.

The following Conditions apply facility-wide:

1. APPENDIX TV-1, TITLE V CONDITIONS, is a part of this permit.
{Permitting note: APPENDIX TV-1, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}
2. **Not federally enforceable.** General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.]
3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]
4. Prevention of Accidental Releases (Section 112(r) of CAA). If required by 40 CFR 68, the permittee shall submit to the implementing agency:
 - a. a risk management plan (RMP) when, and if, such requirement becomes applicable; and,
 - b. certification forms and/or RMPs according to the promulgated rule schedule.[40 CFR 68]
5. Unregulated Emissions Units and/or Activities. Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit.
[Rule 62-213.440(1), F.A.C.]
6. Insignificant Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.
[Rules 62-213.440(1), 62-213.430(6) and 62-4.040(1)(b), F.A.C.]
7. General Pollutant Emission Limiting Standards. Volatile Organic Compounds Emissions or Organic Solvents Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.
[Rule 62-296.320(1)(a), F.A.C.]

{Permitting Note: The Department has not ordered any control devices or systems under the referenced rule}.

8. Not federally enforceable. Reasonable Precautions. The following techniques shall be used to control unconfined particulate matter emissions on an as needed basis:

- a. Chemical or water application to unpaved road and unpaved yard and landfill areas;
- b. Paving and maintenance of roads, parking areas and yards;
- c. Landscaping or planting of vegetation;
- d. Confining abrasive blasting where possible and appropriate,

[Rule 62-296.320(4)(c)2., F.A.C.]

{Note: This condition implements the requirements of Rule 62-296.320(4)(c)1., 3., & 4. F.A.C. (Appendix TV-1, Title V Conditions, Condition No. 58)}

9. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.

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

10. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3), F.A.C., shall be submitted within 60 (sixty) days after the end of the calendar year. {See condition 52., APPENDIX TV-1, TITLE V CONDITIONS}

[Rule 62-214.420(11), F.A.C.]

11. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's South District office:

Department of Environmental Protection
South District Office
2295 Victoria Avenue, Suite 364
Fort Myers, FL 33902-2549
Telephone: 941/332-6975
Fax: 941/332-6969

101

and

Department of Environmental Protection
South District Branch Office
2796 Overseas Highway, Suite 221
Marathon, FL 33050
Telephone: 305/289-2310

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

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Operating Permits Section
61 Forsyth Street
Atlanta, Georgia 30303
Telephone: 404/562-9099
Fax: 404/562-9095

Section III. Emissions Unit(s) and Conditions.

Subsection A. This section addresses the following emissions units.

ASU
75 TPD
✓

E.U. ID No.	Brief Description
001	Municipal Solid Waste Combustor No. 1
002	Municipal Solid Waste Combustor No. 2

These emission units are solid waste combustors and are designated as Combustor Nos. 1 and 2. They are custom built units by Montenay International Corporation and are rated at a maximum of 6250 pounds per hour of mixed municipal solid waste (per unit). Emissions from the combustors are controlled by electrostatic precipitators and combustion controls. Odor is controlled by drawing combustion air from the refuse area. The combustors share a stack. Combustor Nos. 1 and 2 began commercial operation in 1987.

{Permitting notes: These emissions units are regulated under Rules 62-210.300, Permits Required, and 62-296.416(1), F.A.C. These emissions units are subject to 40 CFR 60, Subpart E, Standards of Performance for Incinerators. Each combustor's exhaust is ducted to a Belco Model RE19 electrostatic precipitator (ESP), after which each ESP exhausts to a common 140 ft. high stack.}

The following specific Conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum input rate (operation rate) is as follows:

E.U. ID No.	Pounds per hour	Fuel Type
001	6250	Mixed municipal waste
002	6250	Mixed municipal waste

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

{Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability.}

A.2. Emissions Unit Operating Rate Limitation After Testing. See Specific Condition **A.12.**
[Rule 62-297.310(2), F.A.C.]

A.3. Methods of Operation - Fuels. Only mixed municipal solid waste shall be fired in the combustors. These incinerators shall not be used for the disposal of radioactive materials.
[Rule 62-213.410(1), F.A.C., AO44-207778 and AO44-207781]

A.4. Hours of Operation. These emission units may operate continuously, i.e., 8,760 hours/year. The hours of operation shall be recorded.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

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

A.5. Visible Emissions. No visible emissions (5 percent opacity) are allowed from these emission units except that visible emissions not exceeding 20 percent opacity are allowed for up to three (3) minutes in any one hour period.

[Rule 62-296.401, F.A.C.]

0.08

A.6. Particulate Emissions. Particulate matter emissions shall not exceed .08 gr./dscf corrected to 50% excess air.

[AO44-207778 and AO44-207781]

A.7. Dust, odor and run-off. This facility shall be operated in such a fashion to preclude objectionable odors. All fugitive dust at this site shall be adequately controlled. There shall be no discharges of liquid effluents or contaminated run-off from the plant site. The applicant shall comply with all provisions of the solid waste rules applicable to ash disposal.

[AO44-207778 and AO44-207781]

Excess Emissions

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of an NSPS, NESHAP, or Acid Rain program provision.}

A.8. Excess emissions resulting from malfunction, startup or shutdown shall be permitted providing:

- (1) best operational practices to minimize emissions are adhered to and
- (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.

[Rule 62-210.700(1), F.A.C.]

A.9. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.]

Test Methods and Procedures

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

A.10. These combustors are regulated individually and must be tested individually. Due to the common stack, one unit must be shut down while the other unit is being tested.

[Rules 62-4.070(3) and 62-213.440(1), F.A.C.]

A.11. The test method for visible emissions shall be EPA Method 9, as published in 40 CFR-60, Appendix A, or State approved equivalent method. The test method for particulate emissions shall be EPA Method 5 as published in 40 CFR-60, Appendix A, or State approved equivalent method.

[Rules 62-296.401.(1)(c) , 62-297.401, F.A.C., AO44-207778 and AO44-207781]

NSPS Subpart E applicability

① \rightarrow SO₂ TPD charging rate

$$\frac{6,250 \text{ pounds/hour}}{3,000 \text{ \#/T}} \times 24 \text{ hrs/day} = 75 \text{ TPD}$$

② Commence construction after 8/17/71?

Diagram A-1. (P.T.E).

PAG. 5

A.12. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity (i.e., at less than 90 percent of the maximum operation rate allowed by the permit); in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(b), F.A.C.]

Recordkeeping and Reporting Requirements

A.13. Malfunction Reporting. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department's South District office in accordance with Appendix TV-1, Title V Condition No. 9. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
[Rule 62-210.700(6), F.A.C.]

A.14. Test Reports.

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department's South District office on the results of each such test.
 - (b) The required test report shall be filed with the Department's South District office as soon as practical but no later than 45 days after the last sampling run of each test is completed.
 - (c) Notification and reporting requirements of this permit shall also be sent to the Marathon DEP office.
 - (d) Reporting shall comply with Common Condition C.9.
- [Rule 62-297.310(8), F.A.C., AO44-207778 and AO44-207781]

Subsection B. This section addresses the following emissions unit.

E.U. ID No.	Brief Description
003	Municipal Solid Waste Landfill

{Permitting note(s): This emissions unit is regulated under 40 CFR 60.752, Standards for air emissions from municipal solid waste landfills.}

The following specific Conditions apply to the emissions units listed above:

Sections 60.752(a)-(d) Standards for air emissions from municipal solid waste landfills.

B.1. Reporting of design capacity.

(a) Each owner or operator of an MSW landfill having a design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume shall submit an initial design capacity report to the Administrator as provided in 40 CFR 60.757(a). The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions shall be documented and submitted with the report. For purposes of part 70 permitting, a landfill with a design capacity less than 2.5 million megagrams or 2.5 million cubic meters does not require an operating permit under part 70 of this chapter. Submittal of the initial design capacity report shall fulfill the requirements of this subpart except as provided for in paragraphs (a)(1) and (a)(2) of this section.

(1) The owner or operator shall submit to the Administrator an amended design capacity report, as provided for in 40 CFR 60.757(a)(3), when there is any increase in the design capacity of a landfill subject to the provisions of this subpart, whether the increase results from an increase in the area or depth of the landfill, a change in the operating procedures of the landfill, or any other means.

(2) If any increase in the maximum design capacity of a landfill exempted from the provisions of 40 CFR 60.752(b) through 40 CFR 60.759 of this subpart on the basis of the design capacity exemption in paragraph (a) of this section results in a revised maximum design capacity equal to or greater than 2.5 million megagrams or 2.5 million cubic meters, the owner or operator shall comply with the provision of paragraph (b) of this section.

B.2. Determination of non-methane organic compounds.

(b) Each owner or operator shall either comply with condition (2) below or calculate an NMOC emission rate for the landfill using the procedures specified in section 60.754 of this permit. The NMOC emission rate shall be recalculated annually, except as provided in condition 60.757(b)(1)(ii).

(1) If the calculated NMOC emission rate is less than 50 megagrams per year, the owner or operator shall:

(i) Submit an annual emission report to the Administrator, except as provided for in condition 60.757(b)(1)(ii); and

(ii) Recalculate the NMOC emission rate annually using the procedures specified in condition 60.754(a)(1) until such time as the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, or the landfill is closed.

(A) If the NMOC emission rate, upon recalculation required in paragraph (b)(1)(ii) of this section, is equal to or greater than 50 megagrams per year, the owner or operator shall install a collection and control system in compliance with condition (2) below.

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

(2) If a NMOC emission rate for the landfill, using the procedures specified in section 60.754 of this permit, has not been calculated or the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, the owner or operator shall:

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

(A) The collection and control system as described in the plan shall meet the design requirements of condition (b)(2)(ii) of this permit.

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

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

(D) The Administrator shall review the information submitted under conditions (2)(i) (A),(B) and (C) above and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only, leachate collection components, and passive systems.

(ii) Install a collection and control system that captures the gas generated within the landfill as required by paragraphs (b)(2)(ii)(A) or (B) and (b)(2)(iii) of this section within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the emission rate is less than 50 megagrams per year, as specified in section 60.757(c)(1) or (2).

(A) An active collection system shall:

(1) Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment;

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

(i) 5 years or more if active; or

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

(3) Collect gas at a sufficient extraction rate;

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

(B) A passive collection system shall:

(1) Comply with the provisions specified in conditions (2)(ii)(A) (1), (2), and (4) above.

(2) Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners shall be installed as required under 40 CFR 258.40.

(iii) Route all the collected gas to a control system that complies with the requirements in either of the following conditions (2)(iii) (A), (B) or (C).

(A) An open flare designed and operated in accordance with 40 CFR 60.18;

(B) A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in section 60.754(d).

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

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

(C) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of condition (2)(iii) (A) or (B) above.

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

(v) The collection and control system may be capped or removed provided that all the conditions of paragraphs (2)(v) (A), (B), and (C) below are met:

(A) The landfill shall be a closed landfill as defined in section 60.751. A closure report shall be submitted to the Administrator as provided in section 60.757(d);

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

(C) Following the procedures specified in condition 60.754(b) of this permit, the calculated NMOC gas produced by the landfill shall be less than 50 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.

[Rule 62-204.800, F.A.C.; 40 CFR 60.752(b)]

B.3. Requirement to obtain a Title V Permit.

(c) For purposes of obtaining a Title V Operation Permit, the owner or operator of a MSW landfill subject to this subpart with a design capacity less than 2.5 million megagrams or 2.5 million cubic meters is not subject to the requirement to obtain a Title V Operation Permit, unless the landfill is otherwise subject to Title V. For purposes of submitting a timely application for a Title V operation permit, the owner or operator of a MSW landfill subject to subpart WWW with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters, and not otherwise subject to Title V, must submit an application, regardless of when the design capacity report is actually submitted, no later than:

(1) (Reserved)

(2) Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commence construction, modification, or reconstruction on or after March 12, 1996.

[Rule 62-204.800, F.A.C.; 40 CFR 60.752(c)]

B.4. Closure of landfill.

(d) When a MSW landfill subject to this subpart is closed, the owner or operator is no longer subject to the requirement to maintain a Title V Operation Permit for the landfill if the landfill is not otherwise subject to Title V and if either one of the following conditions are met:

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

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.752(d)]

Section 60.753 Operational standards for collection and control systems.

B.5. Length of time required to operate control system.

(a) Each owner or operator of a MSW landfill with a gas collection and control system used to comply with the provisions of section 60.752(b)(2)(ii) above shall operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:

(1) 5 years or more if active; or

(2) 2 years or more if closed or at final grade.

[Rule 62-204.800, F.A.C.; 40 CFR 60.753(a)]

B.6. Collection system pressure requirements.

(b) Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of condition 60.752(b)(2)(ii) above shall operate the collection system with negative pressure at each wellhead except under the following conditions:

(1) A fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in condition 60.757(f)(1);

(2) Use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan;

(3) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Administrator.

[Rule 62-204.800, F.A.C.; 40 CFR 60.753(b)]

B.7. Collection system temperature, oxygen and nitrogen requirements.

(c) Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of condition 60.752(b)(2)(ii) above shall operate each interior wellhead in the collection system with a landfill gas temperature less than 55 °C and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The owner or operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.

(1) The nitrogen level shall be determined using Method 3C, unless an alternative test method is established as allowed by condition 60.752(b)(2)(i) above.

(2) Unless an alternative test method is established as allowed by condition 60.752(b)(2)(i) above, the oxygen shall be determined by an oxygen meter using Method 3A except that:

(i) The span shall be set so that the regulatory limit is between 20 and 50 percent of the span;

(ii) A data recorder is not required;

(iii) Only two calibration gases are required, a zero and span, and ambient air may be used as the span;

(iv) A calibration error check is not required;

(v) The allowable sample bias, zero drift, and calibration drift are ± 10 percent.

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

B.8. Collection system background methane requirements.

(d) Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of condition 60.752(b)(2)(ii) above shall operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30 meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.

[Rule 62-204.800, F.A.C.; 40 CFR 60.753(d)]

B.9. Collection system venting requirements.

(e) Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of condition 60.752(b)(2)(ii) above shall operate the system such that all collected gases are vented to a control system designed and operated in compliance with condition 60.752(b)(2)(iii) above. In the event

the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour. [Rule 62-204.800, F.A.C.; 40 CFR 60.753(e)]

B.10. Requirement for continuous operation.

(f) Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of condition 60.752(b)(2)(ii) above shall operate the control or treatment system at all times when the collected gas is routed to the system.

[Rule 62-204.800, F.A.C.; 40 CFR 60.753(f)]

B.11. Requirement to take corrective action.

(g) If monitoring demonstrates that the operational requirements in conditions (b), (c), or (d) of this section are not met, corrective action shall be taken as specified in section 60.755(a)(3) through (a)(5) or Sec. 60.755(c) of this permit. If corrective actions are taken as specified in section 60.755, the monitored exceedance is not a violation of the operational requirements in this section.

[Rule 62-204.800, F.A.C.; 40 CFR 60.753(g)]

Section 60.754 Test methods and procedures.

B.12. Method of calculation of NMOC emissions when actual solid waste acceptance rates are unknown.

(a)(1) The landfill owner or operator shall calculate the NMOC emission rate using either the equation provided in condition (a)(1)(i) below or the equation provided in condition (a)(1)(ii) below. Both equations may be used if the actual year-to-year solid waste acceptance rate is unknown, as specified in (a)(1)(ii), for part of the life of the landfill. The values to be used in both equations are 0.05 per year for k , 170 cubic meters per megagram for L_0 , and 4,000 parts per million by volume as hexane for the C_{NMOC} . For landfills located in geographical areas with a thirty year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorologic site, the k value to be used is 0.02 per year.

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

$$M_{NMOC} = \sum_{i=1}^n 2kL_0M_i(e^{-kt_i})(C_{NMOC})(3.6 \times 10^{-9})$$

where,

M_{NMOC} = Total NMOC emission rate from the landfill, megagrams per year

k = methane generation rate constant, year⁻¹

L_0 = methane generation potential, cubic meters per megagram solid waste

M_i = mass of solid waste in the i^{th} section, megagrams

t_i = age of the i^{th} section, years

C_{NMOC} = concentration of NMOC, parts per million by volume as hexane

3.6×10^{-9} = conversion factor

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

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

$$M_{NMOC} = 2L_0R(e^{-kc} - e^{-kt})(C_{NMOC})(3.6 \times 10^{-9})$$

where,

M_{NMOC} = mass emission rate of NMOC, megagrams per year
 L_0 = methane generation potential, cubic meters per megagram solid waste
 R = average annual acceptance rate, megagrams per year
 k = methane generation rate constant, year⁻¹
 t = age of landfill, years
 C_{NMOC} = concentration of NMOC, parts per million by volume as hexane
 c = time since closure, years. For active landfill $c = 0$ and $e^{-kc} = 1$
 3.6×10^{-9} = conversion factor

The mass of nondegradable solid waste may be subtracted from the average annual acceptance rate when calculating a value for R , if documentation of the nature and amount of such wastes is maintained.
[Rule 62-204.800, F.A.C.; 40 CFR 60.754(a)(1)]

B.13. Requirements if calculated NMOC emissions are less than 50 megagrams per year.

(a)(2) Tier 1. The owner or operator shall compare the calculated NMOC mass emission rate to the standard of 50 megagrams per year.

(i) If the NMOC emission rate calculated in condition (a)(1) of this section is less than 50 megagrams per year, then the landfill owner shall submit an emission rate report as provided in condition 60.757(b)(1), and shall recalculate the NMOC mass emission rate annually as required under condition 60.752(b)(1).

(ii) If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, then the landfill owner shall either comply with condition 60.752(b)(2), or determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the procedures provided in specific condition (a)(3) below.

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(a)(2)]

B.14. Method for determining site-specific NMOC emissions.

(a)(3) Tier 2. The landfill owner or operator shall determine the NMOC concentration using the following sampling procedure. The landfill owner or operator shall install at least two sample probes per hectare of landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator shall collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using Method 25C or Method 18 of 40 CFR 60 Appendix A. If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). If composite sampling is used, equal volumes shall be taken from each sample probe. If more than the required number of samples are taken, all samples shall be used in the analysis. The landfill owner or operator shall divide the NMOC concentration from Method 25C by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

(i) The landfill owner or operator shall recalculate the NMOC mass emission rate using the equations provided in condition (a)(1)(i) or (a)(1)(ii) of this section and using the average NMOC concentration from the collected samples instead of the default value in the equation provided in specific condition (a)(1) of this section.

(ii) If the resulting mass emission rate calculated using the site-specific NMOC concentration is equal to or greater than 50 megagrams per year, then the landfill owner or operator shall either comply with condition 60.752(b)(2), or determine the site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the procedure specified in specific condition (a)(4) of this section.

(iii) If the resulting NMOC mass emission rate is less than 50 megagrams per year, the owner or operator shall submit a periodic estimate of the emission rate report as provided in

condition 60.757(b)(1) and retest the site-specific NMOC concentration every 5 years using the methods specified in this section.

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(a)(3)]

B.15. Method for determining site-specific methane emissions.

(a)(4) Tier 3. The site-specific methane generation rate constant shall be determined using the procedures provided in Method 2E of 40 CFR 60 Appendix A. The landfill owner or operator shall estimate the NMOC mass emission rate using equations in condition (a)(1)(i) or (a)(1)(ii) of this section and using a site-specific methane generation rate constant k , and the site-specific NMOC concentration as determined in condition (a)(3) of this section instead of the default values provided in condition (a)(1) of this section. The landfill owner or operator shall compare the resulting NMOC mass emission rate to the standard of 50 megagrams per year.

(i) If the NMOC mass emission rate as calculated using the site-specific methane generation rate and concentration of NMOC is equal to or greater than 50 megagrams per year, the owner or operator shall comply with condition 60.752(b)(2).

(ii) If the NMOC mass emission rate is less than 50 megagrams per year, then the owner or operator shall submit a periodic emission rate report as provided in condition 60.757(b)(1) and shall recalculate the NMOC mass emission rate annually, as provided in condition 60.757(b)(1) using the equations in condition (a)(1) of this section and using the site-specific methane generation rate constant and NMOC concentration obtained in condition (a)(3) of this section. The calculation of the methane generation rate constant is performed only once, and the value obtained from this test shall be used in all subsequent annual NMOC emission rate calculations.

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(a)(4)]

B.16. Alternative methods.

(a)(5) The owner or operator may use other methods to determine the NMOC concentration or a site-specific k as an alternative to the methods required in conditions (a)(3) and (a)(4) of this section if the method has been approved by the Administrator.

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(a)(5)]

B.17. Calculating NMOC rate to determine when a collection and control system may be removed.

(b) After the installation of a collection and control system in compliance with section 60.755, the owner or operator shall calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in condition 60.752(b)(2)(v), using the following equation:

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

where,

M_{NMOC} = mass emission rate of NMOC, megagrams per year

Q_{LFG} = flow rate of landfill gas, cubic meters per minute

C_{NMOC} = NMOC concentration, parts per million by volume as hexane

(1) The flow rate of landfill gas, Q_{LFG} , shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions of Section 4 of Method 2E of 40 CFR 60 Appendix A.

(2) The average NMOC concentration, C_{NMOC} , shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25C or Method 18 of 40 CFR 60 Appendix A. If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The sample location on the common header pipe shall be before any condensate removal or

other gas refining units. The landfill owner or operator shall divide the NMOC concentration from Method 25C by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(b)]

B.18. Calculating emissions for PSD purposes.

(c) When calculating emissions for PSD purposes, the owner or operator of each MSW landfill subject to the provisions of this subpart shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in 40 CFR 51.166 or 40 CFR 52.21 using AP-42 or other approved measurement procedures. If a collection system, which complies with the provisions in Sec. 60.752(b)(2) is already installed, the owner or operator shall estimate the NMOC emission rate using the procedures provided in condition (b) of this section.

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(c)]

B.19. Performance test methods.

(d) For the performance test required in condition 60.752(b)(2)(iii)(B), Method 25C or Method 18 of 40 CFR 60 Appendix A shall be used to determine compliance with 98 weight-percent efficiency or the 20 ppmv outlet concentration level, unless another method to demonstrate compliance has been approved by the Administrator as provided by condition 60.752(b)(2)(i)(B). If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The following equation shall be used to calculate efficiency:

$$\text{Control Efficiency} = (\text{NMOC}_{\text{in}} - \text{NMOC}_{\text{out}}) / (\text{NMOC}_{\text{in}})$$

where,

NMOC_{in} = mass of NMOC entering control device

NMOC_{out} = mass of NMOC exiting control device

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(d)]

Section 60.755 Compliance provisions.

Except as provided in condition 60.752(b)(2)(i)(B), the specified methods in paragraphs (a)(1) through (a)(6) of this section shall be used to determine whether the gas collection system is in compliance with Sec. 60.752(b)(2)(ii).

B.20. Methods for ensuring collection system accuracy.

(a)(1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with condition 60.752(b)(2)(ii)(A)(1), one of the following equations shall be used. The k and L_0 kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site specific values demonstrated to be appropriate and approved by the Administrator. If k has been determined as specified in condition 60.754(a)(4), the value of k determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.

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

$$Q_m = 2L_0R(e^{-kc} - e^{-kt})$$

where,

Q_m = maximum expected gas generation flow rate, cubic meters per year
 L_o = methane generation potential, cubic meters per megagram solid waste
 R = average annual acceptance rate, megagrams per year
 k = methane generation rate constant, year⁻¹
 t = age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure, t is the age of the landfill at installation, years
 c = time since closure, years (for an active landfill $c = 0$ and $e^{-kc} = 1$)

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

$$Q_m = \sum_{i=1}^n 2kL_oM_i(e^{-kti})$$

where,

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

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(1)]

(a)(2) For the purposes of determining sufficient density of gas collectors for compliance with condition 60.752(b)(2)(ii)(A)(2), the owner or operator shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Administrator, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(2)]

(a)(3) For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with condition 60.752(b)(2)(ii)(A)(3), the owner or operator shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under condition 60.753(b). If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval.

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(3)]

(a)(4) Owners or operators are not required to expand the system as required in condition (a)(3) during the first 180 days after gas collection system startup.
[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(4)]

(a)(5) For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature and nitrogen or oxygen as provided in condition 60.753(c). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval.
[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(5)]

(a)(6) An owner or operator seeking to demonstrate compliance with condition 60.752(b)(2)(ii)(A)(4) through the use of a collection system not conforming to the specifications provided in section 60.759 of this permit shall provide information satisfactory to the Administrator as specified in condition 60.752(b)(2)(i)(C) demonstrating that off-site migration is being controlled.
[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(6)]

B.21. Installation according to design plan.

(b) For purposes of compliance with condition 60.753(a), each owner or operator of a controlled landfill shall place each well or design component as specified in the approved design plan as provided in condition 60.752(b)(2)(i). Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:

- (1) 5 years or more if active; or
- (2) 2 years or more if closed or at final grade.

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

B.22. Surface methane requirements.

(c) The following procedures shall be used for compliance with the surface methane operational standard as provided in condition 60.753(d).

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

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

(3) Surface emission monitoring shall be performed in accordance with Section 4.3.1 of Method 21 of 40 CFR 60 Appendix A, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.

(4) Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified in conditions (c)(4) (i) through (v) of this section shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of condition 60.753(d).

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

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

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

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

(v) For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Administrator for approval.

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

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

B.23. Method for ensuring accuracy of surface methane measurements.

(d) Each owner or operator seeking to comply with the provisions in condition 60.755(c) above shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

(1) The portable analyzer shall meet the instrument specifications provided in Section 3 of 40 CFR 60 Appendix A Method 21, except that "methane" shall replace all references to VOC.

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

(3) To meet the performance evaluation requirements in Section 3.1.3 of Method 21, the instrument evaluation procedures of Section 4.4 of Method 21 shall be used.

(4) The calibration procedures provided in Section 4.2 of Method 21 shall be followed immediately before commencing a surface monitoring survey.

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(d)]

B.24. Applicability of permit provisions.

(e) The provisions of this permit apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices.

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(e)]

Section 60.756 Monitoring of operations.

B.25. Active gas collection system.

(a) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to comply with condition 60.752(b)(2)(ii)(A) for an active gas collection system shall install a sampling port and a thermometer or other temperature measuring device, or an access port for temperature measurements at each wellhead and:

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

(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in condition 60.755(a)(5); and

(3) Monitor temperature of the landfill gas on a monthly basis as provided in condition 60.755(a)(5).
[Rule 62-204.800, F.A.C.; 40 CFR 60.756(a)]

B.26. Enclosed combustor.

(b) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to comply with condition 60.752(b)(2)(iii) using an enclosed combustor shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment.

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

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

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

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.756(b)]

B.27. Open flare.

(c) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to comply with condition 60.752(b)(2)(iii) using an open flare shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

(1) A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.

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

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

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.756(c)]

B.28. Other control devices.

(d) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to demonstrate compliance with condition 60.752(b)(2)(iii) using a device other than an open flare or an enclosed combustor shall provide information satisfactory to the Administrator as provided in condition 60.752(b)(2)(i)(B) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator shall review the information and either approve it, or request that additional information be submitted. The Administrator may specify additional appropriate monitoring procedures.

[Rule 62-204.800, F.A.C.; 40 CFR 60.756(d)]

B.29. Alternate methods of compliance.

(e) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to install a collection system that does not meet the specifications in Section 60.759 or seeking to monitor alternative parameters to those required by Section 60.753 through Section 60.756 shall provide information satisfactory to the Administrator as provided in conditions 60.752(b)(2)(i) (B) and (C) describing the design and operation of the

collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator may specify additional appropriate monitoring procedures. [Rule 62-204.800, F.A.C.; 40 CFR 60.756(e)]

B.30. Surface methane operational standard.

(f) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to demonstrate compliance with condition 60.755(c), shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in condition 60.755(d). Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring. [Rule 62-204.800, F.A.C.; 40 CFR 60.756(f)]

Section 60.757 Reporting requirements.

B.31. Notification of any increase in design capacity.

(a) An amended design capacity report shall be submitted to the Administrator providing notification of any increase in the design capacity of the landfill, whether the increase results from an increase in the permitted area or depth of the landfill, a change in the operating procedures, or any other means which results in an increase in the maximum design capacity of the landfill above 2.5 million megagrams or 2.5 million cubic meters. The amended design capacity report shall be submitted within 90 days of the issuance of an amended construction or operating permit, or the placement of waste in additional land, or the change in operating procedures which will result in an increase in maximum design capacity, whichever occurs first. An amended design capacity report shall be submitted to the Administrator providing notification of an increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill to or above 2.5 million megagrams and 2.5 million cubic meters. This increase in design capacity may result from an increase in the permitted volume of landfill or an increase in the density as documented in the annual recalculation required in section 60.758(f).

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(a)]

B.32. Annual NMOC emission rate.

(b) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator subject to the requirements of this subpart shall submit an annual NMOC emission rate report to the Administrator, except as provided for in condition (b)(1)(ii) or (b)(3) of this section. The Administrator may request such additional information as may be necessary to verify the reported NMOC emission rate.

(1) The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in condition 60.754(a) or (b), as applicable.

(i) The initial NMOC emission rate report may be combined with the initial design capacity report and shall be submitted no later than ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction on or after March 12, 1996. Subsequent NMOC emission rate reports shall be submitted annually thereafter, except as provided for in conditions (b)(1)(ii) and (b)(3) of this section.

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

shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

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

(3) Each owner or operator subject to the requirements of this subpart is exempted from the requirements of conditions (b)(1) and (2) of this section, after the installation of a collection and control system in compliance with condition 60.752(b)(2), during such time as the collection and control system is in operation and in compliance with Section 60.753 and Section 60.755.

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(b)]

B.33. Collection and control system design plan.

(c) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator subject to the provisions of condition 60.752(b)(2)(i) shall submit a collection and control system design plan to the Administrator within 1 year of the first report, in which the emission rate exceeds 50 megagrams per year, except as follows:

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

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(c)]

B.34. Closure report.

(d) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall submit a closure report to the Administrator within 30 days of waste acceptance cessation. The Administrator may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the Administrator, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 60.7(a)(4).

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(d)]

B.35. Equipment removal report.

(e) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall submit an equipment removal report to the Administrator 30 days prior to removal or cessation of operation of the control equipment.

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

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

(ii) A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired; and

(iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year.

(2) The Administrator may request such additional information as may be necessary to verify that all of the conditions for removal in condition 60.752(b)(2)(v) have been met.
[Rule 62-204.800, F.A.C.; 40 CFR 60.757(e)]

B.36. Active collection system annual reports.

(f) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator of a landfill seeking to comply with condition 60.752(b)(2) using an active collection system designed in accordance with condition 60.752(b)(2)(ii) shall submit to the Administrator annual reports of the recorded information in (f)(1) through (f)(6) below. The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under 40 CFR 60.8. For enclosed combustion devices and flares, reportable exceedances are defined under condition 60.758(c).

(1) Value and length of time for exceedance of applicable parameters monitored under conditions 60.756(a), (b), (c), and (d).

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

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

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

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

(6) The date of installation and the location of each well or collection system expansion added pursuant to conditions (a)(3), (b), and (c)(4) of Section 60.755.

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(f)]

B.37. Passive collection system reporting.

(g) Each owner or operator seeking to comply with section 60.752(b)(2)(iii) shall include the following information with the initial performance test report required under 40 CFR 60.8:

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

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

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

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

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

(6) The provisions for the control of off-site migration.

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(g)]

Section 60.758 Recordkeeping requirements.

B.38. Capacity and acceptance reports.

(a) Except as provided in section 60.752(b)(2)(i)(B), each owner or operator of an MSW landfill subject to the provisions of condition 60.752(b) shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered section 60.752(b), the current amount of solid waste in-place, and

the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.
[Rule 62-204.800, F.A.C.; 40 CFR 60.758(a)]

B.39. Control equipment test results.

(b) Except as provided in section 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in conditions (b)(1) through (b)(4) of this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.

(1) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with condition 60.752(b)(2)(ii):

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

(ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in condition 60.759(a)(1).

(2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with condition 60.752(b)(2)(iii) through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity greater than 44 megawatts:

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

(ii) The percent reduction of NMOC determined as specified in condition 60.752(b)(2)(iii)(B) achieved by the control device.

(3) Where an owner or operator seeks to demonstrate compliance with condition 60.752(b)(2)(iii)(B)(1) through use of a boiler or process heater of any size: a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.

(4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with condition 60.752(b)(2)(iii)(A) through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.

[Rule 62-204.800, F.A.C.; 40 CFR 60.758(b)]

B.40. Equipment operating parameters.

(c) Except as provided in section 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill subject to the provisions of this subpart shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in Section 60.756 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

(1) The following constitute exceedances that shall be recorded and reported under condition 60.757(f):

(i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28 °C below the average combustion temperature during the most recent performance test at which compliance with condition 60.752(b)(2)(iii) was determined.

(ii) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under condition (b)(3)(i) of this section.

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

(3) Each owner or operator who uses a boiler or process heater with a design heat input capacity of 44 megawatts or greater to comply with condition 60.752(b)(2)(iii) shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater. (Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other State, local, or Federal regulatory requirements.)

(4) Each owner or operator seeking to comply with the provisions of this permit by use of an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under condition 60.756(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

[Rule 62-204.800, F.A.C.; 40 CFR 60.758(c)]

B.41. Plot map.

(d) Except as provided in section 60.752(b)(2)(i)(B), each owner or operator shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.

(1) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under condition 60.755(b).

(2) Each owner or operator subject to the provisions of this subpart shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in condition 60.759(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in condition 60.759(a)(3)(ii).

