



Jeb Bush  
Governor

# Department of Environmental Protection

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

David B. Struhs  
Secretary

March 22, 1999

## CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Vicente Castro, Assistant Director,  
Technical Services  
Department of Solid Waste Management  
8675 N.W. 53rd Street, Suite 201  
Miami, Florida 33166

Re: DEP File No. PSD-FL-006 (B) and PA 77-08  
Dade County Resource Recovery Facility (Units 1-4)  
Revision of Testing Methods and Monitoring Requirements of PSD-FI-006(A)  
Montenay International Corporation's letter dated December 15, 1998

Dear Mr. Castro:

The Department has reviewed Montenay's letter dated March 10 formally requesting an amendment to permit PSD-FL-006(A). The request is to revise the permitted test methods for hydrochloric acid (HCl), lead (Pb), mercury (Hg), hydrogen fluorides (HF), sulfuric acid mist (SAM), beryllium (Be), and arsenic (As) to the test methods required in the 40 CFR 60, Subpart Cb. In addition, Montenay requested that certified continuous emissions monitoring methods (CEMS) be used for determining emissions rates during performance and demonstration testing and during annual stack testing and that the baghouse inlet monitor accuracy temperature requirement be deleted.

The requests are acceptable except the deletion of the baghouse inlet monitor accuracy temperature requirement. All other requested changes related to compliance with the requirements of 40CFR60 Subpart Cb will be addressed pursuant to your separate request to revise the Conditions of Certification.

## 2. COMPLIANCE DETERMINATIONS

### A. STACK TESTING

#### 1) Test Methods

Compliance with emission limiting standards referenced in Specific Condition No. 1 shall be demonstrated using EPA Methods, as specified in 40 CFR Part 60 (Standards of Performance for New Stationary Sources), Appendix A, or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants), Appendix B. No other test method shall be used unless approval from the Department has been received in writing. Any alternate sampling procedure shall be approved in accordance with Rule 62-297.620, F.A.C. A test protocol shall be submitted for approval to the Bureau of Air Regulation at least 90 days prior to testing.

<u>EPA Method</u>	<u>For Determination of:</u>
1	Sample and Velocity Traverses for Stationary Sources.
2	Stack Gas Velocity and Volumetric Flow Rate.
3 or 3A	Oxygen and Carbon Dioxide Concentrations in Emissions from Stationary Sources.
4	Moisture Content in Stack Gases.
5	PM Emissions from Stationary Sources.
201 or 201A	PM10 Emissions; however, if compliance with PM emission limitations are met, these tests are not required.
6C and 19*	Sulfur Dioxide Emissions from Stationary Sources.
7E and 19*	Nitrogen Oxide Emissions from Stationary Sources.
8	<u>Determination of Sulfuric Acid Mist Emissions from Stationary Sources.</u>
9	Visible Emission Determination of Opacity from Stationary Sources.
10*	Carbon Monoxide Emissions from Stationary Sources.
<del>12-29</del>	<del>Inorganic Lead Emissions from Stationary Sources.</del> Determination of Metals Emissions from Stationary Sources
13A/13B	Total Fluoride Emissions from Stationary Sources.
23	Polychlorinated Dibenzo Dioxins and Polychlorinated Dibenzofurans.
25 or <u>25A</u>	Total Gaseous Volatile Organic Compounds Concentration.
26 or <u>26A</u>	Hydrogen Chloride Emissions from Stationary Sources <u>or Determination of Hydrogen Halide and Halogen Emissions from Stationary Sources.</u>
40 CFR 266 <u>29</u> Appendix IX Section 3.1	Cadmium Emissions.
<del>101A</del> <u>29</u>	<del>Gaseous Mercury Emissions from Sewage Sludge Incinerators.</del> <u>Determination of Metals Emissions from Stationary Sources</u>
104 or <u>29</u>	Beryllium Emissions from Stationary Sources <u>or Determination of Metals Emissions from Stationary Sources</u>
108 or <u>29</u>	Gaseous Arsenic Emissions <u>or Determination of Metals Emissions from Stationary Sources</u>

\* For relative Accuracy Test Audits (RATA) on 40CFR60, Appendix F, EPA Reference Method 19 (Section 4.3 and Section 5.4), Continuous Emissions Monitoring Systems (CEMS) may use Methods 6C, 7E, and 10.

## EXPIRATION DATE

The expiration date of Permit PSD-FL-006A is extended to December 31, 1999.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57 of the 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 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. 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) of the Florida Statutes 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), however, any person who asked the Department 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 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department'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 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 Department'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.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department 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 in this proceeding.

In addition to the above, a person subject to regulation has a right to apply 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, 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 EPA 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.

A copy of this letter shall be filed with the referenced permit and certification and shall become part of these documents.

Sincerely,



Howard L. Rhodes, Director  
Division of Air Resources  
Management

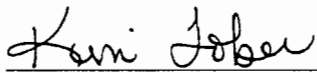
#### CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this AMENDMENT was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 3-22-99 to the person(s) listed:

Vicente Castro, Miami-Dade SWM\*  
D. Anetha Lue, P.E, MIC  
Gregg Worley, EPA  
Isidore Goldman, SED  
Buck Oven, PPSC  
Patrick Wong, DERM

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)

3-22-99  
(Date)

# Memorandum

# Florida Department of Environmental Protection

TO: Clair Fancy

THRU: Al Linero

FROM: Teresa Heron

DATE: March 19, 1999

SUBJECT: Dade County Resource Recovery Facility  
Request to Modify Testing and Monitoring Requirements  
PSD-FL-006(B) – Units 1 thru 4

BAR  
**RECEIVED**

MAR 22 1999

BUREAU OF  
AIR REGULATION

Attached is an amendment allowing the use of Department-approved test methods in lieu of those required in the existing permit. The requested methods are consistent with the requirements of 40CFR60, Subpart Cb. These replace some of the methods that corresponded to Subpart Ca, which was never approved by the Department and was rescinded by EPA in favor of Subpart Cb.

In addition, this permit modification will allow that certified CEMS measurements be used for determining emissions rates during performance and demonstration testing and during annual stack testing. These requests are proposed in compliance with the 40CFR 60, Subpart Cb.

Montenay has requested more significant changes in accordance with the State of Florida Compliance Schedule for Municipal Waste Combustors, 40CFR60 Subpart Cb. These are being processed separately through a formal modification of the Conditions of Certification. Since the Conditions of Certifications allow use of "other Department-approved methods," they do not need to be revised to implement the present request.

I recommend your approval and signature.

AAL/th

Memorandum

Florida Department of  
Environmental Protection

TO: Buck Oven  
FROM: Clair Fancy *CF*  
DATE: January 14, 1994  
SUBJ: Dade County Resource Recovery Facility - PA77-08  
Biomass Fuel Project

This memo is in response to your December 27 memo regarding the above subject.

The preparation and use of biomass fuel at the facility is a new operation which is expected to increase emissions. Therefore, the site certification should reflect the change and incorporate conditions to regulate any particulate matter and fugitive dust (Rule 17-296.310, F.A.C.) or odors (Rule 17-296.320, F.A.C.) which might result from the use of shredders and the storage or handling of the wood chips during this process.

The applicant also requested 400,000 TPY throughput for production of biomass fuel. This limit needs to be stated as a condition of certification.

CF/JB/pm

cc: Teresa Heron ✓

PSD-FL-  
006



RECEIVED

JAN 20 1994

Bureau of  
Air Regulation

January 19, 1994

Mr. Hamilton S. Oven  
Administrator, Siting Coordination Office  
Florida Department of Environmental Protection  
3900 Commonwealth Boulevard  
Tallahassee, FL 32399-3000

Re: Biomass Fuel Project at the Dade County Resources Recovery Facility (DCRRF)

Dear Mr. Oven:

This correspondence follows up a conversation on Friday between Theresa Heron and myself regarding the biomass fuel project in order to clarify the project. The biomass fuel project does not trigger any permitting action.

The biomass fuel project is an entirely separate project from the 1-boiler expansion project (this project is addressed in the pending site certification application). The increase in MSW processing capacity and refuse-derived fuel combustion at DCRRF due to the 1-boiler expansion is addressed in the 1-boiler site certification application. It is not appropriate or necessary to include the biomass fuel project as part of the 1-boiler expansion project. Doing so would significantly delay implementation of this important county project.

No new fugitive dust emissions will result from the biomass fuel project for the following reasons:

1. All activities will continue to be conducted completely within enclosed buildings, and the existing baghouse dust collectors will be used to control fugitive dust emissions from the processing equipment. *Do we check efficiency of collection?*
2. The current municipal solid waste (MSW) processing capacity of DCRRF is 18,000 tons per week (TPW) or 936,000 tons per year (TPY). This processing capacity is divided between the garbage processing line and the trash processing line. Montenay, which operates DCRRF, has a contractual obligation to receive up to 374,000 TPY of trash (equates to 7,192 TPW) if delivered to the facility by Dade County. As recently as November 1993, the facility has in fact received up to 6,000 TPW of trash (equates to 312,000 TPY) and processed this amount through the system. *Are we usually 99% efficient for this type of trash?*

*SO what?*  
*Now, we are told!*  
*How interesting*  
Up to 400,000 TPY of trash will be received at DCRRF for the biomass fuel system. However, an additional manual separation operation will remove reject materials from the trash stream. This will remove an estimated 18 percent of the material from the trash stream prior to processing through the biomass fuel system. Consequently, the maximum amount of material processed through the trash system in the future will be approximately 328,000 TPY (400,000 TPY x 0.82). The historical maximum throughput equivalent to 312,000 TPY is very close to this future maximum throughput.

91063A2/22

KBN ENGINEERING AND APPLIED SCIENCES, INC.

1034 Northwest 57th Street  
Gainesville, Florida 32605  
904-331-9000  
FAX 904-332-4189

5405 West Cypress Street,  
Suite 215  
Tampa, Florida 33607  
813-287-1717 FAX 813-287-1716

1801 Clint Moore Road, Suite 105  
Boca Raton, Florida 33487  
407-994-9910  
FAX 407-994-9393

6821 Southpoint Drive North,  
Suite 216  
Jacksonville, Florida 32216  
904-296-9663 FAX 904-296-0146

One Church Street, Suite 801  
Rockville, Maryland 20850  
301-738-1100  
FAX 301-738-1105

Mr. Hamilton St. Oven  
January 19, 1994  
Page 2



Dade County has designated the biomass fuel project as high priority. Because of its importance, Dade County's contract with Montenay requires that Montenay issue a "Ready Notice" by March 1, 1994, in order to proceed with engineering. This date is critical to Dade County (and Montenay).

Dade County and Montenay would like to receive your confirmation regarding this matter as soon as possible, but no later than the end of February.

Sincerely,

*David A. Buff*

David A. Buff, M.E., P.E.

DB/ej

cc: Len Enriquez  
Juan Portuondo  
Lee Casey  
Mike Ellis  
Tanhum Goldschmid  
Ross McVoy  
Theresa Heron  
File (2)

*Chair # John B*

I have one big comment! What kind of a permit do they have? It appears that they have been allowed to do anything they choose. I think we need to proceed carefully. If they come out of this "reworking" effort with an air permit that lacks conditions (like the old one) we failed to do our



I suggest Monthly interval meetings w/ CHF, JB, Buck, Richard, myself and Teresa on this. Teresa will set them up. If after one or two we can extend or eliminate them because they lack value, fine.

In preparation for last meeting I have asked Teresa to prepare a briefing/STATUS sheet including UNANS, question on various aspects of the Project(s).

These meetings definitely need to take place prior to meetings with the applicant/Engineer/Lawyer in Tallahassee.

Proctor -

1/24

I have no problems with meeting. The permit they have is a late 1970s PSD with basically the twenty year old NSPS as the only condition by today's standards, a nonpermit.

ISRs have changed since our 1/18 decision, I'll be glad to readdress issues. This has been an awful source for as long as I have been here. I want the permit for the low air pollution equipment to be done asap. The new unit will be PSD/BACT/LAER tight conditions, etc.

Chr



Lawton Chiles  
Governor

# Florida Department of Environmental Protection

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

Virginia B. Wetherell  
Secretary

June 15, 1994

Ms. Jewell Harper  
Air Enforcement Branch  
U.S. EPA, Region IV  
345 Courtland Street, N.E.  
Atlanta, Georgia 30308

*Before will send  
corrections*

Dear Ms. Harper:

RE: DADE COUNTY RESOURCE RECOVERY FACILITY (DCRRF)  
Existing Boilers No. 1 through No. 4  
Upgrading of Air Pollution Control Equipment

Attached please find a revised PSD permit (PSD-FL-006). The original PSD permit was issued by EPA in 1978. This permit has been revised to reflect the modified Conditions of Certification. This project was not subject to BACT or PSD modeling.

The applicant requested to modify the Conditions of Certification to include the installation and upgrading of the air pollution control equipment (a spray dryer scrubber followed by a baghouse and a mercury control system) to reduce the emissions of particulate matter, acid gases, and mercury. In addition, it was also requested to process biomass fuel. This biomass fuel will be combusted at nearby cogeneration facilities in South, Florida.

If you have any questions, please feel free to call me at (904) 488-1344 or write to me at the above address.

Sincerely,

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

CHF/TH/bjb

Attachment

cc: Buck Oven  
Richard Donelan  
I. Goldman - SE Dist.  
P. Wong - Dade Co.  
J. Bunyak - NPS



# Department of Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

**PERMITTEE:**  
Dade County Department of  
Solid Waste Management  
8675 N.W. 53rd Street  
Suite 20  
Miami, Florida 33166

**Permit Number:** PSD-FL-006  
**Expiration Date:** June 30, 1999  
**County:** Dade  
**Latitude/Longitude:** 25°50'06"N  
80°21'30"W  
**Project:** Dade County Waste to  
Energy Recovery Facility  
1 through 4

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-210, 212, 272, 275, 296, and 297; and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and specifically described as follows:

For the construction of the Dade County Solid Waste Energy Recovery Facility consisting of four (4) Municipal Waste Combustors (MWC) located at 6990 N.W. 97th Avenue in Miami, Florida. These units shall have a maximum permitted capacity of 27 tons per hour (TPH) of Refuse Derived Fuel (RDF) for each unit and a maximum heat input of 302.4 MMBtu/hr per unit based on a refuse derived fuel RDF heating value of 5600 Btu/lb. Dade County Resource Recovery Facility is designed to process 3,000 tons per day (TPD), 18,000 tons per week (TPW) and 936,000 tons per year (TPY) of municipal solid waste (trash and garbage).

Each unit shall be allowed to produce a maximum of 180,000 lbs of steam per hour at 625 psig and 730°F. Each combustor unit shall be equipped with auxiliary burners to be fired by only propane gas at a maximum heat input of 80 MMBtu/hr. Emissions from each combustor shall be controlled by a spray dryer scrubber followed by a baghouse. Mercury emissions shall be controlled by injecting activated carbon or other appropriate reagent. Two 38-MW (gross) turbine-generators (using the steam from the four boilers) will provide the in-plant electric load. The balance of electricity generated will be sold to Florida Power Corporation.

A biomass fuel preparation project will be implemented at this facility. This project will adapt the existing bulky waste processing system. The modified system will have the ability to process up to 400,000 tons per year (TPY) of bulky waste to biomass fuel. This biomass fuel would be exported off-site for use in biomass-fired cogeneration units located in South Florida.

The permittee must submit at least four copies of complete information prior to purchase and installation of any equipment to the Bureau of Air Regulation 90 days prior to commencement of operation. Such information shall include the following: make and model numbers of all pollution control and continuous emissions monitoring devices and related equipment. The permittee shall also submit operation and maintenance manuals and calibration procedures to the Bureau of Air Regulation at least 90 days prior to commencing operations.

The power plant site certification number for this facility is PA77-08.

The source shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are as follows:

Power Plant Site Certification package submitted on July 27, 1992 and related correspondence:

1. Model input information, September 2, 1992.
2. EPA's letter of September 16, 1992.
3. Department's letter of September 28, 1992.
4. Response to agency comments, February 17, 1993.
5. Application for Reasonable Available Control Technology (RACT), March 1993.
6. Second response to agency comments, July 8, 1993.
7. KBN's letter of November 5, 1993.
8. Modified Expansion Project, December 14, 1993.
9. Fine Jacobson Schwartz Nash Block's letter of December 27, 1993.
10. KBN's letter of January 19, 1994.
11. Fine Jacobson Schwartz Nash Block's letter of February 2, 1994.
12. KBN's letter of April, 1994.
13. KBN's letter of May 10, 1994.

**PERMITTEE:**  
**Dade County Department of**

**Permit Number: PSD-FL-006**  
**Expiration Date: June 30, 1999**

**Solid Waste Management**

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

**PERMITTEE:**  
**Dade County Department of**

**Permit Number: PSD-FL-006**  
**Expiration Date: June 30, 1999**

**Solid Waste Management**

**GENERAL CONDITIONS:**

8. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

PERMITTEE:  
Dade County Department of

Permit Number: PSD-FL-006  
Expiration Date: June 30, 1999

**Solid Waste Management**

**GENERAL CONDITIONS:**

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- ( ) Determination of Best Available Control Technology (BACT). Original permit issued in 1978 by EPA.
- ( ) Determination of Prevention of Significant Deterioration (PSD). Original permit issued in 1978.
- ( ) Compliance with New Source Performance Standards (NSPS)

14. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
  - the date, exact place, and time of sampling or measurements;
  - the person responsible for performing the sampling or measurements;
  - the dates analyses were performed;
  - the person responsible for performing the analyses;
  - the analytical techniques or methods used; and
  - the results of such analyses.



Solid Waste Management

GENERAL CONDITIONS:

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

1. EMISSION STANDARDS

- a. Based on a maximum capacity of 302.4 MMBtu/hr and a heating value of 5,600 Btu/lb of refuse derived fuel (RDF), per unit, the stack emissions from each unit shall not exceed any of the following limitations:

<u>Pollutant</u>	<u>Emission Limits</u>
(PM)	Particulate emissions from the baghouse shall not exceed 0.011 grains/dry standard ft <sup>3</sup> (gr/dscf), corrected to 7 percent O <sub>2</sub> (dry basis); 6.6 lbs/hr per unit, and 29.0 tons/year per unit.
(PM <sub>10</sub> )	Particulate emissions shall not exceed 0.011 gr/dscf, corrected to 7 percent O <sub>2</sub> (dry basis) for the fraction of particles less than 10 microns in diameter; 6.6 lbs/hr per unit, and 29.0 tons/year per unit.
(SO <sub>2</sub> )	Sulfur Dioxide emissions shall not exceed 30 parts per million by volume (ppmvd) corrected to 7 percent O <sub>2</sub> (dry basis), or 70 percent removal efficiency, whichever, is least restrictive, based on a 24-hour daily (i.e., block; midnight to midnight) geometric mean; not to exceed 70 ppmvd corrected to 7 percent O <sub>2</sub> , 0.16 lb/MMBtu/per unit, and 48.9 lbs/hr/unit, 24-hour block average; and 214.2 tons/year per unit.
(NO <sub>x</sub> )	Nitrogen Oxide emissions shall not exceed 280 ppmvd corrected to 7 percent O <sub>2</sub> (dry basis), 0.5 lb/MMBtu, and 140.4 lbs/hr per unit, 24-hour daily arithmetic average; and 614.9 tons/yr per unit.
(CO)	Carbon Monoxide emissions shall not exceed 200 ppmvd at 7 percent O <sub>2</sub> (dry basis), 0.20 lb/MMBtu, and 61.1 lbs/hr/unit, 24-hour daily arithmetic average; and 267.7 tons/year per unit.

Solid Waste Management

SPECIFIC CONDITIONS:

- (VOC) Volatile Organic Compound (Hydrocarbons) emissions shall not exceed 25 ppmvd corrected to 7 percent O<sub>2</sub> (dry basis), 0.0145 lb/MMBtu, 4.37 lbs/hr/unit and 19.1 tons/yr per unit. The permittee must furnish to the Department evidence that this facility emits less than 100 tons per year of hydrocarbons due to its location in a non-attainment area for ozone, or must obtain legally enforceable limits for the hydrocarbon emissions from this facility.
- (HCl) Hydrogen Chloride emissions shall not exceed 25 ppmvd corrected to 7 percent O<sub>2</sub> (dry basis), or 90 percent removal, whichever is least restrictive, not to exceed 78 ppmvd corrected to 7 percent O<sub>2</sub>, 0.10 lb/MMBtu and 30.6 lbs/hr/unit, and 134.2 tons/yr per unit.
- (Hg) Mercury emissions shall not exceed 70 micrograms per dry standard cubic meter (ug/dscm) corrected to 7 percent O<sub>2</sub>, or 80% reduction by weight not to exceed  $6.1 \times 10^{-5}$  lbs/MMBtu, 0.018 lbs/hr/unit, and 0.080 tons/yr per unit.
- (Dioxins/  
Furans) Emissions of total (tetra-through octa-chlorinated) dibenzo-p dioxins and dibenzofurans shall not exceed 60 nanograms per standard cubic meter (ng/m<sub>3</sub>) corrected to 7 percent O<sub>2</sub> (dry basis),  $5.2 \times 10^{-8}$  lbs/MMBtu,  $1.6 \times 10^{-5}$  lbs/hr/unit, and  $6.9 \times 10^{-5}$  tons/yr per unit.
- (F) Fluoride emissions shall not exceed 840 ug/m<sub>3</sub> corrected to 7 percent O<sub>2</sub> (dry basis),  $7.3 \times 10^{-4}$  lb/MMBtu, 0.22 lb/hr/unit and 0.97 ton/yr/unit.
- (Cd) Cadmium emissions shall not exceed 0.015 mg/m<sub>3</sub> corrected to 7 percent O<sub>2</sub> (dry basis), 0.006 lb/hr/unit and 0.027 ton/yr/unit.
- (H<sub>2</sub>SO<sub>4</sub>) Sulfuric Acid Mist emissions shall not exceed 2.1 ppmvd corrected to 7 O<sub>2</sub> (dry basis), 0.007 lb/MMBtu, 2.20 lb/hr/unit and 9.8 ton/hr/unit.
- (Pb) Lead emissions shall not exceed 380 ug/m<sub>3</sub> corrected to 7 percent O<sub>2</sub> (dry basis),  $3.3 \times 10^{-4}$  lb/MMBtu, 0.10 lb/hr/unit and 0.44 tons/yr/unit.
- (Be) Beryllium emissions shall not exceed 0.46 ug/m<sub>3</sub> corrected to 7 percent O<sub>2</sub> (dry basis),  $4.0 \times 10^{-7}$  lb/MMBtu, 0.00012 lb/hr/unit and 0.0005 ton/yr/unit.

PERMITTEE:  
Dade County Department of

Permit Number: PSD-FL-006  
Expiration Date: June 30, 1999

Solid Waste Management

SPECIFIC CONDITIONS:

- (As) Arsenic emissions shall not exceed  $9.3 \text{ ug/m}_3$  corrected to 7 percent  $\text{O}_2$  (dry basis),  $8.1 \times 10^{-6}$  lb/MMBtu, 0.0024 lb/hr/unit and 0.011 ton/yr/unit.
- (VE) There shall be no visible emissions during the lime silo loading operations (i.e., less than 5 percent opacity).
- (VE) Visible emissions from the biomass and ash silo baghouses, ash conditioning agent silo baghouses, and mercury reactant silo baghouses shall not exceed a particulate limit of 0.01 grains/dscf, nor visible emissions of 5 percent opacity.
- (VE) Visible emissions from any other baghouse exhaust shall not exceed 10 percent opacity (six minute average).

Pursuant to Rule 17-4.080 F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions for any regulated pollutants and visible emissions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time.

2. COMPLIANCE DETERMINATIONS

a. STACK TESTING

1) Test Methods

Compliance with emission limitation standards referenced in Specific Condition No. 1 shall be demonstrated using EPA Methods, as specified in 40 CFR Part 60 (Standards of Performance for New Stationary Sources), or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants), or any other method approved by the Department, in accordance with F.A.C. Rule 17-297. A test protocol shall be submitted for approval to the Bureau of Air Regulation at least 90 days prior to testing.