[Rule 62-204.800, F.A.C.; 40 CFR 60.758(d)]

B.42. Exceedances.

(e) Except as provided in section 60.752(b)(2)(i)(B), each owner or operator shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in condition 60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

[Rule 62-204.800, F.A.C.; 40 CFR 60.758(e)]

B.43. Design capacity calculations.

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.758(f)]

Section 60.759 Specifications for active collection systems.

B.44. Placement of collection devices.

(a) Each owner or operator seeking to comply with condition 60.752(b)(2)(i) shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Administrator as provided in conditions 60.752(b)(2)(i)(C) and (D):

(1) The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat.

(2) The sufficient density of gas collection devices determined in condition (a)(1) above shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.

(3) The placement of gas collection devices determined in condition (a)(1) above shall control all gas producing areas, except as provided by conditions (a)(3)(i) and (a)(3)(ii) below.

(i) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under condition 60.758(d). The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and shall be provided to the Administrator upon request.

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

$$Q_i = 2kL_oM_i(e^{-kt_i})(C_{NMOC})(3.6 \times 10^{-9})$$

where,

Q_i = NMOC emission rate from the i^{th} section, megagrams per year

k = methane generation rate constant, year⁻¹

L_o = methane generation potential, cubic meters per megagram solid waste

M_i = mass of the degradable solid waste in the i^{th} section, megagram

t_i = age of the solid waste in the i^{th} section, years

C_{NMOC} = concentration of nonmethane organic compounds, parts per million by volume

3.6×10^{-9} = conversion factor

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.759(a)]

B.45. Design of collection devices.

(b) Each owner or operator seeking to comply with condition 60.752(b)(2)(i)(A) shall construct the gas collection devices using the following equipment or procedures:

(1) The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with

emission and migration standards. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration.

(2) Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.759(b)]

B.46. Capacity of collection system.

(c) Each owner or operator seeking to comply with condition 60.752(b)(2)(i)(A) shall convey the landfill gas to a control system in compliance with condition 60.752(b)(2)(iii) through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:

(1) For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in condition (c)(2) below shall be used.

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.759(c)]

4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

C.11. Annual Operation Report. An annual operation report shall be submitted by March 1st of each year.

[AO44-207778 and AO44-207781]

C.6. Applicable Test Procedures.

(a) Required Sampling Time.

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.

2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur.

Exceptions to these requirements are as follows:

c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

(c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.

(d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1.

(e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

[Rule 62-297.310(4), F.A.C.]

C.7. Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities (version dated 10/07/96), attached to this permit.

[Rule 62-297.310(6), F.A.C.]

Record Keeping and Reporting Requirements

C.8. Malfunctions - Notification. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department's South District office in accordance with Appendix TV-1, Title V Condition No. 9, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department's South District office.

[Rule 62-210.700(6), F.A.C.]

C.9. Test Reports. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department's South District office to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.

or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and

5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.

8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.

9. The owner or operator shall notify the Department's South District office, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; and, SIP approved]

C.4. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance.

[Rule 62-297.310(1), F.A.C. and 40 CFR 60.8]

C.5. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule.

[Rule 62-297.310(3), F.A.C.]

Subsection C. Common Conditions.

E.U. ID No.	Brief Description
001	Municipal Solid Waste Combustor No. 1
002	Municipal Solid Waste Combustor No. 2

The following Conditions apply to the emissions unit(s)/activities listed above:

Essential Potential to Emit (PTE) Parameters

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

Monitoring of Operations

C.2. Determination of Process Variables.

(a) **Required Equipment.** The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) **Accuracy of Equipment.** Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

Test Methods and Procedures

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

C.3. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) **General Compliance Testing.**

3. Except as otherwise specified in an applicable subsection, the owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

- a. Did not operate; or
- b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.

4. During each federal fiscal year (October 1 -- September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

- a. Visible emissions, if there is an applicable standard;
- b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits

Section IV. This section is the Acid Rain Part.

Operated by: City of Key West
ORIS Code: 4953

Subsection A. This subsection addresses Acid Rain, Phase II.

The emissions units listed below are regulated under Acid Rain, Phase II.

*would we
 ever expect
 them to
 burn
 fossil fuel?*

E.U. ID No.	Brief Description
001	Municipal Solid Waste Combustor No. 1
002	Municipal Solid Waste Combustor No. 2
003	Municipal Solid Waste Landfill

1. For any unit which was a solid waste incinerator, burning less than 20 percent fossil fuel as described in 40 CFR 72.6(b)(7), adopted and incorporated by reference at Rule 62-204.800, F.A.C. the designated representative of the source containing the unit shall submit a complete Acid Rain Part application governing such unit to the Department before the later of January 1, 1998, or March 1 of the year following the three calendar year period in which the incinerator consumed 20 percent or more fossil fuel on a British thermal unit (BTU) basis.
 [Chapter 62-214.320(1)(h), F.A.C.]

2. Sulfur dioxide (SO₂) allowance allocations requirements for each Acid Rain unit are as follows:

E.U. ID No.	EPA ID	Year	2000	2001	2002	2003
001	1	SO ₂ Allowances, under Table 2 of 40 CFR Part 73	0*	0*	0*	0*
002	2	SO ₂ Allowances, under Table 2 of 40 CFR Part 73	0*	0*	0*	0*
003	3	SO ₂ Allowances, under Table 2 of 40 CFR Part 73	0*	0*	0*	0*

*The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the U.S. EPA under Table 2 of 40 CFR 73.

- 3. Emission Allowances.** Emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.
1. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.
 2. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.
 3. Allowances shall be accounted for under the Federal Acid Rain Program.
[Rule 62-213.440(1)(c), F.A.C.]
- 4. Fast-Track Revisions of Acid Rain Parts.** Those Acid Rain sources making a change described at Rule 62-214.370(4), F.A.C., may request such change as provided in Rule 62-213.413, F.A.C., Fast-Track Revisions of Acid Rain Parts.
[Rules 62-213.413 and 62-214.370(4), F.A.C.]

City of Key West
Southermost Waste To Energy Facility
Facility ID No.: 0870047
Monroe County
Initial Title V Air Operation Permit
DRAFT Permit No.: 0870047-001-AV

Permitting Authority:
State of Florida
Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
Title V Section
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Telephone: 850/488-1344
Fax: 850/922-6979

Compliance Authority:
South District Office
2295 Victoria Avenue, Suite 364
Fort Myers, FL 33902-2549
Telephone: 941/332-6975
Fax: 941/332-6969



Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

Permittee:
City of Key West
P.O. Box 1409
Key West, Florida 33041-1409

DRAFT Permit No.: 0870047-001-AV
Facility ID No.: 0870047
SIC No.: 49; 4953
Project: Initial Title V Air Operation

this sentence delete

This permit is for the operation of the City of Key West, Southernmost Waste To Energy Facility. It includes the Phase I/II NOx limitations pursuant to Rule 62-214.360(6), Florida Administrative Code (F.A.C.), in the Title IV Acid Rain Part. This facility is located at 5701 West Junior College Road, Key West, Monroe County; UTM Coordinates: Zone 17, 424.37 km East and 2718.46 km North; Latitude: 24° 34' 42" North and Longitude: 81° 44' 49" West.

delete

STATEMENT OF BASIS: This Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, 62-213, and 62-214, F.A.C. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Referenced Attachments made a part of this permit:

- Appendix U-1, List of Unregulated Emissions Units and/or Activities
- Appendix I-1, List of Insignificant Emissions Units and/or Activities
- Appendix WWW-1, Definitions associated with 40 CFR 60 Subpart WWW
- APPENDIX TV-1, TITLE V CONDITIONS (version dated 12/02/97)
- APPENDIX SS-1, STACK SAMPLING FACILITIES (version dated 10/07/96)
- TABLE 297.310-1, CALIBRATION SCHEDULE
- FIGURE 1 - SUMMARY REPORT-GASEOUS AND OPACITY EXCESS EMISSION AND MONITORING SYSTEM PERFORMANCE REPORT (version dated 7/96)
- Alternate Sampling Procedure: ASP Number 97-B-01, including the Order Correcting the Scrivener's Error dated July 2, 1997

remove dates

Effective Date: January 1, 1999
Renewal Application Due Date: July 5, 2003
Expiration Date: December 31, 2003

Howard L. Rhodes, Director
Division of Air Resources Management

HLR/sms/mpb

STATEMENT OF BASIS

Title V DRAFT Permit No.: 0870047-001-AV
City of Key West
Southernmost Waste To Energy Facility
Monroe County

This Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, 62-213, and 62-214, F.A.C. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

The facility (SWTEF) consists of two identical municipal solid waste combustors (Combustor Nos. 1 and 2); an approximately twenty acre municipal solid waste landfill which is no longer accepting waste; storage and handling facilities for ash; oil storage tanks; cooling tower; and ancillary support equipment. Also, included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

Municipal Solid Waste Combustor Nos. 1 and 2 are mass-fired waterwall boilers. Steam from these boilers is utilized in the generation of electrical energy (4 MWe per generator). The emissions units are fired on mixed municipal waste only. There are electrostatic precipitators on these emissions units with design control efficiency of 97.7%. The combustion gases exhaust through a single stack of 140 feet. Both units began commercial operation in 1987. These emissions units are regulated under 40 CFR 60, Subpart E, Standards of Performance for Incinerators.

Contiguous to the facility is an approximately 20 acre landfill which is no longer accepting waste. Landfill gas is emitted through passive gas vents spaced at approximately 100-200 ft. intervals. Landfilling with municipal waste began approximately in the mid 1940's, however when the SWTEF became operational in 1987, ash became the only material landfilled. Closures were made in two phases in 1991 and 1996. This emissions unit is regulated under 40 CFR 60.752, Standards for air emissions from municipal solid waste landfills.

Based on the initial Title V permit application received June 12, 1996, this facility is a major source of hazardous air pollutants (HAPs).

[Date]

Mr. E. David Fernandez
Utilities Director
City of Key West
5701 West Junior College Road
Key West, Florida 33040

Re: DRAFT Title V Permit No.: 0870047-001 -AV
Southernmost Waste to Energy Facility

Dear Mr. Fernandez:

One copy of the DRAFT Title V Air Operation Permit for the Southernmost Waste to Energy Facility located at 5701 West Junior College Road, Key West, Monroe County, is enclosed. The permitting authority's Intent to Issue Title V Air Operation Permit and the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" must be published within 30 (thirty) days of receipt of this letter. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the permitting authority's proposed action to Mr. Scott M. Sheplak at the above letterhead address. If you have any other questions, please contact Mr. Edward J. Svec at 904/488-1344.

Sincerely,

C. H. Fancy, P.E.
Chief,
Bureau of Air Regulation

CHF/s

Enclosures.

[electronic file name: 0870047i.DOC]

In the Matter of an
Application for Permit by:

City of Key West
5701 West Junior College Road
Key West, Florida 33040

DRAFT Permit No.: 0870047-001 -AV
Southernmost Waste to Energy Facility
Monroe County

INTENT TO ISSUE TITLE V AIR OPERATION PERMIT

The Department of Environmental Protection (Department) gives notice of its intent to issue a Title V air operation permit (copy of DRAFT Permit attached) for the Title V source detailed in the application specified above, for the reasons stated below.

The applicant, the City of Key West, applied on June 12, 1996 to the Department for a Title V air operation permit for the Southernmost Waste to Energy Facility located at 5701 West Junior College Road, Key West, Monroe County.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213, and 62-214. This source is not exempt from Title V permitting procedures. The Department has determined that a Title V air operation permit is required to commence or continue operations at the described facility.

The Department intends to issue this Title V air operation permit based on the belief that reasonable assurances have been provided to indicate that operation of the source will not adversely impact air quality, and the source will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C.

Pursuant to Sections 403.815 and 403.0872, F.S., and Rules 62-103.150 and 62-210.350(3), F.A.C., you (the applicant) are required to publish at your own expense the enclosed "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT." The notice shall be published one time only within 30 (thirty) days in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 904/488-1344; Fax: 904/922-6979), within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit pursuant to Rule 62-103.150(6), F.A.C.

The Department will issue the Title V PROPOSED Permit, and subsequent Title V FINAL Permit, in accordance with the conditions of the enclosed Title V DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT." Written comments should be provided to the permitting authority office. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the Department shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

In addition, any person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 904/488-9730; Fax: 904/487-4938). Petitions filed by the permit applicant and the parties listed below must be filed within 14 (fourteen) days of receipt of this intent. Petitions filed by other persons must be filed within 14 (fourteen) days of publication of the public notice or within 14 (fourteen) days of the receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

The petition shall contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the proposed source will operate; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by petitioner, if any; (e) A statement of facts which the petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement of which rules or statutes the petitioner contends require reversal or modification of the Department's action or proposed action; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this DRAFT Permit. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above, and be filed (received) within 14 (fourteen) days of receipt of this intent in the Office of General Counsel at the address referenced above. Failure to petition within the allowed time frame constitutes a

waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 60Q-2.010, F.A.C.

Executed in Tallahassee, Florida.

**STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION**

C. H. Fancy, P.E.
Chief,
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that copies of this INTENT TO ISSUE TITLE V AIR OPERATION PERMIT (including the PUBLIC NOTICE and the DRAFT permit) were sent by certified mail before the close of business on _____ to the person(s) listed:

E. David Fernandez, City of Key West
[third party, if any]

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of this INTENT TO ISSUE TITLE V AIR OPERATION PERMIT (including the PUBLIC NOTICE and the DRAFT permit) were sent by U.S. mail on the same date to the person(s) listed:

Marie Mahan, PE, Camp Dresser & McKee Inc
Gracy Danois, U.S. EPA, Region IV
David Knowles, FDEP, SD
R. J. Hebling, FDEP, SD Branch Office

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

(Clerk)

(Date)

PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Title V DRAFT Permit No.: 0870047-001-AV
Southernmost Waste to Energy Facility
Monroe County

The Department of Environmental Protection (Department) gives notice of its intent to issue a Title V air operation permit to the City of Key West for the Southernmost Waste to Energy Facility located at 5701 West Junior College Road, Key West, Monroe County. A Maximum Achievable Control Technology (MACT) determination [**was/was not**] required. The applicant's name and address are: City of Key West, 5701 West Junior College Road, Key West, Florida 33040.

The Department will issue the Title V PROPOSED Permit, and subsequent Title V FINAL Permit, in accordance with the conditions of the enclosed Title V DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed Title V DRAFT Permit issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the Department shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

In addition, any person whose substantial interests are affected by this proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 904/488-9730; Fax: 904/487-4938), within 14 (fourteen) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

The Petition shall contain the following information; (a) The name, address, and the telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by petitioner, if any; (e) A statement of facts which petitioner contends warrants reversal or modification of the Department's action or proposed action; (f) A statement of which rules or statutes petitioner contends require reversal or

modification of the Department's action or proposed action; and, (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

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A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 904/488-1344
Fax: 904/922-6979

Department of Environmental Protection
South District Office
2295 Victoria Avenue, Suite 364
Fort Meyers, Florida 33901
Telephone: 941/332-6975
Fax: 941/332-6969

Department of Environmental Protection
South District Branch Office
2796 Overseas Highway, Suite 221
Marathon, Florida 33050
Telephone: 305/289-2310

The complete project file includes the Draft Permit, the application, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Mr. Scott M. Sheplak at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 904/488-1344, for additional information.

STATEMENT OF BASIS

Title V DRAFT Permit No.: 0870047-001-AV
City of Key West
Southernmost Waste To Energy Facility
Monroe County

This Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, 62-213, and 62-214, F.A.C. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

The facility (SWTEF) consists of two identical municipal solid waste combustors (Combustor Nos. 1 and 2); an approximately twenty acre municipal solid waste landfill which is no longer accepting waste; storage and handling facilities for ash; oil storage tanks; cooling tower; and ancillary support equipment. Also, included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

Municipal Solid Waste Combustor Nos. 1 and 2 are mass-fired waterwall boilers. Steam from these boilers is utilized in the generation of electrical energy (4 MWe per generator). The emissions units are fired on mixed municipal waste only. There are electrostatic precipitators on these emissions units with design control efficiency of 97.7%. The combustion gases exhaust through a single stack of 140 feet. Both units began commercial operation in 1987. These emissions units are regulated under 40 CFR 60, Subpart E, Standards of Performance for Incinerators.

Contiguous to the facility is an approximately 20 acre landfill which is no longer accepting waste. Landfill gas is emitted through passive gas vents spaced at approximately 100-200 ft. intervals. Landfilling with municipal waste began approximately in the mid 1940's, however when the SWTEF became operational in 1987, ash became the only material landfilled. Closures were made in two phases in 1991 and 1996. This emissions unit is regulated under 40 CFR 60.752, Standards for air emissions from municipal solid waste landfills.

Based on the initial Title V permit application received June 12, 1996, this facility is a major source of hazardous air pollutants (HAPs).

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

NOTICE OF PERMIT ISSUANCE

FILE

CERTIFIED MAIL #P 021 150 003
RETURN RECEIPT REQUESTED

In the Matter of an Application DER File No. AO44-207778
for Permit by: Monroe County - AP

Juan M. Portuondo
Vice President
Montenay KW Corporation
5701 Junior College Road
Key West, Florida 33040

RECEIVED

FEB 09 1998

BUREAU OF
AIR REGULATION

Enclosed is Permit Number AO44-207778 to operate a 75 tpd resource recovery facility issued pursuant to Section(s) 403.087, Florida Statutes.

A person whose substantial interests are affected by this permit may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of receipt of this Permit. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information;

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

This permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 17-103.070, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

When the Order (Permit) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.



Florida Department of Environmental Regulation

South District • 2295 Victoria Avenue, Suite 364 • Fort Myers, Florida 33901

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:

Juan M. Portuondo, V.P.
Montenay KW Corporation
5701 Junior College Road
Key West, Florida 33040

I.D. No: 52FTM44004701
Permit/Certification
Number: A044-207778
Date of Issue: April 1, 1992
Expiration Date: April 1, 1997
County: Monroe
Latitude: 24° 34' 42" N
Longitude: 81° 44' 49" W
Section/Town/Range: 27/67S/25E
Project: Montenay KW Corp.
Key West Unit 1

This permit is issued under the provisions of Chapter 403.087, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Rules 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Operate an incinerator for a resource recovery facility (steam electric generator) having a design capacity of 6,250 lbs/hour of mixed municipal solid waste. The incinerator is a custom built unit by Montenay International Corporation. Emissions are controlled by an electrostatic precipitator and combustion controls. Odor is controlled by drawing combustion air from refuse area.

The facility is located at Junior College Road, one half mile north of U.S. Highway 1, Key West, Florida.

3.125 TONS / HR
75 TONS / DAY

PERMITTEE:
Montenay KW Corporation

I.D. No.: 52FTM44004701
Permit/Cert. No.: AO44-207778
Date of Issue: April 1, 1992
Expiration Date: April 1, 1997

SPECIFIC CONDITIONS:

1. Particulate tests are required to show continuing compliance with the standards of the Department. The test results must provide reasonable assurance that the unit is capable of compliance at the permitted maximum operating rate. Test shall be conducted in accordance with EPA Method Five as published in 40 CFR-60, Appendix A, or State approved equivalent method. Such tests shall be conducted once per year commencing April 1993. Results shall be submitted to the Department within 45 days after testing. The Department shall be notified at least 15 days prior to testing to allow witnessing. ✓
2. Visible emissions tests are required to show continuing compliance with the standards of the Department. The test results must provide reasonable assurance that the unit is capable of compliance at the permitted maximum operating rate. Test shall be conducted in accordance with EPA Method Nine as published in 40 CFR-60, Appendix A, or State approved equivalent method. Such tests shall be conducted once per year commencing April 1993. Results shall be submitted to the Department within 45 days after testing. The Department shall be notified at least 15 days prior to testing to allow witnessing. ✓
3. No visible emissions are allowed under normal operation except for up to three minutes in any one hour at not more than 20% opacity. ✓
4. Particulate matter emissions shall not exceed 0.08 gr/dscf corrected to 50% excess air. [Reference Rule 17-2.600(1)(c)1, F.A.C.] ✓
5. This facility shall be operated in such a fashion so as to preclude objectionable odors. [Reference Rule 17-2.620(2) F.A.C.]
6. This incinerator shall not be used for the disposal of radioactive materials. [Reference Rule 17-2.600(1)(d)4.e., F.A.C.] ✓
7. This incinerator shall be used only for the combustion of mixed municipal solid waste, and shall not be loaded in excess of its capacity of 6250 pounds per hour. ✓
8. An annual operation report (DER Form 17-1.202(6) attached) shall be submitted by March 1st each year. The attached form shall be reproduced by the permittee and used for future annual submittals. ✓

PERMITTEE:
Montenay KW Corporation

I.D. No.: 52FTM44004701
Permit/Cert. No.: AO44-207778
Date of Issue: April 1, 1992
Expiration Date: April 1, 1997

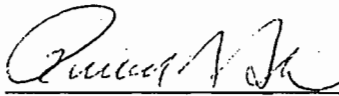
SPECIFIC CONDITIONS:

9. All fugitive dust generated at this site shall be adequately controlled. [Reference Rule 17-2.610(3), F.A.C.] ✓
10. There shall be no discharges of liquid effluents or contaminated run-off from the plant site. ✓
11. Stack sampling facilities provided by the owner shall be in accordance with the requirements of Chapter 17-2.700(4), Florida Administrative Code.
12. Notification and reporting requirements of this permit shall also be sent to the Marathon DER Office. ✓
13. The applicant shall comply with all provisions of the solid waste rules applicable to ash disposal. ✓

Note: In the event of an emergency the permittee shall contact the Department by calling (904)488-1320. During normal business hours, the permittee shall call (813)332-6975.

Issued this 1st day of April, 1992.

STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL REGULATION



Philip R. Edwards
Director of
District Management

PRE/AEL/jw

10 Pages Attached

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

NOTICE OF PERMIT ISSUANCE

FILE

CERTIFIED MAIL #P 021 150 004
RETURN RECEIPT REQUESTED

In the Matter of an Application DER File No. AO44-207781
for Permit by: Monroe County - AP

Juan M. Portuondo
Vice President
Montenay KW Corporation
5701 Junior College Road
Key West, Florida 33040

Enclosed is Permit Number AO44-207781 to operate a 75 tpd resource recovery facility issued pursuant to Section(s) 403.087, Florida Statutes.

A person whose substantial interests are affected by this permit may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of receipt of this Permit. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information;

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

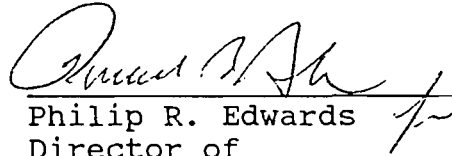
If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

This permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 17-103.070, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

When the Order (Permit) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Executed in Fort Myers, Florida.

STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL REGULATION



Philip R. Edwards
Director of
District Management
South District Office
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901
(813) 332-6975

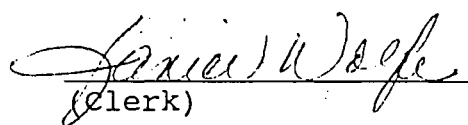
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT ISSUANCE and all copies were mailed by certified mail before the close of business on April 3, 1992 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to §120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.


(clerk) 4-3-92
(Date)

PRE/AEL/jw

Enclosures

Copies furnished to:

DER, Marathon



Florida Department of Environmental Regulation

South District • 2295 Victoria Avenue, Suite 364 • Fort Myers, Florida 33901

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:

Juan M. Portuondo, V.P.
Montenay KW Corporation
5701 Junior College Road
Key West, Florida 33040

I.D. No: 52FTM44004702
Permit/Certification
Number: AO44-207781
Date of Issue: April 1, 1992
Expiration Date: April 1, 1997
County: Monroe
Latitude: 24° 34' 42" N
Longitude: 81° 44' 49" W
Section/Town/Range: 27/67S/25E
Project: Montenay KW Corp.
Key West Unit 2

This permit is issued under the provisions of Chapter 403.087, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Rules 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Operate an incinerator for a resource recovery facility (steam electric generator) having a design capacity of 6,250 lbs/hour of mixed municipal solid waste. The incinerator is a custom built unit by Montenay International Corporation. Emissions are controlled by an electrostatic precipitator and combustion controls. Odor is controlled by drawing combustion air from refuse area.

The facility is located at Junior College Road, one half mile north of U.S. Highway 1, Key West, Florida.

PERMITTEE:
Montenay KW Corporation

I.D. No.: 52FTM44004702
Permit/Cert. No.: AO44-207781
Date of Issue: April 1, 1992
Expiration Date: April 1, 1997

SPECIFIC CONDITIONS:

1. Particulate tests are required to show continuing compliance with the standards of the Department. The test results must provide reasonable assurance that the unit is capable of compliance at the permitted maximum operating rate. Test shall be conducted in accordance with EPA Method Five as published in 40 CFR-60, Appendix A, or State approved equivalent method. Such tests shall be conducted once per year commencing April 1993. Results shall be submitted to the Department within 45 days after testing. The Department shall be notified at least 15 days prior to testing to allow witnessing.
2. Visible emissions tests are required to show continuing compliance with the standards of the Department. The test results must provide reasonable assurance that the unit is capable of compliance at the permitted maximum operating rate. Test shall be conducted in accordance with EPA Method Nine as published in 40 CFR-60, Appendix A, or State approved equivalent method. Such tests shall be conducted once per year commencing April 1993. Results shall be submitted to the Department within 45 days after testing. The Department shall be notified at least 15 days prior to testing to allow witnessing.
3. No visible emissions are allowed under normal operation except for up to three minutes in any one hour at not more than 20% opacity.
4. Particulate matter emissions shall not exceed 0.08 gr/dscf corrected to 50% excess air. [Reference Rule 17-2.600(1)(c)1, F.A.C.]
5. This facility shall be operated in such a fashion so as to preclude objectionable odors. [Reference Rule 17-2.620(2) F.A.C.]
6. This incinerator shall not be used for the disposal of radioactive materials. [Reference Rule 17-2.600(1)(d)4.e., F.A.C.]
7. This incinerator shall be used only for the combustion of mixed municipal solid waste, and shall not be loaded in excess of its capacity of 6250 pounds per hour.
8. An annual operation report (DER Form 17-1.202(6) attached) shall be submitted by March 1st each year. The attached form shall be reproduced by the permittee and used for future annual submittals.

PERMITTEE:
Montenay KW Corporation

I.D. No.: 52FTM44004702
Permit/Cert. No.: AO44-207781
Date of Issue: April 1, 1992
Expiration Date: April 1, 1997

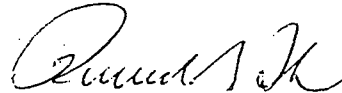
SPECIFIC CONDITIONS:

9. All fugitive dust generated at this site shall be adequately controlled. [Reference Rule 17-2.610(3), F.A.C.]
10. There shall be no discharges of liquid effluents or contaminated run-off from the plant site.
11. Stack sampling facilities provided by the owner shall be in accordance with the requirements of Chapter 17-2.700(4), Florida Administrative Code.
12. Notification and reporting requirements of this permit shall also be sent to the Marathon DER Office.
13. The applicant shall comply with all provisions of the solid waste rules applicable to ash disposal.

NOTE: In the event of an emergency the permittee shall contact the Department by calling (904)488-1320. During normal business hours, the permittee shall call (813)332-6975.

Issued this 1st day of April, 1992.

STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL REGULATION



Philip R. Edwards
Director of
District Management

PRE/AEL/jw

10 Pages Attached

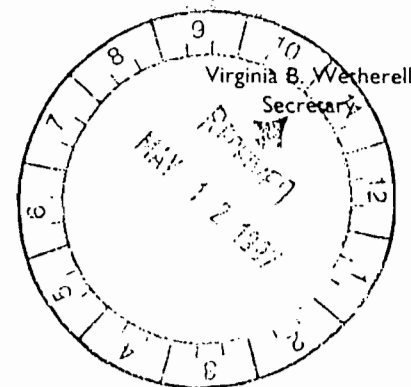


Department of Environmental Protection

Lawton Chiles
Governor

South District
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901-3881

May 2, 1997



David Fernandez
Southernmost Waste to Energy
5701 Junior College Road
Key West, Florida 33040

Re: Monroe County - AP
Southernmost Waste to Energy
Permit No. AO44-207778

Dear Mr. Fernandez:

On February 19, 1997, Department personnel visited the referenced facility to monitor the annual compliance stack test. Southernmost Waste to Energy (SWTE) is a resource recovery facility having a design capacity of 6,250 lbs/hour of mixed municipal solid waste (per unit). The incinerator is a custom built unit by Montenay International Corporation. Emissions are controlled by an electrostatic precipitator and combustion controls. The City of Key West purchased the facility from Montenay in 1994.

During the visit, SWTE personnel demonstrated the soot-blowing procedure currently employed at the facility. The procedure involves inserting a high pressure air lance into one of 24 external boiler entry ports. Approximately 45 minutes is required to traverse all the ports on one unit.

The Department has reviewed the manual soot-blowing procedure presently used by SWTE and determined the following:

- 1) Soot-blowing is a normal operation and is subject to Specific Condition No. 2 of the referenced permit, "No visible emissions are allowed under normal operation except for up to three minutes in any one hour at not more than 20% opacity."
- 2) The facility was originally constructed and operated by Montenay with continuous steam soot-blowers installed in the boilers.
- 3) The current method of soot-blowing at the facility results in emissions in excess of those allowed by Florida Administrative Code Rule 62-296.401 and constitutes an unpermitted modification.

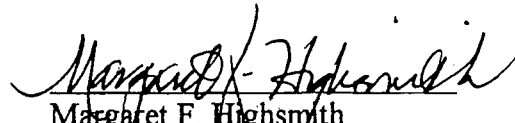
Southernmost Waste to Energy
Page Two
May 2, 1997

The Department requests that SWTE discontinue the current manual method of soot-blowing and use the originally installed continuous steam soot-blowers.

Please respond in writing to David Knowles at the letterhead address by June 1, 1997 when the continuous steam soot-blowers can be operational again.

If you have any questions or need any compliance assistance, please contact Jim Edds in the Marathon Office at (305) 289-2310 or David Knowles at (941) 332-6975

Sincerely,


Margaret F. Highsmith
Acting District Director

MFH/DMK/jw

cc: Jim Edds, DEP, Marathon
David Knowles, DEP, Fort Myers
Yogesh Manocha, DEP, Tallahassee

FILE



THE CITY OF KEY WEST

P. O. BOX 1409
KEY WEST, FLORIDA 33041-1409

May 30, 1997

David Knowles
Department of Environmental Protection
South District
2295 Victoria Avenue
Fort Myers, Florida 33901-3881

RE: Monroe County - AP
Southernmost Waste to Energy
Permit No. A044-20778

Dear Mr. Knowles:

On May 12, 1997, our office received DEP's letter from Margaret F. Highsmith in reference to the Southernmost Waste to Energy's (SWTE) manual method of blowing soot.

In order to address this letter with a more detail response our department requests that DEP allow us a 30 day extension. It should be noted that in the meantime SWTE has discontinued our current on-line manual method of blowing soot.

Should you have any questions, please contact E. David Fernandez at (305) 293-6414 or me at (305) 293-6409.

Sincerely,

A handwritten signature in black ink, appearing to read "Paul Hitchcock", written over a horizontal line.

Paul Hitchcock
Assistant Plant Manager

PH/avb

c:\office\wpwin\memo\deplaox.ltr

Memorandum

TO: David Knowles, P.E., SD

FROM: Joe Kahn, P.E. *JK*

DATE: January 29, 1998

SUBJECT: Completeness Review of an Application Package for a Title V Operation Permit
The City of Key West, Southernmost Waste to Energy Facility, Facility ID
0870047

The Title V operating permit application package for the referenced facility is being processed in Tallahassee. The application was previously forwarded to your office for your files and future reference. Please have someone review the package for completeness and respond in writing by March 13, 1998, if you have any comments. Otherwise, no response is required. If there are any questions, please call the project engineer, Susan DeVore, at Suncom 291-9537. It is very important to verify the compliance statement regarding the facility. Since we do not have a readily effective means of determining compliance at the time the application was submitted, please advise if you know of any emissions unit(s) that were not in compliance at that time and provide supporting information. Also, do not write on the documents.

If there are any questions regarding this request, please call me at Suncom 291-9519 or Scott Sheplak at Suncom 291-9532. Thank you.

/sd

(FOR INTERNAL USE ONLY)

State of Florida summary checklist for initial Title V permit applications for 'existing' Title V Sources

Facility Owner/Operator Name: The City of Key West
Facility ID No.: 0870047 Site Name: Southernmost Waste to Energy Facility
County: Monroe
application receipt date 06/12/96

I. Preliminary scanning of application submitted.

- a. Was application submitted to correct permitting authority? Y N
- b. Was an application filed? Y* N
- c. Was the application filed timely? Y* N

- d. Application format filed [check one].
Hard copy of official version of form? ELSA?
A facsimile of official version of form? Some combination?
03/21/96

- e. 4 copies (paper/electronic) submitted? Y N

- f. Electronic diskettes protected/virus scanned/marked? Y N N/A
by KZ. date 06/13/96 ✓

- g. Entire hard copy of Section I. provided (Pages 1-8 of form)? Y N
Facility identified (Page 1)? [if not complete a Page 1] Y* [Attached
R.O. certification signed and dated (Page 2)? Y* N
P.E. certification signed and dated (Page 7)? Y* N

- h. Any confidential information submitted? Y N
If yes, R.O. provided hard copy to us and EPA? Y* N
If yes, hard copy locked up and note filed with application? Y* N

- i. Type of application filed.
TV application for 'existing' Title V Source only? Y N
Any units subject to acid rain? Y N

Note(s): [*] = mandatory.