EPA Method

For Determination of

- 1 Selection of sample site and velocity traverses.
- 2 Stack gas flow rate when converting concentrations to or from mass emission limits.

PERMITTEE:  
Dade County Department of  
Solid Waste Management

Permit Number: PSD-FL-006  
Expiration Date: June 30, 1999

**SPECIFIC CONDITIONS:**

- |               |  |
|---------------|--|
| 3 or 3A       | Gas analysis when needed for calculation of molecular weight or percent O <sub>2</sub> .   |
| 4             | Moisture content when converting stack velocity to dry volumetric flow rate for use in converting concentrations in dry gases to or from mass emission limits.   |
| 5             | Particulate matter (PM) concentration and mass emissions.  |
| 201 or 201 A  | PM <sub>10</sub> emissions; however, if compliance with PM emission limitations are met, these tests are not required.   |
| 6, 6C, or 19  | Sulfur dioxide emissions from stationary sources.  |
| 7, 7E, or 19  | Nitrogen oxide emissions from stationary sources.  |
| 9             | Visible emission determination of opacity.<br>- At least three one hour runs to be conducted simultaneously with particulate testing for the emissions from the dry scrubbers/baghouses, and ash silo baghouses.<br>- At least one lime truck unloading into the lime silo (from start to finish). |
| 10            | Carbon monoxide emissions from stationary sources.   |
| 12            | Lead concentration from stationary sources.  |
| 13 or 13 B    | Fluoride emissions from stationary sources.  |
| 23            | Dioxin/furan concentration.  |
| 18, 25 or 25A | Volatile organic compounds concentration.  |
| 26            | HCl emissions, or other methods approved by EPA or DEP.  |
| 29            | Cadmium emissions.   |
| 101A          | Mercury emissions.   |
| 104           | Beryllium emission rate and associated moisture content.   |
| 108           | Arsenic emissions.   |

PERMITTEE:  
Dade County Department of

Permit Number: PSD-FL-006  
Expiration Date: June 30, 1999

**Solid Waste Management**

**SPECIFIC CONDITIONS:**

The weight of the municipal solid waste (RDF) being fed to each combustor during the compliance test shall be determined by use of the EPA published "F" factor for MSW, which is 9,570 dscf/MMBtu, or 1,820 scf/MMBtu (reference 40 CFR 60, Appendix A, Method 19, table 19-1, 1993 version).

Stack testing shall be conducted upstream and downstream of the applicable control device for the following pollutants: SO<sub>2</sub>, Hg and HCl. Soot blowers shall be operated in a mode consistent with normal cleaning requirements of the system during the compliance testing.

Testing of emissions shall be conducted with the source operating at permitted capacity. Capacity is defined as 90-100% of the permitted capacity. If it is impracticable to test at capacity, then sources may be tested at less than capacity; in this case subsequent source operation is limited to 110% of the test load until a new test is conducted. Once the unit is so limited, then operation at higher capacities is allowed for no more than fifteen consecutive days for purposes of additional compliance testing to regain the rated capacity in the permit, with prior notification to the DEP Southeast District office and the Dade County Environmental Resource Management (DERM) office.

2) Testing Frequency

Compliance with emission standards contained in Condition No. 1.a. shall be determined by conducting stack tests within 60 days after achieving the maximum production rate at which this facility will be operating, but not later than 180 days after initial startup, and annually thereafter. These tests may be staggered throughout the year with the approval of the Bureau of Air Regulation. For mercury, testing shall be performed according to Rule 17-296.416.

Pursuant to Rule 17-297.340(2), when the Department, after investigation, has good reason (such as complaints of increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in this permit is being violated, it may require the owner or operator of the source to conduct compliance tests which identify the nature and quantity of pollutant emissions from the source and to provide a report on the results of said test to the DEP Southeast District office and the Dade County Environmental Resource Management (DERM) office.

Compliance testing for the ash silos (baghouse) and the lime silo loading operation (Visible Emissions test) shall be conducted within 90 days of completion of construction and initial operation and annually thereafter.

PERMITTEE:  
Dade County Department of

Permit Number: PSD-FL-006  
Expiration Date: June 30, 1999

**Solid Waste Management**

**SPECIFIC CONDITIONS:**

Notification requirements of 40 CFR Parts 60 and 61 shall be complied with by the owner/operator of the facility.

3) Sampling Ports

The Permittee shall provide sampling ports in the air pollution control equipment outlet duct or stack and shall provide access to the sampling ports in accordance with Rule 17-297, F.A.C. Detailed drawings of the stacks showing testing facilities and sampling port locations as required by Rule 17-297.345 shall be submitted to the DEP Southeast District Office and the Dade County DERM office for approval at least 60 days prior to construction of the stack.

4) Temperature Standard and Monitoring

(a) Temperature Standard

Except during a malfunction, the maximum flue gas temperature at the final particulate matter control device inlet, during the combustion of solid waste, shall not exceed 30 degrees Fahrenheit above the maximum temperature measured at the particulate matter control device inlet during the most recent mercury compliance test under which the facility was found to be in compliance with the mercury emission limit specified in Condition 1.a., based on a 4-hour block arithmetic average. If the maximum flue gas temperature standard is exceeded during a malfunction, then up to three hours of that malfunction may be excluded from the 4-hour block arithmetic average.

(b) Temperature Monitoring

Continuous monitoring equipment shall be installed on each unit to monitor the flue gas temperature at the inlet to the final particulate matter control device and record the output. The monitors shall be operated and maintained in accordance with the manufacturers' instructions.

(i) The temperature shall be calculated in 4-hour block arithmetic averages.

(ii) The monitoring equipment shall meet the requirements of 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60.7(a)(5). The monitoring equipment is to be certified by the manufacturer to be accurate within  $\pm 1$  percent of the temperature being measured.

PERMITTEE:  
Dade County Department of

Permit Number: PSD-FL-006  
Expiration Date: June 30, 1999

**Solid Waste Management**

**SPECIFIC CONDITIONS:**

**b. MONITORING REQUIREMENTS**

**1) Continuous Emissions Monitoring**

Continuous monitors with recorders shall be installed, calibrated, maintained and operated for each unit, subject to approval by the Department, for the following:

- Carbon Monoxide
- Oxygen
- Opacity
- Sulfur Dioxide (for SO<sub>2</sub>, one monitor shall be located upstream of the scrubber and one shall be located downstream of the baghouse), as specified in 40 CFR 60, Appendix B
- Total steam production (lbs/hr, pressure, and temperature)
- Power generation (MW)
- Slake lime utilization
- Activated carbon or mercury reactant injection or usage rate
- Temperature of combustion zone

The monitoring devices shall meet the applicable requirements of Rule 17-297, F.A.C., 40 CFR 60, Appendix F, 40 CFR 60.58a, and 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60.7(a)(5). Data on monitoring equipment specifications, manufacturer, type calibration and maintenance needs, and the proposed location of each monitor shall be provided to the DEP Southeast District office and the Dade County DERM office for review at least 90 days prior to installation.

**c. OPERATING PROCEDURES**

Operating procedures shall include good combustion practices and proper training and certification of all operators. The good combustion practices shall meet the guidelines established in 40 CFR 60, Subpart Ea, and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained and certified in plan specific equipment. A list of all such certified personnel shall be submitted to the DEP Southeast District office and the Dade County DERM office.

Department staff shall be given notice of any training sessions related to operation and maintenance of air pollution control devices.

**PERMITTEE:**  
**Dade County Department of**

**Permit Number: PSD-FL-006**  
**Expiration Date: June 30, 1999**

**Solid Waste Management**

**SPECIFIC CONDITIONS:**

The emission standards for this facility shall apply at all times, except during periods of start-up, shut-down, or malfunctions, provided that the duration of start-up, shut-down, or malfunction shall not exceed 2 hours in any 24 hour period. The start-up period commences when the affected facility begins the continuous burning of RDF but does not include any warm-up period when the affected facility is combusting only propane gas and no RDF is being combusted. During all startups, shutdowns and malfunctions the owner/operator shall use best operational practices to minimize air pollutant emissions.

Within 90 days prior to operation of this facility, the permittee shall submit to the DEP Southeast District office and the Dade County DERM office an operational procedures manual that identifies and describes best operational practices that will be used during startup, shutdown, and malfunctions of this facility.

**3. OPERATIONAL REQUIREMENTS**

**a. OPERATING CAPACITY**

1) The Dade County Resource Recovery Facility (DCRRF's) boilers shall not be loaded in excess of their permitted maximum capacity of 302.4 MMBtu/hr, each unit, based on maximum heating value of 5,600 Btu/lb of RDF and 27 tons per hour/unit.

2) DCRRF is allowed to process 400,000 TPY of bulky waste (trash) for biomass fuel preparation. This biomass fuel will be combusted off-site.

3) DCRF is allowed to process 3,000 tons per day (TPD), 18,000 tons per week (TPW) and 936,000 tons per year (TPY) of municipal solid waste (trash and garbage).

4) This facility is allowed to operate continuously (8760 hours per year).

**b. AUXILIARY BURNERS**

Auxiliary burners for each unit shall be fired only by propane gas and shall not exceed 80 MMBtu/hr.



**SPECIFIC CONDITIONS:**

**c. RESTRICTION FOR TYPE OF WASTES COMBUSTED**

No biological waste, bio-medical waste, sewage sludge or hazardous wastes shall be combusted at this facility without obtaining proper modification to the site certification conditions. The permittee may combust up to 3% (by weight) of used tires along with the MSW. If the applicant wishes to combust used tires in excess of 3% (by weight) a modification to this permit will be required prior to increasing the feed rate of the tires.

**d. BAGHOUSE OPERATIONS**

The baghouses installed downstream of the dry lime scrubbers shall be equipped with pressure drop monitoring equipment. The baghouses shall have a maximum air to cloth ratio of 4:1.

**e. STACK HEIGHT**

The height at the top of the boiler exhaust stacks shall not be less than 250 feet above grade.

**f. FUGITIVE (UNCONFINED) EMISSIONS**

Fugitive emissions at this facility shall be adequately controlled at all times (F.A.C. Rule 17-296.310). All roads, except roads within the ash landfill, shall be adequately paved to control visible dust. Maximum speed limit signs shall be posted to minimize dust generation. Residue from the grates, grate siftings, and ash from the combustor/boiler and fabric filter hoppers during normal operations shall be discharged into the ash handling and silo system to minimize visible dust. The ash/residue in the bottom ash building shall be kept sufficiently moist to minimize dust during storage and handling operations.

In accordance with F.A.C. Rule 17-296.310(b) reasonable precautions during the processing of biomass may include, but shall not be limited to the following:

- 1) Windows and doors of the enclosed space shall be kept closed except when needed to minimize fugitive dust.
- 2) Conveyor systems, screens, handling shredded wood fines and dust shall be covered or enclosed.
- 3) Shredded wood conveyor systems shall have baghouse pick up points at the transfer points.
- 4) Wind breaks shall be installed around the shredded wood load-out area.

**PERMITTEE:**  
**Dade County Department of**

**Permit Number: PSD-FL-006**  
**Expiration Date: June 30, 1999**

**Solid Waste Management**

**SPECIFIC CONDITIONS:**

- 5) Floors in the enclosed area shall be cleaned periodically.
- 6) Loading areas for shredded wood shall be cleaned or wetted as needed to minimize fugitive dust.
- 7) Trucks transporting shredded wood shall be covered.
- g. ODOR CONTROL

No objectionable odors are allowed from this facility pursuant to F.A.C. Rule 17-296.320(2). The truck access doors to the facility shall remain closed except during normal working shifts when garbage is being received near the garbage storage pit area to allow vehicle passage. To minimize odors at the facility, a negative pressure shall be maintained on the garbage tipping floor and air from within the garbage building will be used as combustion air.