Comment(s): _____

Reviewer's initials SS date 06/14/96 Concurrence initials [Signature] date 7/11/96

State of Florida summary checklist for initial Title V permit applications for 'existing' Title V Sources (cont'd)

II. Application logging.

ARMS Permit Number assigned 0870047 - 001-AV
logged into ARMS by initials CFD date / /

III. Initial distribution of application.

a. Disposition of 4 paper/electronic copies submitted:

1- Clean originals to file? Y___ N___

1- ___ District Y___ N___

1- ___ County [affected local program]? Y___ N___

1- Permit engineer(s) _____, _____

b. Disposition of electronic files submitted:

copy placed onto PC? Y___ N___

c. Disposition of ELSA submitted:

version used [circle]: 1.0 1.1 1.2.1 1.3 1.3a 1.3b

Uploaded to EARS? Y___ N___

by _____ date / /

d. Electronic information submitted previewed? Y___ N___ N/A___

Comment(s): _____

{this checklist was developed from Rule 62-213.420(1)(b)2., F.A.C. and DARM policy}

DEP

**Department of
Environmental Protection**

**DIVISION OF AIR RESOURCES MANAGEMENT
APPLICATION FOR AIR PERMIT - LONG FORM**

I. APPLICATION INFORMATION

Identification of Facility Addressed in This Application

1. Facility Owner/Company Name : The City of Key West	
2. Site Name : Southernmost Waste to Energy Facility	
3. Facility Identification Number : 0870047	<input type="checkbox"/> Unknown
4. Facility Location :	
Street Address or Other Locator : 5701 West Junior College Road	
City : Key West	County : Monroe Zip Code : 33040
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

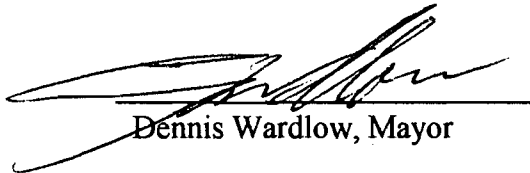
I. Part 1 - 1

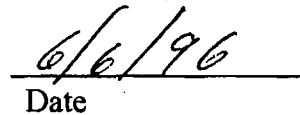


THE CITY OF KEY WEST
P. O. BOX 1409
KEY WEST, FLORIDA 33041-1409

LETTER OF AUTHORIZATION

I, Dennis Wardlow, Mayor of the City of Key West, hereby designate E. David Fernandez, Utilities Director, as the Authorized Representative for Title V permitting of the Southernmost Waste to Energy Facility.


Dennis Wardlow, Mayor


Date

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official :

Name : E. David Fernandez
Title : Utilities Director

2. Owner or Authorized Representative or Responsible Official Mailing Address :

Organization/Firm : Southernmost Waste to Energy Facility
Street Address : 5701 W. Junior College Road
City : Key West
State : FL Zip Code : 33040-

3. Owner/Authorized Representative or Responsible Official Telephone Numbers :

Telephone : (305)293-6409 Fax : (305)293-6415

4. Owner/Authorized Representative or Responsible Official Statement :

I, the undersigned, am the owner or authorized representative of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this application, whichever is applicable. 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. 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 any permitted emissions units.*

E. David Fernandez
Signature

6-11-96
Date

* Attach letter of authorization if not currently on file.

I. Part 2 - 1

DEP Form No. 62-210.900(1) - Form
Effective : 3-21-96

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type
001	Municipal Solid Waste Combustor, Unit 1	AF2A
002	Municipal Solid Waste Combustor, Unit 2	AF2A
003	Municipal Solid Waste Landfill	AF2C

Purpose of Application and Category

Category I : All Air Operation Permit Applications Subject to Processing Under Chapter 62-213, F.A.C.

This Application for Air Permit is submitted to obtain :

Initial air operation permit under Chapter 62-213, F.A.C., for an existing facility which is classified as a Title V source.

Initial air operation permit under Chapter 62-213, F.A.C., for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number :

Air operation permit renewal under Chapter 62-213, F.A.C., for a Title V source.

Operation permit to be renewed :

Air operation permit revision for a Title V source to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number :

Operation permit to be revised :

Air operation permit revision or administrative correction for a Title V source to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application.

Operation permit to be revised/corrected :

Air operation permit revision for a Title V source for reasons other than construction or

I. Part 4 - 1

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

modification of an emissions unit.

Operation permit to be revised :

Reason for revision :

Category II : All Air Operation Permit Applications Subject to Processing Under Rule 62-210.300(2)(b), F.A.C.

This Application for Air Permit is submitted to obtain :

-] Initial air operation permit under Rule 62-210.300(2)(b), F.A.C., for an existing facility seeking classification as a synthetic non-Title V source.

Current operation/construction permit number(s) :

-] Renewal air operation permit under Rule 62-210.300(2)(b), F.A.C., for a synthetic non-Title V source.

Operation permit to be renewed :

-] Air operation permit revision for a synthetic non-Title V source.

Operation permit to be revised :

Reason for revision :

Category III : All Air Construction Permit Applications for All Facilities and Emissions Units

This Application for Air Permit is submitted to obtain :

-] Air construction permit to construct or modify one or more emissions units within a facility (including any facility classified as a Title V source).

Current operation permit number(s), if any :

I. Part 4 - 2

- Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

Current operation permit number(s) :

- Air construction permit for one or more existing, but unpermitted, emissions units.

I. Part 4 - 3

DEP Form No. 62-210.900(1) - Form
Effective : 3-21-96

Application Processing Fee

Check one :

Attached - Amount : _____ Not Applicable.

Construction/Modification Information

1. Description of Proposed Project or Alterations : N/A
2. Projected or Actual Date of Commencement of Construction :
3. Projected Date of Completion of Construction :

Professional Engineer Certification

1. Professional Engineer Name : Marie Whitman Mahan Registration Number : 47584
2. Professional Engineer Mailing Address : Organization/Firm : Camp Dresser & McKee Inc. Street Address : 2503 Del Prado Blvd. Suite 200 City : Cape Coral State : FL Zip Code : 33904-
3. Professional Engineer Telephone Numbers : Telephone : (941)574-7100 Fax : (941)574-7474

4. Professional Engineer Statement :

I, the undersigned, hereby certified, except as particularly noted herein, that :*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollutant 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

(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.

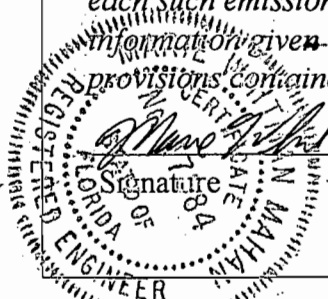
If the purpose of this application is to obtain a Title V source air operation permit (check here [] if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [] 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.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [] if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions 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.

[Signature]
Signature

6/10/96
Date



* Attach any exception to certification statement.

Application Contact

1. Name and Title of Application Contact :
Name : Marie Whitman Mahan Title : Engineer
2. Application Contact Mailing Address :
Organization/Firm : Camp Dresser & McKee Inc. Street Address : 2503 Del Prado Blvd. Suite 200 City : Cape Coral State : FL Zip Code : 33904-
3. Application Contact Telephone Numbers :
Telephone : (941)574-7100 Fax : (941)574-7474

Application Comment

The Southernmost Waste to Energy Facility (SWTEF) commenced operation in 1987. The facility was not permitted under the Power Plant Siting Act (PPSA). The facility has two municipal solid waste combustors which each have Florida Department of Environmental Protection permits (A044-207778 and A044-207781). Emissions are controlled by ESPs.

Contiguous to the SWTEF is the City of Key West's municipal landfill. Since the landfill has the same SIC code (4953), same owner (City of Key West) and is contiguous to the SWTEF, it must be considered as part of the same facility for regulatory purposes. Federal EG requirements for landfills were promulgated 3/12/96 (40 CFR Subpart Cc); however the State has not yet adopted the regulations. Fugitive VOC landfill emissions were estimated for the landfill.

BASEMAP SOURCE: USGS "KEY WEST, FLA." & "BOCA CHICA KEY, FLA." 7.5 MINUTE QUADRANGLE - 1971, PHOTO DATE 4/4/1970.



CITY OF KEY WEST, FLORIDA

FACILITY LOCATION MAP

CDM
 environmental engineers, scientists,
 planners, & management consultants

Figure No. 1

ATTACHMENT 6

COMPLIANCE CERTIFICATION

"I, the undersigned, am the responsible official as defined in Chapter 62-210.200, F.A.C., of the Title V source for which this report is being submitted. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made and data contained in this report are true, accurate, and complete."

E David Fernandez
Signature

6-11-96
Date

Title V Core List

Effective: 03/25/96

[Note: The Title V Core List is meant to simplify the completion of the "List of Applicable Regulations" for DEP Form No. 62-210.900(1), Application for Air Permit - Long Form. The Title V Core List is a list of rules to which all Title V Sources are presumptively subject. The Title V Core List may be referenced in its entirety, or with specific exceptions. The Department may periodically update the Title V Core List.]

Federal: (description)

40 CFR 61: National Emission Standards for Hazardous Air Pollutants (NESHAP)
40 CFR 61, Subpart M: National Emission Standard for Asbestos.

40 CFR 82: Protection of Stratospheric Ozone.
40 CFR 82, Subpart B: Servicing of Motor Vehicle Air Conditioners (MVAC).
40 CFR 82, Subpart F: Recycling and Emissions Reduction.

State: (description)**CHAPTER 62-4, F.A.C.: PERMITS, effective 10-16-95**

62-4.030, F.A.C.: General Prohibition.
62-4.040, F.A.C.: Exemptions.
62-4.050, F.A.C.: Procedure to Obtain Permits; Application.
62-4.060, F.A.C.: Consultation.
62-4.070, F.A.C.: Standards for Issuing or Denying Permits; Issuance; Denial.
62-4.080, F.A.C.: Modification of Permit Conditions.
62-4.090, F.A.C.: Renewals.
62-4.100, F.A.C.: Suspension and Revocation.
62-4.110, F.A.C.: Financial Responsibility.
62-4.120, F.A.C.: Transfer of Permits.
62-4.130, F.A.C.: Plant Operation - Problems.
62-4.150, F.A.C.: Review.
62-4.160, F.A.C.: Permit Conditions.
62-4.210, F.A.C.: Construction Permits.
62-4.220, F.A.C.: Operation Permit for New Sources.

CHAPTER 62-103, F.A.C.: RULES OF ADMINISTRATIVE PROCEDURE, effective 12-31-95

62-103.150, F.A.C.: Public Notice of Application and Proposed Agency Action.
62-103.155, F.A.C.: Petition for Administrative Hearing; Waiver of Right to Administrative Proceeding.

CHAPTER 62-210, F.A.C.: STATIONARY SOURCES - GENERAL REQUIREMENTS, effective 03-21-96

62-210.300, F.A.C.: Permits Required.
62-210.300(1), F.A.C.: Air Construction Permits.
62-210.300(2), F.A.C.: Air Operation Permits.
62-210.300(3), F.A.C.: Exemptions.
62-210.300(3)(a), F.A.C.: Full Exemptions.
62-210.300(3)(b), F.A.C.: Temporary Exemption.

62-210.300(5), F.A.C.: Notification of Startup.
62-210.300(6), F.A.C.: Emissions Unit Reclassification.

62-210.350, F.A.C.: Public Notice and Comment.
62-210.350(3), F.A.C.: Additional Public Notice Requirements for Facilities Subject to Operation Permits for Title V Sources.

62-210.360, F.A.C.: Administrative Permit Corrections.

62-210.370(3), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility.

62-210.650, F.A.C.: Circumvention.

62-210.900, F.A.C.: Forms and Instructions.
62-210.900(1) Application for Air Permit - Long Form, Form and Instructions.
62-210.900(5) Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions.

CHAPTER 62-213, F.A.C.: OPERATION PERMITS FOR MAJOR SOURCES OF AIR POLLUTION, effective 03-20-96

62-213.205, F.A.C.: Annual Emissions Fee.
62-213.400, F.A.C.: Permits and Permit Revisions Required.
62-213.410, F.A.C.: Changes Without Permit Revision.
62-213.412, F.A.C.: Immediate Implementation Pending Revision Process.
62-213.420, F.A.C.: Permit Applications.
62-213.430, F.A.C.: Permit Issuance, Renewal, and Revision.
62-213.440, F.A.C.: Permit Content.
62-213.460, F.A.C.: Permit Shield.

62-213.900, F.A.C.: Forms and Instructions.
62-213.900(1) Major Air Pollution Source Annual Emissions Fee Form, Form and Instructions.

Title V Core List

Effective: 03/25/96

CHAPTER 62-256, F.A.C.: OPEN BURNING AND FROST PROTECTION FIRES, effective 11-30-94

CHAPTER 62-257, F.A.C.: ASBESTOS NOTIFICATION AND FEE, effective 03/24/96

CHAPTER 62-281, F.A.C.: MOTOR VEHICLE AIR CONDITIONING REFRIGERANT RECOVERY AND RECYCLING, effective 03-07-96

CHAPTER 62-296, F.A.C.: STATIONARY SOURCES - EMISSION STANDARDS, effective 03-13-96

62-296.320(2), F.A.C.: Objectionable Odor Prohibited.

62-296.320(3), F.A.C.: Industrial, Commercial, and Municipal Open Burning Prohibited.

62-296.320(4)(c), F.A.C.: Unconfined Emissions of Particulate Matter.

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DEP

**Department of
Environmental Protection**

**DIVISION OF AIR RESOURCES MANAGEMENT
APPLICATION FOR AIR PERMIT - LONG FORM**

I. APPLICATION INFORMATION

Identification of Facility Addressed in This Application

1. Facility Owner/Company Name : The City of Key West	
2. Site Name : Southernmost Waste to Energy Facility	
3. Facility Identification Number : 0870047	<input type="checkbox"/> Unknown
4. Facility Location :	
Street Address or Other Locator : 5701 West Junior College Road City : Key West	County : Monroe Zip Code : 33040
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

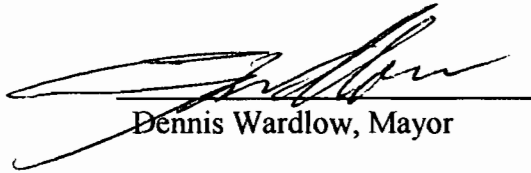
I. Part 1 - 1

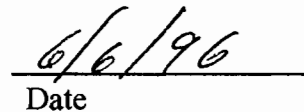


THE CITY OF KEY WEST
P. O. BOX 1409
KEY WEST, FLORIDA 33041-1409

LETTER OF AUTHORIZATION

I, Dennis Wardlow, Mayor of the City of Key West, hereby designate E. David Fernandez, Utilities Director, as the Authorized Representative for Title V permitting of the Southernmost Waste to Energy Facility.


Dennis Wardlow, Mayor


Date

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type
001	Municipal Solid Waste Combustor, Unit 1	AF2A
002	Municipal Solid Waste Combustor, Unit 2	AF2A
003	Municipal Solid Waste Landfill	AF2C

Purpose of Application and Category

Category I : All Air Operation Permit Applications Subject to Processing Under Chapter 62-213, F.A.C.

This Application for Air Permit is submitted to obtain :

Initial air operation permit under Chapter 62-213, F.A.C., for an existing facility which is classified as a Title V source.

Initial air operation permit under Chapter 62-213, F.A.C., for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number :

Air operation permit renewal under Chapter 62-213, F.A.C., for a Title V source.

Operation permit to be renewed :

Air operation permit revision for a Title V source to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number :

Operation permit to be revised :

Air operation permit revision or administrative correction for a Title V source to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application.

Operation permit to be revised/corrected :

Air operation permit revision for a Title V source for reasons other than construction or

I. Part 4 - 1

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

modification of an emissions unit.

Operation permit to be revised :

Reason for revision :

Category II : All Air Operation Permit Applications Subject to Processing Under Rule 62-210.300(2)(b), F.A.C.

This Application for Air Permit is submitted to obtain :

-] Initial air operation permit under Rule 62-210.300(2)(b), F.A.C., for an existing facility seeking classification as a synthetic non-Title V source.

Current operation/construction permit number(s) :

-] Renewal air operation permit under Rule 62-210.300(2)(b), F.A.C., for a synthetic non-Title V source.

Operation permit to be renewed :

-] Air operation permit revision for a synthetic non-Title V source.

Operation permit to be revised :

Reason for revision :

Category III : All Air Construction Permit Applications for All Facilities and Emissions Units

This Application for Air Permit is submitted to obtain :

-] Air construction permit to construct or modify one or more emissions units within a facility (including any facility classified as a Title V source).

Current operation permit number(s), if any :

I. Part 4 - 2

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

- Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

Current operation permit number(s) :

- Air construction permit for one or more existing, but unpermitted, emissions units.

Application Processing Fee

Check one :

Attached - Amount : _____ Not Applicable.

Construction/Modification Information

1. Description of Proposed Project or Alterations : N/A
2. Projected or Actual Date of Commencement of Construction :
3. Projected Date of Completion of Construction :

Professional Engineer Certification

1. Professional Engineer Name : Marie Whitman Mahan Registration Number : 47584
2. Professional Engineer Mailing Address : Organization/Firm : Camp Dresser & McKee Inc. Street Address : 2503 Del Prado Blvd. Suite 200 City : Cape Coral State : FL Zip Code : 33904-
3. Professional Engineer Telephone Numbers : Telephone : (941)574-7100 Fax : (941)574-7474

4. Professional Engineer Statement :

I, the undersigned, hereby certified, except as particularly noted herein, that :*

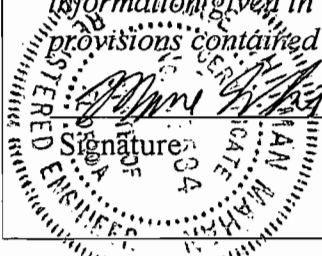
(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollutant control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(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.

If the purpose of this application is to obtain a Title V source air operation permit (check here [] 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 schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [] 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.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [] if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions 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.



M. H. Mah

Signature

6/10/96

Date

* Attach any exception to certification statement.

Application Contact

1. Name and Title of Application Contact :
Name : Marie Whitman Mahan Title : Engineer
2. Application Contact Mailing Address :
Organization/Firm : Camp Dresser & McKee Inc. Street Address : 2503 Del Prado Blvd. Suite 200 City : Cape Coral State : FL Zip Code : 33904-
3. Application Contact Telephone Numbers :
Telephone : (941)574-7100 Fax : (941)574-7474

Application Comment

The Southernmost Waste to Energy Facility (SWTEF) commenced operation in 1987. The facility was not permitted under the Power Plant Siting Act (PPSA). The facility has two municipal solid waste combustors which each have Florida Department of Environmental Protection permits (A044-207778 and A044-207781). Emissions are controlled by ESPs.

Contiguous to the SWTEF is the City of Key West's municipal landfill. Since the landfill has the same SIC code (4953), same owner (City of Key West) and is contiguous to the SWTEF, it must be considered as part of the same facility for regulatory purposes. Federal EG requirements for landfills were promulgated 3/12/96 (40 CFR Subpart Cc); however the State has not yet adopted the regulations. Fugitive VOC landfill emissions were estimated for the landfill.

BASEMAP SOURCE: USGS "KEY WEST, FLA." & "BOCA CHICA KEY, FLA." 7.5 MINUTE QUADRANGLE - 1971, PHOTO DATE 4/4/1970.



CITY OF KEY WEST, FLORIDA

FACILITY LOCATION MAP

CDM
 environmental engineers, scientists,
 planners, & management consultants

Figure No. 1

ATTACHMENT 6

COMPLIANCE CERTIFICATION

"I, the undersigned, am the responsible official as defined in Chapter 62-210.200, F.A.C., of the Title V source for which this report is being submitted. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made and data contained in this report are true, accurate, and complete."

E David Fernandez
Signature

6-11-96
Date

Title V Core List

Effective: 03/25/96

[Note: The Title V Core List is meant to simplify the completion of the "List of Applicable Regulations" for DEP Form No. 62-210.900(1), Application for Air Permit - Long Form. The Title V Core List is a list of rules to which all Title V Sources are presumptively subject. The Title V Core List may be referenced in its entirety, or with specific exceptions. The Department may periodically update the Title V Core List.]

Federal: (description)

40 CFR 61: National Emission Standards for Hazardous Air Pollutants (NESHAP)
40 CFR 61, Subpart M: National Emission Standard for Asbestos.

40 CFR 82: Protection of Stratospheric Ozone.
40 CFR 82, Subpart B: Servicing of Motor Vehicle Air Conditioners (MVAC).
40 CFR 82, Subpart F: Recycling and Emissions Reduction.

State: (description)**CHAPTER 62-4, F.A.C.: PERMITS, effective 10-16-95**

62-4.030, F.A.C.: General Prohibition.
62-4.040, F.A.C.: Exemptions.
62-4.050, F.A.C.: Procedure to Obtain Permits; Application.
62-4.060, F.A.C.: Consultation.
62-4.070, F.A.C.: Standards for Issuing or Denying Permits; Issuance; Denial.
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62-4.090, F.A.C.: Renewals.
62-4.100, F.A.C.: Suspension and Revocation.
62-4.110, F.A.C.: Financial Responsibility.
62-4.120, F.A.C.: Transfer of Permits.
62-4.130, F.A.C.: Plant Operation - Problems.
62-4.150, F.A.C.: Review.
62-4.160, F.A.C.: Permit Conditions.
62-4.210, F.A.C.: Construction Permits.
62-4.220, F.A.C.: Operation Permit for New Sources.

CHAPTER 62-103, F.A.C.: RULES OF ADMINISTRATIVE PROCEDURE, effective 12-31-95

62-103.150, F.A.C.: Public Notice of Application and Proposed Agency Action.
62-103.155, F.A.C.: Petition for Administrative Hearing; Waiver of Right to Administrative Proceeding.

CHAPTER 62-210, F.A.C.: STATIONARY SOURCES - GENERAL REQUIREMENTS, effective 03-21-96

62-210.300, F.A.C.: Permits Required.

62-210.300(1), F.A.C.: Air Construction Permits.

62-210.300(2), F.A.C.: Air Operation Permits.

62-210.300(3), F.A.C.: Exemptions.

62-210.300(3)(a), F.A.C.: Full Exemptions.

62-210.300(3)(b), F.A.C.: Temporary Exemption.

62-210.300(5), F.A.C.: Notification of Startup.

62-210.300(6), F.A.C.: Emissions Unit Reclassification.

62-210.350, F.A.C.: Public Notice and Comment.

62-210.350(3), F.A.C.: Additional Public Notice Requirements for Facilities Subject to Operation Permits for Title V Sources.

62-210.360, F.A.C.: Administrative Permit Corrections.

62-210.370(3), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility.

62-210.650, F.A.C.: Circumvention.

62-210.900, F.A.C.: Forms and Instructions.

62-210.900(1) Application for Air Permit - Long Form, Form and Instructions.

62-210.900(5) Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions.

CHAPTER 62-213, F.A.C.: OPERATION PERMITS FOR MAJOR SOURCES OF AIR POLLUTION, effective 03-20-96

62-213.205, F.A.C.: Annual Emissions Fee.

62-213.400, F.A.C.: Permits and Permit Revisions Required.

62-213.410, F.A.C.: Changes Without Permit Revision.

62-213.412, F.A.C.: Immediate Implementation Pending Revision Process.

62-213.420, F.A.C.: Permit Applications.

62-213.430, F.A.C.: Permit Issuance, Renewal, and Revision.

62-213.440, F.A.C.: Permit Content.

62-213.460, F.A.C.: Permit Shield.

62-213.900, F.A.C.: Forms and Instructions.

62-213.900(1) Major Air Pollution Source Annual Emissions Fee Form, Form and Instructions.

Title V Core List

Effective: 03/25/96

CHAPTER 62-256, F.A.C.: OPEN BURNING AND FROST PROTECTION FIRES, effective 11-30-94

CHAPTER 62-257, F.A.C.: ASBESTOS NOTIFICATION AND FEE, effective 03/24/96

CHAPTER 62-281, F.A.C.: MOTOR VEHICLE AIR CONDITIONING REFRIGERANT RECOVERY AND RECYCLING, effective 03-07-96

CHAPTER 62-296, F.A.C.: STATIONARY SOURCES - EMISSION STANDARDS, effective 03-13-96

62-296.320(2), F.A.C.: Objectionable Odor Prohibited.

62-296.320(3), F.A.C.: Industrial, Commercial, and Municipal Open Burning Prohibited.

62-296.320(4)(c), F.A.C.: Unconfined Emissions of Particulate Matter.

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DEP

Department of
Environmental Protection

original

DIVISION OF AIR RESOURCES MANAGEMENT
APPLICATION FOR AIR PERMIT - LONG FORM

I. APPLICATION INFORMATION

Identification of Facility Addressed in This Application

1. Facility Owner/Company Name : The City of Key West	
2. Site Name : Southernmost Waste to Energy Facility	
3. Facility Identification Number : 0870047	<input type="checkbox"/> Unknown
4. Facility Location : Street Address or Other Locator : 5701 West Junior College Road City : Key West County : Monroe Zip Code : 33040	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

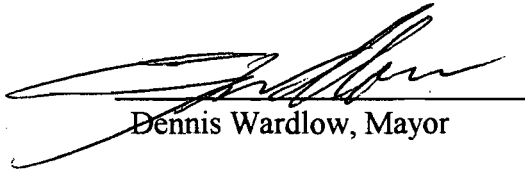
I. Part 1 - 1

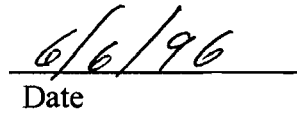


THE CITY OF KEY WEST
P. O. BOX 1409
KEY WEST, FLORIDA 33041-1409

LETTER OF AUTHORIZATION

I, Dennis Wardlow, Mayor of the City of Key West, hereby designate E. David Fernandez, Utilities Director, as the Authorized Representative for Title V permitting of the Southernmost Waste to Energy Facility.


Dennis Wardlow, Mayor


Date

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type
001	Municipal Solid Waste Combustor, Unit 1	AF2A
002	Municipal Solid Waste Combustor, Unit 2	AF2A
003	Municipal Solid Waste Landfill	AF2C

I. Part 3 - 1

DEP Form No. 62-210.900(1) - Form
Effective : 3-21-96

Purpose of Application and Category

Category I : All Air Operation Permit Applications Subject to Processing Under Chapter 62-213, F.A.C.

This Application for Air Permit is submitted to obtain :

Initial air operation permit under Chapter 62-213, F.A.C., for an existing facility which is classified as a Title V source.

Initial air operation permit under Chapter 62-213, F.A.C., for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current ~~construction~~ permit number :

Air operation permit renewal under Chapter 62-213, F.A.C., for a Title V source.

Operation permit to be renewed :

Air operation permit revision for a Title V source to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number :

Operation permit to be revised :

Air operation permit revision or administrative correction for a Title V source to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application.

Operation permit to be revised/corrected :

Air operation permit revision for a Title V source for reasons other than construction or

I. Part 4 - 1

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

modification of an emissions unit.

Operation permit to be revised :

Reason for revision :

Category II : All Air Operation Permit Applications Subject to Processing Under Rule 62-210.300(2)(b), F.A.C.

This Application for Air Permit is submitted to obtain :

-] Initial air operation permit under Rule 62-210.300(2)(b), F.A.C., for an existing facility seeking classification as a synthetic non-Title V source.

Current operation/construction permit number(s) :

-] Renewal air operation permit under Rule 62-210.300(2)(b), F.A.C., for a synthetic non-Title V source.

Operation permit to be renewed :

-] Air operation permit revision for a synthetic non-Title V source.

Operation permit to be revised :

Reason for revision :

Category III : All Air Construction Permit Applications for All Facilities and Emissions Units

This Application for Air Permit is submitted to obtain :

-] Air construction permit to construct or modify one or more emissions units within a facility (including any facility classified as a Title V source).

Current operation permit number(s), if any :

I. Part 4 - 2

- Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

Current operation permit number(s) :

- Air construction permit for one or more existing, but unpermitted, emissions units.

Application Processing Fee

Check one :

Attached - Amount : _____ Not Applicable.

Construction/Modification Information

1. Description of Proposed Project or Alterations : N/A
2. Projected or Actual Date of Commencement of Construction :
3. Projected Date of Completion of Construction :

Professional Engineer Certification

1. Professional Engineer Name : Marie Whitman Mahan Registration Number : 47584
2. Professional Engineer Mailing Address : Organization/Firm : Camp Dresser & McKee Inc. Street Address : 2503 Del Prado Blvd. Suite 200 City : Cape Coral State : FL Zip Code : 33904-
3. Professional Engineer Telephone Numbers : Telephone : (941)574-7100 Fax : (941)574-7474

4. Professional Engineer Statement :

I, the undersigned, hereby certified, except as particularly noted herein, that :*

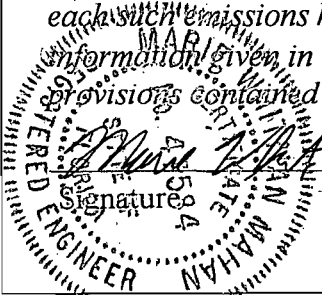
(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollutant control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(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.

If the purpose of this application is to obtain a Title V source air operation permit (check here [] 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 schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [] 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.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [] if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions 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.



William Mahan

Signature

2/10/96

Date

* Attach any exception to certification statement.

Application Contact

1. Name and Title of Application Contact :
Name : Marie Whitman Mahan Title : Engineer
2. Application Contact Mailing Address :
Organization/Firm : Camp Dresser & McKee Inc. Street Address : 2503 Del Prado Blvd. Suite 200 City : Cape Coral State : FL Zip Code : 33904-
3. Application Contact Telephone Numbers :
Telephone : (941)574-7100 Fax : (941)574-7474

Application Comment

The Southernmost Waste to Energy Facility (SWTEF) commenced operation in 1987. The facility was not permitted under the Power Plant Siting Act (PPSA). The facility has two municipal solid waste combustors which each have Florida Department of Environmental Protection permits (A044-207778 and A044-207781). Emissions are controlled by ESPs.

Contiguous to the SWTEF is the City of Key West's municipal landfill. Since the landfill has the same SIC code (4953), same owner (City of Key West) and is contiguous to the SWTEF, it must be considered as part of the same facility for regulatory purposes. Federal EG requirements for landfills were promulgated 3/12/96 (40 CFR Subpart Cc); however the State has not yet adopted the regulations. Fugitive VOC landfill emissions were estimated for the landfill.

BASEMAP SOURCE: USGS "KEY WEST, FLA." & "BOCA CHICA KEY, FLA." 7.5 MINUTE QUADRANGLE - 1971. PHOTO DATE 4/4/1970.



CITY OF KEY WEST, FLORIDA

FACILITY LOCATION MAP

CDM
 environmental engineers, scientists,
 planners, & management consultants

Figure No. 1

ATTACHMENT 6

COMPLIANCE CERTIFICATION

"I, the undersigned, am the responsible official as defined in Chapter 62-210.200, F.A.C., of the Title V source for which this report is being submitted. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made and data contained in this report are true, accurate, and complete."

E. David Fernandez
Signature

6-11-96
Date

Title V Core List

Effective: 03/25/96

[Note: The Title V Core List is meant to simplify the completion of the "List of Applicable Regulations" for DEP Form No. 62-210.900(1), Application for Air Permit - Long Form. The Title V Core List is a list of rules to which all Title V Sources are presumptively subject. The Title V Core List may be referenced in its entirety, or with specific exceptions. The Department may periodically update the Title V Core List.]

Federal:*(description)*

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State:*(description)***CHAPTER 62-4, F.A.C.: PERMITS, effective 10-16-95**

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CHAPTER 62-103, F.A.C.: RULES OF ADMINISTRATIVE PROCEDURE, effective 12-31-95

62-103.150, F.A.C.: Public Notice of Application and Proposed Agency Action.
62-103.155, F.A.C.: Petition for Administrative Hearing; Waiver of Right to Administrative Proceeding.

Title V Core List

Effective: 03/25/96

CHAPTER 62-210, F.A.C.: STATIONARY SOURCES - GENERAL REQUIREMENTS, effective 03-21-96

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62-210.300(3)(b), F.A.C.: Temporary Exemption.

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62-213.400, F.A.C.: Permits and Permit Revisions Required.

62-213.410, F.A.C.: Changes Without Permit Revision.

62-213.412, F.A.C.: Immediate Implementation Pending Revision Process.

62-213.420, F.A.C.: Permit Applications.

62-213.430, F.A.C.: Permit Issuance, Renewal, and Revision.

62-213.440, F.A.C.: Permit Content.

62-213.460, F.A.C.: Permit Shield.

62-213.900, F.A.C.: Forms and Instructions.

62-213.900(1) Major Air Pollution Source Annual Emissions Fee Form, Form and Instructions.

Title V Core List

Effective: 03/25/96

CHAPTER 62-256, F.A.C.: OPEN BURNING AND FROST PROTECTION FIRES, effective 11-30-94

CHAPTER 62-257, F.A.C.: ASBESTOS NOTIFICATION AND FEE, effective 03/24/96

CHAPTER 62-281, F.A.C.: MOTOR VEHICLE AIR CONDITIONING REFRIGERANT RECOVERY AND RECYCLING, effective 03-07-96

CHAPTER 62-296, F.A.C.: STATIONARY SOURCES - EMISSION STANDARDS, effective 03-13-96

62-296.320(2), F.A.C.: Objectionable Odor Prohibited.

62-296.320(3), F.A.C.: Industrial, Commercial, and Municipal Open Burning Prohibited.

62-296.320(4)(c), F.A.C.: Unconfined Emissions of Particulate Matter.

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THE CITY OF KEY WEST

P. O. BOX 1409
KEY WEST, FLORIDA 33041-1409

June 12, 1996

RECEIVED

JUN 12 1996

BUREAU OF
AIR REGULATION

Mr. John C. Brown, Jr., P.E.
Administrator, Title V Section
Florida Department of Environmental Protection
Bureau of Air Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Dear Mr. Brown:

Please find enclosed the Title V permit application for the City of Key West's Southernmost Waste to Energy Facility. The submittal includes four (4) copies of the diskette with electronic permit application and four (4) copies of signature pages and supporting documents.

Sincerely,

A handwritten signature in cursive script that reads "E. David Fernandez".

E. David Fernandez
City of Key West
Utilities Director

DEPLTR

Key to the Caribbean - Average yearly temperature 77° F.

**Department of
Environmental Protection**

**DIVISION OF AIR RESOURCES MANAGEMENT
APPLICATION FOR AIR PERMIT - LONG FORM**

I. APPLICATION INFORMATION

Identification of Facility Addressed in This Application

1. Facility Owner/Company Name : The City of Key West	
2. Site Name : Southernmost Waste to Energy Facility	
3. Facility Identification Number :	0870047 [] Unknown
4. Facility Location :	
Street Address or Other Locator :	5701 West Junior College Road
City : Key West	County : Monroe Zip Code : 33040
5. Relocatable Facility? [] Yes [X] No	6. Existing Permitted Facility? [X] Yes [] No

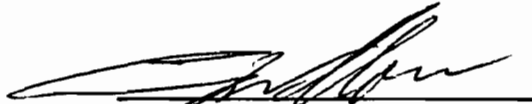
I. Part 1 - 1



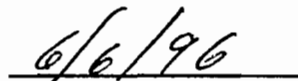
THE CITY OF KEY WEST
P. O. BOX 1409
KEY WEST, FLORIDA 33041-1409

LETTER OF AUTHORIZATION

I, Dennis Wardlow, Mayor of the City of Key West, hereby designate E. David Fernandez, Utilities Director, as the Authorized Representative for Title V permitting of the Southernmost Waste to Energy Facility.



Dennis Wardlow, Mayor



Date

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official :	
Name :	E. David Fernandez
Title :	Utilities Director
2. Owner or Authorized Representative or Responsible Official Mailing Address :	
Organization/Firm :	Southernmost Waste to Energy Facility
Street Address :	5701 W. Junior College Road
City :	Key West
State :	FL
Zip Code :	33040-
3. Owner/Authorized Representative or Responsible Official Telephone Numbers :	
Telephone :	(305)293-6409
Fax :	(305)293-6415
4. Owner/Authorized Representative or Responsible Official Statement :	
<p><i>I, the undersigned, am the owner or authorized representative* of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this application, whichever is applicable. 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. 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 any permitted emissions units.</i></p>	
<u>E. David Fernandez</u> Signature	<u>6-11-96</u> Date

* Attach letter of authorization if not currently on file.

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type
001	Municipal Solid Waste Combustor, Unit 1	AF2A
002	Municipal Solid Waste Combustor, Unit 2	AF2A
003	Municipal Solid Waste Landfill	AF2C

Purpose of Application and Category

Category I : All Air Operation Permit Applications Subject to Processing Under Chapter 62-213, F.A.C.

This Application for Air Permit is submitted to obtain :

Initial air operation permit under Chapter 62-213, F.A.C., for an existing facility which is classified as a Title V source.

Initial air operation permit under Chapter 62-213, F.A.C., for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number :

Air operation permit renewal under Chapter 62-213, F.A.C., for a Title V source.

Operation permit to be renewed :

Air operation permit revision for a Title V source to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number :

Operation permit to be revised :

Air operation permit revision or administrative correction for a Title V source to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application.

Operation permit to be revised/corrected :

Air operation permit revision for a Title V source for reasons other than construction or

I. Part 4 - 1

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

modification of an emissions unit.

Operation permit to be revised :

Reason for revision :

Category II : All Air Operation Permit Applications Subject to Processing Under Rule 62-210.300(2)(b), F.A.C.

This Application for Air Permit is submitted to obtain :

-] Initial air operation permit under Rule 62-210.300(2)(b), F.A.C., for an existing facility seeking classification as a synthetic non-Title V source.

Current operation/construction permit number(s) :

-] Renewal air operation permit under Rule 62-210.300(2)(b), F.A.C., for a synthetic non-Title V source.

Operation permit to be renewed :

-] Air operation permit revision for a synthetic non-Title V source.

Operation permit to be revised :

Reason for revision :

Category III : All Air Construction Permit Applications for All Facilities and Emissions Units

This Application for Air Permit is submitted to obtain :

-] Air construction permit to construct or modify one or more emissions units within a facility (including any facility classified as a Title V source).

Current operation permit number(s), if any :

I. Part 4 - 2

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

- Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

Current operation permit number(s) :

- Air construction permit for one or more existing, but unpermitted, emissions units.

Application Processing Fee

Check one :

Attached - Amount : _____ Not Applicable.

Construction/Modification Information

1. Description of Proposed Project or Alterations : N/A
2. Projected or Actual Date of Commencement of Construction :
3. Projected Date of Completion of Construction :

Professional Engineer Certification

1. Professional Engineer Name : Marie Whitman Mahan Registration Number : 47584
2. Professional Engineer Mailing Address : Organization/Firm : Camp Dresser & McKee Inc. Street Address : 2503 Del Prado Blvd. Suite 200 City : Cape Coral State : FL Zip Code : 33904-
3. Professional Engineer Telephone Numbers : Telephone : (941)574-7100 Fax : (941)574-7474

4. Professional Engineer Statement :

I, the undersigned, hereby certified, except as particularly noted herein, that :*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollutant 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

(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.

If the purpose of this application is to obtain a Title V source air operation permit (check here [] 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 schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [] 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.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [] if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions 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.

Munis Whit Maha

Signature

6/10/96

Date

* Attach any exception to certification statement.

I. Part 6 - 1

Application Contact

1. Name and Title of Application Contact :
Name : Marie Whitman Mahan Title : Engineer
2. Application Contact Mailing Address :
Organization/Firm : Camp Dresser & McKee Inc. Street Address : 2503 Del Prado Blvd. Suite 200 City : Cape Coral State : FL Zip Code : 33904-
3. Application Contact Telephone Numbers :
Telephone : (941)574-7100 Fax : (941)574-7474 941-275/8575

Application Comment

The Southernmost Waste to Energy Facility (SWTEF) commenced operation in 1987. The facility was not permitted under the Power Plant Siting Act (PPSA). The facility has two municipal solid waste combustors which each have Florida Department of Environmental Protection permits (A044-207778 and A044-207781). Emissions are controlled by ESPs.

Contiguous to the SWTEF is the City of Key West's municipal landfill. Since the landfill has the same SIC code (4953), same owner (City of Key West) and is contiguous to the SWTEF, it must be considered as part of the same facility for regulatory purposes. Federal EG requirements for landfills were promulgated 3/12/96 (40 CFR Subpart Cc); however the State has not yet adopted the regulations. Fugitive VOC landfill emissions were estimated for the landfill.

Facility Regulatory Classifications

1. Small Business Stationary Source?	N
2. Title V Source?	Y
3. Synthetic Non-Title V Source?	N
4. Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?	Y
5. Synthetic Minor Source of Pollutants Other than HAPs?	N
6. Major Source of Hazardous Air Pollutants (HAPs)?	Y
7. Synthetic Minor Source of HAPs?	N
8. One or More Emissions Units Subject to NSPS?	Y
9. One or More Emission Units Subject to NESHAP?	N
10. Title V Source by EPA Designation?	N
11. Facility Regulatory Classifications Comment :	

B. FACILITY REGULATIONS

Rule Applicability Analysis

Not required for Title V.

B. FACILITY REGULATIONS

List of Applicable Regulations

Title V Core List with the following exceptions Chapter 62-256, 257 & 281 FAC.

Additional exceptions: 40 CFR 61 and 40 CFR 61, Subpart M and 40 CFR 82 Subparts B & F.

62-296.320(1) FAC : General Pollutant Emission Limiting Standards

62-204 FAC : State Implementation Plan

62-297.310 FAC : General Test Requirements

62-297.401 FAC : EPA Test Procedures

62-213 FAC : Operating Permits for Major Sources of Air Pollution.

62-273.400 (2)(a)2 FAC : Air Pollution Episodes - Air Alert Curtailment Actions

62-273.500(2)(a)2 FAC : Air Pollution Episodes - Air Warning Curtailment Actions

62-273.600(2)(a)2 FAC : Air Pollution Episodes - Air Emergency Curtailment Actions

62-210.700 FAC : Excess Emissions

City of Key West Code of Ordinances, Chapter 55 Noise

City of Key West Code of Ordinances Chapter 54 Section 54.04, Odor

62.210.200 FAC: Definitions

II. Part 3b - 1

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

B. FACILITY REGULATIONS

List of Applicable Regulations

Title V Core List included as Attachment 12

II. Part 3b - 2

DEP Form No. 62-210.900(1) - Form
Effective : 3-21-96

C. FACILITY POLLUTANTS

Facility Pollutant Information

1. Pollutant Emitted	2. Pollutant Classification
SO2	A
NOX	A
PM	B
H106	A

D. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements for All Applications

1. Area Map Showing Facility Location :	Figure No. 1
2. Facility Plot Plan :	fig-2.dxf
3. Process Flow Diagram(s) :	fig-3.dxf
4. Precautions to Prevent Emissions of Unconfined Particulate Matter :	att1.txt
5. Fugitive Emissions Identification :	att2.txt
6. Supplemental Information for Construction Permit Application :	NA

Additional Supplemental Requirements for Category I Applications Only

7. List of Proposed Exempt Activities :	att3.txt
8. List of Equipment/Activities Regulated under Title VI :	att4.txt
9. Alternative Methods of Operation :	NA
10. Alternative Modes of Operation (Emissions Trading) :	NA
11. Identification of Additional Applicable Requirements :	NA
12. Compliance Assurance Monitoring Plan :	NA
13. Risk Management Plan Verification :	NA
14. Compliance Report and Plan :	att5.txt
15. Compliance Certification (Hard-copy Required) :	Attachment 6

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 1

Municipal Solid Waste Combustor, Unit 1

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one :

- [X] 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.

2. Single Process, Group of Processes, or Fugitive Only? Check one :

- [X] 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.

III. Part 1 - 1

Emissions Unit Information Section 1

**B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)**

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section : Municipal Solid Waste Combustor, Unit 1		
2. Emissions Unit Identification Number : 001 [] No Corresponding ID [] Unknown		
3. Emissions Unit Status Code : A	4. Acid Rain Unit? [] Yes [X] No	5. Emissions Unit Major Group SIC Code : 49
6. Emissions Unit Comment :		

Emissions Unit Information Section 1
Municipal Solid Waste Combustor, Unit 1

Emissions Unit Control Equipment 1

1. Description :
Electrostatic Precipitator - High Efficiency
2. Control Device or Method Code : 10

**D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)**

Emissions Unit Information Section 1
Municipal Solid Waste Combustor, Unit 1

Rule Applicability Analysis

Not required for Title V Sources.

List of Applicable Regulations

62-210.700 FAC : Excess Emissions

62-296.310 (2) FAC : General Visible Emission Standards

62-296.401(2)&(3) FAC : Incinerators

62-296.800 FAC : New Source Performance Standards

62-297.345 FAC : Stack Sampling Facilities

40 CFR 60.50 Subpart E : Standards of Performance for Incinerators (40 CFR 60.50a, Subpart Ea - N/A)

62-296.416 FAC: Waste to Energy Facilities (not applicable until upgrade because no scrubber)

62-210.550 FAC: Stack Height Policy

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 1

Municipal Solid Waste Combustor, Unit 1

Emission Point Description and Type :

1. Identification of Point on Plot Plan or Flow Diagram :	Stack
2. Emission Point Type Code :	2
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking : (limit to 100 characters per point) N/A	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common : 001 - Municipal Solid Waste Combustor, Unit 1 002 - Municipal Solid Waste Combustor, Unit 2	
5. Discharge Type Code :	V
6. Stack Height :	140 feet
7. Exit Diameter :	4.5 feet
8. Exit Temperature :	400 °F
9. Actual Volumetric Flow Rate :	46000 acfm
10. Percent Water Vapor :	14.00 %
11. Maximum Dry Standard Flow Rate :	24300 dscfm
12. Nonstack Emission Point Height :	feet
13. Emission Point UTM Coordinates :	
Zone :	East (km) : North (km) :
14. Emission Point Comment : Exit temperature and percent water vapor vary. Stack tests indicate a typical range of 400-450 degrees fahrenheit for exit temperature. Stack tests indicate a range of 14-19% for percent water vapor	

III. Part 7a - 1

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 1

Municipal Solid Waste Combustor, Unit 1

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Municipal Solid Waste Combustor Resource Recovery	
2. Source Classification Code (SCC) : 5-01-001-02	
3. SCC Units : Tons Burned (all solid fuels)	
4. Maximum Hourly Rate : 3.13	5. Maximum Annual Rate : 27,375.00
6. Estimated Annual Activity Factor : 0.00	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit : 10	
10. Segment Comment :	

III. Part 8 - 1

**G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)**

Emissions Unit Information Section 1
Municipal Solid Waste Combustor, Unit 1

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
CO			NS
NOX			NS
SO2			NS
PM10	010		NS
H106			NS
PM	010		EL

III. Part 9a - 1

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1

Municipal Solid Waste Combustor, Unit 1

Pollutant Potential/Estimated Emissions : Pollutant 1

1. Pollutant Emitted :	CO	
2. Total Percent Efficiency of Control :	%	
3. Potential Emissions :	lb/hour	tons/year
4. Synthetically Limited? [] Yes [] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor : Reference :		
7. Emissions Method Code :		
8. Calculations of Emissions :		
9. Pollutant Potential/Estimated Emissions Comment :	Pollutant is not emissions limited.	

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1
Municipal Solid Waste Combustor, Unit 1

Pollutant Potential/Estimated Emissions : Pollutant 2

1. Pollutant Emitted :	NOX	
2. Total Percent Efficiency of Control :	%	
3. Potential Emissions :	lb/hour	tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor : Reference :		
7. Emissions Method Code :		
8. Calculations of Emissions :		
9. Pollutant Potential/Estimated Emissions Comment :	Pollutant is not emissions limited.	

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1
Municipal Solid Waste Combustor, Unit 1

Pollutant Potential/Estimated Emissions : Pollutant 3

1. Pollutant Emitted :	SO2	
2. Total Percent Efficiency of Control :		%
3. Potential Emissions :	lb/hour	tons/year
4. Synthetically Limited? [] Yes [] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor : Reference :		
7. Emissions Method Code :		
8. Calculations of Emissions :		
9. Pollutant Potential/Estimated Emissions Comment :	Pollutant is not emissions limited.	

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1
Municipal Solid Waste Combustor, Unit 1

Pollutant Potential/Estimated Emissions : Pollutant 4

1. Pollutant Emitted :	PM10	
2. Total Percent Efficiency of Control :	%	
3. Potential Emissions :	lb/hour	tons/year
4. Synthetically Limited? [] Yes [] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor : Reference :		
7. Emissions Method Code :		
8. Calculations of Emissions :		
9. Pollutant Potential/Estimated Emissions Comment :	Pollutant is not emissions limited.	

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1
Municipal Solid Waste Combustor, Unit 1

Pollutant Potential/Estimated Emissions : Pollutant 5

1. Pollutant Emitted :	H106	
2. Total Percent Efficiency of Control :	%	
3. Potential Emissions :	lb/hour	tons/year
4. Synthetically Limited? [] Yes [] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor : Reference :		
7. Emissions Method Code :		
8. Calculations of Emissions :		
9. Pollutant Potential/Estimated Emissions Comment :	Pollutant is not emissions limited.	

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Emissions Unit Information Section 1

Municipal Solid Waste Combustor, Unit 1

Pollutant Potential/Estimated Emissions : Pollutant 6

1. Pollutant Emitted :	PM		
2. Total Percent Efficiency of Control :	97.70	%	
3. Potential Emissions :	7.60	lb/hour	33.26 tons/year
4. Synthetically Limited? [] Yes [X] No			
5. Range of Estimated Fugitive/Other Emissions:		to	tons/year
6. Emissions Factor :	Reference : 40 CFR 60 Subpart E		
7. Emissions Method Code :	0		
8. Calculations of Emissions :	<p>Correct based on actual CO2 $0.08 \text{ gr/dscf} \times (10.9\% \text{ CO}_2/12\% \text{ CO}_2) = 0.073 \text{ gr/dscf}$ $0.073 \text{ gr/dscf} \times 12,150 \text{ dscf/min} \times \text{lb}/7000\text{gr} \times 60\text{min/hr} \times \text{hr}/3.125 \text{ tons} = 2.43 \text{ lb PM/ton}$ $2.43 \text{ lb PM/ton} \times 75 \text{ tons/day} \times 365 \text{ days/yr} \times \text{ton}/2000 \text{ lb} = 33.26 \text{ ton PM/yr}$</p>		
9. Pollutant Potential/Estimated Emissions Comment :	Emission factor units are gr/dscf.		

Emissions Unit Information Section 1
Municipal Solid Waste Combustor, Unit 1

Pollutant Information Section 6

Allowable Emissions 1

1. Basis for Allowable Emissions Code :	RULE		
2. Future Effective Date of Allowable Emissions :			
3. Requested Allowable Emissions and Units :	0.08	gr/dscf	
4. Equivalent Allowable Emissions :	7.60	lb/hour	33.26 tons/year
5. Method of Compliance :	Annual Stack Test 40 CFR 60, Appendix A, Method Five		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	40 CFR 60 Subpart E limits PM to 0.08 gr/dscf (at 12% CO2). Emissions calculated using 10.9% CO2 based on stack tests which indicate a range from 9.1% CO2 to 10.9% CO2.		

III. Part 9c - 1

Emissions Unit Information Section 1
Municipal Solid Waste Combustor, Unit 1

Pollutant Information Section 6

Allowable Emissions 2

1. Basis for Allowable Emissions Code :	OTHER		
2. Future Effective Date of Allowable Emissions :			
3. Requested Allowable Emissions and Units :	0.08	gr/dscf	
4. Equivalent Allowable Emissions :	6.94	lb/hour	30.40 tons/year
5. Method of Compliance :	Annual Stack Test		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	Permit A044-207778 limits PM to 0.08 gr/dscf (at 50% excess air). The facility typically operates at 80 - 100% excess air. Emissions calculated using 80% excess air.		

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 1
Municipal Solid Waste Combustor, Unit 1

Visible Emissions Limitation : Visible Emissions Limitation 1

1. Visible Emissions Subtype :	VE
2. Basis for Allowable Opacity :	OTHER
3. Requested Allowable Opacity :	
	Normal Conditions : 5 %
	Exceptional Conditions : 20 %
	Maximum Period of Excess Opacity Allowed : 3 min/hour
4. Method of Compliance :	
	EPA Method 9
5. Visible Emissions Comment :	
	Basis is Permit A044-207778 Permit requires no visible emissions under normal operation

III. Part 10 - 1

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 1
Municipal Solid Waste Combustor, Unit 1

Continuous Monitoring System : Continuous Monitor 1

1. Parameter Code :	2. Pollutant :
3. CMS Requirement :	
4. Monitor Information : Manufacturer : Model Number : Serial Number :	
5. Installation Date :	
6. Performance Specification Test Date :	
7. Continuous Monitor Comment : Emissions unit does not have continuous monitors.	

**K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT
TRACKING INFORMATION**

Emissions Unit Information Section 1

Municipal Solid Waste Combustor, Unit 1

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

- The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

-] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
-] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
-] The facility addressed in this application is classified as an EPA major source, and the emission unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
-] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
-] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code :			
PM :	C	SO2 :	C
		NO2 :	U
4. Baseline Emissions :			
PM :	0.0000	lb/hour	0.0000 tons/year
SO2 :	0.0000	lb/hour	0.0000 tons/year
NO2 :			tons/year
5. PSD Comment :			

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 1

Municipal Solid Waste Combustor, Unit 1

Supplemental Requirements for All Applications

1. Process Flow Diagram :	fig-4.dxf
2. Fuel Analysis or Specification :	NA
3. Detailed Description of Control Equipment :	att7.txt
4. Description of Stack Sampling Facilities :	att8.zip
5. Compliance Test Report :	att9.txt
6. Procedures for Startup and Shutdown :	att10.txt
7. Operation and Maintenance Plan :	att11.txt
8. Supplemental Information for Construction Permit Application :	NA
9. Other Information Required by Rule or Statute :	NA

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operations :	NA
11. Alternative Modes of Operation (Emissions Trading) :	NA

III. Part 13 - 1

12. Identification of Additional Applicable Requirements :	NA
13. Compliance Assurance Monitoring Plan :	NA
14. Acid Rain Application (Hard-copy Required) :	
NA	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
NA	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
NA	New Unit Exemption (Form No. 62-210.900(1)(a)2.)
NA	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

III. Part 13 - 2

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 2

Municipal Solid Waste Combustor, Unit 2

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one :

- [X] 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.

2. Single Process, Group of Processes, or Fugitive Only? Check one :

- [X] 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.

III. Part 1 - 2

Emissions Unit Information Section 2

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section : Municipal Solid Waste Combustor, Unit2		
2. Emissions Unit Identification Number : 002 [] No Corresponding ID [] Unknown		
3. Emissions Unit Status Code : A	4. Acid Rain Unit? [] Yes [X] No	5. Emissions Unit Major Group SIC Code : 49
6. Emissions Unit Comment :		

Emissions Unit Information Section 2
Municipal Solid Waste Combustor, Unit 2

Emissions Unit Control Equipment 1

1. Description :	
Electrostatic Precipitator - High Efficiency	
2. Control Device or Method Code :	10

**C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)**

Emissions Unit Information Section
Municipal Solid Waste Combustor, Unit 2

2

Emissions Unit Details

1. Initial Startup Date :	13-Jan-1987		
2. Long-term Reserve Shutdown Date :			
3. Package Unit :			
Manufacturer : N/A	Model Number :		
4. Generator Nameplate Rating :	4	MW	
5. Incinerator Information :			
Dwell Temperature :	1,650	Degrees Fahrenheit	
Dwell Time :	1.00	Seconds	
Incinerator Afterburner Temperature :	Degrees Fahrenheit		

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate :	31	mmBtu/hr		
2. Maximum Incinerator Rate :	6250.00	lb/hr	75.00	tons/day
3. Maximum Process or Throughput Rate :	6250	lb/hr		
4. Maximum Production Rate :				
5. Operating Capacity Comment :	Maximum heat input rate based on 5000 Btu/lb.			

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :		
24 hours/day	7 days/week	
52 weeks/year	8,760 hours/year	

**D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)**

Emissions Unit Information Section
Municipal Solid Waste Combustor, Unit 2

2

Rule Applicability Analysis

Not required for Title V Sources.

III. Part 6a - 2

DEP Form No. 62-210.900(1) - Form
Effective : 3-21-96

List of Applicable Regulations

62-210.700 FAC : Excess Emissions

62-296.310(2) FAC : General Visible Emission Standards

62-296.401 (2)&(3) FAC : Incinerators

62-297.345 FAC : Stack Sampling Facilities

40 CFR 60.50 Subpart E : Standards of Performance for Incinerators (40 CFR 60.50a, Subpart Ea - N/A)

62-296.416 FAC: Waste to Energy Facilities (not applicable until upgrade because no scrubber)

62-210.550 FAC: Stack Height Policy

62-296.800 FAC : New Source Performance Standards

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 2

Municipal Solid Waste Combustor, Unit 2

Emission Point Description and Type :

1. Identification of Point on Plot Plan or Flow Diagram :	Stack
2. Emission Point Type Code :	2
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking : (limit to 100 characters per point) N/A	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common : 001 - Municipal Solid Waste Combustor, Unit 1 002 - Municipal Solid Waste Combustor, Unit 2	
5. Discharge Type Code :	V
6. Stack Height :	140 feet
7. Exit Diameter :	4.5 feet
8. Exit Temperature :	400 °F
9. Actual Volumetric Flow Rate :	46000 acfm
10. Percent Water Vapor :	14.00 %
11. Maximum Dry Standard Flow Rate :	24300 dscfm
12. Nonstack Emission Point Height :	feet
13. Emission Point UTM Coordinates :	
Zone :	East (km) : North (km) :
14. Emission Point Comment : Exit temperature and percent water vapor vary. Stack tests indicate a typical range of 400-450 degrees fahrenheit for exit temperature. Stack tests indicate a range of 14-19% for percent water vapor	

III. Part 7a - 3

F. SEGMENT (PROCESS/FUEL) INFORMATION

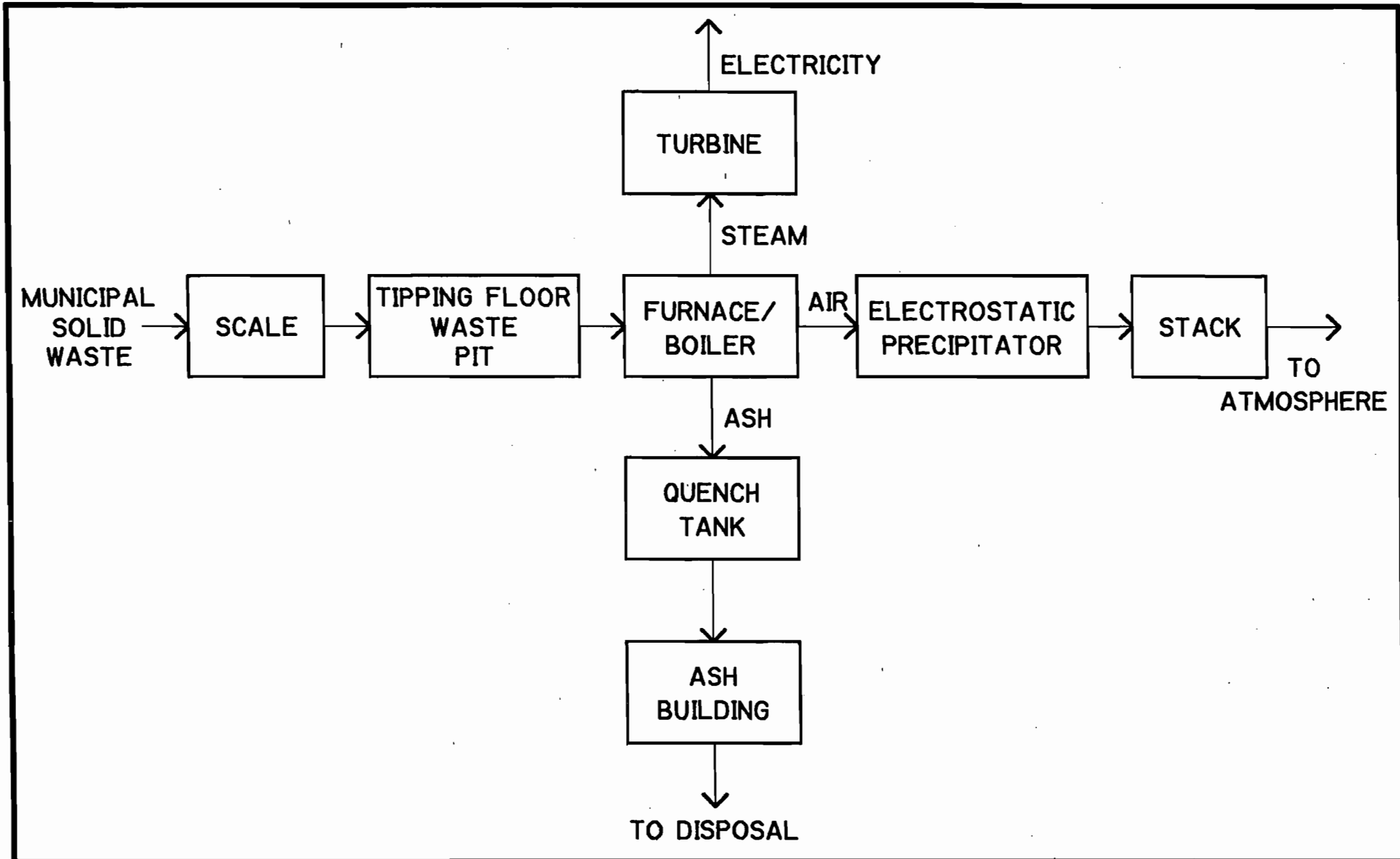
Emissions Unit Information Section 2

Municipal Solid Waste Combustor, Unit2

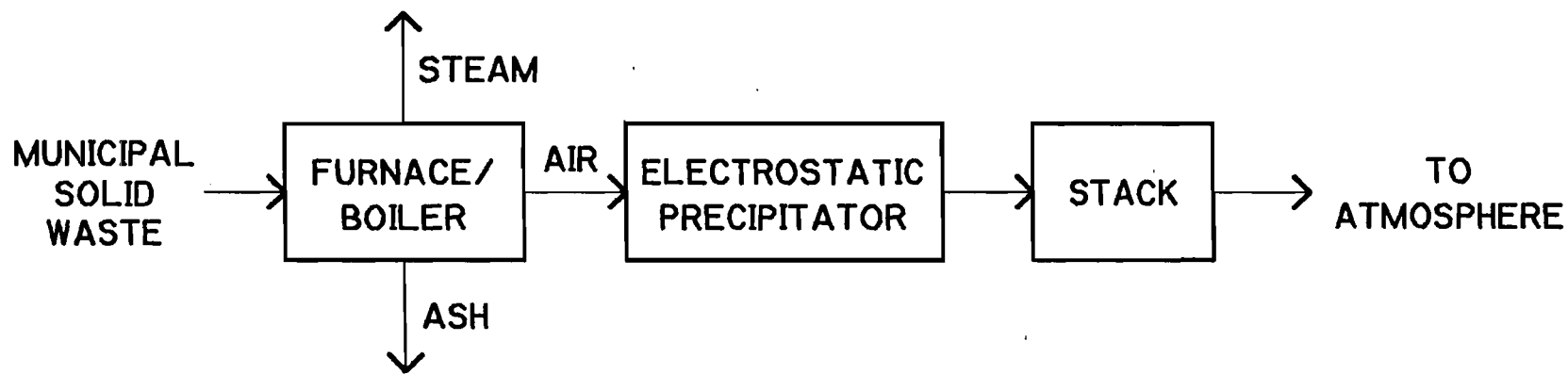
Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Municipal Solid Waste Combustor Resource Recovery	
2. Source Classification Code (SCC) : 5-01-001-02	
3. SCC Units : Tons Burned (all solid fuels)	
4. Maximum Hourly Rate : 3.13	5. Maximum Annual Rate : 27,375.00
6. Estimated Annual Activity Factor : 0.00	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit : 10	
10. Segment Comment :	

III. Part 8 - 2



CITY OF KEY WEST
PROCESS FLOW DIAGRAM



CITY OF KEY WEST
PROCESS FLOW DIAGRAM

Date: 10/16/98 12:25:02 PM
From: Mary Fillingim TAL
Subject: Re: Posting of DRAFT T-5 Permit: KUA Cane Island: 0970043-002-AV.
To: Mike Halpin TAL

Mike,

When I went in to post the above-referenced permit, all the information has not been entered in ARMS-PERMIT SUMMARY. Please enter the following information: APPLICATION TYPE/PERMIT ACTIVITY, SIC, tpy, APPLICABLE REQUIREMENTS LIST, and MISCELLANEOUS SUPPLEMENTAL.

Also, please send me an e-mail letting me know when this has been completed so that I can finish the posting process.

If you have any questions, feel free to contact me.

Thanks,
Mary

Florida's DRAFT Permit Electronic Notification Cover Memorandum

TO: Gracy R. Danois, U.S. EPA Region 4
CC: Carla E. Pierce, U.S. EPA Region 4
THRU: Scott M. Sheplak, P.E., BAR - Title V Section
FROM: Michael P. Halpin, P.E., Permit Engineer
DATE: 10/30/98
RE: U.S. EPA Region 4 DRAFT Title V Operation Permit Review

The following DRAFT Title V operation permit(s) and associated documents have been posted on the DEP World Wide Web Internet site for your review. Please provide any comments via Internet E-mail, to Scott M. Sheplak, at "Sheplak_S@dep.state.fl.us".

<u>Applicant Name</u>	<u>County</u>	<u>Method of Transmittal</u>	<u>Electronic File Name(s)</u>
City of Key West Southernmost Waste To Energy	Monroe	INTERNET	0870047p.zip

This zipped file contains the following electronic files:

0870047.sob
0870047i.doc
0870047d.doc
0870047d1.doc
0870047.tb1
0870047.tb2
0870047u.doc
0870047h.doc
wwwdef.doc
AppA797r.doc

8

Date: 10/16/98 10:16:51 AM
From: Mike Halpin TAL
Subject: Posting of DRAFT T-5 Permit: KUA Cane Island: 0970043-002-AV.
To: Mary Fillingim TAL
CC: Scott Sheplak TAL
CC: Bruce Mitchell TAL

10/16/98

Dear Mary -

Here's the DRAFT Permit for Posting. You'll find the permit package
@ V:\mike\KUAcane.
Many Thanks

Mike Halpin

Florida's DRAFT Permit Electronic Notification Cover Memorandum

TO: Gracy R. Danois, U.S. EPA Region 4
CC: Carla E. Pierce, U.S. EPA Region 4
THRU: Scott M. Sheplak, P.E., BAR - Title V Section
FROM: Michael P. Halpin, P.E., Permit Engineer
DATE: 10/16/98
RE: U.S. EPA Region 4 DRAFT Title V Operation Permit Review

The following DRAFT Title V operation permit(s) and associated documents have been posted on the DEP World Wide Web Internet site for your review. Please provide any comments via Internet E-mail, to Scott M. Sheplak, at "Sheplak_S@dep.state.fl.us".