**4. MISCELLANEOUS REQUIREMENTS**

**a. EMISSION CONTROL EQUIPMENT DESIGN SPECIFICATIONS**

- 1) The combustor's particulate control baghouse shall be designed, constructed and operated to achieve a maximum emission rate of 0.011 grains per dscf corrected to 7 percent O<sub>2</sub>.
- 2) The facility shall be equipped with dry scrubbers designed, constructed and operated to remove SO<sub>2</sub> at an efficiency of 70 percent by weight or to achieve an emission rate of 30 ppmvd at 7 percent O<sub>2</sub>, 24-hour daily geometric mean, whichever is less stringent.
- 3) The Permittee shall submit to the Bureau of Air Regulation, within thirty (30) days after it becomes available, copies of technical data pertaining to the selected emissions control systems. The technical data should include, but not be limited to, guaranteed efficiency and emission rates, and major design parameters.

**b. RECORDKEEPING**

The Dade County Resources Recovery Facility shall maintain a central file containing all measurements, records, and other data that are required to be collected pursuant to the various specific conditions of this permit. This file shall include but not be limited to:

- 1) the data collected from in-stack monitoring instruments,

**PERMITTEE:**  
**Dade County Department of**

**Permit Number: PSD-FL-006**  
**Expiration Date: June 30, 1999**

**Solid Waste Management**

**SPECIFIC CONDITIONS:**

- 2) the records on RDF input rate,
- 3) the amount of propane gas burned per unit,
- 4) the results of all source tests or performance tests,
- 5) the amount of activated carbon or other chemicals used for mercury control,
- 6) calibration logs for all instruments,
- 7) maintenance/repair logs for any work performed which is subject to this permit.
- 8) Fuel analysis data.

All measurements, records, and other data required to be maintained by DCRRF shall be retained for at least two years following the date on which such measurements, records, or data are recorded. These data shall be made available to the Department upon request. The Southeast District office and the Dade County's DERM office shall be notified in writing at least 15 days prior to the testing of any instrument required to be operated by these conditions of certification in order to allow witnessing by authorized personnel.

**c. REPORTING**

- 1) Two copies of the results of the emissions tests for the pollutants listed in Condition 1.a. shall be submitted within forty-five days of the last sampling run to the DEP Southeast District Office and Dade County DERM office.
- 2) Emissions monitoring shall be reported to the Southeast District Office on a quarterly basis in accordance with Section 17-297, F.A.C., and 40 CFR Part 60.7, as appropriate.
- 3) Notice of anticipated and actual start-up dates of control devices under this permit shall be submitted to the DEP Southeast District office and the Dade County DERM office.

**d. REPORTING OF EXCESS EMISSIONS AND MALFUNCTIONS**

- 1) A malfunction means any sudden and unavoidable failure of air pollution control equipment or process equipment to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation, any other preventable upset condition, or preventable equipment breakdown shall not be considered malfunctions.

**PERMITTEE:**  
**Dade County Department of**

**Permit Number: PSD-FL-006**  
**Expiration Date: June 30, 1999**

**Solid Waste Management**

**SPECIFIC CONDITIONS:**

2) Excess emissions resulting from startup, shutdown or malfunction of any source shall be permitted providing (a) best operation practices to minimize emissions are adhered to and (b) the duration of excess emissions shall be minimized but in no case exceed two hours in 24 hour period unless specifically authorized by the Department for longer duration (Rule 17-210.700(1), F.A.C.).

3) Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonable be prevented during startup, shutdown, or malfunction shall be prohibited (Rule 17-210.700(4), F.A.C.).

4) In case of excess emissions resulting from malfunctions, the DCRRF shall notify the DEP Southeast District office and the Dade County Department of Environmental Resources Management (DERM) office in accordance with Section 17-4.130, Florida Administrative Code. A full written report on the malfunctions shall be submitted in a quarterly report (Rule 17-210.700(6), F.A.C.).

5) The owner or operator shall submit excess emission reports for any calendar quarter during which there are excess emissions from the facility. If there are no excess emissions during the calendar quarter, the owner or operator shall submit a report quarterly stating that no excess emissions occurred during the quarterly reporting period. The report shall include the following:

(a) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factors used, and the date and time of commencement and completion of each period of excess emissions [40 CFR 60.7(c)(1)].

(b) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the furnace boiler system. The nature and cause of any malfunction (if known) and the corrective action taken or preventive measured adopted [40 CFR 60.7(c)(2)].

(c) 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 [40 CFR 60.7(c)(2)].

(d) When no excess emissions have occurred or the continuous monitoring system has not been inoperative,

PERMITTEE:  
Dade County Department of

Solid Waste Management

Permit Number: PSD-FL-006  
Expiration Date: June 30, 1999

**SPECIFIC CONDITIONS:**

repaired, or adjusted, such information shall be stated in the report [40 CFR 60.7(c)(4)].

- (e) The owner or operator shall maintain a file of all measurements, including continuous monitoring systems performance evaluations; monitoring systems or monitoring device calibration; checks; adjustments and maintenance performed on these systems or devices; and all other information required by this permit recorded in a permanent form suitable for inspection [40 CFR 60.7(d)].

**5. RULE REQUIREMENTS**

This facility shall comply with all applicable provisions of Chapter 403, Florida Statutes, Chapter 17-4, Chapters 17-209 through 297 Florida Administrative Code (F.A.C.) and 40 CFR 60.

Issued this \_\_\_\_\_ day  
of \_\_\_\_\_, 1994

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

\_\_\_\_\_  
Virginia B. Wetherell, Secretary  
Department of Environmental  
Protection

# MONTENAY POWER CORP.



RECEIVED

MAY 10 1999

BUREAU OF  
AIR REGULATION

May 6, 1999

Mr. Hamilton S. Owen  
Administrator, Siting Coordination Office  
Florida Dept. of Environmental Protection  
2699 Blair Stone Road  
Tallahassee, FL 32399-2400

DEPARTMENT OF  
ENVIRONMENTAL PROTECTION

MAY 07 1999

SITING COORDINATION

**Re: Dade County Resources Recovery Facility  
Case Number PA 77-08  
Conditions of Certification**

Dear Mr. Owen:

In accordance with F.A.C Rule 17-297, on February 9, 1999, Montenay is submitting the attached VOC and various visible emissions test protocol for the new Air Quality Control System being installed at the facility.

A test protocol, for the other parameter, from ABB, has been already submitted to your department back in February 1999, but didn't include the VOC and visible emission for the ash silo baghouse, the lime silo baghouse and loading operation, the carbon injection silo baghouse test, which will be performed by a different company right after the ABB test.

Test methods for VOC are in accordance with EPA methods 1-4, 9 and 25A.

Sincerely,

A handwritten signature in black ink, appearing to read 'D. Lukacie', written over a horizontal line.

David Lukacie  
Environmental Engineer

**Attachments:**

Test protocol

cc: P. Wong, DERM  
T. Long, FDEP West palm Beach  
W. Uchdorf, MDSCWM

A. Lue, MIC  
F. Screve, MPC  
T. Thornton, MPI



## South Florida Environmental Services

April 5, 1999

Mr. David Lukacie  
Montenay Power Corp.  
6990 NW 97<sup>th</sup> Ave.  
Miami, FL 33178

**RE: Total Hydrocarbons, Flow rate, Moisture, and Visible Emissions Waste to  
Energy Facility – EPA Methods 1-4, 9, 25A  
SFES Proposal No. 99-526**

Dear Mr. Lukacie:

South Florida Environmental Services a Division of Eastmount Environmental, is pleased to submit our Proposal No. 99-526 to provide Compliance Testing for Total Hydrocarbons, Flow rate, Moisture, and Visible Emissions for your Waste to Energy facility located in Miami FL. Hydrocarbon and flow rate testing will be conducted on the 4 gas flues at the facility. Visible Emissions will be conducted on the Dust Master fly ash system, lime silo loading system, Mercury reduction bag house system, and the biomass ash silo bag house system.

The attached cost proposal is in accordance with the test methods, analytical procedures and guidelines required by the Florida Department of Environmental Protection (FDEP). This submittal summarizes the Scope of Work, level of effort and presents the estimated cost associated with conducting the project, as defined.

We appreciate the opportunity to provide Montenay Power Corp with this cost proposal and look forward to the possibility of providing you with our emissions sampling and analytical services.

If you have any questions or require any additional information regarding this cost proposal, please do not hesitate to call.

Sincerely,  
South Florida Environmental Services,

Michael Mercadante  
Manager, Technical Operations

Montenay Power Corp  
Compliance Testing

### Scope of Work:

All testing and data reduction will be performed in accordance with EPA Methods 1-4, 9 and 25A as found in 40 CFR 60 Appendix A, as amended. A final report will be generated and submitted to you as well as the Florida Department of Environmental Protection in West Palm Beach within forty-five (45) days of completion of testing.

### Cost:

The total cost to perform the above program will be [REDACTED]. All work will be performed on a fixed price basis in accordance with the attached General Parameters. Any work conducted outside the scope as written and/or due to on-site delays not attributable to South Florida Environmental Services will be invoiced in accordance with the rates, terms, and conditions of the attached General Parameters.

### Client Responsibility:

Montenay Power Corp will be responsible for the following:

- ◆ Safe access to the sample port locations.
- ◆ One 480V, 50A three phase circuit
- ◆ At least two separate 110V, 20A circuits at the test location
- ◆ Plant processing data
- ◆ Coordination between testing personnel and plant operations

### Conditions of Engagement:

South Florida Environmental Services proposes to perform the services described herein in accordance with the General Parameters attached. Billing for the services will be based on the fixed price included herein. Invoices will be submitted every thirty days covering the work performed. This proposal is valid for thirty days.





Jeb Bush  
Governor

# Department of Environmental Protection

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

David B. Struhs  
Secretary

March 23, 1999

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Vicente Castro, Assistant Director  
Technical Services  
Department of Solid Waste Management  
8675 Northwest 53rd Street, Suite 201  
Miami, Florida 33166

Re: DEP File No. PSD-FL-006 (A) and PA 77-08  
Dade County Resource Recovery Facility (Units 1-4)  
Montenay's letter dated March 5, 1999

Dear Mr. Castro:

The Department has reviewed Montenay's letter dated March 5 requesting that we provide you with our understanding regarding the purpose of emissions tests planned for the summer of 1999 at the Dade County Resource Recovery Facility.

The first matter related to the methods for testing a number of pollutants. We sent a permit modification to you on March 22 approving practically all of the requested changes. These are mostly related to the use of methods consistent with 40CFR60 Subpart Cb, Emissions Guidelines and Compliance Schedules for Municipal Waste Combustors.

Montenay requests that the Department confirm the "phased approach" towards compliance with the requirements of Subpart Cb. This is acceptable in principle. According to the State Schedule to implement Subpart Cb, the facility must comply by November 13, 2000. The tests to be conducted this summer will demonstrate compliance with Subpart Cb except for carbon monoxide (CO) and nitrogen oxides (NO<sub>x</sub>).

Please note that the units are already subject to the requirements of Reasonable Available Control Technology (RACT) for sources in (previously) ozone non-attainment areas. KBM submitted an application for RACT-on-NO<sub>x</sub> in March 1993. The requested value of 0.5 pounds per million Btu heat input was based on the performance capabilities of the unit before the on-going retrofit project. It was incorporated into the PSD permit and site certification modifications issued in 1994 for the on-going retrofit project. Therefore the NO<sub>x</sub> stack test can be used to demonstrate compliance with the RACT requirement, which is less stringent than the Subpart Cb limit for NO<sub>x</sub>.

Please note as well that Title V fees are generally paid on emissions with limits expressed in existing permits. According to our records, the County did not pay Title V fees for NO<sub>x</sub> emissions last year. Please contact Scott Sheplak (850/921-9532) of the Title V Section to determine whether or not any fees are actually due this year (or from previous years).

Regarding the final matter in the requests, the Department accepts the proposed method to monitor gas usage. Should you have any questions in this matter, please free to call Ms. Teresa Heron at 850/921-9529.

Sincerely,

 3/23

A. A. Linero, P.E. Administrator  
New Source Review Section

AAL/aal

Enclosure

cc: D. Anetha Lue, P.E, MIC  
Scott Sheplak  
Tom Tittle, DEP SED  
Jim Pennington, DEP  
Buck Oven, PPSC

### 2.3.2 FUTURE MAXIMUM NO<sub>x</sub> EMISSIONS

Future maximum NO<sub>x</sub> emissions for the existing units, both prior to and after retrofit, are based on the current operation of the DCRRF units. Stack test data have indicated that the current emissions average about 0.40 lb/MMBtu. A frequency distribution plot of the NO<sub>x</sub> test data is presented in Figure 2-4. As indicated, the expected maximum NO<sub>x</sub> emission rate is approximately 0.50 lb/MMBtu. Based on the test data, the proposed future limit for Units 1—4 is 0.50 lb/MMBtu, which reflects a level that can be met reasonably on a routine basis. Further justification for this proposed RACT limit is presented in Section 4.0. Resulting emissions are presented in Table 2-6.



RECEIVED

MAR 15 1999

BUREAU OF  
AIR REGULATION

March 10, 1999

Certified Mail No. P 3333094835  
Return Receipt Requested

Mr. Al Linero  
Department of Air Resources Management  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Re: Dade County Resources Recovery Facility  
PA 77-08, PSD-FL 006A

Dear Mr. Linero:

0250348-002-AC

Attached please find a check in the amount of \$250 for amending the test methods for the Miami-Dade County Resources Recovery Facility. The changes are outlined in a request to FDEP dated December 15, 1998 (see attachment).

Please contact me if there are any question regarding this matter.

Sincerely,

  
Vicente Castro  
Assistant Director  
Technical Services

Attachments

cc: H. Oven, FDEP Power Plant Siting Office  
E. Anderson, DERM  
E. Delosantos, FDEP, Palm Beach  
L. Casey, DSWM  
F. Screve, MPC  
II. A104

8675 Northwest 53 Street, Suite 201, Miami, Florida 33166 • 305-592-1776

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H

INVOICE NO.	INV. DATE	BALANCE DUE	GROSS PAYMENT	DISCOUNT TAKEN	NET PAYMENT
Permit Modification Fee Dade Plant			250.00		250.00
CHECK NO.	VENDOR NO.	TOTALS			
010791					250.00

**MONTENAY INTERNATIONAL CORP.**

3225 AVIATION AVE., 4TH FLOOR  
MIAMI, FLORIDA 33133

LASALLE NATIONAL BANK  
PAYABLE THROUGH  
LASALLE BANK  
WESTMONT, ILLINOIS 60559

70-2302  
719

NO. 010791

\*\*\*\*\*Two Hundred Fifty Dollars and No Cents\*\*\*\*\*

**PAY:**

TO THE  
ORDER  
OF:

Florida Department Of Environmental Protection

CHECK DATE	CHECK NO.
------------	-----------

03/09/99	010791
----------	--------

CHECK AMOUNT

\$ \*\*250.00\*\*\*\*\*

*John R. Smith*

183 | 9 | 99

3225 Aviation Ave, 4<sup>th</sup> Floor  
Miami, FL 33133  
305 854 2229

**Montenay  
International Corp.**

# Fax

**To:** Al Linero & Theresa Heron - FDEP

**From:** Anetha Lue

**Fax:** 850 922 6979

**Pages:** 2

**Phone:** 850 488 1344

**Date:** 03/10/99

**Re:** Test methods

**CC:** Lee Casey - Miami-Dade County

☐ **Urgent**

☐ **For Review**

☒ **Please Comment**

☐ **Please Reply**

☐ **Please Recycle**

● **Comments:** I attempted to mark-up the test methods from Theresa's draft letter to show a few additional changes that are needed. An explanation is given beside each change. Please let us know if these additional changes can be made before issuing the final letter. Lee will be sending the check for the changes to you.

Thanks

CEM; GC FOR RATA; § 19 SEC 4.3 & 5.4 for averaging calculations

CEM; TE FOR RATA; § 19 SEC 4.3 & 5.4 for averaging calculations

EPA Method	For Determination of
1	Sample and Velocity Traverses for Stationary Sources.
2	Stack Gas Velocity and Volumetric Flow Rate.
(allow wet method as well) → 3A OR 3	Oxygen and Carbon Dioxide Concentrations in Emissions from Stationary Sources.
(typo.) → <del>3</del> 4	Moisture Content in Stack Gases.
5	PM Emissions from Stationary Sources.
201 or 201A	PM10 Emissions; however, if compliance with PM emission limitations are met, these tests are not required.
(clarification) → 6C and 19	Sulfur Dioxide Emissions from Stationary Sources.
7E and 19	Nitrogen Oxide Emissions from Stationary Sources.
(clarification) 8	Determination of Sulfuric Acid Mist Emissions from Stationary Sources.
9	Visible Emission Determination of Opacity from Stationary Sources.
(clarification) → CEM-10 for RATA	Carbon Monoxide Emissions from Stationary Sources.
12-29	Inorganic Lead Emissions from Stationary Sources. Determination of Metals Emissions from Stationary Sources
(previously requested 26A is more commonly used) → 13A/13B OR 26A	Total Fluoride Emissions from Stationary Sources.
23	Polychlorinated Dibenzo Dioxins and Polychlorinated Dibenzofurans.
(25 is hardly ever used) → 25 OR 25A	Total Gaseous Volatile Organic Compounds Concentration.
26 or 26A	Hydrogen Chloride Emissions from Stationary Sources or Determination of Hydrogen Halide and Halogen Emissions from Stationary Sources.
(previously requested, 29 is normally used for our type of units) → <del>40 CFR 266</del> Appendix IX Section 3.1 29	Cadmium Emissions.
101A 29	Gaseous Mercury Emissions from Sewage Sludge Incinerators. Determination of Metals Emissions from Stationary Sources
104 or 29	Beryllium Emissions from Stationary Sources or Determination of Metals Emissions from Stationary Sources
108 or 29	Gaseous Arsenic Emissions or Determination of Metals Emissions from Stationary Sources

#### EXPIRATION DATE

The expiration date of Permit PSD-FL-006A is extended to December 31, 1999.



March 5, 1999

Mr. Al Linero  
Department of Air Resources Management  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

**RECEIVED**

MAR 10 1999

BUREAU OF  
AIR REGULATION

Re: Dade County Resource Recovery Facility  
PSD #FL-006A & COC #PA 77-08 - Memorandum of Understanding

Dear Mr. Linero:

Montenay International Corp. on behalf of its subsidiary, Montenay Power Corp which operates the Dade County Resources Recovery Facility, and the facility owner Dade County Department of Solid Waste Management, requests a Memorandum of Understanding to finalize and clarify certain permit issues. A formal request to modify the permits for the facility -PSD # FL-006A and COC # PA 77-08 - is being made by Dade County, in order to incorporate Subpart Cb, however, there remains a few interpretive issues which cannot be fully addressed by permit modifications.

The issues in question are as follows:

- We are awaiting your response to the letter dated December 15, 1998, regarding emission test methods. Please note that the application to formally change the methods is being submitted, however, as the permit modification process is somewhat lengthy a memorandum agreeing to the changes would be appreciated in the interim.
- Based on discussions during our meeting in Tallahassee on December 7, 1998, FDEP agreed to a phased approach for performance and demonstration testing, whereby, testing for all emissions other than carbon monoxide and nitrogen oxides will be completed by June 1999 or after start-up of the units, whichever is later. Testing for the two remaining parameters will be conducted prior to November 13, 2000.

The June 1999 test will include – 1) emissions measurements to demonstrate compliance with permit limits, and 2) performance testing of the new continuous emissions monitoring system for all emissions measured by that system.

Although the CEM performance test will, by virtue of the procedures used to perform such tests, measure nitrogen oxides and carbon monoxide. These results will be used to verify that the accuracy of the CEM system and will not be used to demonstrate compliance with nitrogen oxides and carbon monoxide Subpart Cb limits. Nox and CO will be made to comply with Subpart Cb limits by November 13, 2000, and tests results will be submitted to FDEP for these two pollutants prior to that date.

**montenay international corp.**

3225 aviation avenue, 4th floor, miami, florida 33133 (305) 854-2229 fax (305) 854-2272



A test protocol for emissions measurement which reflects this phased procedure has already been submitted to FDEP Palm Beach, however, a memorandum from your office may assist us as we proceed.

- The final issue, which we hoped to clarify, was the method by which gas usage is monitored. The permit does not address the method by which the gas to each unit should be measured. The current PSD permit states in:

*Specific Condition 3.B. : "Auxiliary burners for each unit shall be fired only by propane gas. They shall not exceed a heat input of 80 MMBTU/hr", and in Specific Condition 4.B.3: "The DCRRF shall maintain a central file containing all measurements, records, and other data that are required to be collected pursuant to the various specific conditions of this permit. This file shall include but not be limited to :.....3)The amount of propane gas burned per unit."*

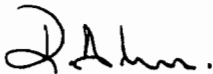
MPC proposes to use a meter that will be common to all four units to measure gas flow and to apportion/calculate gas flows to each unit based on unit operating hours. FDEP indicated that they may wish to discuss this issue with EPA, thus, we will continue with current plans until hearing otherwise

As stated earlier, while we are continuing with the current construction schedule and plans, we await a response to these clarifications. At present we are still planning to meet the June 1999 schedule for testing the first unit.

Thank you and other FDEP staff from the offices of Siting, Emissions Measurement, and Permitting, for taking the time to meet with us in Tallahassee.

Please contact me by telephone or by e-mail at [anethal@aol.com](mailto:anethal@aol.com) with any questions regarding this request.

Sincerely,



D. Anetha Lue, P.E.  
Environmental Coordinator, MIC


cc: H.Oven – FDEP Power Plant Siting Office  
E. Anderson –DERM  
E. Delosantos – FDEP, Palm Beach  
L. Casey –DSWM  
V Castro –DSWM

## Memorandum

## Florida Department of Environmental Protection

---

TO: Andrew Adkins  
Miami-Dade Audit & Management Services

FROM: Al Linero, Administrator, New Source Review 

DATE: February 22, 1999

SUBJECT: Dade County Resource Recovery Facility  
Air Permitting Requirements

Per our conversation today, it is my understanding that the Miami-Dade Facility operated by Montenay requires three permits related to Air Pollution. These include the original (late 1970's) Certification pursuant to the Florida Power Plant Siting Act. It has a number of air pollution control conditions related to both the construction and operation of the facility. That certification was updated in 1994 or 1995 to reflect a pollution control project.

The second permit is the Prevention of Significant Deterioration (PSD) Permit. It was issued in the late 1970's by the U.S.E.P.A. and modified by the State of Florida in 1994 to reflect the same pollution control project mentioned above.

One other requirement is the Major Source (Title V) Operation Permit mandated by the 1990 Clean Air Act. We have an application on file. It was submitted by the deadline of mid-1996. The application will be processed later this year.



RECEIVED

FEB 22 1999

BUREAU OF  
AIR REGULATION  
February 16, 1999

RE: Annual Operating Report for Air Pollutant Emitting Facility - 1998

CERTIFIED MAIL NO: P 344 360 808 (RETERN RECEIPT REQUESTED)

Department of Environmental Protection  
Southeast District - Air Program  
PO Box 15425  
West Palm Beach, Florida 33416-5425

DEPARTMENT OF  
ENVIRONMENTAL PROTECTION

FEB 22 1999

SITING COORDINATION

To Whom It May Concern:

Transmitted herewith are the referenced reports for the following facilities:

- North Dade Landfill (ID 0250603)
- South Dade Landfill (ID 0250623)
- Resources Recovery Facility (ID 0250348)

Please contact me at (305) 594-1670 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Lee S. Casey".