Applicant Name	County	Method of Transmittal	Electronic File Name(s)
Kissimmee Utility Authority Cane Island Power Park	Osceola	INTERNET	0970043p.zip

This zipped file contains the following electronic files:

0970043.sob
0970043i.doc
0970043d.doc

Table 1, Summary of Air Pollutant Standards and Terms

City of Key West

Southernmost Waste To Energy Facility

E.U. ID Nos. Brief Description

DRAFT Permit No.: 0870047-001-AV

Facility ID No.: 0870047

-001		Solid Waste Combustor Unit #1				Allowable Emissions		Equivalent Emissions		Regulatory Citation(s)	See Permit Condition(s)
Pollutant Name	Fuel(s) *	Hours/ Year *	Standards	lb/ hour	TPY	lb/hour **	TPY **				
PM Emissions	Mixed municipal waste	8760	0.08 gr/dscf			7.60	33.26	AO44-207778 40 CFR 60.52(a)	A.6		
Visible Emissions	Mixed municipal waste	8760	5% Opacity					AO44-207778 Rule 62-296.401, F.A.C.	A.5		

-002		Solid Waste Combustor Unit #2				Allowable Emissions		Equivalent Emissions		Regulatory Citation(s)	See Permit Condition(s)
Pollutant Name	Fuel(s) *	Hours/ Year *	Standards	lb/ hour	TPY	lb/hour **	TPY **				
PM Emissions	Mixed municipal waste	8760	0.08 gr/dscf			7.60	33.26	AO44-207781 40 CFR 60.52(a)	A.6		
Visible Emissions	Mixed municipal waste	8760	5% Opacity					AO44-207781 Rule 62-296.401, F.A.C.	A.5		

** The "Equivalent Emissions" listed are for informational purposes only.

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

Appendix H-1, Permit History/ID Number Changes

City of Key West
Southernmost Waste To Energy Facility

DRAFT Permit No.: 0870047-001-AV
Facility ID No.: 0870047

Permit History (for tracking purposes):

E.U.

<u>ID No</u>	<u>Description</u>	<u>Permit No.</u>	<u>Issue Date</u>	<u>Expiration Date</u>	<u>Extended Date</u> ^{1,2}
-001	Municipal Waste Combustor No. 1	AO44-207778	04/03/92	04/01/97	
-002	Municipal Waste Combustor No. 2	AO44-207781	04/03/92	04/01/97	
-003	Municipal Solid Waste Landfill				

(if applicable) ID Number Changes (for tracking purposes):

From: Facility ID No.: 52FTM44004702

To: Facility ID No.: 0870047

Notes:

1 - AO permit(s) automatic extension(s) in Rule 62-210.300(2)(a)3.a., F.A.C., effective 03/21/96.

2 - AC permit(s) automatic extension(s) in Rule 62-213.420(1)(a)4., F.A.C., effective 03/20/96.

{Rule 62-213.420(1)(b)2., F.A.C., effective 03/20/96, allows Title V Sources to operate under existing valid permits}

MTH,

FUI only

changed page number on the intent

created a permit history

*Scott
10/25*

PDS

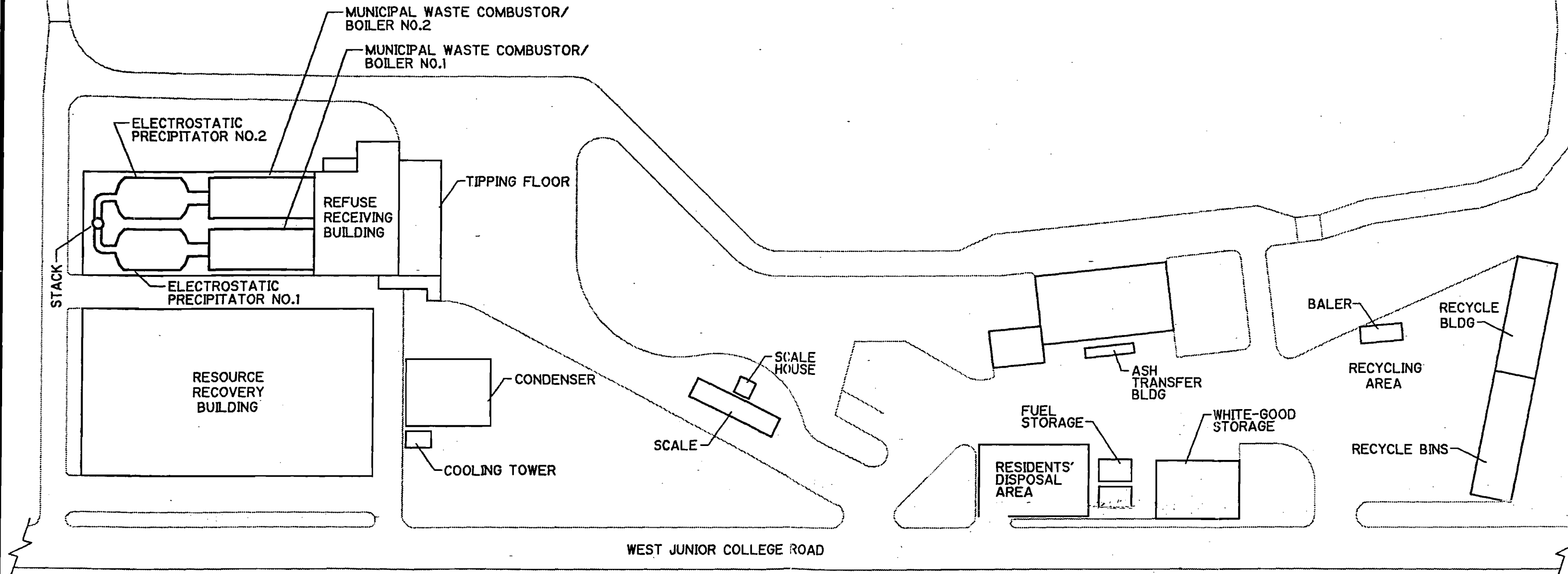
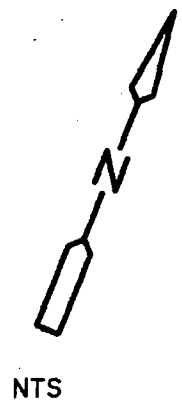
01/24/93

06/10/96 13:30:18

FIG-2

D:\2752-13\PA\APP

EXISTING
LANDFILL
±20 ACRES



CITY OF KEY WEST SITE PLAN

**G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)**

Emissions Unit Information Section 2
Municipal Solid Waste Combustor, Unit 2

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
CO			NS
NOX			NS
SO2			NS
PM10	010		NS
H106			NS
PM	010		EL

III. Part 9a - 1

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Emissions Unit Information Section 2
Municipal Solid Waste Combustor, Unit2

Pollutant Potential/Estimated Emissions : Pollutant 1

1. Pollutant Emitted :	CO	
2. Total Percent Efficiency of Control :	%	
3. Potential Emissions :	lb/hour	tons/year
4. Synthetically Limited? [] Yes [] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor : Reference :		
7. Emissions Method Code :		
8. Calculations of Emissions :		
9. Pollutant Potential/Estimated Emissions Comment :	Pollutant is not emissions limited.	

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Emissions Unit Information Section 2
Municipal Solid Waste Combustor, Unit 2

Pollutant Potential/Estimated Emissions : Pollutant 2

1. Pollutant Emitted :	NOX	
2. Total Percent Efficiency of Control :	%	
3. Potential Emissions :	lb/hour	tons/year
4. Synthetically Limited? [] Yes [] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor : Reference :		
7. Emissions Method Code :		
8. Calculations of Emissions :		
9. Pollutant Potential/Estimated Emissions Comment :	Pollutant is not emissions limited.	

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 2

Municipal Solid Waste Combustor, Unit2

Pollutant Potential/Estimated Emissions : Pollutant 3

1. Pollutant Emitted :	SO2	
2. Total Percent Efficiency of Control :	%	
3. Potential Emissions :	lb/hour	tons/year
4. Synthetically Limited? [] Yes [] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor : Reference :		
7. Emissions Method Code :		
8. Calculations of Emissions :		
9. Pollutant Potential/Estimated Emissions Comment :	Pollutant is not emissions limited.	

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 2
Municipal Solid Waste Combustor, Unit 2

Pollutant Potential/Estimated Emissions : Pollutant 4

1. Pollutant Emitted :	PM10	
2. Total Percent Efficiency of Control :	%	
3. Potential Emissions :	lb/hour	tons/year
4. Synthetically Limited? [] Yes [] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor : Reference :		
7. Emissions Method Code :		
8. Calculations of Emissions :		
9. Pollutant Potential/Estimated Emissions Comment :	Pollutant is not emissions limited.	

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Emissions Unit Information Section 2

Municipal Solid Waste Combustor, Unit2

Pollutant Potential/Estimated Emissions : Pollutant 5

1. Pollutant Emitted :	H106	
2. Total Percent Efficiency of Control :	%	
3. Potential Emissions :	lb/hour	tons/year
4. Synthetically Limited? [] Yes [] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor : Reference :		
7. Emissions Method Code :		
8. Calculations of Emissions :		
9. Pollutant Potential/Estimated Emissions Comment :	Pollutant is not emissions limited.	

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Emissions Unit Information Section 2

Municipal Solid Waste Combustor, Unit 2

Pollutant Potential/Estimated Emissions : Pollutant 6

1. Pollutant Emitted :	PM		
2. Total Percent Efficiency of Control :	97.70	%	
3. Potential Emissions :	7.60	lb/hour	33.26 tons/year
4. Synthetically Limited? [] Yes [X] No			
5. Range of Estimated Fugitive/Other Emissions:		to	tons/year
6. Emissions Factor :	Reference : 40 CFR 60 Subpart E		
7. Emissions Method Code :	0		
8. Calculations of Emissions :	<p>Correct based on actual CO2 $0.08 \text{ gr/dscf} \times (10.9\% \text{ CO}_2/12\% \text{ CO}_2) = 0.073 \text{ gr/dscf}$</p> <p>$0.073 \text{ gr/dscf} \times 12,150 \text{ dscf/min} \times \text{lb}/7000\text{gr} \times 60\text{min/hr} \times \text{hr}/3.125 \text{ tons} = 2.43 \text{ lb PM/ton}$ $2.43 \text{ lb PM/ton} \times 75 \text{ tons/day} \times 365 \text{ days/yr} \times \text{ton}/2000 \text{ lb} = 33.26 \text{ ton PM/yr}$</p>		
9. Pollutant Potential/Estimated Emissions Comment :	Emission factor units are gr/dscf.		

Emissions Unit Information Section 2
Municipal Solid Waste Combustor, Unit 2

Pollutant Information Section 6

Allowable Emissions 1

1. Basis for Allowable Emissions Code :	RULE		
2. Future Effective Date of Allowable Emissions :			
3. Requested Allowable Emissions and Units :	0.08	gr/dscf	
4. Equivalent Allowable Emissions :	7.60	lb/hour	33.26 tons/year
5. Method of Compliance :	Annual Stack Test 40 CFR 60, Appendix A, Method Five		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	40 CFR 60 Subpart E limits PM to 0.08 gr/dscf (at 12% CO2). Emissions calculated using 10.9% CO2 based on stack tests which indicate a range from 9.1% CO2 to 10.9% CO2.		

Emissions Unit Information Section 2
Municipal Solid Waste Combustor, Unit 2

Pollutant Information Section 6

Allowable Emissions 2

1. Basis for Allowable Emissions Code :	OTHER		
2. Future Effective Date of Allowable Emissions :			
3. Requested Allowable Emissions and Units :	0.08	gr/dscf	
4. Equivalent Allowable Emissions :	6.94	lb/hour	30.40 tons/year
5. Method of Compliance :	Annual Stack Test		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	Permit A044-207781 limits PM to 0.08 gr/dscf (at 50% excess air). The facility typically operates at 80 - 100% excess air. Emissions calculated using 80% excess air.		

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 2
Municipal Solid Waste Combustor, Unit 2

Visible Emissions Limitation : Visible Emissions Limitation 1

1. Visible Emissions Subtype :	VE
2. Basis for Allowable Opacity :	OTHER
3. Requested Allowable Opacity :	Normal Conditions : 5 % Exceptional Conditions : 20 % Maximum Period of Excess Opacity Allowed : 3 min/hour
4. Method of Compliance :	EPA Method 9
5. Visible Emissions Comment :	Basis is Permit A044-207781 Permit requires no visible emissions under normal operation

**J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)**

Emissions Unit Information Section 2
Municipal Solid Waste Combustor, Unit 2

Continuous Monitoring System : Continuous Monitor 1

1. Parameter Code :	2. Pollutant :
3. CMS Requirement :	
4. Monitor Information : Manufacturer : Model Number : Serial Number :	
5. Installation Date :	
6. Performance Specification Test Date :	
7. Continuous Monitor Comment : Emissions unit does not have continuous monitors.	

**K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT
TRACKING INFORMATION**

Emissions Unit Information Section 2

Municipal Solid Waste Combustor, Unit 2

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

- The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

-] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
-] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
-] The facility addressed in this application is classified as an EPA major source, and the emission unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
-] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
-] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code :		
PM : C	SO2 : C	NO2 : U
4. Baseline Emissions :		
PM :	0.0000 lb/hour	0.0000 tons/year
SO2 :	0.0000 lb/hour	0.0000 tons/year
NO2 :		tons/year
5. PSD Comment :		

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 2

Municipal Solid Waste Combustor, Unit 2

Supplemental Requirements for All Applications

1. Process Flow Diagram :	Figure 4
2. Fuel Analysis or Specification :	NA
3. Detailed Description of Control Equipment :	att7.txt
4. Description of Stack Sampling Facilities :	Att8.txt
5. Compliance Test Report :	Att9.txt
6. Procedures for Startup and Shutdown :	Att10.txt
7. Operation and Maintenance Plan :	Att11.txt
8. Supplemental Information for Construction Permit Application :	NA
9. Other Information Required by Rule or Statute :	NA

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operations :	NA
11. Alternative Modes of Operation (Emissions Trading) :	NA

III. Part 13 - 3

12. Identification of Additional Applicable Requirements :	NA
13. Compliance Assurance Monitoring Plan :	NA
14. Acid Rain Application (Hard-copy Required) :	
NA	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
NA	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
NA	New Unit Exemption (Form No. 62-210.900(1)(a)2.)
NA	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

III. Part 13 - 4

Emission Unit 3

This is an unregulated emissions unit. The following Sections are not required for unregulated emissions units: C, D, E, H, I, J, & L.

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 3

Municipal Solid Waste Landfill

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one :

- 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.

2. Single Process, Group of Processes, or Fugitive Only? 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.

III. Part 1 - 3

Emissions Unit Information Section 3

**B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)**

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section : Municipal Solid Waste Landfill		
2. Emissions Unit Identification Number : 003 [] No Corresponding ID [] Unknown		
3. Emissions Unit Status Code : A	4. Acid Rain Unit? [] Yes [X] No	5. Emissions Unit Major Group SIC Code : 49
6. Emissions Unit Comment : The approximately 20-acre landfill has been closed and is no longer accepting waste. Landfill gas is emitted through passive gas vents spaced at approximately 100-200 foot intervals. Landfilling with municipal waste began approximately in the mid-1940's. When the SWTEF became operational in 1987, ash became the only material landfilled. Closures were made in two phases in 1991 & 1996.		

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 3

Municipal Solid Waste Landfill

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Municipal Solid Waste Landfill - Inactive	
2. Source Classification Code (SCC) : 5-02-006-02	
3. SCC Units : Acres Storage	
4. Maximum Hourly Rate :	5. Maximum Annual Rate :
6. Estimated Annual Activity Factor : 20.00	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit :	
10. Segment Comment :	

III. Part 8 - 3

**G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)**

Emissions Unit Information Section 3
Municipal Solid Waste Landfill

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
VOC			NS

III. Part 9a - 1

DEP Form No. 62-210.900(1) - Form
Effective : 3-21-96

**K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT
TRACKING INFORMATION**

Emissions Unit Information Section 3

Municipal Solid Waste Landfill

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

- [] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
- [] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
- [] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- [] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- [] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

III. Part 12 - 5

2. Increment Consuming for Nitrogen Dioxide?

-] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
-] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
-] The facility addressed in this application is classified as an EPA major source, and the emission unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
-] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
-] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code :		
PM :	SO2 :	NO2 :
4. Baseline Emissions :		
PM :	lb/hour	tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		
Emissions unit does not emit PM, SO2 or NO2.		

ATTACHMENT 1

PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER

The following activities at the Southernmost Waste to Energy Facility (SWTE) have the potential to emit unconfined particulate matter:

- municipal solid waste (MSW) handling
- ash handling

Precautions to prevent emissions of unconfined particulate matter are described below:

Municipal Solid Waste Handling

MSW handling activities which generate unconfined particulate matter include unloading garbage trucks, moving MSW from the tipping area into the waste pit and loading MSW into the furnace feed chute.

The waste pit and tipping area are enclosed which minimizes emission of unconfined particulate matter. Combustion air is drawn from the waste pit and tipping area. Thus, unconfined particulate matter in the waste pit and tipping area would be drawn into the furnace.

Ash Handling

Ash is removed from the quench tank and conveyed into a dump truck. The moisture in the ash prevents emission of unconfined particulate matter. The moist ash is then stored in the enclosed ash handling building. A front end loader is used to deposit the ash in a transfer truck, which is covered with a tarp. This activity is conducted in a covered loading bay adjacent to the ash building.

ATTACHMENT 1 (continued)

Additional Precautions

Additional precautions to prevent emissions of unconfined particulate matter at the facility include:

- Roads, parking areas and yards are paved.
- A street sweeper is used to remove particulate matter from roads and other paved areas.
- The unpaved areas of the facility are maintained and either sodded, seeded or landscaped.

ATTACHMENT 2

FUGITIVE EMISSIONS IDENTIFICATION

This list identifies fugitive emissions that may result from the operation of the facility and indicates how the fugitive emissions are addressed in the Title V Application form.

1. Fugitive emissions are generated by municipal solid waste handling activities. These activities generate unconfined particulate matter. Precautions to prevent emissions of unconfined particulate matter are attached to the permit application. Fugitive emissions from solid waste handling activities are included on the list of proposed exempt activities based on the quantity of particulate matter generated.
2. Fugitive emissions are generated by ash handling activities. These activities generate unconfined particulate matter. Precautions to prevent emissions of unconfined particulate matter are attached to the permit application. Fugitive emissions from ash handling activities are included in the list of proposed exempt activities based on the quantity of particulate matter generated.
3. The recycling operation generates fugitive emissions of particulate matter. Fugitive emissions are generated by moving and baling recyclables. Based on the amount of fugitive emissions generated, fugitive emissions from the recycling operation are included on the list of proposed exempt activities.
4. Fugitive emissions from internal combustion engines (i.e., mobile operating equipment such as front end loaders) are emitted. These emissions are exempt pursuant to Section 62-210.300(3)(a)5 F.A.C.
5. Fugitive emissions from the cooling tower are included in the list of proposed exempt activities based on the amount of PM generated.

ATTACHMENT 2 (continued)

6. Futitive emissions from painting are included in the list of proposed exempt activities based on the amount of VOC generated.

ATTACHMENT 3

LIST OF PROPOSED EXEMPT ACTIVITIES

This document provides a list of process or production units and other pollutant emitting activities at the Southernmost Waste to Energy Facility which, by virtue of size or operating rate, are eligible for exemption in accordance with the criteria of Section 62-213.430(6), F.A.C. The thresholds for exemptions are as follows:

- 500 pounds per year or more of lead and lead compounds expressed as lead
- 1,000 pounds per year or more of any hazardous air pollutant
- 2,500 pounds per year or more of total hazardous air pollutants
- 5.0 tons per year or more of any other regulated pollutant

Pursuant to Section 62-213.420(3)(m), F.A.C. exemptions are requested for the units and activities listed below. Information necessary to demonstrate that the units and activities qualify for an exemption are also provided.

1. Diesel fuel and turbine lube oil storage tanks and drums - These sources emit less than 1 pound per year of VOCs based on the TANKS model.
2. Ash handling - Wet ash handling does not emit a discernable level of pollutants. Ash that has been stored may dry out and emit approximately 25 lb/year PM-10 when loaded into the transfer truck.
3. Cooling Tower - The induced draft cooling tower has a flow rate of 200 gpm. Based on the AP-42 emission factor, the cooling tower may emit up to 0.68 tons per year of PM-10. In addition, only one 55 gallon drum of scale and corrosion inhibitor is used annually for the cooling tower. Drums of cooling tower treatment chemicals are sealed.

ATTACHMENT 3 (continued)

4. Painting - Painting activities include coating equipment and exposed steel as needed to prevent corrosion. In 1995, fifty-seven gallons of enamel paint were used. Based on the VOC content of the paint, less than 400 pounds per year of VOCs are generated annually. In addition, one gallon of paint thinner was used in 1995.
5. Recycling Operation - The recycling operation includes unloading, sorting and baling recyclables such as plastics, newspaper, cardboard, office paper and glass. Baled material is stored in a building or in the outdoor bins. Emission factors for recyclable handling and processing are not available. Worst-case estimates of emissions were based on AP-42 emission factors for aggregate handling and stone crushing. Emissions are estimated to be less than 50 pounds per year of PM-10.
6. Diesel Fire Pump - A backup diesel fire pump is currently being installed. Fire protection equipment is exempt pursuant to Section 62-210.300(3)(a)22, F.A.C.
7. Emergency Generator - An emergency generator will be installed within the next 18 months. This generator is exempt pursuant to Section 62-210.300(3)(a)20, F.A.C.
8. Flanges and Valves - Flanges and valves are an insignificant source below reporting thresholds for any of the criteria pollutants.
9. Vehicular Traffic and Mobile Operating Equipment - Vehicular traffic is exempt pursuant to Section 62.210.300(3)(a)5, F.A.C. Mobile operating equipment (front end loaders, 4 dump trucks and a street sweeper) are also exempt under the above referenced rule.

ATTACHMENT 4

EQUIPMENT/ACTIVITIES REGULATED UNDER TITLE VI

The facility does not have any equipment onsite which contains more than 50 pounds of charge of any Class I or Class II ozone-depleting substance regulated under Title VI of the Clean Air Act.

The facility has a "white goods" drop off area. Refrigerants are removed from the "white goods" by a licensed contractor.

ATTACHMENT 5

COMPLIANCE REPORT AND PLAN

The Southernmost Waste to Energy Facility is a municipal solid waste combustor facility which consists of two identical mass fired waterwell boilers. Each boiler is rated at 75 tons of municipal solid waste per day. Compliance emission testing for PM was performed at the stack.

Compliance emissions tests were performed on November 28 and 29, 1995. The purpose of the compliance test was to demonstrate compliance with air operation permits (AO44-207778 & AO44-207781). The testing was performed by South Florida Environmental Services.

The results of the stack testing was submitted to FDEP on February 21, 1996. In addition, mercury tests were conducted on Unit #1 on April 4 & 5, 1996 and Unit #2 on November 29, 1995. Test results were submitted to FDEP on February 21, 1996 and April 24, 1996.

The results demonstrated that the facility is in compliance with permit conditions. Applicable regulations were identified. Based on information reviewed and belief formed after reasonable inquiry, the facility is in compliance with regulatory requirements.

ATTACHMENT 6

COMPLIANCE CERTIFICATION

"I, the undersigned, am the responsible official as defined in Chapter 62-210.200, F.A.C., of the Title V source for which this report is being submitted. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made and data contained in this report are true, accurate, and complete."

E David Fernandez
Signature

6-11-96
Date

ATTACHMENT 7

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

Control Device:	Electrostatic Precipitator
Manufacturer:	Belco Pollution Control Corporation
Model:	RE19
Primary Voltage:	480 Volts
Primary Current:	25 Amps
Secondary Voltage:	55 KVDC
Secondary Current:	150 mADC
Design Flow Rate:	23,000 ACFM
Control Efficiency:	97.7%

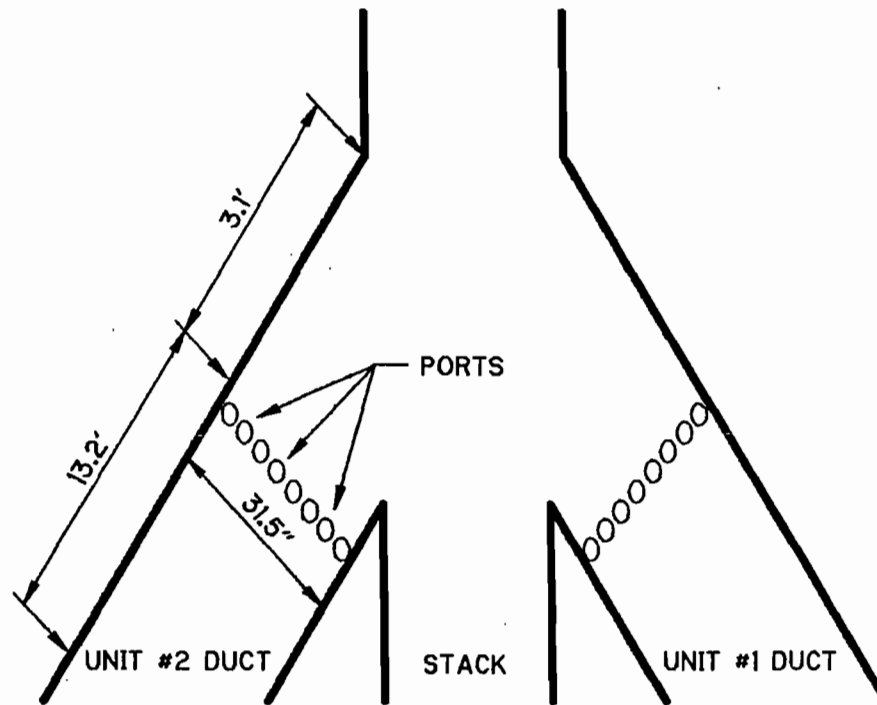
Belco Pollution Control Corporation provided an equipment guarantee that the 97.7% removal efficiency and emissions limits will be met. In addition, based on past performance in meeting permit conditions, it is the opinion of the professional engineer that control efficiency and permit conditions (emissions limit) will continue to be met.

ATTACHMENT 8

DESCRIPTION OF STACK SAMPLING FACILITIES

The primary stack sampling facilities are shown on the attached drawing (Figure 5). These stack sampling facilities allow sampling of emissions for each train. Additional stack sampling facilities include:

- A walk around work platform and four, 8-inch stainless steel sample ports are also provided at the 95' level.
- Access is by means of an external ladder with Saf-t-Klimb rail. Safety slides and belts are kept in the control room.



ATTACHMENT 9

COMPLIANCE REPORT AND PLAN

The last compliance test was conducted on November 28 and 29, 1995. The report was transmitted to FDEP on February 21, 1996. The compliance test demonstrated compliance with permit requirements.

ATTACHMENT 10

PROCEDURES FOR STARTUP AND SHUTDOWN

Excess emissions are possible during periods of startup or shutdown of the emission unit. General procedures to minimize emissions are provided below.

FUEL AND AIR

Fuel for light-off should be as homogenous as possible and is therefore segregated, pre-processed and thoroughly mixed. Yard waste, wet waste and non-combustibles are removed allowing for maximum distribution of the underfire air, but not great enough to cause fouling and particulate carry-over. The air flow must not be too great or too low, but enough for good combustion.

PRECIPITATOR AND ASH SYSTEM

The units are batch-fed until sufficient temperatures are reached for efficiently utilizing the precipitators. This ensures the removal of fly-ash from the emissions systems. The rotary airlocks are also put into service for the removal of ash from the system.

STOKER GRATES

The fires are kept small and sufficiently back in the unit until such time as the temperatures and pressure are sufficient for regular operating procedures. This requires that the stoker grates be manually operated during light-off.

ATTACHMENT 11

OPERATION AND MAINTENANCE PLAN

An Operation and Maintenance Manual is kept onsite. This document includes information on the facility's equipment and procedures for operating and maintaining the equipment. The Table of Contents is provided below.

<u>SECTION</u>	<u>DESCRIPTION</u>
1	Glossaries
2	Fundamentals
3	Instructions
4	Boilers & Economizers
5	Precipitators
6	Turbine/Generator
7	Cooling Tower
8	Cranes
9	Water Conditioning Equipment
10	Water Tests Procedure
11	Exercises
12	Turbine/Generator Start-up
13	Fans
14	Lufkin Reducing Gear
15	Terry Turbine
16	Crane Scale Computer
17	Crane Scale Printer
18	Crane Scale Commands
19	Miscellaneous
20	Rotaries
21	Stokers
22	Soot Lance Inspection & Replacement
23	Automatic Controllers
24	Alpha Programming
25	Electrostatic Precipitator Fundamentals
26	Lubrication Recommendations
27	Right to Know & Material Safety Data Sheets
28	Var/Power Factor Controller

Title V Core List

Effective: 03/25/96

[Note: The Title V Core List is meant to simplify the completion of the "List of Applicable Regulations" for DEP Form No. 62-210.900(1), Application for Air Permit - Long Form. The Title V Core List is a list of rules to which all Title V Sources are presumptively subject. The Title V Core List may be referenced in its entirety, or with specific exceptions. The Department may periodically update the Title V Core List.]

Federal: (description)

40 CFR 61: National Emission Standards for Hazardous Air Pollutants (NESHAP)
40 CFR 61, Subpart M: National Emission Standard for Asbestos.

40 CFR 82: Protection of Stratospheric Ozone.
40 CFR 82, Subpart B: Servicing of Motor Vehicle Air Conditioners (MVAC).
40 CFR 82, Subpart F: Recycling and Emissions Reduction.

State: (description)**CHAPTER 62-4, F.A.C.: PERMITS, effective 10-16-95**

62-4.030, F.A.C.: General Prohibition.
62-4.040, F.A.C.: Exemptions.
62-4.050, F.A.C.: Procedure to Obtain Permits; Application.
62-4.060, F.A.C.: Consultation.
62-4.070, F.A.C.: Standards for Issuing or Denying Permits; Issuance; Denial.
62-4.080, F.A.C.: Modification of Permit Conditions.
62-4.090, F.A.C.: Renewals.
62-4.100, F.A.C.: Suspension and Revocation.
62-4.110, F.A.C.: Financial Responsibility.
62-4.120, F.A.C.: Transfer of Permits.
62-4.130, F.A.C.: Plant Operation - Problems.
62-4.150, F.A.C.: Review.
62-4.160, F.A.C.: Permit Conditions.
62-4.210, F.A.C.: Construction Permits.
62-4.220, F.A.C.: Operation Permit for New Sources.

CHAPTER 62-103, F.A.C.: RULES OF ADMINISTRATIVE PROCEDURE, effective 12-31-95

62-103.150, F.A.C.: Public Notice of Application and Proposed Agency Action.
62-103.155, F.A.C.: Petition for Administrative Hearing; Waiver of Right to Administrative Proceeding.

CHAPTER 62-210, F.A.C.: STATIONARY SOURCES - GENERAL REQUIREMENTS, effective 03-21-96

62-210.300, F.A.C.: Permits Required.

62-210.300(1), F.A.C.: Air Construction Permits.

62-210.300(2), F.A.C.: Air Operation Permits.

62-210.300(3), F.A.C.: Exemptions.

62-210.300(3)(a), F.A.C.: Full Exemptions.

62-210.300(3)(b), F.A.C.: Temporary Exemption.

62-210.300(5), F.A.C.: Notification of Startup.

62-210.300(6), F.A.C.: Emissions Unit Reclassification.

62-210.350, F.A.C.: Public Notice and Comment.

62-210.350(3), F.A.C.: Additional Public Notice Requirements for Facilities Subject to Operation Permits for Title V Sources.

62-210.360, F.A.C.: Administrative Permit Corrections.

62-210.370(3), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility.

62-210.650, F.A.C.: Circumvention.

62-210.900, F.A.C.: Forms and Instructions.

62-210.900(1) Application for Air Permit - Long Form, Form and Instructions.

62-210.900(5) Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions.

CHAPTER 62-213, F.A.C.: OPERATION PERMITS FOR MAJOR SOURCES OF AIR POLLUTION, effective 03-20-96

62-213.205, F.A.C.: Annual Emissions Fee.

62-213.400, F.A.C.: Permits and Permit Revisions Required.

62-213.410, F.A.C.: Changes Without Permit Revision.

62-213.412, F.A.C.: Immediate Implementation Pending Revision Process.

62-213.420, F.A.C.: Permit Applications.

62-213.430, F.A.C.: Permit Issuance, Renewal, and Revision.

62-213.440, F.A.C.: Permit Content.

62-213.460, F.A.C.: Permit Shield.

62-213.900, F.A.C.: Forms and Instructions.

62-213.900(1) Major Air Pollution Source Annual Emissions Fee Form, Form and Instructions.

CHAPTER 62-256, F.A.C.: OPEN BURNING AND FROST PROTECTION FIRES, effective 11-30-94

CHAPTER 62-257, F.A.C.: ASBESTOS NOTIFICATION AND FEE, effective 03/24/96

CHAPTER 62-281, F.A.C.: MOTOR VEHICLE AIR CONDITIONING REFRIGERANT RECOVERY AND RECYCLING, effective 03-07-96

CHAPTER 62-296, F.A.C.: STATIONARY SOURCES - EMISSION STANDARDS, effective 03-13-96

62-296.320(2), F.A.C.: Objectionable Odor Prohibited.