Lee S. Casey  
Chief, Environmental Compliance Division  
MIAMI DADE - SOLID WASTE MANAGEMENT

VC: GH: ml/ac

cc: J. Kahn, FDEP/WPB  
B. Oven, FDEP/RRF (Tallahassee)  
C. Strong, MPC/RRF  
R. Johns, DERM  
W. Urchdorf, DSWM/RRF  
W. Thorne, DSWM/NDL & SDL  
V. Castro, DSWM  
File: RRF II.A211, SDL III.A503, and NDL IV.A504

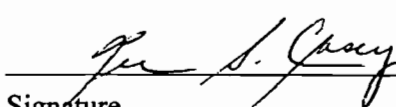


Facility ID : 0250348

D. OWNER/CONTACT INFORMATION

1. Owner or Authorized Representative	
Name and Title <b>Vicente Castro</b> <b>ASSISTANT DIRECTOR</b>	
Mailing Address Organization/Firm : <b>METRO-DADE CO.DEP.OF SOLID WASTE</b> Street Address : <b>8675 NW 53RD STREET</b> City : <b>MIAMI</b> State : <b>FL</b> Zip Code : <b>33166</b>	
Telephone : <b>(305)594-1670</b>	Fax : <b>(305) 594-1591</b>
2. Facility Contact	
Name and Title <b>LEE CASEY</b> <b>Chief, Environmental Compliance Division</b>	
Mailing Address Organization/Firm : <b>METRO-DADE CO.DEP.OF SOLID WASTE</b> Street Address : <b>8675 NW 53 STREET</b> City : <b>MIAMI</b> State : <b>FL</b> Zip Code : <b>33166</b>	
Telephone : <b>(305)594-1670</b>	Fax : <b>(305) 594-1591</b>

E. OWNER OR AUTHORIZED REPRESENTATIVE STATEMENT

I hereby certify that the information given in this report is correct to the best of my knowledge.	
 Signature	<u>2/17/99</u> Date

Facility ID : 0250348

Emissions Unit ID : 001

## II. EMISSIONS UNIT REPORT

### A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description <b>BLR#1/72000#/HR R.D.F. W/MECHANICAL COLLECTOR &amp; ESP TO STACK</b>		
2. Emissions Unit ID <b>001</b>	3. Emissions Unit Classification <b>Regulated Emissions Unit</b>	4. Operated During Year? <b>Y</b>
5. DEP Permit or PPS Number <b>PA 7708</b>	6. Emissions Unit Status <b>ACTIVE</b>	7. Ozone SIP Base Year Emissions Unit? <b>Y</b>
8. Emissions Unit Startup Date <b>09-Jan-81</b>	9. Long-term Reserve Shutdown Date	10. Permanent Shutdown Date

### B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type <b>AN EMISSION POINT SERVING TWO OR MORE EMISSIONS UNITS</b>
2a. Description of Control Equipment 'a' <b>MULTIPLE CYCLONE W/O FLY ASH REINJECTION</b>
2b. Description of Control Equipment 'b' <b>ELECTROSTATIC PRECIPITATOR HIGH EFFICIENCY (95.0-99.9%)</b>

### C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation <b>19.8 hours/day 7 days/week</b>	2. Total Operation During Year (hours/year) <b>7,243.0</b>
3. Percent Hours of Operation by Season <b>DJF : 25.0% MAM : 22.2% JJA : 26.1% SON : 26.7%</b>	
4. Average Ozone Season Operation (June 1 to August 31) <b>20.5 hours/day 7 days/week</b>	5. Total Operation During Ozone Season (days/season) <b>92</b>

## D. EMISSIONS UNIT COMMENT

<u>Pollutant</u>	<u>Test Date</u>
Carbon Monoxide	Jan. 83
Mercury Compounds	Jul. 98
Nitrogen Oxides	Jan. 83
Lead	Jan. 88
Particulate Matter	Jul. 98
Sulfur Dioxide	Jan. 83
Volatile Organic Compounds	Jan. 83

## (1) PROCESS/FUEL INFORMATION

1. SCC <b>1-01-012-02</b>	2. Description of Process or Type of Fuel <b>External Combustion Boilers      Solid Waste Electric Generation      Refuse Derived Fuel R.D.FUEL; ANN.LIM.EST.FROM EPA FACIL.LIM./4; %ASH - Q</b>	
3. Annual Process or Fuel Usage Rate <b>180,288 ton/year</b>	4. Ozone Season Daily Process or Fuel Usage Rate <b>506.69 ton/day</b>	5. SCC Unit <b>Tons Burned</b>
6. Fuel Average % Sulfur <b>0.16</b>	7. Fuel Average % Ash <b>7.31</b>	8. Fuel Heat Content (mmBtu/SCC Unit) <b>1,740,865</b>

## (2) EMISSIONS INFORMATION

1. Pollutant <b>CO Carbon Monoxide</b>	CAS No. <b>630-08-0</b>	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) <b>348.8</b>	3. Ozone Season Daily Emissions (lb/day) <b>1,974.2</b>	4. Emissions Method Code <b>1</b>
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $(96.3 \text{ lb/hr} \times 7,243 \text{ hr/yr}) \div 2000 \text{ lb/ton} = 348.75 \text{ ton/yr}$ $(96.3 \text{ lb/hr} \times 20.5 \text{ hr/day}) = 1,974.15 \text{ lb/day}$		

1. Pollutant <b>DIOX Dioxin/Furan</b>	CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)		

1. Pollutant <b>FL Fluorides - Total (elemental fluorine and fluoride compounds)</b>	CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)		

\*: Pollutant subject to emissions limiting standard or emissions cap



1. Pollutant <b>H058</b> <b>Dibenzofurans</b>		CAS No. <b>132-64-9</b>	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			
1. Pollutant <b>H114</b> <b>Mercury Compounds</b>		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) <b>0.07</b>	3. Ozone Season Daily Emissions (lb/day) <b>0.4</b>	4. Emissions Method Code <b>1</b>	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $(0.019 \text{ lb/hr} \times 7,243 \text{ hr/yr}) \div 2000 \text{ lb/ton} = 0.069 \text{ ton/yr}$ $(0.019 \text{ lb/hr} \times 20.5 \text{ hr/day}) = 0.389 \text{ lb/day}$			
1. Pollutant <b>H165</b> <b>2,3,7,8-Tetrachlorodibenzo-p-dioxin</b>		CAS No. <b>1746-01-6</b>	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			
1. Pollutant <b>NOX</b> <b>Nitrogen Oxides</b>		CAS No. <b>10102-44-0</b>	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) <b>166.8</b>	3. Ozone Season Daily Emissions (lb/day) <b>944.0</b>	4. Emissions Method Code <b>1</b>	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $(46.05 \text{ lb/hr} \times 7,243 \text{ hr/yr}) \div 2000 \text{ lb/ton} = 166.77 \text{ ton/yr}$ $(46.05 \text{ lb/hr} \times 20.5 \text{ hr/day}) = 944.03 \text{ lb/day}$			

\*: Pollutant subject to emissions limiting standard or emissions cap

1. Pollutant <b>PB</b> <b>Lead - Total (elemental lead and lead compounds)</b>		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) <b>0.8</b>	3. Ozone Season Daily Emissions (lb/day) <b>4.7</b>	4. Emissions Method Code <b>1</b>	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $(0.227 \text{ lb/hr} \times 7,243 \text{ hr/yr}) \div 2000 \text{ lb/ton} = 0.82 \text{ ton/yr}$ $(0.227 \text{ lb/hr} \times 20.5 \text{ hr/day}) = 4.65 \text{ lb/day}$			

1. Pollutant <b>* PM</b> <b>Particulate Matter - Total</b>		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) <b>120.7</b>	3. Ozone Season Daily Emissions (lb/day) <b>683.0</b>	4. Emissions Method Code <b>1</b>	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $(33.315 \text{ lb/hr} \times 7,243 \text{ hr/yr}) \div 2000 \text{ lb/ton} = 120.65 \text{ ton/yr}$ $(33.315 \text{ lb/hr} \times 20.5 \text{ hr/day}) = 682.96 \text{ lb/day}$			

1. Pollutant <b>PM10</b> <b>Particulate Matter - PM10</b>		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) <b>120.7</b>	3. Ozone Season Daily Emissions (lb/day) <b>683.0</b>	4. Emissions Method Code <b>1</b>	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $PM_{10} = PM$			

1. Pollutant <b>* SO2</b> <b>Sulfur Dioxide</b>		CAS No. <b>7446-09-5</b>	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) <b>411.8</b>	3. Ozone Season Daily Emissions (lb/day) <b>2,330.9</b>	4. Emissions Method Code <b>1</b>	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $(113.7 \text{ lb/hr} \times 7,243 \text{ hr/yr}) \div 2000 \text{ lb/ton} = 411.76 \text{ ton/yr}$ $(113.7 \text{ lb/hr} \times 20.5 \text{ hr/day}) = 2,330.85 \text{ lb/day}$			

\*: Pollutant subject to emissions limiting standard or emissions cap

Facility ID : 0250348

Emissions Unit ID : 001

SCC : 1-01-012-02

1. Pollutant      * VOC Volatile Organic Compounds		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)      14.3	3. Ozone Season Daily Emissions (lb/day)      81.0	4. Emissions Method Code 1	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $(3.95 \text{ lb/hr} \times 7,243 \text{ hr/yr}) \div 2000 \text{ lb/ton} = 14.3 \text{ ton/yr}$ $(3.95 \text{ lb/hr} \times 20.5 \text{ hr/day}) = 80.97 \text{ lb/day}$			

\*: Pollutant subject to emissions limiting standard or emissions cap

Facility ID : 0250348

Emissions Unit ID : 002

## II. EMISSIONS UNIT REPORT

### A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description <b>BLR#2/72000#/HR R.D.F. W/MECHANICAL COLLECTOR &amp; ESP TO STACK</b>		
2. Emissions Unit ID <b>002</b>	3. Emissions Unit Classification <b>Regulated Emissions Unit</b>	4. Operated During Year? <b>Y</b>
5. DEP Permit or PPS Number <b>PA 7708</b>	6. Emissions Unit Status <b>ACTIVE</b>	7. Ozone SIP Base Year Emissions Unit? <b>Y</b>
8. Emissions Unit Startup Date <b>09-Jan-81</b>	9. Long-term Reserve Shutdown Date	10. Permanent Shutdown Date

### B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type <b>AN EMISSION POINT SERVING TWO OR MORE EMISSIONS UNITS</b>
2a. Description of Control Equipment 'a' <b>MULTIPLE CYCLONE W/O FLY ASH REINJECTION</b>
2b. Description of Control Equipment 'b' <b>ELECTROSTATIC PRECIPITATOR HIGH EFFICIENCY (95.0-99.9%)</b>

### C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation <b>18.4 hours/day                      7 days/week</b>	2. Total Operation During Year (hours/year) <b>6,712.6</b>
3. Percent Hours of Operation by Season <b>DJF : 25.8%      MAM : 22.6%      JJA : 25.1%      SON : 26.6%</b>	
4. Average Ozone Season Operation (June 1 to August 31) <b>18.3 hours/day                      7 days/week</b>	5. Total Operation During Ozone Season (days/season) <b>92</b>

## D. EMISSIONS UNIT COMMENT

<u>Pollutant</u>	<u>Test Date</u>
Carbon Monoxide	Aug. 96
Mercury Compounds	Jul. 98
Nitrogen Oxides	Aug. 96
Lead	Nov. 88
Particulate Matter	Jul. 98
Sulfur Dioxide	Jan. 83
Volatile Organic Compounds	Jan. 83

## (1) PROCESS/FUEL INFORMATION

1. SCC <b>1-01-012-02</b>	2. Description of Process or Type of Fuel <b>External Combustion Boilers      Solid Waste</b> <b>Electric Generation                Refuse Derived Fuel</b> <b>R.D.FUEL; ANN.LIM.EST.FROM EPA FACIL.LIM./4; %ASH - Q</b>	
3. Annual Process or Fuel Usage Rate <b>166,498 ton/year</b>	4. Ozone Season Daily Process or Fuel Usage Rate <b>452.77 ton/day</b>	5. SCC Unit <b>Tons Burned</b>
6. Fuel Average % Sulfur <b>0.16</b>	7. Fuel Average % Ash <b>7.31</b>	8. Fuel Heat Content (mmBtu/SCC Unit) <b>1,607,707</b>

## (2) EMISSIONS INFORMATION

1. Pollutant <b>CO</b> <b>Carbon Monoxide</b>	CAS No. <b>630-08-0</b>	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) <b>175.0</b>	3. Ozone Season Daily Emissions (lb/day) <b>954.4</b>	4. Emissions Method Code <b>1</b>
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $(52.15 \text{ lb/hr} \times 6,712.6 \text{ hr/yr}) \div 2000 = 175.03 \text{ ton/yr}$ $(52.15 \text{ lb/hr} \times 18.3 \text{ hr/day}) = 954.35 \text{ lb/day}$		

1. Pollutant <b>DIOX</b> <b>Dioxin/Furan</b>	CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)		

1. Pollutant <b>FL</b> <b>Fluorides - Total (elemental fluorine and fluoride compounds)</b>	CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)		

\*: Pollutant subject to emissions limiting standard or emissions cap

1. Pollutant <b>H058</b> <b>Dibenzofurans</b>		CAS No. <b>132-64-9</b>	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			
1. Pollutant <b>H114</b> <b>Mercury Compounds</b>		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) <b>0.05</b>	3. Ozone Season Daily Emissions (lb/day) <b>0.3</b>	4. Emissions Method Code <b>1</b>	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $(0.016 \text{ lb/hr} \times 6,712.6 \text{ hr/yr}) \div 2000 \text{ lb/ton} = 0.054 \text{ ton/yr}$ $(0.016 \text{ lb/hr} \times 18.3 \text{ hr/day}) = 0.29 \text{ lb/day}$			
1. Pollutant <b>H165</b> <b>2,3,7,8-Tetrachlorodibenzo-p-dioxin</b>		CAS No. <b>1746-01-6</b>	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			
1. Pollutant <b>NOX</b> <b>Nitrogen Oxides</b>		CAS No. <b>10102-44-0</b>	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) <b>376.5</b>	3. Ozone Season Daily Emissions (lb/day) <b>2,052.9</b>	4. Emissions Method Code <b>1</b>	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $(112.18 \text{ lb/hr} \times 6,712.6 \text{ hr/yr}) \div 2000 \text{ lb/ton} = 376.51 \text{ ton/day}$ $(112.18 \text{ lb/hr} \times 18.3 \text{ hr/day}) = 2,052.89 \text{ lb/day}$			

\*: Pollutant subject to emissions limiting standard or emissions cap

1. Pollutant <b>PB</b> <b>Lead - Total (elemental lead and lead compounds)</b>		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) <b>1.1</b>	3. Ozone Season Daily Emissions (lb/day) <b>6.0</b>	4. Emissions Method Code <b>1</b>	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $(0.33 \text{ lb/hr} \times 6,712.6 \text{ hr/yr}) \div 2000 \text{ lb/ton} = 1.11 \text{ ton/yr}$ $(0.33 \text{ lb/hr} \times 18.3 \text{ hr/day}) = 6.04 \text{ lb/day}$			

1. Pollutant <b>* PM</b> <b>Particulate Matter - Total</b>		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) <b>141.8</b>	3. Ozone Season Daily Emissions (lb/day) <b>773.3</b>	4. Emissions Method Code <b>1</b>	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $(42.257 \text{ lb/hr} \times 6,712.6 \text{ hr/yr}) \div 2000 \text{ lb/ton} = 141.83 \text{ ton/yr}$ $(42.257 \text{ lb/hr} \times 18.3 \text{ hr/day}) = 773.30 \text{ lb/day}$			

1. Pollutant <b>PM10</b> <b>Particulate Matter - PM10</b>		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) <b>141.8</b>	3. Ozone Season Daily Emissions (lb/day) <b>773.3</b>	4. Emissions Method Code <b>1</b>	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)  $PM_{10} = PM$			

1. Pollutant <b>* SO2</b> <b>Sulfur Dioxide</b>		CAS No. <b>7446-09-5</b>	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) <b>381.6</b>	3. Ozone Season Daily Emissions (lb/day) <b>2,080.7</b>	4. Emissions Method Code <b>1</b>	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $(113.7 \text{ lb/hr} \times 6,712.6 \text{ hr/yr}) \div 2000 \text{ lb/ton} = 381.61 \text{ ton/yr}$ $(113.7 \text{ lb/hr} \times 18.3 \text{ hr/day}) = 2,080.71 \text{ lb/day}$			

\*: Pollutant subject to emissions limiting standard or emissions cap



Facility ID : 0250348

Emissions Unit ID : 002

SCC : 1-01-012-02

1. Pollutant * VOC Volatile Organic Compounds		CAS No.	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year) 13.3	3. Ozone Season Daily Emissions (lb/day) 72.3	4. Emissions Method Code 1	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $(3.95 \text{ lb/hr} \times 6,712.6 \text{ hr/yr}) \div 2000 \text{ lb/ton} = 13.26 \text{ ton/yr}$ $(3.95 \text{ lb/hr} \times 18.3 \text{ hr/day}) = 72.29 \text{ lb/day}$			

\*: Pollutant subject to emissions limiting standard or emissions cap

Facility ID : 0250348

Emissions Unit ID : 003

## II. EMISSIONS UNIT REPORT

### A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description <b>BLR#3/72000#/HR R.D.F. W/MECHANICAL COLLECTOR &amp; ESP-TO STACK</b>		
2. Emissions Unit ID <b>003</b>	3. Emissions Unit Classification <b>Regulated Emissions Unit</b>	4. Operated During Year? <b>Y</b>
5. DEP Permit or PPS Number <b>PA 7708</b>	6. Emissions Unit Status <b>ACTIVE</b>	7. Ozone SIP Base Year Emissions Unit? <b>Y</b>
8. Emissions Unit Startup Date <b>09-Jan-81</b>	9. Long-term Reserve Shutdown Date <b>- - - - -</b>	10. Permanent Shutdown Date

### B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type <b>AN EMISSION POINT SERVING TWO OR MORE EMISSIONS UNITS</b>
2a. Description of Control Equipment 'a' <b>MULTIPLE CYCLONE W/O FLY ASH REINJECTION</b>
2b. Description of Control Equipment 'b' <b>ELECTROSTATIC PRECIPITATOR HIGH EFFICIENCY (95.0-99.9%)</b>

### C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation <b>20.1 hours/day 7 days/week</b>	2. Total Operation During Year (hours/year) <b>7,325.0</b>
3. Percent Hours of Operation by Season <b>DJF : 26.3% MAM : 24.7% JJA : 24.3% SON : 24.7%</b>	
4. Average Ozone Season Operation (June 1 to August 31) <b>19.4 hours/day 7 days/week</b>	5. Total Operation During Ozone Season (days/season) <b>92</b>

## D. EMISSIONS UNIT COMMENT

<u>Pollutant</u>	<u>Test Date</u>
Carbon Monoxide	Aug. 96
Mercury Compounds	Jun. 98
Nitrogen Oxides	Jan. 83
Lead	Jan. 89
Particulate Matter	Jun. 98
Sulfur Dioxide	Jan. 83
Volatile Organic Compounds	Jan. 83

Facility ID : 0250348

Emissions Unit ID : 003

SCC : 1-01-012-02

## (1) PROCESS/FUEL INFORMATION

1. SCC <b>1-01-012-02</b>	2. Description of Process or Type of Fuel <b>External Combustion Boilers      Solid Waste Electric Generation      Refuse Derived Fuel R.D.FUEL; ANN.LIM.EST.FROM EPA FACIL.LIM./4; %ASH - Q</b>	
3. Annual Process or Fuel Usage Rate <b>184,141 ton/year</b>	4. Ozone Season Daily Process or Fuel Usage Rate <b>478.17 ton/day</b>	5. SCC Unit <b>Tons Burned</b>
6. Fuel Average % Sulfur <b>0.16</b>	7. Fuel Average % Ash <b>7.31</b>	8. Fuel Heat Content (mmBtu/SCC Unit) <b>1,778,062</b>

## (2) EMISSIONS INFORMATION

1. Pollutant <b>CO</b> <b>Carbon Monoxide</b>	CAS No. <b>630-08-0</b>	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) <b>69.3</b>	3. Ozone Season Daily Emissions (lb/day) <b>367.2</b>	4. Emissions Method Code <b>1</b>
5. Emissions Calculation (Show separately both annual and daily emissions calculations) <b><math>(18.93 \text{ lb/hr} \times 7,325 \text{ hr/yr}) \div 2000 = 69.33 \text{ ton/yr}</math> <math>(18.93 \text{ lb/hr} \times 19.4 \text{ hr/day}) = 367.24 \text{ lb/day}</math></b>		

1. Pollutant <b>DIOX</b> <b>Dioxin/Furan</b>	CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)		

1. Pollutant <b>FL</b> <b>Fluorides - Total (elemental fluorine and fluoride compounds)</b>	CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)		

\*: Pollutant subject to emissions limiting standard or emissions cap

1. Pollutant <b>H058</b> <b>Dibenzofurans</b>		CAS No. <b>132-64-9</b>	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			
1. Pollutant <b>H114</b> <b>Mercury Compounds</b>		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) <b>0.07</b>	3. Ozone Season Daily Emissions (lb/day) <b>0.4</b>	4. Emissions Method Code <b>1</b>	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $(0.019 \text{ lb/hr} \times 7,325 \text{ hr/yr}) \div 2000 \text{ lb/ton} = 0.069 \text{ ton/yr}$ $(0.019 \text{ lb/hr} \times 19.4 \text{ hr/day}) = 0.37 \text{ lb/day}$			
1. Pollutant <b>H165</b> <b>2,3,7,8-Tetrachlorodibenzo-p-dioxin</b>		CAS No. <b>1746-01-6</b>	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			
1. Pollutant <b>NOX</b> <b>Nitrogen Oxides</b>		CAS No. <b>10102-44-0</b>	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) <b>117.8</b>	3. Ozone Season Daily Emissions (lb/day) <b>623.7</b>	4. Emissions Method Code <b>1</b>	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $(32.15 \text{ lb/hr} \times 7,325 \text{ hr/yr}) \div 2000 \text{ lb/ton} = 117.75 \text{ ton/yr}$ $(32.15 \text{ lb/hr} \times 19.4 \text{ hr/day}) = 623.71 \text{ lb/day}$			

\*: Pollutant subject to emissions limiting standard or emissions cap

1. Pollutant <b>PB</b> CAS No. <input type="checkbox"/> Below Threshold <b>Lead - Total (elemental lead and lead compounds)</b> <input type="checkbox"/> Not Emitted			
2. Annual Emissions (ton/year) <b>1.6</b>	3. Ozone Season Daily Emissions (lb/day) <b>8.6</b>	4. Emissions Method Code <b>1</b>	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $(0.441 \text{ lb/hr} \times 7,325 \text{ hr/yr}) \div 2000 \text{ lb/ton} = 1.62 \text{ ton/yr}$ $(0.441 \text{ lb/hr} \times 19.4 \text{ hr/day}) = 8.56 \text{ lb/day}$			

1. Pollutant <b>* PM</b> CAS No. <input type="checkbox"/> Below Threshold <b>Particulate Matter - Total</b> <input type="checkbox"/> Not Emitted			
2. Annual Emissions (ton/year) <b>87.5</b>	3. Ozone Season Daily Emissions (lb/day) <b>463.6</b>	4. Emissions Method Code <b>1</b>	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $(23.897 \text{ lb/hr} \times 7,325 \text{ hr/yr}) \div 2000 \text{ lb/ton} = 87.52 \text{ ton/yr}$ $(23.897 \text{ lb/hr} \times 19.4 \text{ hr/day}) = 463.6 \text{ lb/day}$			

1. Pollutant <b>PM10</b> CAS No. <input type="checkbox"/> Below Threshold <b>Particulate Matter - PM10</b> <input type="checkbox"/> Not Emitted			
2. Annual Emissions (ton/year) <b>87.5</b>	3. Ozone Season Daily Emissions (lb/day) <b>463.6</b>	4. Emissions Method Code <b>1</b>	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $PM_{10} = PM$			

1. Pollutant <b>* SO2</b> CAS No. <b>7446-09-5</b> <input type="checkbox"/> Below Threshold <b>Sulfur Dioxide</b> <input type="checkbox"/> Not Emitted			
2. Annual Emissions (ton/year) <b>348.3</b>	3. Ozone Season Daily Emissions (lb/day) <b>1,844.9</b>	4. Emissions Method Code <b>1</b>	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $(95.1 \text{ lb/hr} \times 7,325 \text{ hr/yr}) \div 2000 \text{ lb/ton} = 348.3 \text{ ton/yr}$ $(95.1 \text{ lb/hr} \times 19.4 \text{ hr/day}) = 1,844.94 \text{ lb/day}$			