62-296.320(3), F.A.C.: Industrial, Commercial, and Municipal Open Burning Prohibited.

62-296.320(4)(c), F.A.C.: Unconfined Emissions of Particulate Matter.

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Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

October 28, 1998

Mr. E. David Fernandez
Utilities Director
City of Key West
P.O. Box 1409
Key West, Florida 33041-1409

Re: DRAFT Title V Permit No.: 0870047-001-AV
Southernmost Waste To Energy Facility

Dear Mr. Fernandez:

One copy of the DRAFT Title V Air Operation Permit for the Southernmost Waste To Energy Facility located at 5701 West Junior College Road, Key West, Monroe County, is enclosed. The permitting authority's "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" and the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" must be published as soon as possible. Proof of publication, i.e., newspaper affidavit, must be provided to the permitting authority's office within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the permitting authority's proposed action to Scott M. Sheplak, P.E., at the above letterhead address. If you have any other questions, please contact Michael P. Halpin, P.E. at 850/921-9530.

Sincerely,

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

CHF/sms/mph

Enclosures

cc: Ms. Carla E. Pierce, U.S. EPA, Region 4 (INTERNET E-mail Memorandum)
Ms. Gracy Danois, U.S. EPA, Region 4 (INTERNET E-mail Memorandum)

In the Matter of an
Application for Permit by:

City of Key West
P.O. Box 1409
Key West, Florida 33041-1409

DRAFT Permit No.: 0870047-001-AV
Southernmost Waste To Energy Facility
Monroe County

INTENT TO ISSUE TITLE V AIR OPERATION PERMIT

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue a Title V air operation permit (copy of DRAFT Permit enclosed) for the Title V source detailed in the application specified above, for the reasons stated below.

The applicant, City of Key West, applied on June 12, 1996, to the permitting authority for a Title V air operation permit for the Southernmost Waste To Energy Facility located at 5701 West Junior College Road, Key West, Monroe County.

The permitting authority has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-213. This source is not exempt from Title V permitting procedures. The permitting authority has determined that a Title V air operation permit is required to commence or continue operations at the described facility.

The permitting authority intends to issue this Title V air operation permit based on the belief that reasonable assurances have been provided to indicate that operation of the source will not adversely impact air quality, and the source will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C.

Pursuant to Sections 403.815 and 403.087, F.S., and Rules 62-110.106 and 62-210.350(3), F.A.C., you (the applicant) are required to publish at your own expense the enclosed "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT." The notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the permitting authority at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-1344; Fax: 850/922-6979), within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit pursuant to Rule 62-110.106, F.A.C.

The permitting authority will issue the Title V PROPOSED Permit, and subsequent Title V FINAL Permit, in accordance with the conditions of the attached Title V DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT." Written comments should be provided to the permitting authority office. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the permitting authority shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/488-9730; Fax: 850/487-4938). Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the permitting authority for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the permitting authority's action is based must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number, if known;

(b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;

(c) A statement of how and when each petitioner received notice of the agency action or proposed action;

(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;

(e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and,

(f) A demand for relief.

A petition that does not dispute the material facts upon which the permitting authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation will not be available in this proceeding.

In addition to the above, a person subject to regulation has a right to apply to the Department of Environmental Protection for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542, F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information:

(a) The name, address, and telephone number of the petitioner;

(b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any;

(c) Each rule or portion of a rule from which a variance or waiver is requested;

(d) The citation to the statute underlying (implemented by) the rule identified in (c) above;

(e) The type of action requested;

(f) The specific facts that would justify a variance or waiver for the petitioner;

(g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and,

(h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2), F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the United States Environmental Protection Agency and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Finally, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 (sixty) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to issuance of any permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460.

Executed in Tallahassee, Florida.

**STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION**

C. H. Fancy, P.E.

Chief

Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE TITLE V AIR OPERATION PERMIT (including the PUBLIC NOTICE and the DRAFT permit) and all copies were sent by certified mail before the close of business on _____ to the person(s) listed:

E. David Fernandez, City of Key West

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of this INTENT TO ISSUE TITLE V AIR OPERATION PERMIT (including the PUBLIC NOTICE and the DRAFT permit) were sent by U.S. mail on the same date to the person(s) listed:

Marie Whitman Mahan, P.E.



Clerk Stamp

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

(Clerk)

(Date)

PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Title V DRAFT Permit No.: 0870047-001-AV
Southernmost Waste To Energy
Monroe County

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue a Title V air operation permit to City of Key West for the Southernmost Waste To Energy Facility located at 5701 West Junior College Road, Key West, Monroe County. The applicant's name and address are: E. David Fernandez, City of Key West, P.O. Box 1409, Key West, Florida 33041-1409.

The permitting authority will issue the Title V PROPOSED Permit, and subsequent Title V FINAL Permit, in accordance with the conditions of the Title V DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed Title V DRAFT Permit issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the permitting authority shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 of the Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/488-9730; Fax: 850/487-4938). Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of the notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the permitting authority for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the applicable time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code (F.A.C.).

A petition that disputes the material facts on which the permitting authority's action is based must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number, if known;

(b) The name, address and telephone number of the petitioner; name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how petitioner's substantial rights will be affected by the agency determination;

(c) A statement of how and when the petitioner received notice of the agency action or proposed action;

(d) A statement of all disputed issues of material fact. If there are none, the petition must so state;

(e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle petitioner to relief; and

(f) A demand for relief.

A petition that does not dispute the material facts upon which the permitting authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available for this proceeding.

In addition to the above, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 (sixty) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to issuance of any permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Permitting Authority:

Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-0114
Fax: 850/922-6979

Affected District/Local Program:

Department of Environmental Protection
South District Office
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901
Telephone: 941/332-6975
Fax: 941/332-6969

The complete project file includes the DRAFT Permit, the application, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Scott M. Sheplak, P.E., at the above address, or call 850/921-9532, for additional information.

Miscellaneous Requirements.

D.35. The permittee shall comply with the requirements contained in Appendix 40 CFR 60, Subpart A, attached to this permit.

[Rule 62-204.800(7)(d), F.A.C.]

4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

C.10. Acid Rain Part Application. For any unit which was a solid waste incinerator, burning less than 20 percent fossil fuel as described in 40 CFR 72.6(b)(7), adopted and incorporated by reference at Rule 62-204.800, F.A.C. the designated representative of the source containing the unit shall submit a complete Acid Rain Part application governing such unit to the Department before the later of January 1, 1998, or March 1 of the year following the three calendar year period in which the incinerator consumed 20 percent or more fossil fuel on a British thermal unit (BTU) basis.

[Chapter 62-214.320(1)(h), F.A.C.]

C.11. Annual Operation Report. An annual operation report shall be submitted by March 1st of each year.

[AO44-207778 and AO44-207781]

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C.6. Applicable Test Procedures.

(a) Required Sampling Time.

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.

2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur.

Exceptions to these requirements are as follows:

c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

(c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.

(d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1.

(e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

[Rule 62-297.310(4), F.A.C.]

C.7. Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities (version dated 10/07/96), attached to this permit.

[Rule 62-297.310(6), F.A.C.]

Record Keeping and Reporting Requirements

C.8. Malfunctions - Notification. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department's South District office in accordance with Appendix TV-1, Title V Condition No. 9, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department's South District office.

[Rule 62-210.700(6), F.A.C.]

C.9. Test Reports. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department's South District office to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.

or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and

5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.

8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.

9. The owner or operator shall notify the Department's South District office, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; and, SIP approved]

C.4. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance.

[Rule 62-297.310(1), F.A.C. and 40 CFR 60.8]

C.5. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule.

[Rule 62-297.310(3), F.A.C.]

Subsection C. Common Conditions.

E.U. ID No.	Brief Description
001	Municipal Solid Waste Combustor No. 1
002	Municipal Solid Waste Combustor No. 2

The following Conditions apply to the emissions unit(s)/activities listed above:

Essential Potential to Emit (PTE) Parameters

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

Monitoring of Operations

C.2. Determination of Process Variables.

(a) **Required Equipment.** The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) **Accuracy of Equipment.** Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

Test Methods and Procedures

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

C.3. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) **General Compliance Testing.**

3. Except as otherwise specified in an applicable subsection, the owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

- a. Did not operate; or
- b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.

4. During each federal fiscal year (October 1 -- September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

- a. Visible emissions, if there is an applicable standard;
- b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits

emission and migration standards. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration.

(2) Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.

(3) Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.
[Rule 62-204.800, F.A.C.; 40 CFR 60.759(b)]

B.46. Capacity of collection system.

(c) Each owner or operator seeking to comply with condition 60.752(b)(2)(i)(A) shall convey the landfill gas to a control system in compliance with condition 60.752(b)(2)(iii) through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:

(1) For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in condition (c)(2) below shall be used.

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.759(c)]

(1) The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat.

(2) The sufficient density of gas collection devices determined in condition (a)(1) above shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.

(3) The placement of gas collection devices determined in condition (a)(1) above shall control all gas producing areas, except as provided by conditions (a)(3)(i) and (a)(3)(ii) below.

(i) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under condition 60.758(d). The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and shall be provided to the Administrator upon request.

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

$$Q_i = 2kL_oM_i(e^{-kt_i})(C_{NMOC})(3.6 \times 10^{-9})$$

where,

Q_i = NMOC emission rate from the i^{th} section, megagrams per year

k = methane generation rate constant, year⁻¹

L_o = methane generation potential, cubic meters per megagram solid waste

M_i = mass of the degradable solid waste in the i^{th} section, megagram

t_i = age of the solid waste in the i^{th} section, years

C_{NMOC} = concentration of nonmethane organic compounds, parts per million by volume

3.6×10^{-9} = conversion factor

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.759(a)]

B.45. Design of collection devices.

(b) Each owner or operator seeking to comply with condition 60.752(b)(2)(i)(A) shall construct the gas collection devices using the following equipment or procedures:

(1) The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with

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

(3) Each owner or operator who uses a boiler or process heater with a design heat input capacity of 44 megawatts or greater to comply with condition 60.752(b)(2)(iii) shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater. (Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other State, local, or Federal regulatory requirements.)

(4) Each owner or operator seeking to comply with the provisions of this permit by use of an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under condition 60.756(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

[Rule 62-204.800, F.A.C.; 40 CFR 60.758(c)]

B.41. Plot map.

(d) Except as provided in section 60.752(b)(2)(i)(B), each owner or operator shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.

(1) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under condition 60.755(b).

(2) Each owner or operator subject to the provisions of this subpart shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in condition 60.759(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in condition 60.759(a)(3)(ii).

[Rule 62-204.800, F.A.C.; 40 CFR 60.758(d)]

B.42. Exceedances.

(e) Except as provided in section 60.752(b)(2)(i)(B), each owner or operator shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in condition 60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

[Rule 62-204.800, F.A.C.; 40 CFR 60.758(e)]

B.43. Design capacity calculations.

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.758(f)]

Section 60.759 Specifications for active collection systems.

B.44. Placement of collection devices.

(a) Each owner or operator seeking to comply with condition 60.752(b)(2)(i) shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Administrator as provided in conditions 60.752(b)(2)(i)(C) and (D):

the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.
[Rule 62-204.800, F.A.C.; 40 CFR 60.758(a)]

B.39. Control equipment test results.

(b) Except as provided in section 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in conditions (b)(1) through (b)(4) of this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.

(1) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with condition 60.752(b)(2)(ii):

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

(ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in condition 60.759(a)(1).

(2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with condition 60.752(b)(2)(iii) through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity greater than 44 megawatts:

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

(ii) The percent reduction of NMOC determined as specified in condition 60.752(b)(2)(iii)(B) achieved by the control device.

(3) Where an owner or operator seeks to demonstrate compliance with condition 60.752(b)(2)(iii)(B)(1) through use of a boiler or process heater of any size: a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.

(4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with condition 60.752(b)(2)(iii)(A) through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.

[Rule 62-204.800, F.A.C.; 40 CFR 60.758(b)]

B.40. Equipment operating parameters.

(c) Except as provided in section 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill subject to the provisions of this subpart shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in Section 60.756 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

(1) The following constitute exceedances that shall be recorded and reported under condition 60.757(f):

(i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28 °C below the average combustion temperature during the most recent performance test at which compliance with condition 60.752(b)(2)(iii) was determined.

(ii) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under condition (b)(3)(i) of this section.

(2) The Administrator may request such additional information as may be necessary to verify that all of the conditions for removal in condition 60.752(b)(2)(v) have been met.
[Rule 62-204.800, F.A.C.; 40 CFR 60.757(e)]

B.36. Active collection system annual reports.

(f) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator of a landfill seeking to comply with condition 60.752(b)(2) using an active collection system designed in accordance with condition 60.752(b)(2)(ii) shall submit to the Administrator annual reports of the recorded information in (f)(1) through (f)(6) below. The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under 40 CFR 60.8. For enclosed combustion devices and flares, reportable exceedances are defined under condition 60.758(c).

(1) Value and length of time for exceedance of applicable parameters monitored under conditions 60.756(a), (b), (c), and (d).

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

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

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

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

(6) The date of installation and the location of each well or collection system expansion added pursuant to conditions (a)(3), (b), and (c)(4) of Section 60.755.

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(f)]

B.37. Passive collection system reporting.

(g) Each owner or operator seeking to comply with section 60.752(b)(2)(iii) shall include the following information with the initial performance test report required under 40 CFR 60.8:

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

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

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

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

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

(6) The provisions for the control of off-site migration.

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(g)]

Section 60.758 Recordkeeping requirements.

B.38. Capacity and acceptance reports.

(a) Except as provided in section 60.752(b)(2)(i)(B), each owner or operator of an MSW landfill subject to the provisions of condition 60.752(b) shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered section 60.752(b), the current amount of solid waste in-place, and

shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

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

(3) Each owner or operator subject to the requirements of this subpart is exempted from the requirements of conditions (b)(1) and (2) of this section, after the installation of a collection and control system in compliance with condition 60.752(b)(2), during such time as the collection and control system is in operation and in compliance with Section 60.753 and Section 60.755.

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(b)]

B.33. Collection and control system design plan.

(c) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator subject to the provisions of condition 60.752(b)(2)(i) shall submit a collection and control system design plan to the Administrator within 1 year of the first report, in which the emission rate exceeds 50 megagrams per year, except as follows:

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

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(c)]

B.34. Closure report.

(d) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall submit a closure report to the Administrator within 30 days of waste acceptance cessation. The Administrator may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the Administrator, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 60.7(a)(4).

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(d)]

B.35. Equipment removal report.

(e) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall submit an equipment removal report to the Administrator 30 days prior to removal or cessation of operation of the control equipment.

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

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

(ii) A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired; and

(iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year.

collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator may specify additional appropriate monitoring procedures. [Rule 62-204.800, F.A.C.; 40 CFR 60.756(e)]

B.30. Surface methane operational standard.

(f) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to demonstrate compliance with condition 60.755(c), shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in condition 60.755(d). Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

[Rule 62-204.800, F.A.C.; 40 CFR 60.756(f)]

Section 60.757 Reporting requirements.

B.31. Notification of any increase in design capacity.

(a) An amended design capacity report shall be submitted to the Administrator providing notification of any increase in the design capacity of the landfill, whether the increase results from an increase in the permitted area or depth of the landfill, a change in the operating procedures, or any other means which results in an increase in the maximum design capacity of the landfill above 2.5 million megagrams or 2.5 million cubic meters. The amended design capacity report shall be submitted within 90 days of the issuance of an amended construction or operating permit, or the placement of waste in additional land, or the change in operating procedures which will result in an increase in maximum design capacity, whichever occurs first. An amended design capacity report shall be submitted to the Administrator providing notification of an increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill to or above 2.5 million megagrams and 2.5 million cubic meters. This increase in design capacity may result from an increase in the permitted volume of landfill or an increase in the density as documented in the annual recalculation required in section 60.758(f).

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(a)]

B.32. Annual NMOC emission rate.

(b) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator subject to the requirements of this subpart shall submit an annual NMOC emission rate report to the Administrator, except as provided for in condition (b)(1)(ii) or (b)(3) of this section. The Administrator may request such additional information as may be necessary to verify the reported NMOC emission rate.

(1) The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in condition 60.754(a) or (b), as applicable.

(i) The initial NMOC emission rate report may be combined with the initial design capacity report and shall be submitted no later than ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction on or after March 12, 1996. Subsequent NMOC emission rate reports shall be submitted annually thereafter, except as provided for in conditions (b)(1)(ii) and (b)(3) of this section.

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

(3) Monitor temperature of the landfill gas on a monthly basis as provided in condition 60.755(a)(5).
[Rule 62-204.800, F.A.C.; 40 CFR 60.756(a)]

B.26. Enclosed combustor.

(b) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to comply with condition 60.752(b)(2)(iii) using an enclosed combustor shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment.

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

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

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

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.756(b)]

B.27. Open flare.

(c) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to comply with condition 60.752(b)(2)(iii) using an open flare shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

(1) A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.

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

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

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.756(c)]

B.28. Other control devices.

(d) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to demonstrate compliance with condition 60.752(b)(2)(iii) using a device other than an open flare or an enclosed combustor shall provide information satisfactory to the Administrator as provided in condition 60.752(b)(2)(i)(B) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator shall review the information and either approve it, or request that additional information be submitted. The Administrator may specify additional appropriate monitoring procedures.

[Rule 62-204.800, F.A.C.; 40 CFR 60.756(d)]

B.29. Alternate methods of compliance.

(e) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to install a collection system that does not meet the specifications in Section 60.759 or seeking to monitor alternative parameters to those required by Section 60.753 through Section 60.756 shall provide information satisfactory to the Administrator as provided in conditions 60.752(b)(2)(i) (B) and (C) describing the design and operation of the

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

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

(v) For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Administrator for approval.

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

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

B.23. Method for ensuring accuracy of surface methane measurements.

(d) Each owner or operator seeking to comply with the provisions in condition 60.755(c) above shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

(1) The portable analyzer shall meet the instrument specifications provided in Section 3 of 40 CFR 60 Appendix A Method 21, except that "methane" shall replace all references to VOC.

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

(3) To meet the performance evaluation requirements in Section 3.1.3 of Method 21, the instrument evaluation procedures of Section 4.4 of Method 21 shall be used.

(4) The calibration procedures provided in Section 4.2 of Method 21 shall be followed immediately before commencing a surface monitoring survey.

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(d)]

B.24. Applicability of permit provisions.

(e) The provisions of this permit apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices.

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(e)]

Section 60.756 Monitoring of operations.

B.25. Active gas collection system.

(a) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to comply with condition 60.752(b)(2)(ii)(A) for an active gas collection system shall install a sampling port and a thermometer or other temperature measuring device, or an access port for temperature measurements at each wellhead and:

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

(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in condition 60.755(a)(5); and

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(4)]

(a)(5) For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature and nitrogen or oxygen as provided in condition 60.753(c). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval.

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(5)]

(a)(6) An owner or operator seeking to demonstrate compliance with condition 60.752(b)(2)(ii)(A)(4) through the use of a collection system not conforming to the specifications provided in section 60.759 of this permit shall provide information satisfactory to the Administrator as specified in condition 60.752(b)(2)(i)(C) demonstrating that off-site migration is being controlled.

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(6)]

B.21. Installation according to design plan.

(b) For purposes of compliance with condition 60.753(a), each owner or operator of a controlled landfill shall place each well or design component as specified in the approved design plan as provided in condition 60.752(b)(2)(i). Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:

- (1) 5 years or more if active; or
- (2) 2 years or more if closed or at final grade.

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

B.22. Surface methane requirements.

(c) The following procedures shall be used for compliance with the surface methane operational standard as provided in condition 60.753(d).

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

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

(3) Surface emission monitoring shall be performed in accordance with Section 4.3.1 of Method 21 of 40 CFR 60 Appendix A, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.

(4) Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified in conditions (c)(4) (i) through (v) of this section shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of condition 60.753(d).

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

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

Q_m = maximum expected gas generation flow rate, cubic meters per year
 L_o = methane generation potential, cubic meters per megagram solid waste
 R = average annual acceptance rate, megagrams per year
 k = methane generation rate constant, year⁻¹
 t = age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure, t is the age of the landfill at installation, years
 c = time since closure, years (for an active landfill $c = 0$ and $e^{-kc} = 1$)

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

$$Q_m = \sum_{i=1}^n 2kL_oM_i(e^{-kti})$$

where,

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

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(1)]

(a)(2) For the purposes of determining sufficient density of gas collectors for compliance with condition 60.752(b)(2)(ii)(A)(2), the owner or operator shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Administrator, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(2)]

(a)(3) For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with condition 60.752(b)(2)(ii)(A)(3), the owner or operator shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under condition 60.753(b). If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval.

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(3)]

other gas refining units. The landfill owner or operator shall divide the NMOC concentration from Method 25C by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(b)]

B.18. Calculating emissions for PSD purposes.

(c) When calculating emissions for PSD purposes, the owner or operator of each MSW landfill subject to the provisions of this subpart shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in 40 CFR 51.166 or 40 CFR 52.21 using AP-42 or other approved measurement procedures. If a collection system, which complies with the provisions in Sec. 60.752(b)(2) is already installed, the owner or operator shall estimate the NMOC emission rate using the procedures provided in condition (b) of this section.

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(c)]

B.19. Performance test methods.

(d) For the performance test required in condition 60.752(b)(2)(iii)(B), Method 25C or Method 18 of 40 CFR 60 Appendix A shall be used to determine compliance with 98 weight-percent efficiency or the 20 ppmv outlet concentration level, unless another method to demonstrate compliance has been approved by the Administrator as provided by condition 60.752(b)(2)(i)(B). If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The following equation shall be used to calculate efficiency:

$$\text{Control Efficiency} = (\text{NMOC}_{\text{in}} - \text{NMOC}_{\text{out}}) / (\text{NMOC}_{\text{in}})$$

where,

NMOC_{in} = mass of NMOC entering control device

NMOC_{out} = mass of NMOC exiting control device

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(d)]

Section 60.755 Compliance provisions.

Except as provided in condition 60.752(b)(2)(i)(B), the specified methods in paragraphs (a)(1) through (a)(6) of this section shall be used to determine whether the gas collection system is in compliance with Sec. 60.752(b)(2)(ii).

B.20. Methods for ensuring collection system accuracy.

(a)(1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with condition 60.752(b)(2)(ii)(A)(1), one of the following equations shall be used. The k and L_0 kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site specific values demonstrated to be appropriate and approved by the Administrator. If k has been determined as specified in condition 60.754(a)(4), the value of k determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.

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

$$Q_m = 2L_0R(e^{-kc} - e^{-kt})$$

where,

condition 60.757(b)(1) and retest the site-specific NMOC concentration every 5 years using the methods specified in this section.

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(a)(3)]

B.15. Method for determining site-specific methane emissions.

(a)(4) Tier 3. The site-specific methane generation rate constant shall be determined using the procedures provided in Method 2E of 40 CFR 60 Appendix A. The landfill owner or operator shall estimate the NMOC mass emission rate using equations in condition (a)(1)(i) or (a)(1)(ii) of this section and using a site-specific methane generation rate constant k , and the site-specific NMOC concentration as determined in condition (a)(3) of this section instead of the default values provided in condition (a)(1) of this section. The landfill owner or operator shall compare the resulting NMOC mass emission rate to the standard of 50 megagrams per year.

(i) If the NMOC mass emission rate as calculated using the site-specific methane generation rate and concentration of NMOC is equal to or greater than 50 megagrams per year, the owner or operator shall comply with condition 60.752(b)(2).

(ii) If the NMOC mass emission rate is less than 50 megagrams per year, then the owner or operator shall submit a periodic emission rate report as provided in condition 60.757(b)(1) and shall recalculate the NMOC mass emission rate annually, as provided in condition 60.757(b)(1) using the equations in condition (a)(1) of this section and using the site-specific methane generation rate constant and NMOC concentration obtained in condition (a)(3) of this section. The calculation of the methane generation rate constant is performed only once, and the value obtained from this test shall be used in all subsequent annual NMOC emission rate calculations.

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(a)(4)]

B.16. Alternative methods.

(a)(5) The owner or operator may use other methods to determine the NMOC concentration or a site-specific k as an alternative to the methods required in conditions (a)(3) and (a)(4) of this section if the method has been approved by the Administrator.

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(a)(5)]

B.17. Calculating NMOC rate to determine when a collection and control system may be removed.

(b) After the installation of a collection and control system in compliance with section 60.755, the owner or operator shall calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in condition 60.752(b)(2)(v), using the following equation:

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

where,

M_{NMOC} = mass emission rate of NMOC, megagrams per year

Q_{LFG} = flow rate of landfill gas, cubic meters per minute

C_{NMOC} = NMOC concentration, parts per million by volume as hexane

(1) The flow rate of landfill gas, Q_{LFG} , shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions of Section 4 of Method 2E of 40 CFR 60 Appendix A.

(2) The average NMOC concentration, C_{NMOC} , shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25C or Method 18 of 40 CFR 60 Appendix A. If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The sample location on the common header pipe shall be before any condensate removal or

where,

M_{NMOC} = mass emission rate of NMOC, megagrams per year

L_o = methane generation potential, cubic meters per megagram solid waste

R = average annual acceptance rate, megagrams per year

k = methane generation rate constant, year⁻¹

t = age of landfill, years

C_{NMOC} = concentration of NMOC, parts per million by volume as hexane

c = time since closure, years. For active landfill c = 0 and $e^{-kc} = 1$

3.6×10^{-9} = conversion factor

The mass of nondegradable solid waste may be subtracted from the average annual acceptance rate when calculating a value for R, if documentation of the nature and amount of such wastes is maintained.

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(a)(1)]

B.13. Requirements if calculated NMOC emissions are less than 50 megagrams per year.

(a)(2) Tier 1. The owner or operator shall compare the calculated NMOC mass emission rate to the standard of 50 megagrams per year.

(i) If the NMOC emission rate calculated in condition (a)(1) of this section is less than 50 megagrams per year, then the landfill owner shall submit an emission rate report as provided in condition 60.757(b)(1), and shall recalculate the NMOC mass emission rate annually as required under condition 60.752(b)(1).

(ii) If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, then the landfill owner shall either comply with condition 60.752(b)(2), or determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the procedures provided in specific condition (a)(3) below.

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(a)(2)]

B.14. Method for determining site-specific NMOC emissions.

(a)(3) Tier 2. The landfill owner or operator shall determine the NMOC concentration using the following sampling procedure. The landfill owner or operator shall install at least two sample probes per hectare of landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator shall collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using Method 25C or Method 18 of 40 CFR 60 Appendix A. If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). If composite sampling is used, equal volumes shall be taken from each sample probe. If more than the required number of samples are taken, all samples shall be used in the analysis. The landfill owner or operator shall divide the NMOC concentration from Method 25C by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

(i) The landfill owner or operator shall recalculate the NMOC mass emission rate using the equations provided in condition (a)(1)(i) or (a)(1)(ii) of this section and using the average NMOC concentration from the collected samples instead of the default value in the equation provided in specific condition (a)(1) of this section.

(ii) If the resulting mass emission rate calculated using the site-specific NMOC concentration is equal to or greater than 50 megagrams per year, then the landfill owner or operator shall either comply with condition 60.752(b)(2), or determine the site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the procedure specified in specific condition (a)(4) of this section.

(iii) If the resulting NMOC mass emission rate is less than 50 megagrams per year, the owner or operator shall submit a periodic estimate of the emission rate report as provided in

the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour. [Rule 62-204.800, F.A.C.; 40 CFR 60.753(e)]

B.10. Requirement for continuous operation.

(f) Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of condition 60.752(b)(2)(ii) above shall operate the control or treatment system at all times when the collected gas is routed to the system.

[Rule 62-204.800, F.A.C.; 40 CFR 60.753(f)]

B.11. Requirement to take corrective action.

(g) If monitoring demonstrates that the operational requirements in conditions (b), (c), or (d) of this section are not met, corrective action shall be taken as specified in section 60.755(a)(3) through (a)(5) or Sec. 60.755(c) of this permit. If corrective actions are taken as specified in section 60.755, the monitored exceedance is not a violation of the operational requirements in this section.

[Rule 62-204.800, F.A.C.; 40 CFR 60.753(g)]

Section 60.754 Test methods and procedures.

B.12. Method of calculation of NMOC emissions when actual solid waste acceptance rates are unknown.

(a)(1) The landfill owner or operator shall calculate the NMOC emission rate using either the equation provided in condition (a)(1)(i) below or the equation provided in condition (a)(1)(ii) below. Both equations may be used if the actual year-to-year solid waste acceptance rate is unknown, as specified in (a)(1)(ii), for part of the life of the landfill. The values to be used in both equations are 0.05 per year for k , 170 cubic meters per megagram for L_0 , and 4,000 parts per million by volume as hexane for the C_{NMOC} . For landfills located in geographical areas with a thirty year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorologic site, the k value to be used is 0.02 per year.

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

$$M_{NMOC} = \sum_{i=1}^n 2kL_0M_i(e^{-kt_i})(C_{NMOC})(3.6 \times 10^{-9})$$

where,

M_{NMOC} = Total NMOC emission rate from the landfill, megagrams per year

k = methane generation rate constant, year⁻¹

L_0 = methane generation potential, cubic meters per megagram solid waste

M_i = mass of solid waste in the i^{th} section, megagrams

t_i = age of the i^{th} section, years

C_{NMOC} = concentration of NMOC, parts per million by volume as hexane

3.6×10^{-9} = conversion factor

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

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

$$M_{NMOC} = 2L_0R(e^{-kc} - e^{-kt})(C_{NMOC})(3.6 \times 10^{-9})$$

B.6. Collection system pressure requirements.

(b) Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of condition 60.752(b)(2)(ii) above shall operate the collection system with negative pressure at each wellhead except under the following conditions:

(1) A fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in condition 60.757(f)(1);

(2) Use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan;

(3) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Administrator.

[Rule 62-204.800, F.A.C.; 40 CFR 60.753(b)]

B.7. Collection system temperature, oxygen and nitrogen requirements.

(c) Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of condition 60.752(b)(2)(ii) above shall operate each interior wellhead in the collection system with a landfill gas temperature less than 55 °C and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The owner or operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.

(1) The nitrogen level shall be determined using Method 3C, unless an alternative test method is established as allowed by condition 60.752(b)(2)(i) above.

(2) Unless an alternative test method is established as allowed by condition 60.752(b)(2)(i) above, the oxygen shall be determined by an oxygen meter using Method 3A except that:

(i) The span shall be set so that the regulatory limit is between 20 and 50 percent of the span;

(ii) A data recorder is not required;

(iii) Only two calibration gases are required, a zero and span, and ambient air may be used as the span;

(iv) A calibration error check is not required;

(v) The allowable sample bias, zero drift, and calibration drift are ± 10 percent.

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

B.8. Collection system background methane requirements.

(d) Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of condition 60.752(b)(2)(ii) above shall operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30 meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.

[Rule 62-204.800, F.A.C.; 40 CFR 60.753(d)]

B.9. Collection system venting requirements.

(e) Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of condition 60.752(b)(2)(ii) above shall operate the system such that all collected gases are vented to a control system designed and operated in compliance with condition 60.752(b)(2)(iii) above. In the event

(C) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of condition (2)(iii) (A) or (B) above.

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

(v) The collection and control system may be capped or removed provided that all the conditions of paragraphs (2)(v) (A), (B), and (C) below are met:

(A) The landfill shall be a closed landfill as defined in section 60.751. A closure report shall be submitted to the Administrator as provided in section 60.757(d);

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

(C) Following the procedures specified in condition 60.754(b) of this permit, the calculated NMOC gas produced by the landfill shall be less than 50 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.
[Rule 62-204.800, F.A.C.; 40 CFR 60.752(b)]

B.3. Requirement to obtain a Title V Permit.

(c) For purposes of obtaining a Title V Operation Permit, the owner or operator of a MSW landfill subject to this subpart with a design capacity less than 2.5 million megagrams or 2.5 million cubic meters is not subject to the requirement to obtain a Title V Operation Permit, unless the landfill is otherwise subject to Title V. For purposes of submitting a timely application for a Title V operation permit, the owner or operator of a MSW landfill subject to subpart WWW with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters, and not otherwise subject to Title V, must submit an application, regardless of when the design capacity report is actually submitted, no later than:

(1) (Reserved)

(2) Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commence construction, modification, or reconstruction on or after March 12, 1996.
[Rule 62-204.800, F.A.C.; 40 CFR 60.752(c)]

B.4. Closure of landfill.

(d) When a MSW landfill subject to this subpart is closed, the owner or operator is no longer subject to the requirement to maintain a Title V Operation Permit for the landfill if the landfill is not otherwise subject to Title V and if either one of the following conditions are met:

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

(2) The owner or operator meets the conditions for control system removal specified in section 60.752(b)(2)(v).
[Rule 62-204.800, F.A.C.; 40 CFR 60.752(d)]

Section 60.753 Operational standards for collection and control systems.

B.5. Length of time required to operate control system.

(a) Each owner or operator of a MSW landfill with a gas collection and control system used to comply with the provisions of section 60.752(b)(2)(ii) above shall operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:

(1) 5 years or more if active; or

(2) 2 years or more if closed or at final grade.

[Rule 62-204.800, F.A.C.; 40 CFR 60.753(a)]

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

(A) The collection and control system as described in the plan shall meet the design requirements of condition (b)(2)(ii) of this permit.

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

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

(D) The Administrator shall review the information submitted under conditions (2)(i) (A),(B) and (C) above and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only, leachate collection components, and passive systems.

(ii) Install a collection and control system that captures the gas generated within the landfill as required by paragraphs (b)(2)(ii)(A) or (B) and (b)(2)(iii) of this section within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the emission rate is less than 50 megagrams per year, as specified in section 60.757(c)(1) or (2).

(A) An active collection system shall:

(1) Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment;

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

(i) 5 years or more if active; or

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

(3) Collect gas at a sufficient extraction rate;

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

(B) A passive collection system shall:

(1) Comply with the provisions specified in conditions (2)(ii)(A) (1), (2), and (4) above.

(2) Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners shall be installed as required under 40 CFR 258.40.

(iii) Route all the collected gas to a control system that complies with the requirements in either of the following conditions (2)(iii) (A), (B) or (C).

(A) An open flare designed and operated in accordance with 40 CFR 60.18;

(B) A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in section 60.754(d).

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

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

Subsection B. This section addresses the following emissions unit.

E.U. ID No.	Brief Description
003	Municipal Solid Waste Landfill

{Permitting note(s): This emissions unit is regulated under 40 CFR 60.752, Standards for air emissions from municipal solid waste landfills.}

The following specific Conditions apply to the emissions units listed above:

Sections 60.752(a)-(d) Standards for air emissions from municipal solid waste landfills.

B.1. Reporting of design capacity.

(a) Each owner or operator of an MSW landfill having a design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume shall submit an initial design capacity report to the Administrator as provided in 40 CFR 60.757(a). The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions shall be documented and submitted with the report. For purposes of part 70 permitting, a landfill with a design capacity less than 2.5 million megagrams or 2.5 million cubic meters does not require an operating permit under part 70 of this chapter. Submittal of the initial design capacity report shall fulfill the requirements of this subpart except as provided for in paragraphs (a)(1) and (a)(2) of this section.

(1) The owner or operator shall submit to the Administrator an amended design capacity report, as provided for in 40 CFR 60.757(a)(3), when there is any increase in the design capacity of a landfill subject to the provisions of this subpart, whether the increase results from an increase in the area or depth of the landfill, a change in the operating procedures of the landfill, or any other means.

(2) If any increase in the maximum design capacity of a landfill exempted from the provisions of 40 CFR 60.752(b) through 40 CFR 60.759 of this subpart on the basis of the design capacity exemption in paragraph (a) of this section results in a revised maximum design capacity equal to or greater than 2.5 million megagrams or 2.5 million cubic meters, the owner or operator shall comply with the provision of paragraph (b) of this section.

B.2. Determination of non-methane organic compounds.

(b) Each owner or operator shall either comply with condition (2) below or calculate an NMOC emission rate for the landfill using the procedures specified in section 60.754 of this permit. The NMOC emission rate shall be recalculated annually, except as provided in condition 60.757(b)(1)(ii).

(1) If the calculated NMOC emission rate is less than 50 megagrams per year, the owner or operator shall:

(i) Submit an annual emission report to the Administrator, except as provided for in condition 60.757(b)(1)(ii); and

(ii) Recalculate the NMOC emission rate annually using the procedures specified in condition 60.754(a)(1) until such time as the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, or the landfill is closed.

(A) If the NMOC emission rate, upon recalculation required in paragraph (b)(1)(ii) of this section, is equal to or greater than 50 megagrams per year, the owner or operator shall install a collection and control system in compliance with condition (2) below.

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

(2) If a NMOC emission rate for the landfill, using the procedures specified in section 60.754 of this permit, has not been calculated or the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, the owner or operator shall:

[Rules 62-296.401.(1)(c) , 62-297.401, F.A.C., AO44-207778 and AO44-207781]

A.12. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity (i.e., at less than 90 percent of the maximum operation rate allowed by the permit); in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

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

Recordkeeping and Reporting Requirements

A.13. Malfunction Reporting. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department's South District office in accordance with Appendix TV-1, Title V Condition No. 9. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

[Rule 62-210.700(6), F.A.C.]

A.14. Test Reports.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department's South District office on the results of each such test.

(b) The required test report shall be filed with the Department's South District office as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) Notification and reporting requirements of this permit shall also be sent to the Marathon DEP office.

(d) Reporting shall comply with Common Condition C.9.

[Rule 62-297.310(8), F.A.C., AO44-207778 and AO44-207781]

Emission Limitations and Standards

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

A.5. Visible Emissions. No visible emissions (5 percent opacity) are allowed from these emission units except that visible emissions not exceeding 20 percent opacity are allowed for up to three (3) minutes in any one hour period.
[Rule 62-296.401, F.A.C.]

A.6. Particulate Emissions. Particulate matter emissions shall not exceed 0.08 gr./dscf corrected to 50% excess air.
[AO44-207778 and AO44-207781]

A.7. Dust, odor and run-off. This facility shall be operated in such a fashion to preclude objectionable odors. All fugitive dust at this site shall be adequately controlled. There shall be no discharges of liquid effluents or contaminated run-off from the plant site. The applicant shall comply with all provisions of the solid waste rules applicable to ash disposal.
[AO44-207778 and AO44-207781]

Excess Emissions

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of an NSPS, NESHAP, or Acid Rain program provision.}

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

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

Test Methods and Procedures

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

A.10. These combustors are regulated individually and must be tested individually. Due to the common stack, one unit must be shut down while the other unit is being tested.
[Rules 62-4.070(3) and 62-213.440(1), F.A.C.]

A.11. The test method for visible emissions shall be EPA Method 9, as published in 40 CFR-60, Appendix A, or State approved equivalent method. The test method for particulate emissions shall be EPA Method 5 as published in 40 CFR-60, Appendix A, or State approved equivalent method.

NESHAP or Acid Rain

Section III. Emissions Unit(s) and Conditions.

Subsection A. This section addresses the following emissions units.

E.U. ID No.	Brief Description
001	Municipal Solid Waste Combustor No. 1
002	Municipal Solid Waste Combustor No. 2

These emission units are solid waste combustors and are designated as Combustor Nos. 1 and 2. They are custom built units by Montenay International Corporation and each is rated at a maximum of 6250 pounds per hour (75 tpd or 68 megagrams/day) of mixed municipal solid waste (per unit). Emissions from the combustors are controlled by electrostatic precipitators and combustion controls. Odor is controlled by drawing combustion air from the refuse area. The combustors share a stack. Combustor Nos. 1 and 2 began commercial operation in 1987.

{Permitting notes: These emissions units are regulated under Rules 62-210.300, Permits Required, and 62-204.800(7)(b)5, F.A.C. These emissions units are subject to 40 CFR 60, Subpart E, Standards of Performance for Incinerators. Each combustor’s exhaust is ducted to a Belco Model RE19 electrostatic precipitator (ESP), after which each ESP exhausts to a common 140 ft. high stack.}

The following specific Conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum input rate (operation rate) is as follows:

E.U. ID No.	Pounds per hour	Fuel Type
001	6250	Mixed municipal waste
002	6250	Mixed municipal waste

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

{Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit’s rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability.}

A.2. Emissions Unit Operating Rate Limitation After Testing. See Specific Condition A.12.
 [Rule 62-297.310(2), F.A.C.]

A.3. Methods of Operation - Fuels. Only mixed municipal solid waste shall be fired in the combustors. These incinerators shall not be used for the disposal of radioactive materials.
 [Rule 62-213.410(1), F.A.C., AO44-207778 and AO44-207781]

A.4. Hours of Operation. These emission units may operate continuously, i.e., 8,760 hours/year. The hours of operation shall be recorded.
 [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

8. **Not federally enforceable. Reasonable Precautions.** The following techniques shall be used to control unconfined particulate matter emissions on an as needed basis:

- a. Chemical or water application to unpaved road and unpaved yard and landfill areas;
- b. Paving and maintenance of roads, parking areas and yards;
- c. Landscaping or planting of vegetation;
- d. Confining abrasive blasting where possible and appropriate,

[Rule 62-296.320(4)(c)2., F.A.C.]

{Note: This condition implements the requirements of Rule 62-296.320(4)(c)1., 3., & 4. F.A.C. (Appendix TV-1, Title V Conditions, Condition No. 58)}

9. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.

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

10. **Statement of Compliance.** The annual statement of compliance pursuant to Rule 62-213.440(3), F.A.C., shall be submitted within 60 (sixty) days after the end of the calendar year. {See condition 52., APPENDIX TV-1, TITLE V CONDITIONS}

[Rule 62-214.420(11), F.A.C.]

11. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's South District office:

Department of Environmental Protection
South District Office
2295 Victoria Avenue, Suite 364
Fort Myers, FL 33902-2549
Telephone: 941/332-6975
Fax: 941/332-6969

and

Department of Environmental Protection
South District Branch Office
2796 Overseas Highway, Suite 221
Marathon, FL 33050
Telephone: 305/289-2310

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

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Operating Permits Section
61 Forsyth Street
Atlanta, Georgia 30303
Telephone: 404/562-9099
Fax: 404/562-9095

*19 more to
this table to
acquire*

Section II. Facility-wide Conditions.

The following Conditions apply facility-wide:

1. APPENDIX TV-1, TITLE V CONDITIONS, is a part of this permit.
{Permitting note: APPENDIX TV-1, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested, or otherwise appropriate.}
2. **Not federally enforceable.** General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.]
3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]
4. Prevention of Accidental Releases (Section 112(r) of CAA). If required by 40 CFR 68, the permittee shall submit to the implementing agency:
 - a. a risk management plan (RMP) when, and if, such requirement becomes applicable; and,
 - b. certification forms and/or RMPs according to the promulgated rule schedule.[40 CFR 68]
5. Unregulated Emissions Units and/or Activities. Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit.
[Rule 62-213.440(1), F.A.C.]
6. Insignificant Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.
[Rules 62-213.440(1), 62-213.430(6) and 62-4.040(1)(b), F.A.C.]
7. General Pollutant Emission Limiting Standards. Volatile Organic Compounds Emissions or Organic Solvents Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.
[Rule 62-296.320(1)(a), F.A.C.]

{Permitting Note: The Department has not ordered any control devices or systems under the referenced rule}.

Section I. Facility Information.

Subsection A. Facility Description.

This facility consists of two identical municipal solid waste combustors (Unit Nos. 1 and 2) which are mass-fired waterwall boilers; an approximately twenty acre municipal solid waste landfill is contiguous (although it is no longer accepting waste); storage and handling facilities for ash; oil storage tanks; cooling tower; and ancillary support equipment. Also, included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities. Based on the initial Title V permit application received June 12, 1996, this facility is a major source of hazardous air pollutants (HAPs).

Subsection B. Summary of Emissions Unit ID Nos. and Brief Descriptions.

E.U. ID Nos.	Brief Description
001	Municipal Waste Combustor No. 1
002	Municipal Waste Combustor No. 2
003	Municipal Solid Waste Landfill

Unregulated Emissions Units and/or Activities

E.U. ID No.	Brief Description
xxx	See Appendix U-1, List of Unregulated Emissions Units and/or Activities.

Please reference the Permit No., Facility ID No., and Appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, Applications, etc.

Subsection C. Relevant Documents.

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

These documents are provided to the permittee for information purposes only:

Table 1-1 ~~and Table 1-1A~~, Summary of Air Pollutant Standards and Terms.

Table 2-1 ~~and Table 2-1A~~, Summary of Compliance Requirements.

Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers (version dated 2/05/97).

Appendix H-1, Permit History/ID Number Changes.

These documents are on file with the permitting authority:

Initial Title V Permit Application received June 12, 1996.

delete
"and Table 1-1A"
"and Table 2-1A"

Initial Title V Air Operation Permit
DRAFT Permit No.: 0870047-001-AV

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City of Key West
Southermost Waste To Energy Facility
Facility ID No.: 0870047
Monroe County
Initial Title V Air Operation Permit
DRAFT Permit No.: 0870047-001-AV

Permitting Authority:
State of Florida
Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
Title V Section
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Telephone: 850/488-1344
Fax: 850/922-6979

Compliance Authority:
South District Office
2295 Victoria Avenue, Suite 364
Fort Myers, FL 33902-2549
Telephone: 941/332-6975
Fax: 941/332-6969



Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

Permittee:
City of Key West
P.O. Box 1409
Key West, Florida 33041-1409

DRAFT Permit No.: 0870047-001-AV
Facility ID No.: 0870047
SIC No.: 49; 4953
Project: Initial Title V Air Operation

This permit is for the operation of the City of Key West, Southernmost Waste To Energy Facility. This facility is located at 5701 West Junior College Road, Key West, Monroe County; UTM Coordinates: Zone 17, 424.37 km East and 2718.46 km North; Latitude: 24° 34' 42" North and Longitude: 81° 44' 49" West.

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

Referenced Attachments made a part of this permit:

- Appendix U-1, List of Unregulated Emissions Units and/or Activities
- Appendix I-1, List of Insignificant Emissions Units and/or Activities
- Appendix WWW-1, Definitions associated with 40 CFR 60 Subpart WWW
- APPENDIX TV-1, TITLE V CONDITIONS (version dated 12/02/97)
- APPENDIX SS-1, STACK SAMPLING FACILITIES (version dated 10/07/96)
- TABLE 297.310-1, CALIBRATION SCHEDULE
- FIGURE 1 - SUMMARY REPORT-GASEOUS AND OPACITY EXCESS EMISSION AND MONITORING SYSTEM PERFORMANCE REPORT (version dated 7/96)
- Alternate Sampling Procedure: ASP Number 97-B-01, including the Order Correcting the Scrivener's Error dated July 2, 1997

delete
"Alternate..."

Effective Date:
Renewal Application Due Date:
Expiration Date:

Howard L. Rhodes, Director
Division of Air Resources Management

HLR/sms/mph

add
Appendix 40CFR60...

see ①

Mike,

Here's referenced
attachment for
City of Key West, Scott
10/25

APPENDIX 40 CFR 60 Subpart A - General Provisions
(version dated 07/01/97)

G.1. Quarterly Report. The Permittee shall submit a quarterly excess emissions and monitoring systems performance report. All reports shall be postmarked by the 30th day following the end of each calendar half (or quarter, as appropriate). Written reports of excess emissions shall include the following information:

1. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.

2. Specific identification of each period of excess emissions that occurs during startups, shutdowns and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

3. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

4. When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

[40 CFR 60.7(c)]

G.2. Summary Report. The summary report form shall contain the information and be in the format shown in Figure 1 (attached) unless otherwise specified by the Department. One summary report form shall be submitted for each pollutant monitored.

1. If the total duration of excess emissions for the reporting period is less than one percent of the operating time for the reporting period and CMS downtime for the reporting period is less than five percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Department.

2. If the total duration of excess emissions for the reporting period is one percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is five percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

{See attached Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance} (electronic file name: figure1.doc)

[40 CFR 60.7(d)]

G.3. Reporting Frequency. (1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7(c), an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

(i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under 40 CFR 60 continually demonstrate that the facility is in compliance with the applicable standard;

(ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in 40 CFR 60, Subpart A, and the applicable standard; and

APPENDIX 40 CFR 60 Subpart A - General Provisions
(version dated 07/01/97)

(iii) The Department does not object to a reduced frequency of reporting for the affected facility, as provided in 40 CFR 60.7(e)(2).

(2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Department in writing of his or her intention to make such a change and the Department does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Department may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Department to make a judgment about the source's potential for noncompliance in the future. If the Department disapproves the Permittee's request to reduce the frequency of reporting, the Department will notify the Permittee in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Department to the Permittee will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the Permittee shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the Permittee may again request approval from the Department to reduce the frequency of reporting for that standard as provided for in 40 CFR 60.7(e)(1) and (e)(2).

[40 CFR 60.7(e)]

G.4. Records Retention. The Permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and, all other information required by 40 CFR 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least **5 (five)** years following the date of such measurements, maintenance, reports, and records.

[40 CFR 60.7(f); Rule 62-213.440(1)(b)2.b., F.A.C.]

G.5. Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Department (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Department's satisfaction that the affected facility is in compliance with the standard, or (3) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in 40 CFR 60.8 shall be construed to abrogate the Department's authority to require testing under section 114 of the Act.

[40 CFR 60.8(b)(1), (4) & (5)]

APPENDIX 40 CFR 60 Subpart A - General Provisions
(version dated 07/01/97)

G.6. Performance tests shall be conducted under such conditions as the Department shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Department such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

[40 CFR 60.8(c)].

G.7. Department Notification.

(a) The Permittee shall provide to the Department's South District office at least 15 days prior notice of any compliance or performance test, except as specified under other subparts, to afford the District office the opportunity to have an observer present. Test results shall be submitted to the District office no later than 45 days after completion of the test.

(b) The Permittee shall give written notification to the Department when there is any modification to this facility. This notice shall be submitted timely and in advance of any critical date involved to allow sufficient time for review, discussion, and revision of plans, if necessary. Such notice shall include, but not be limited to, information describing the precise nature of the change; modifications to any emission control system; production capacity of the facility before and after the change; and, the anticipated completion date of the change.

[40 CFR 60.8(d) and Rule 62-297.310(7)(a)8., F.A.C.]

G.8. The Permittee shall provide, or cause to be provided, performance testing facilities as follows:

1. Sampling ports adequate for test methods applicable to such facility. This includes (a) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and (b) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.

2. Safe sampling platform(s).

3. Safe access to sampling platform(s).

4. Utilities for sampling and testing equipment. [40 CFR 60.8(e)]

G.9. Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Department's approval, be determined using the arithmetic mean of the results of the two other runs.

[40 CFR 60.8(f)].

APPENDIX 40 CFR 60 Subpart A - General Provisions
(version dated 07/01/97)

Compliance with Standards and Maintenance Requirements

G.10. Compliance with opacity standards in 40 CFR 60 shall be determined by conducting observations in accordance with Reference Method 9 in appendix A of 40 CFR 60, any alternative method that is approved by the Department, or as provided in 40 CFR 60.11(e)(5). For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).
[40 CFR 60.11(b)].

G.11. The Permittee shall follow the manufacturer's instructions during periods of start-up, shutdown, malfunction, or load change to ensure that the best operational practices to minimize emissions will be adhered to and the duration of any excess emissions will be minimized. The instructions shall be kept on file at the plant site and made available for inspection upon request by the Department.
[40 CFR 60.11(d)]

G.12. Credible Evidence. For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in 40 CFR 60, nothing in 40 CFR 60 shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.
[40 CFR 60.11(g)].

G.13. Circumvention. No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.
[40 CFR 60.12]

Modifications

G.14. Except as provided under 40 CFR 60.14(e) and 40 CFR 60.14(f), any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 111 of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.
[40 CFR 60.14(a)].

APPENDIX 40 CFR 60 Subpart A - General Provisions
(version dated 07/01/97)

G.15. Emission rate shall be expressed as kg/hr (lb./hour) of any pollutant discharged into the atmosphere for which a standard is applicable. The Department shall use the following to determine emission rate:

(1) Emission factors as specified in the latest issue of "Compilation of Air Pollutant Emission Factors", EPA Publication No. AP-42, or other emission factors determined by the Department to be superior to AP-42 emission factors, in cases where utilization of emission factors demonstrate that the emission level resulting from the physical or operational change will either clearly increase or clearly not increase.

(2) Material balances, continuous monitor data, or manual emission tests in cases where utilization of emission factors as referenced in 40 CFR 60.14(b)(1) does not demonstrate to the Department's satisfaction whether the emission level resulting from the physical or operational change will either clearly increase or clearly not increase, or where an owner or operator demonstrates to the Department's satisfaction that there are reasonable grounds to dispute the result obtained by the Department utilizing emission factors as referenced in 40 CFR 60.14(b)(1). When the emission rate is based on results from manual emission tests or continuous monitoring systems, the procedures specified in 40 CFR 60 appendix C of 40 CFR 60 shall be used to determine whether an increase in emission rate has occurred. Tests shall be conducted under such conditions as the Department shall specify to the owner or operator based on representative performance of the facility. At least three valid test runs must be conducted before and at least three after the physical or operational change. All operating parameters which may affect emissions must be held constant to the maximum feasible degree for all test runs.

[40 CFR 60.14(b)].

G.16. The addition of an affected facility to a stationary source as an expansion to that source or as a replacement for an existing facility shall not by itself bring within the applicability of 40 CFR 60 any other facility within that source.

[40 CFR 60.14(c)].

G.17. The following shall not, by themselves, be considered modifications under 40 CFR 60:

(1) Maintenance, repair, and replacement which the Department determines to be routine for a source category, subject to the provisions of 40 CFR 60.14(c) and 40 CFR 60.15.

(2) An increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on that facility.

(3) An increase in the hours of operation.

(4) Use of an alternative fuel or raw material if, prior to the date any standard under 40 CFR 60 becomes applicable to that source type, as provided by 40 CFR 60.1, the existing facility was designed to accommodate that alternative use. A facility shall be considered to be designed to accommodate an alternative fuel or raw material if that use could be accomplished under the facility's construction specifications as amended prior to the change. Conversion to coal required for energy considerations, as specified in section 111(a)(8) of the Act, shall not be considered a modification.

(5) The addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or is replaced by a system which the Department determines to be less environmentally beneficial.

(6) The relocation or change in ownership of an existing facility.

APPENDIX 40 CFR 60 Subpart A - General Provisions
(version dated 07/01/97)

[40 CFR 60.14(e)].

G.18. Special provisions set forth under an applicable subpart of 40 CFR 60 shall supersede any conflicting provisions of this section.

[40 CFR 60.14(f)].

G.19. Within 180 days of the completion of any physical or operational change subject to the control measures specified in 40 CFR 60.14(a), compliance with all applicable standards must be achieved.

[40 CFR 60.14(g)].

G.20. Definitions. For the purposes of Rule 62-204.800(7), F.A.C., the definitions contained in the various provisions of 40 CFR 60, shall apply except that the term "Administrator" when used in 40 CFR 60, shall mean the Secretary or the Secretary's designee.

[40 CFR 60.2; Rule 62-204.800(7)(a), F.A.C.]

[electronic file name: appa798.doc]

comply with Performance Specifications 2 or 3 (appendix B).

(10) If a CEMS is used, results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1.

(11) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under paragraph (f)(1), (2), or (3) of this section, as applicable. In addition to records of fuel supplier certifications, the quarterly report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the quarter.

(f) Fuel supplier certification shall include the following information:

(1) For distillate oil:

(i) The name of the oil supplier; and

(ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in § 60.41c.

(2) For residual oil:

(i) The name of the oil supplier;

(ii) The location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the affected facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility or other location;

(iii) The sulfur content of the oil from which the shipment came (or of the shipment itself); and

(iv) The method used to determine the sulfur content of the oil.

(3) For coal:

(i) The name of the coal supplier;

(ii) The location of the coal when the sample was collected for analysis to determine the properties of the coal, specifically including whether the coal was sampled as delivered to the affected facility or whether the sample was collected from coal in storage at the mine, at a coal preparation plant, at a coal supplier's facility, or at another location. The certification shall include the name of the coal mine (or coal seam), coal storage facility, coal preparation plant (where the sample was collected);

(iii) The results of the analysis of the coal from which the shipment came (or of the shipment itself) including the sulfur content, moisture content, ash content, and heat content; and

(iv) The methods used to determine the properties of the coal.

(g) The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day.

(h) The owner or operator of each affected facility subject to a Federally enforceable requirement limiting the annual capacity factor for any fuel or mixture of fuels under § 60.42c or § 60.43c shall calculate the annual capacity factor individually for each fuel combusted. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of the calendar month.

(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

Subpart E—Standards of Performance for Incinerators

§ 60.50 Applicability and designation of affected facility.

(a) The provisions of this subpart are applicable to each incinerator of more than 45 metric tons per day charging rate (50 tons/day), which is the affected facility.

(b) Any facility under paragraph (a) of this section that commences construction or modification after August 11, 1971, is subject to the requirements of this subpart.

[36 FR 37938, July 25, 1977]

§ 60.51 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

(a) Incinerator means any furnace used in the process of burning solid waste for the purpose of reducing the volume of the waste by removing combustible matter.

(b) Solid waste means refuse, more than 50 percent of which is municipal

type waste consisting of a mixture of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustibles, and noncombustible materials such as glass and rock.

(c) Day means 24 hours.

[36 FR 24877, Dec. 23, 1971, as amended at 39 FR 20792, June 14, 1974]

§ 60.52 Standard for particulate matter.

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this part shall cause to be discharged into the atmosphere from any affected facility any gases which contain particulate matter in excess of 0.18 g/dscm (0.08 gr/dscf) corrected to 12 percent CO₂.

[39 FR 20792, June 14, 1974]

§ 60.53 Monitoring of operations.

(a) The owner or operator of any incinerator subject to the provisions of this part shall record the daily charging rates and hours of operation.

40 CFR 60.53 (g) § 60.54 Test methods and procedures.

(a) In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b).

(b) The owner or operator shall determine compliance with the particulate matter standard in § 60.52 as follows:

(1) The emission rate (c₁₂) of particulate matter, corrected to 12 percent CO₂, shall be computed for each run using the following equation:

c₁₂ = c_i (12%/CO₂)

where:

c₁₂ = concentration of particulate matter, corrected to 12 percent CO₂, g/dscm (gr/dscf).

c_i = concentration of particulate matter, g/dscm (gr/dscf).

%CO₂ = CO₂ concentration, percent dry basis.

(2) Method 5 shall be used to determine the particulate matter concentration (c_i). The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf).

(3) The emission rate correction factor, integrated or grab sampling and

Mike,

If we don't have this we should add.

60.53(a)

Scott 10/28

Initial Title V Air Operation Permit
DRAFT Permit No.: 0870047-001-AV

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Emission Unit 002, Municipal Solid Waste Combustor No. 2	
B. Emission Unit 003, Municipal Solid Waste Landfill	8
C. Common Conditions	27

Section I. Facility Information.

Subsection A. Facility Description.

This facility consists of two identical municipal solid waste combustors (Unit Nos. 1 and 2) which are mass-fired waterwall boilers; an approximately twenty acre municipal solid waste landfill is contiguous (although it is no longer accepting waste); storage and handling facilities for ash; oil storage tanks; cooling tower; and ancillary support equipment. Also, included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities. Based on the initial Title V permit application received June 12, 1996, this facility is a major source of hazardous air pollutants (HAPs).

Subsection B. Summary of Emissions Unit ID Nos. and Brief Descriptions.

E.U. ID Nos.	Brief Description
001	Municipal Waste Combustor No. 1
002	Municipal Waste Combustor No. 2
003	Municipal Solid Waste Landfill

Unregulated Emissions Units and/or Activities

E.U. ID No.	Brief Description
xxx	See Appendix U-1, List of Unregulated Emissions Units and/or Activities.

Please reference the Permit No., Facility ID No., and Appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, Applications, etc.

Subsection C. Relevant Documents.

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

These documents are provided to the permittee for information purposes only:

Table 1, Summary of Air Pollutant Standards and Terms.

Table 2, Summary of Compliance Requirements.

Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers (version dated 2/05/97).

Appendix H-1, Permit History/ID Number Changes.

These documents are on file with the permitting authority:

Initial Title V Permit Application received June 12, 1996.

Section II. Facility-wide Conditions.

The following Conditions apply facility-wide:

1. APPENDIX TV-1, TITLE V CONDITIONS, is a part of this permit.
{Permitting note: APPENDIX TV-1, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}
2. **Not federally enforceable.** General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.]
3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]
4. Prevention of Accidental Releases (Section 112(r) of CAA). If required by 40 CFR 68, the permittee shall submit to the implementing agency:
 - a. a risk management plan (RMP) when, and if, such requirement becomes applicable; and,
 - b. certification forms and/or RMPs according to the promulgated rule schedule.[40 CFR 68]
5. Unregulated Emissions Units and/or Activities. Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit.
[Rule 62-213.440(1), F.A.C.]
6. Insignificant Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.
[Rules 62-213.440(1), 62-213.430(6) and 62-4.040(1)(b), F.A.C.]
7. General Pollutant Emission Limiting Standards. Volatile Organic Compounds Emissions or Organic Solvents Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.
[Rule 62-296.320(1)(a), F.A.C.]

{Permitting Note: The Department has not ordered any control devices or systems under the referenced rule}.

8. Not federally enforceable. Reasonable Precautions. The following techniques shall be used to control unconfined particulate matter emissions on an as needed basis:

- a. Chemical or water application to unpaved road and unpaved yard and landfill areas;
- b. Paving and maintenance of roads, parking areas and yards;
- c. Landscaping or planting of vegetation;
- d. Confining abrasive blasting where possible and appropriate,

[Rule 62-296.320(4)(c)2., F.A.C.]

{Note: This condition implements the requirements of Rule 62-296.320(4)(c)1., 3., & 4. F.A.C. (Appendix TV-1, Title V Conditions, Condition No. 58)}

9. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.

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

10. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's South District office:

Department of Environmental Protection
South District Office
2295 Victoria Avenue, Suite 364
Fort Myers, FL 33902-2549
Telephone: 941/332-6975
Fax: 941/332-6969

and

Department of Environmental Protection
South District Branch Office
2796 Overseas Highway, Suite 221
Marathon, FL 33050
Telephone: 305/289-2310

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

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Operating Permits Section
61 Forsyth Street
Atlanta, Georgia 30303
Telephone: 404/562-9099
Fax: 404/562-9095

Section III. Emissions Unit(s) and Conditions.

Subsection A. This section addresses the following emissions units.

E.U. ID No.	Brief Description
001	Municipal Solid Waste Combustor No. 1
002	Municipal Solid Waste Combustor No. 2

These emission units are solid waste combustors and are designated as Combustor Nos. 1 and 2. They are custom built units by Montenay International Corporation and each is rated at a maximum of 6250 pounds per hour (75 tpd or 68 megagrams/day) of mixed municipal solid waste (per unit). Emissions from the combustors are controlled by electrostatic precipitators and combustion controls. Odor is controlled by drawing combustion air from the refuse area. The combustors share a stack. Combustor Nos. 1 and 2 began commercial operation in 1987.

{Permitting notes: These emissions units are regulated under Rules 62-210.300, Permits Required, and 62-204.800(7)(b)5, F.A.C. These emissions units are subject to 40 CFR 60, Subpart E, Standards of Performance for Incinerators. Each combustor's exhaust is ducted to a Belco Model RE19 electrostatic precipitator (ESP), after which each ESP exhausts to a common 140 ft. high stack.}

The following specific Conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum input rate (operation rate) is as follows:

E.U. ID No.	Pounds per hour	Fuel Type
001	6250	Mixed municipal waste
002	6250	Mixed municipal waste

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

{Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability.}

A.2. Emissions Unit Operating Rate Limitation After Testing. See Specific Condition **A.12.**
[Rule 62-297.310(2), F.A.C.]

A.3. Methods of Operation - Fuels. Only mixed municipal solid waste shall be fired in the combustors. These incinerators shall not be used for the disposal of radioactive materials.
[Rule 62-213.410(1), F.A.C., AO44-207778 and AO44-207781]

A.4. Hours of Operation. These emission units may operate continuously, i.e., 8,760 hours/year. The hours of operation shall be recorded.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

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

A.5. Visible Emissions. No visible emissions (5 percent opacity) are allowed from these emission units except that visible emissions not exceeding 20 percent opacity are allowed for up to three (3) minutes in any one hour period.

[Rule 62-296.401, F.A.C.]

A.6. Particulate Emissions. Particulate matter emissions shall not exceed 0.08 gr./dscf corrected to 50% excess air.

[AO44-207778 and AO44-207781]

A.7. Dust, odor and run-off. This facility shall be operated in such a fashion to preclude objectionable odors. All fugitive dust at this site shall be adequately controlled. There shall be no discharges of liquid effluents or contaminated run-off from the plant site. The applicant shall comply with all provisions of the solid waste rules applicable to ash disposal.

[AO44-207778 and AO44-207781]

Excess Emissions

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of an NSPS or NESHAP provision.}

A.8. Excess emissions resulting from malfunction, startup or shutdown shall be permitted providing:

(1) best operational practices to minimize emissions are adhered to and

(2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.

[Rule 62-210.700(1), F.A.C.]

A.9. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.]

Test Methods and Procedures

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

A.10. These combustors are regulated individually and must be tested individually. Due to the common stack, one unit must be shut down while the other unit is being tested.

[Rules 62-4.070(3) and 62-213.440(1), F.A.C.]

A.11. The test method for visible emissions shall be EPA Method 9, as published in 40 CFR-60, Appendix A, or State approved equivalent method. The test method for particulate emissions shall be EPA Method 5 as published in 40 CFR-60, Appendix A, or State approved equivalent method.

[Rules 62-296.401.(1)(c) , 62-297.401, F.A.C., AO44-207778 and AO44-207781]

A.12. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity (i.e., at less than 90 percent of the maximum operation rate allowed by the permit); in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

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

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Recordkeeping and Reporting Requirements

A.13. Malfunction Reporting. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department's South District office in accordance with Appendix TV-1, Title V Condition No. 9. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

[Rule 62-210.700(6), F.A.C.]

A.14. Test Reports.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department's South District office on the results of each such test.

(b) The required test report shall be filed with the Department's South District office as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) Notification and reporting requirements of this permit shall also be sent to the Marathon DEP office.

(d) Reporting shall comply with Common Condition **C.9.**

[Rule 62-297.310(8), F.A.C., AO44-207778 and AO44-207781]

Subsection B. This section addresses the following emissions unit.

E.U. ID No.	Brief Description
003	Municipal Solid Waste Landfill

{Permitting note(s): This emissions unit is regulated under 40 CFR 60.752, Standards for air emissions from municipal solid waste landfills.}

The following specific Conditions apply to the emissions units listed above:

Sections 60.752(a)-(d) Standards for air emissions from municipal solid waste landfills.

B.1. Reporting of design capacity.

(a) Each owner or operator of an MSW landfill having a design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume shall submit an initial design capacity report to the Administrator as provided in 40 CFR 60.757(a). The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions shall be documented and submitted with the report. For purposes of part 70 permitting, a landfill with a design capacity less than 2.5 million megagrams or 2.5 million cubic meters does not require an operating permit under part 70 of this chapter. Submittal of the initial design capacity report shall fulfill the requirements of this subpart except as provided for in paragraphs (a)(1) and (a)(2) of this section.

(1) The owner or operator shall submit to the Administrator an amended design capacity report, as provided for in 40 CFR 60.757(a)(3), when there is any increase in the design capacity of a landfill subject to the provisions of this subpart, whether the increase results from an increase in the area or depth of the landfill, a change in the operating procedures of the landfill, or any other means.

(2) If any increase in the maximum design capacity of a landfill exempted from the provisions of 40 CFR 60.752(b) through 40 CFR 60.759 of this subpart on the basis of the design capacity exemption in paragraph (a) of this section results in a revised maximum design capacity equal to or greater than 2.5 million megagrams or 2.5 million cubic meters, the owner or operator shall comply with the provision of paragraph (b) of this section.

B.2. Determination of non-methane organic compounds.

(b) Each owner or operator shall either comply with condition (2) below or calculate an NMOC emission rate for the landfill using the procedures specified in section 60.754 of this permit. The NMOC emission rate shall be recalculated annually, except as provided in condition 60.757(b)(1)(ii).

(1) If the calculated NMOC emission rate is less than 50 megagrams per year, the owner or operator shall:

(i) Submit an annual emission report to the Administrator, except as provided for in condition 60.757(b)(1)(ii); and

(ii) Recalculate the NMOC emission rate annually using the procedures specified in condition 60.754(a)(1) until such time as the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, or the landfill is closed.

(A) If the NMOC emission rate, upon recalculation required in paragraph (b)(1)(ii) of this section, is equal to or greater than 50 megagrams per year, the owner or operator shall install a collection and control system in compliance with condition (2) below.

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

(2) If a NMOC emission rate for the landfill, using the procedures specified in section 60.754 of this permit, has not been calculated or the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, the owner or operator shall:

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

(A) The collection and control system as described in the plan shall meet the design requirements of condition (b)(2)(ii) of this permit.

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

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

(D) The Administrator shall review the information submitted under conditions (2)(i) (A),(B) and (C) above and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only, leachate collection components, and passive systems.

(ii) Install a collection and control system that captures the gas generated within the landfill as required by paragraphs (b)(2)(ii)(A) or (B) and (b)(2)(iii) of this section within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the emission rate is less than 50 megagrams per year, as specified in section 60.757(c)(1) or (2).

(A) An active collection system shall:

(1) Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment;

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

(i) 5 years or more if active; or

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

(3) Collect gas at a sufficient extraction rate;

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

(B) A passive collection system shall:

(1) Comply with the provisions specified in conditions (2)(ii)(A) (1), (2), and (4) above.

(2) Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners shall be installed as required under 40 CFR 258.40.

(iii) Route all the collected gas to a control system that complies with the requirements in either of the following conditions (2)(iii) (A), (B) or (C).

(A) An open flare designed and operated in accordance with 40 CFR 60.18;

(B) A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in section 60.754(d).

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

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

(C) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of condition (2)(iii) (A) or (B) above.

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

(v) The collection and control system may be capped or removed provided that all the conditions of paragraphs (2)(v) (A), (B), and (C) below are met:

(A) The landfill shall be a closed landfill as defined in section 60.751. A closure report shall be submitted to the Administrator as provided in section 60.757(d);

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

(C) Following the procedures specified in condition 60.754(b) of this permit, the calculated NMOC gas produced by the landfill shall be less than 50 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.

[Rule 62-204.800, F.A.C.; 40 CFR 60.752(b)]

B.3. Requirement to obtain a Title V Permit.

(c) For purposes of obtaining a Title V Operation Permit, the owner or operator of a MSW landfill subject to this subpart with a design capacity less than 2.5 million megagrams or 2.5 million cubic meters is not subject to the requirement to obtain a Title V Operation Permit, unless the landfill is otherwise subject to Title V. For purposes of submitting a timely application for a Title V operation permit, the owner or operator of a MSW landfill subject to subpart WWW with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters, and not otherwise subject to Title V, must submit an application, regardless of when the design capacity report is actually submitted, no later than:

(1) (Reserved)

(2) Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commence construction, modification, or reconstruction on or after March 12, 1996.

[Rule 62-204.800, F.A.C.; 40 CFR 60.752(c)]

B.4. Closure of landfill.

(d) When a MSW landfill subject to this subpart is closed, the owner or operator is no longer subject to the requirement to maintain a Title V Operation Permit for the landfill if the landfill is not otherwise subject to Title V and if either one of the following conditions are met:

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

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.752(d)]

Section 60.753 Operational standards for collection and control systems.

B.5. Length of time required to operate control system.

(a) Each owner or operator of a MSW landfill with a gas collection and control system used to comply with the provisions of section 60.752(b)(2)(ii) above shall operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:

(1) 5 years or more if active; or

(2) 2 years or more if closed or at final grade.

[Rule 62-204.800, F.A.C.; 40 CFR 60.753(a)]

B.6. Collection system pressure requirements.

(b) Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of condition 60.752(b)(2)(ii) above shall operate the collection system with negative pressure at each wellhead except under the following conditions:

(1) A fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in condition 60.757(f)(1);

(2) Use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan;

(3) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Administrator.

[Rule 62-204.800, F.A.C.; 40 CFR 60.753(b)]

B.7. Collection system temperature, oxygen and nitrogen requirements.

(c) Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of condition 60.752(b)(2)(ii) above shall operate each interior wellhead in the collection system with a landfill gas temperature less than 55 °C and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The owner or operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.

(1) The nitrogen level shall be determined using Method 3C, unless an alternative test method is established as allowed by condition 60.752(b)(2)(i) above.

(2) Unless an alternative test method is established as allowed by condition 60.752(b)(2)(i) above, the oxygen shall be determined by an oxygen meter using Method 3A except that:

(i) The span shall be set so that the regulatory limit is between 20 and 50 percent of the span;

(ii) A data recorder is not required;

(iii) Only two calibration gases are required, a zero and span, and ambient air may be used as the span;

(iv) A calibration error check is not required;

(v) The allowable sample bias, zero drift, and calibration drift are ± 10 percent.

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

B.8. Collection system background methane requirements.

(d) Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of condition 60.752(b)(2)(ii) above shall operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30 meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.

[Rule 62-204.800, F.A.C.; 40 CFR 60.753(d)]

B.9. Collection system venting requirements.

(e) Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of condition 60.752(b)(2)(ii) above shall operate the system such that all collected gases are vented to a control system designed and operated in compliance with condition 60.752(b)(2)(iii) above. In the event

the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour. [Rule 62-204.800, F.A.C.; 40 CFR 60.753(e)]

B.10. Requirement for continuous operation.

(f) Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of condition 60.752(b)(2)(ii) above shall operate the control or treatment system at all times when the collected gas is routed to the system. [Rule 62-204.800, F.A.C.; 40 CFR 60.753(f)]

B.11. Requirement to take corrective action.

(g) If monitoring demonstrates that the operational requirements in conditions (b), (c), or (d) of this section are not met, corrective action shall be taken as specified in section 60.755(a)(3) through (a)(5) or Sec. 60.755(c) of this permit. If corrective actions are taken as specified in section 60.755, the monitored exceedance is not a violation of the operational requirements in this section. [Rule 62-204.800, F.A.C.; 40 CFR 60.753(g)]

Section 60.754 Test methods and procedures.

B.12. Method of calculation of NMOC emissions when actual solid waste acceptance rates are unknown.

(a)(1) The landfill owner or operator shall calculate the NMOC emission rate using either the equation provided in condition (a)(1)(i) below or the equation provided in condition (a)(1)(ii) below. Both equations may be used if the actual year-to-year solid waste acceptance rate is unknown, as specified in (a)(1)(ii), for part of the life of the landfill. The values to be used in both equations are 0.05 per year for k , 170 cubic meters per megagram for L_o , and 4,000 parts per million by volume as hexane for the C_{NMOC} . For landfills located in geographical areas with a thirty year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorologic site, the k value to be used is 0.02 per year.

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

$$M_{NMOC} = \sum_{i=1}^n 2kL_oM_i(e^{-kt_i})(C_{NMOC})(3.6 \times 10^{-9})$$

where,

M_{NMOC} = Total NMOC emission rate from the landfill, megagrams per year

k = methane generation rate constant, year⁻¹

L_o = methane generation potential, cubic meters per megagram solid waste

M_i = mass of solid waste in the i^{th} section, megagrams

t_i = age of the i^{th} section, years

C_{NMOC} = concentration of NMOC, parts per million by volume as hexane

3.6×10^{-9} = conversion factor

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

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

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

where,

M_{NMOC} = mass emission rate of NMOC, megagrams per year
 L_0 = methane generation potential, cubic meters per megagram solid waste
 R = average annual acceptance rate, megagrams per year
 k = methane generation rate constant, year⁻¹
 t = age of landfill, years
 C_{NMOC} = concentration of NMOC, parts per million by volume as hexane
 c = time since closure, years. For active landfill $c = 0$ and $e^{-kc} = 1$
 3.6×10^{-9} = conversion factor

The mass of nondegradable solid waste may be subtracted from the average annual acceptance rate when calculating a value for R , if documentation of the nature and amount of such wastes is maintained.
[Rule 62-204.800, F.A.C.; 40 CFR 60.754(a)(1)]

B.13. Requirements if calculated NMOC emissions are less than 50 megagrams per year.

(a)(2) Tier 1. The owner or operator shall compare the calculated NMOC mass emission rate to the standard of 50 megagrams per year.

(i) If the NMOC emission rate calculated in condition (a)(1) of this section is less than 50 megagrams per year, then the landfill owner shall submit an emission rate report as provided in condition 60.757(b)(1), and shall recalculate the NMOC mass emission rate annually as required under condition 60.752(b)(1).

(ii) If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, then the landfill owner shall either comply with condition 60.752(b)(2), or determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the procedures provided in specific condition (a)(3) below.

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(a)(2)]

B.14. Method for determining site-specific NMOC emissions.

(a)(3) Tier 2. The landfill owner or operator shall determine the NMOC concentration using the following sampling procedure. The landfill owner or operator shall install at least two sample probes per hectare of landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator shall collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using Method 25C or Method 18 of 40 CFR 60 Appendix A. If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). If composite sampling is used, equal volumes shall be taken from each sample probe. If more than the required number of samples are taken, all samples shall be used in the analysis. The landfill owner or operator shall divide the NMOC concentration from Method 25C by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

(i) The landfill owner or operator shall recalculate the NMOC mass emission rate using the equations provided in condition (a)(1)(i) or (a)(1)(ii) of this section and using the average NMOC concentration from the collected samples instead of the default value in the equation provided in specific condition (a)(1) of this section.

(ii) If the resulting mass emission rate calculated using the site-specific NMOC concentration is equal to or greater than 50 megagrams per year, then the landfill owner or operator shall either comply with condition 60.752(b)(2), or determine the site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the procedure specified in specific condition (a)(4) of this section.

(iii) If the resulting NMOC mass emission rate is less than 50 megagrams per year, the owner or operator shall submit a periodic estimate of the emission rate report as provided in

condition 60.757(b)(1) and retest the site-specific NMOC concentration every 5 years using the methods specified in this section.

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(a)(3)]

B.15. Method for determining site-specific methane emissions.

(a)(4) Tier 3. The site-specific methane generation rate constant shall be determined using the procedures provided in Method 2E of 40 CFR 60 Appendix A. The landfill owner or operator shall estimate the NMOC mass emission rate using equations in condition (a)(1)(i) or (a)(1)(ii) of this section and using a site-specific methane generation rate constant k , and the site-specific NMOC concentration as determined in condition (a)(3) of this section instead of the default values provided in condition (a)(1) of this section. The landfill owner or operator shall compare the resulting NMOC mass emission rate to the standard of 50 megagrams per year.

(i) If the NMOC mass emission rate as calculated using the site-specific methane generation rate and concentration of NMOC is equal to or greater than 50 megagrams per year, the owner or operator shall comply with condition 60.752(b)(2).

(ii) If the NMOC mass emission rate is less than 50 megagrams per year, then the owner or operator shall submit a periodic emission rate report as provided in condition 60.757(b)(1) and shall recalculate the NMOC mass emission rate annually, as provided in condition 60.757(b)(1) using the equations in condition (a)(1) of this section and using the site-specific methane generation rate constant and NMOC concentration obtained in condition (a)(3) of this section. The calculation of the methane generation rate constant is performed only once, and the value obtained from this test shall be used in all subsequent annual NMOC emission rate calculations.

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(a)(4)]

B.16. Alternative methods.

(a)(5) The owner or operator may use other methods to determine the NMOC concentration or a site-specific k as an alternative to the methods required in conditions (a)(3) and (a)(4) of this section if the method has been approved by the Administrator.

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(a)(5)]

B.17. Calculating NMOC rate to determine when a collection and control system may be removed.

(b) After the installation of a collection and control system in compliance with section 60.755, the owner or operator shall calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in condition 60.752(b)(2)(v), using the following equation:

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

where,

M_{NMOC} = mass emission rate of NMOC, megagrams per year

Q_{LFG} = flow rate of landfill gas, cubic meters per minute

C_{NMOC} = NMOC concentration, parts per million by volume as hexane

(1) The flow rate of landfill gas, Q_{LFG} , shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions of Section 4 of Method 2E of 40 CFR 60 Appendix A.

(2) The average NMOC concentration, C_{NMOC} , shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25C or Method 18 of 40 CFR 60 Appendix A. If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The sample location on the common header pipe shall be before any condensate removal or

other gas refining units. The landfill owner or operator shall divide the NMOC concentration from Method 25C by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(b)]

B.18. Calculating emissions for PSD purposes.

(c) When calculating emissions for PSD purposes, the owner or operator of each MSW landfill subject to the provisions of this subpart shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in 40 CFR 51.166 or 40 CFR 52.21 using AP-42 or other approved measurement procedures. If a collection system, which complies with the provisions in Sec. 60.752(b)(2) is already installed, the owner or operator shall estimate the NMOC emission rate using the procedures provided in condition (b) of this section.

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(c)]

B.19. Performance test methods.

(d) For the performance test required in condition 60.752(b)(2)(iii)(B), Method 25C or Method 18 of 40 CFR 60 Appendix A shall be used to determine compliance with 98 weight-percent efficiency or the 20 ppmv outlet concentration level, unless another method to demonstrate compliance has been approved by the Administrator as provided by condition 60.752(b)(2)(i)(B). If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The following equation shall be used to calculate efficiency:

$$\text{Control Efficiency} = (\text{NMOC}_{\text{in}} - \text{NMOC}_{\text{out}}) / (\text{NMOC}_{\text{in}})$$

where,

NMOC_{in} = mass of NMOC entering control device

NMOC_{out} = mass of NMOC exiting control device

[Rule 62-204.800, F.A.C.; 40 CFR 60.754(d)]

Section 60.755 Compliance provisions.

Except as provided in condition 60.752(b)(2)(i)(B), the specified methods in paragraphs (a)(1) through (a)(6) of this section shall be used to determine whether the gas collection system is in compliance with Sec. 60.752(b)(2)(ii).

B.20. Methods for ensuring collection system accuracy.

(a)(1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with condition 60.752(b)(2)(ii)(A)(1), one of the following equations shall be used. The k and L_0 kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site specific values demonstrated to be appropriate and approved by the Administrator. If k has been determined as specified in condition 60.754(a)(4), the value of k determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.

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

$$Q_m = 2L_0R(e^{-kc} - e^{-kt})$$

where,

Q_m = maximum expected gas generation flow rate, cubic meters per year
 L_o = methane generation potential, cubic meters per megagram solid waste
 R = average annual acceptance rate, megagrams per year
 k = methane generation rate constant, year⁻¹
 t = age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure, t is the age of the landfill at installation, years
 c = time since closure, years (for an active landfill $c = 0$ and $e^{-kc} = 1$)

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

$$Q_m = \sum_{i=1}^n 2kL_oM_i(e^{-kt_i})$$

where,

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

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(1)]

(a)(2) For the purposes of determining sufficient density of gas collectors for compliance with condition 60.752(b)(2)(ii)(A)(2), the owner or operator shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Administrator, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(2)]

(a)(3) For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with condition 60.752(b)(2)(ii)(A)(3), the owner or operator shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under condition 60.753(b). If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval.

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(3)]

(a)(4) Owners or operators are not required to expand the system as required in condition (a)(3) during the first 180 days after gas collection system startup.
[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(4)]

(a)(5) For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature and nitrogen or oxygen as provided in condition 60.753(c). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval.
[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(5)]

(a)(6) An owner or operator seeking to demonstrate compliance with condition 60.752(b)(2)(ii)(A)(4) through the use of a collection system not conforming to the specifications provided in section 60.759 of this permit shall provide information satisfactory to the Administrator as specified in condition 60.752(b)(2)(i)(C) demonstrating that off-site migration is being controlled.
[Rule 62-204.800, F.A.C.; 40 CFR 60.755(a)(6)]

B.21. Installation according to design plan.

(b) For purposes of compliance with condition 60.753(a), each owner or operator of a controlled landfill shall place each well or design component as specified in the approved design plan as provided in condition 60.752(b)(2)(i). Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:

- (1) 5 years or more if active; or
- (2) 2 years or more if closed or at final grade.

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

B.22. Surface methane requirements.

(c) The following procedures shall be used for compliance with the surface methane operational standard as provided in condition 60.753(d).

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

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

(3) Surface emission monitoring shall be performed in accordance with Section 4.3.1 of Method 21 of 40 CFR 60 Appendix A, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.

(4) Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified in conditions (c)(4) (i) through (v) of this section shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of condition 60.753(d).

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

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

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

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

(v) For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Administrator for approval.

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

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

B.23. Method for ensuring accuracy of surface methane measurements.

(d) Each owner or operator seeking to comply with the provisions in condition 60.755(c) above shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

(1) The portable analyzer shall meet the instrument specifications provided in Section 3 of 40 CFR 60 Appendix A Method 21, except that "methane" shall replace all references to VOC.

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

(3) To meet the performance evaluation requirements in Section 3.1.3 of Method 21, the instrument evaluation procedures of Section 4.4 of Method 21 shall be used.

(4) The calibration procedures provided in Section 4.2 of Method 21 shall be followed immediately before commencing a surface monitoring survey.

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(d)]

B.24. Applicability of permit provisions.

(e) The provisions of this permit apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices.

[Rule 62-204.800, F.A.C.; 40 CFR 60.755(e)]

Section 60.756 Monitoring of operations.

B.25. Active gas collection system.

(a) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to comply with condition 60.752(b)(2)(ii)(A) for an active gas collection system shall install a sampling port and a thermometer or other temperature measuring device, or an access port for temperature measurements at each wellhead and:

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

(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in condition 60.755(a)(5); and

(3) Monitor temperature of the landfill gas on a monthly basis as provided in condition 60.755(a)(5).
[Rule 62-204.800, F.A.C.; 40 CFR 60.756(a)]

B.26. Enclosed combustor.

(b) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to comply with condition 60.752(b)(2)(iii) using an enclosed combustor shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment.

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

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

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

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.756(b)]

B.27. Open flare.

(c) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to comply with condition 60.752(b)(2)(iii) using an open flare shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

(1) A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.

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

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

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.756(c)]

B.28. Other control devices.

(d) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to demonstrate compliance with condition 60.752(b)(2)(iii) using a device other than an open flare or an enclosed combustor shall provide information satisfactory to the Administrator as provided in condition 60.752(b)(2)(i)(B) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator shall review the information and either approve it, or request that additional information be submitted. The Administrator may specify additional appropriate monitoring procedures.

[Rule 62-204.800, F.A.C.; 40 CFR 60.756(d)]

B.29. Alternate methods of compliance.

(e) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to install a collection system that does not meet the specifications in Section 60.759 or seeking to monitor alternative parameters to those required by Section 60.753 through Section 60.756 shall provide information satisfactory to the Administrator as provided in conditions 60.752(b)(2)(i) (B) and (C) describing the design and operation of the

collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator may specify additional appropriate monitoring procedures. [Rule 62-204.800, F.A.C.; 40 CFR 60.756(e)]

B.30. Surface methane operational standard.

(f) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator seeking to demonstrate compliance with condition 60.755(c), shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in condition 60.755(d). Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

[Rule 62-204.800, F.A.C.; 40 CFR 60.756(f)]

Section 60.757 Reporting requirements.

B.31. Notification of any increase in design capacity.

(a) An amended design capacity report shall be submitted to the Administrator providing notification of any increase in the design capacity of the landfill, whether the increase results from an increase in the permitted area or depth of the landfill, a change in the operating procedures, or any other means which results in an increase in the maximum design capacity of the landfill above 2.5 million megagrams or 2.5 million cubic meters. The amended design capacity report shall be submitted within 90 days of the issuance of an amended construction or operating permit, or the placement of waste in additional land, or the change in operating procedures which will result in an increase in maximum design capacity, whichever occurs first. An amended design capacity report shall be submitted to the Administrator providing notification of an increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill to or above 2.5 million megagrams and 2.5 million cubic meters. This increase in design capacity may result from an increase in the permitted volume of landfill or an increase in the density as documented in the annual recalculation required in section 60.758(f).

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(a)]

B.32. Annual NMOC emission rate.

(b) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator subject to the requirements of this subpart shall submit an annual NMOC emission rate report to the Administrator, except as provided for in condition (b)(1)(ii) or (b)(3) of this section. The Administrator may request such additional information as may be necessary to verify the reported NMOC emission rate.

(1) The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in condition 60.754(a) or (b), as applicable.

(i) The initial NMOC emission rate report may be combined with the initial design capacity report and shall be submitted no later than ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction on or after March 12, 1996. Subsequent NMOC emission rate reports shall be submitted annually thereafter, except as provided for in conditions (b)(1)(ii) and (b)(3) of this section.

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

shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

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

(3) Each owner or operator subject to the requirements of this subpart is exempted from the requirements of conditions (b)(1) and (2) of this section, after the installation of a collection and control system in compliance with condition 60.752(b)(2), during such time as the collection and control system is in operation and in compliance with Section 60.753 and Section 60.755.

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(b)]

B.33. Collection and control system design plan.

(c) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator subject to the provisions of condition 60.752(b)(2)(i) shall submit a collection and control system design plan to the Administrator within 1 year of the first report, in which the emission rate exceeds 50 megagrams per year, except as follows:

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

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(c)]

B.34. Closure report.

(d) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall submit a closure report to the Administrator within 30 days of waste acceptance cessation. The Administrator may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the Administrator, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 60.7(a)(4).

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(d)]

B.35. Equipment removal report.

(e) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall submit an equipment removal report to the Administrator 30 days prior to removal or cessation of operation of the control equipment.

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

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

(ii) A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired; and

(iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year.

(2) The Administrator may request such additional information as may be necessary to verify that all of the conditions for removal in condition 60.752(b)(2)(v) have been met.
[Rule 62-204.800, F.A.C.; 40 CFR 60.757(e)]

B.36. Active collection system annual reports.

(f) Except as provided in condition 60.752(b)(2)(i)(B), each owner or operator of a landfill seeking to comply with condition 60.752(b)(2) using an active collection system designed in accordance with condition 60.752(b)(2)(ii) shall submit to the Administrator annual reports of the recorded information in (f)(1) through (f)(6) below. The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under 40 CFR 60.8. For enclosed combustion devices and flares, reportable exceedances are defined under condition 60.758(c).

(1) Value and length of time for exceedance of applicable parameters monitored under conditions 60.756(a), (b), (c), and (d).

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

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

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

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

(6) The date of installation and the location of each well or collection system expansion added pursuant to conditions (a)(3), (b), and (c)(4) of Section 60.755.

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(f)]

B.37. Passive collection system reporting.

(g) Each owner or operator seeking to comply with section 60.752(b)(2)(iii) shall include the following information with the initial performance test report required under 40 CFR 60.8:

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

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

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

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

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

(6) The provisions for the control of off-site migration.

[Rule 62-204.800, F.A.C.; 40 CFR 60.757(g)]

Section 60.758 Recordkeeping requirements.

B.38. Capacity and acceptance reports.

(a) Except as provided in section 60.752(b)(2)(i)(B), each owner or operator of an MSW landfill subject to the provisions of condition 60.752(b) shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered section 60.752(b), the current amount of solid waste in-place, and

the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.
[Rule 62-204.800, F.A.C.; 40 CFR 60.758(a)]

B.39. Control equipment test results.

(b) Except as provided in section 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in conditions (b)(1) through (b)(4) of this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.

(1) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with condition 60.752(b)(2)(ii):

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

(ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in condition 60.759(a)(1).

(2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with condition 60.752(b)(2)(iii) through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity greater than 44 megawatts:

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

(ii) The percent reduction of NMOC determined as specified in condition 60.752(b)(2)(iii)(B) achieved by the control device.

(3) Where an owner or operator seeks to demonstrate compliance with condition 60.752(b)(2)(iii)(B)(1) through use of a boiler or process heater of any size: a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.

(4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with condition 60.752(b)(2)(iii)(A) through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.

[Rule 62-204.800, F.A.C.; 40 CFR 60.758(b)]

B.40. Equipment operating parameters.

(c) Except as provided in section 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill subject to the provisions of this subpart shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in Section 60.756 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

(1) The following constitute exceedances that shall be recorded and reported under condition 60.757(f):

(i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28 °C below the average combustion temperature during the most recent performance test at which compliance with condition 60.752(b)(2)(iii) was determined.

(ii) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under condition (b)(3)(i) of this section.

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

(3) Each owner or operator who uses a boiler or process heater with a design heat input capacity of 44 megawatts or greater to comply with condition 60.752(b)(2)(iii) shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater. (Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other State, local, or Federal regulatory requirements.)

(4) Each owner or operator seeking to comply with the provisions of this permit by use of an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under condition 60.756(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

[Rule 62-204.800, F.A.C.; 40 CFR 60.758(c)]

B.41. Plot map.

(d) Except as provided in section 60.752(b)(2)(i)(B), each owner or operator shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.

(1) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under condition 60.755(b).

(2) Each owner or operator subject to the provisions of this subpart shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in condition 60.759(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in condition 60.759(a)(3)(ii).

[Rule 62-204.800, F.A.C.; 40 CFR 60.758(d)]

B.42. Exceedances.

(e) Except as provided in section 60.752(b)(2)(i)(B), each owner or operator shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in condition 60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

[Rule 62-204.800, F.A.C.; 40 CFR 60.758(e)]

B.43. Design capacity calculations.

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.758(f)]

Section 60.759 Specifications for active collection systems.

B.44. Placement of collection devices.

(a) Each owner or operator seeking to comply with condition 60.752(b)(2)(i) shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Administrator as provided in conditions 60.752(b)(2)(i)(C) and (D):

(1) The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat.

(2) The sufficient density of gas collection devices determined in condition (a)(1) above shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.

(3) The placement of gas collection devices determined in condition (a)(1) above shall control all gas producing areas, except as provided by conditions (a)(3)(i) and (a)(3)(ii) below.

(i) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under condition 60.758(d). The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and shall be provided to the Administrator upon request.

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

$$Q_i = 2kL_oM_i(e^{-kt_i})(C_{NMOC})(3.6 \times 10^{-9})$$

where,

Q_i = NMOC emission rate from the i^{th} section, megagrams per year

k = methane generation rate constant, year⁻¹

L_o = methane generation potential, cubic meters per megagram solid waste

M_i = mass of the degradable solid waste in the i^{th} section, megagram

t_i = age of the solid waste in the i^{th} section, years

C_{NMOC} = concentration of nonmethane organic compounds, parts per million by volume

3.6×10^{-9} = conversion factor

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.759(a)]

B.45. Design of collection devices.

(b) Each owner or operator seeking to comply with condition 60.752(b)(2)(i)(A) shall construct the gas collection devices using the following equipment or procedures:

(1) The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with

emission and migration standards. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration.

(2) Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.759(b)]

B.46. Capacity of collection system.

(c) Each owner or operator seeking to comply with condition 60.752(b)(2)(i)(A) shall convey the landfill gas to a control system in compliance with condition 60.752(b)(2)(iii) through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:

(1) For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in condition (c)(2) below shall be used.

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

[Rule 62-204.800, F.A.C.; 40 CFR 60.759(c)]

Subsection C. Common Conditions.

E.U. ID No.	Brief Description
001	Municipal Solid Waste Combustor No. 1
002	Municipal Solid Waste Combustor No. 2

The following Conditions apply to the emissions unit(s)/activities listed above:

Essential Potential to Emit (PTE) Parameters

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

Monitoring of Operations

C.2. Determination of Process Variables.

(a) **Required Equipment.** The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) **Accuracy of Equipment.** Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

Test Methods and Procedures

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

C.3. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) **General Compliance Testing.**

3. Except as otherwise specified in an applicable subsection, the owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

- a. Did not operate; or
- b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.

4. During each federal fiscal year (October 1 -- September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

- a. Visible emissions, if there is an applicable standard;
- b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits

or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and

5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.

8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.

9. The owner or operator shall notify the Department's South District office, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.
[Rule 62-297.310(7), F.A.C.; and, SIP approved]

C.4. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured ;provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance.
[Rule 62-297.310(1), F.A.C. and 40 CFR 60.8]

C.5. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule.
[Rule 62-297.310(3), F.A.C.]

C.6. Applicable Test Procedures.

(a) Required Sampling Time.

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.

2. **Opacity Compliance Tests.** When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur.

Exceptions to these requirements are as follows:

c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) **Minimum Sample Volume.** Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

(c) **Required Flow Rate Range.** For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.

(d) **Calibration of Sampling Equipment.** Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1.

(e) **Allowed Modification to EPA Method 5.** When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

[Rule 62-297.310(4), F.A.C.]

C.7. Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities (version dated 10/07/96), attached to this permit.

[Rule 62-297.310(6), F.A.C.]

Record Keeping and Reporting Requirements

C.8. Malfunctions - Notification. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department's South District office in accordance with Appendix TV-1, Title V Condition No. 9, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department's South District office.

[Rule 62-210.700(6), F.A.C.]

C.9. Test Reports. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department's South District office to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.

4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

C.10. Acid Rain Part Application. For any unit which was a solid waste incinerator, burning less than 20 percent fossil fuel as described in 40 CFR 72.6(b)(7), adopted and incorporated by reference at Rule 62-204.800, F.A.C. the designated representative of the source containing the unit shall submit a complete Acid Rain Part application governing such unit to the Department before the later of January 1, 1998, or March 1 of the year following the three calendar year period in which the incinerator consumed 20 percent or more fossil fuel on a British thermal unit (BTU) basis.

[Chapter 62-214.320(1)(h), F.A.C.]

C.11. The permittee shall comply with the requirements contained in Appendix 40 CFR 60, Subpart A, attached to this permit.

[Rule 62-204.800(7)(d), F.A.C.]

Permittee:

Lakeland Electric & Water Utilities
501 East Lemon Street
Lakeland, Florida 33801-5079

DRAFT Permit No.: 1050004-005-AV**Facility ID No.:** 1050004**SIC Nos.:** 49, 4911**Project:** Title V Air Operation Permit Revision

This permit revision is for the inclusion of the Phase I/II NO_x limitations pursuant to Rule 62-214.360(6), Florida Administrative Code (F.A.C.), into the Title IV Acid Rain Part for the C. D. McIntosh, Jr. Power Plant. This facility is located at 3030 East Lake Parker Drive, Lakeland, Polk County; UTM Coordinates: Zone 17, 409.0 km East and 3106.2 km North; Latitude: 28° 04' 50" North and Longitude: 81° 55' 32" West.

☐

STATEMENT OF BASIS: This Title V air operation permit revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213, and 62-214. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Referenced attachments made a part of this permit:

Appendix U-1, List of Unregulated Emissions Units and/or Activities

Appendix I-1, List of Insignificant Emissions Units and/or Activities

APPENDIX TV-1, TITLE V CONDITIONS (version dated 12/02/97)

APPENDIX SS-1, STACK SAMPLING FACILITIES (version dated 10/07/96)

TABLE 297.310-1, CALIBRATION SCHEDULE (version dated 10/07/96)

FIGURE 1 - SUMMARY REPORT-GASEOUS AND OPACITY EXCESS EMISSION AND MONITORING SYSTEM PERFORMANCE REPORT (40 CFR 60; July 1996)

Phase II Acid Rain Application/Compliance Plan received 12/18/95

Alternate Sampling Procedure: ASP Number 97-B-01

APPENDIX 40 CFR 60, SUBPART A (40 CFR 60; July ~~1996~~ 1997)

ORDER EXTENDING PERMIT EXPIRATION DATE dated 02/09/98

Phase I/II NO_x Acid Rain Application/Compliance Plan received December 9, 1997**Effective Date:** January 1, 1999**Renewal Application Due Date:** July 5, 2003**Expiration Date:** December 31, 2003

Howard L. Rhodes, Director
Division of Air Resources
Management

HLR/sms/es