\*: Pollutant subject to emissions limiting standard or emissions cap

Facility ID : 0250348

Emissions Unit ID : 003

SCC : 1-01-012-02

1. Pollutant      * VOC Volatile Organic Compounds		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)      3.5	3. Ozone Season Daily Emissions (lb/day)      18.4	4. Emissions Method Code 1	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $(0.95 \text{ lb/hr} \times 7,325 \text{ hr.yr}) \div 2000 \text{ lb/ton} = 3.48 \text{ ton/yr}$ $(0.95 \text{ lb/hr} \times 19.4 \text{ hr/day}) = 18.43 \text{ lb/day}$			

\*: Pollutant subject to emissions limiting standard or emissions cap

Facility ID : 0250348

Emissions Unit ID : 004

## II. EMISSIONS UNIT REPORT

### A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description <b>BLR#4/72000#/PER R.D.F. W/MECHANICAL COLLECTOR &amp; ESP TO STACK</b>		
2. Emissions Unit ID <b>004</b>	3. Emissions Unit Classification <b>Regulated Emissions Unit</b>	4. Operated During Year? <b>Y</b>
5. DEP Permit or PPS Number <b>PA 7708</b>	6. Emissions Unit Status <b>ACTIVE</b>	7. Ozone SIP Base Year Emissions Unit? <b>Y</b>
8. Emissions Unit Startup Date <b>09-Jan-81</b>	9. Long-term Reserve Shutdown Date	10. Permanent Shutdown Date

### B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type <b>AN EMISSION POINT SERVING TWO OR MORE EMISSIONS UNITS</b>
2a. Description of Control Equipment 'a' <b>MULTIPLE CYCLONE W/O FLY ASH REINJECTION</b>
2b. Description of Control Equipment 'b' <b>ELECTROSTATIC PRECIPITATOR HIGH EFFICIENCY (95.0-99.9%)</b>

### C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation <b>20.7 hours/day</b> <b>7 days/week</b>	2. Total Operation During Year (hours/year) <b>7,570.8</b>
3. Percent Hours of Operation by Season <b>DJF : 25.1%      MAM : 24.8%      JJA : 25.0%      SON : 25.1%</b>	
4. Average Ozone Season Operation (June 1 to August 31) <b>20.6 hours/day</b> <b>7 days/week</b>	5. Total Operation During Ozone Season (days/season) <b>92</b>



## D. EMISSIONS UNIT COMMENT

<u>Pollutant</u>	<u>Test Date</u>
Carbon Monoxide	Jan. 83
Mercury Compounds	Jun. 98
Nitrogen Oxides	Jan. 83
Lead	Jan. 89
Particulate Matter	Jun. 98
Sulfur Dioxide	Jan. 83
Volatile Organic Compounds	Jan. 83

## (1) PROCESS/FUEL INFORMATION

1. SCC <b>1-01-012-02</b>	2. Description of Process or Type of Fuel <b>External Combustion Boilers      Solid Waste Electric Generation      Refuse Derived Fuel R.D.FUEL; ANN.LIM.EST.FROM EPA FACIL.LIM/4; %ASH - Q</b>	
3. Annual Process or Fuel Usage Rate <b>190,548 ton/year</b>	4. Ozone Season Daily Process or Fuel Usage Rate <b>509.65 ton/day</b>	5. SCC Unit <b>Tons Burned</b>
6. Fuel Average % Sulfur <b>0.16</b>	7. Fuel Average % Ash <b>7.31</b>	8. Fuel Heat Content (mmBtu/SCC Unit) <b>1,839,928</b>

## (2) EMISSIONS INFORMATION

1. Pollutant <b>CO</b> <b>Carbon Monoxide</b>	CAS No. <b>630-08-0</b>	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) <b>390.5</b>	3. Ozone Season Daily Emissions (lb/day) <b>2,124.9</b>	4. Emissions Method Code <b>1</b>
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $(103.15 \text{ lb/yr} \times 7,570.8 \text{ hr/yr}) \div 2000 \text{ lb/ton} = 390.46 \text{ ton/yr}$ $(103.15 \text{ lb/yr} \times 20.6 \text{ hr/day}) = 2,124.89 \text{ lb/day}$		

1. Pollutant <b>DIOX</b> <b>Dioxin/Furan</b>	CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)		

1. Pollutant <b>FL</b> <b>Fluorides - Total (elemental fluorine and fluoride compounds)</b>	CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)		

\*: Pollutant subject to emissions limiting standard or emissions cap

1. Pollutant <b>H058</b> <b>Dibenzofurans</b>		CAS No. <b>132-64-9</b>	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant <b>H114</b> <b>Mercury Compounds</b>		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) <b>0.07</b>	3. Ozone Season Daily Emissions (lb/day) <b>0.4</b>	4. Emissions Method Code <b>1</b>	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $(0.018 \text{ lb/hr} \times 7,570.8 \text{ hr/yr}) \div 2000 \text{ lb/ton} = 0.068 \text{ ton/yr}$ $(0.018 \text{ lb/hr} \times 20.6 \text{ hr/day}) = 0.37 \text{ lb/day}$			

1. Pollutant <b>H165</b> <b>2,3,7,8-Tetrachlorodibenzo-p-dioxin</b>		CAS No. <b>1746-01-6</b>	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant <b>NOX</b> <b>Nitrogen Oxides</b>		CAS No. <b>10102-44-0</b>	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) <b>121.7</b>	3. Ozone Season Daily Emissions (lb/day) <b>662.3</b>	4. Emissions Method Code <b>1</b>	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $(32.15 \text{ lb/hr} \times 7,570.8 \text{ hr/yr}) \div 2000 \text{ lb/ton} = 121.7 \text{ ton/yr}$ $(32.15 \text{ lb/hr} \times 20.6 \text{ hr/day}) = 662.29 \text{ lb/day}$			

\*: Pollutant subject to emissions limiting standard or emissions cap

1. Pollutant <b>PB</b> <b>Lead - Total (elemental lead and lead compounds)</b>		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) <b>4.2</b>	3. Ozone Season Daily Emissions (lb/day) <b>22.9</b>	4. Emissions Method Code <b>1</b>	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $(1.11 \text{ lb/hr} \times 7,570.8 \text{ hr/yr}) \div 2000 \text{ lb/ton} = 4.2 \text{ ton/yr}$ $(1.11 \text{ lb/hr} \times 20.6 \text{ hr/day}) = 22.87 \text{ lb/day}$			

1. Pollutant <b>* PM</b> <b>Particulate Matter - Total</b>		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) <b>85.4</b>	3. Ozone Season Daily Emissions (lb/day) <b>464.8</b>	4. Emissions Method Code <b>1</b>	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $(22.562 \text{ lb/hr} \times 7,570.8 \text{ hr/yr}) \div 2000 \text{ lb/ton} = 85.41 \text{ ton/yr}$ $(22.562 \text{ lb/hr} \times 20.6 \text{ hr/day}) = 464.78 \text{ lb/day}$			

1. Pollutant <b>PM10</b> <b>Particulate Matter - PM10</b>		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) <b>85.4</b>	3. Ozone Season Daily Emissions (lb/day) <b>464.8</b>	4. Emissions Method Code <b>1</b>	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)  $\text{PM}_{10} = \text{PM}$			

1. Pollutant <b>* SO2</b> <b>Sulfur Dioxide</b>		CAS No. <b>7446-09-5</b>	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) <b>360.0</b>	3. Ozone Season Daily Emissions (lb/day) <b>1,959.1</b>	4. Emissions Method Code <b>1</b>	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $(95.1 \text{ lb/hr} \times 7,570.8 \text{ hr/yr}) \div 2000 \text{ lb/ton} = 359.99 \text{ ton/yr}$ $(95.1 \text{ lb/hr} \times 20.6 \text{ hr/day}) = 1,959.06 \text{ lb/day}$			

\*: Pollutant subject to emissions limiting standard or emissions cap

1. Pollutant * VOC Volatile Organic Compounds		CAS No.	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year) 3.6	3. Ozone Season Daily Emissions (lb/day) 19.6	4. Emissions Method Code 1	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) $(0.95 \text{ lb/hr} \times 7,570.8 \text{ hr/yr}) \div 2000 \text{ lb/ton} = 3.59 \text{ ton/yr}$ $(0.95 \text{ lb/hr} \times 20.6 \text{ hr/day}) = 19.57 \text{ lb/day}$			

\*: Pollutant subject to emissions limiting standard or emissions cap

**MIAMI DADE COUNTY  
Resource Recovery  
Calendar Year 1998**

**Boiler 1**

**Process/Fuel and Operating Schedule Information**

Annual process or Fuel Usage rate:	<u>180,288</u>	tons/year
Ozone Season Daily Process or Fuel Usage Rate:	<u>506.69</u>	tons/day
Fuel Average % Sulfur:	<u>0.16</u>	% (As received)
Fuel Average % Ash:	<u>7.31</u>	% (As received)
Fuel Heat Content:	<u>1,740,865</u>	mmBtu/SCCUnit (As received)

Month	Operating Hours
January	672.66
February	586.37
March	466.65
April	575.37
May	566.96
June	640.03
July	546.36
August	702.60
September	574.10
October	711.50
November	646.80
December	556.90
<b>TOTAL</b>	<b>7,246.30</b>

1,812.62

1,608.98

1,888.99

1932.4

7,242.99

03

7.22 97 = 553.59

19.9 hr/day  
O<sub>3</sub> = 20.5 hr/day

**Emission Information:**

Parameter	Date	Lb/hr
Carbon Monoxide		
Dioxin/Furan		
Fluorides-Total		
Dibenzofurans (HOS8)		
Mercury Compounds (H114)	July 98	0.019
2,3,7,8- Tetrachlorodibenzo-p-dioxin (H165)		
Nitrogen oxydes (NOx)		
Lead (Elemental + lead compounds)-Pb		
Particulate Mater (Total)	July 98	33.315
Particulate Mater (PM10)		
Sulfur Dioxide (SO2)		
Volatile Organic Compounds (VOC)		

**MIAMI DADE COUNTY  
Resource Recovery  
Calendar Year 1998**

**Boiler 2**

**Process/Fuel and Operating Schedule Information**

Annual process or Fuel Usage rate: 166,498 tons/year  
Ozone Season Daily Process or Fuel Usage Rate: 452.77 tons/day  
Fuel Average % Sulfur: 0.16 %  
Fuel Average % Ash: 7.31 %  
Fuel Heat Content: 1,607,707 mmBtu/SCCUnit

<i>Month</i>	<i>Operating Hours</i>
January	606.64
February	590.80
March	384.90
April	576.61
May	555.96
June	458.11
July	548.43
August	676.00
September	598.10
October	698.70
November	486.10
December	494.90
<b>TOTAL</b>	<b>6,675.25</b>

1,729.64

1,517.47

1,682.54 } O<sub>3</sub>

1,782.9

6,712.55 hr

**Emission Information:**

<i>Parameter</i>	<i>Date</i>	<i>Lb/hr</i>
Carbon Monoxide	Aug 96	52.15
Dioxin/Furan		
Fluorides-Total		
Dibenzofurans (HOS8)		
Mercury Compounds (H114)	July 98	0.016 ✓
2,3,7,8- Tetrachlorodibenzo-p-dioxin (H165)		
Nitrogen oxydes (NOx)	Aug 96	112.18
Lead (Elemental + lead compounds)-Pb		
Particulate Mater (Total)	July 98	42.257 ✓
Particulate Mater (PM10)		
Sulfur Dioxide (SO2)		
Volatile Organic Compounds (VOC)		

Dec 97: 532.2

O<sub>3</sub> = 18.3 hr/day

**MIAMI DADE COUNTY**  
**Resource Recovery**  
**Calendar Year 1998**

**Boiler 3**

**Process/Fuel and Operating Schedule Information**

Annual process or Fuel Usage rate: ~~184.141~~ tons/year  
Ozone Season Daily Process or Fuel Usage Rate: 478.17 tons/day  
Fuel Average % Sulfur: 0.16 %  
Fuel Average % Ash: 7.31 %  
Fuel Heat Content: 1,778,062 mmBtu/SCCUnit

Month	Operating Hours
January	690.46
February	584.71
March	454.39
April	659.31
May	692.78
June	491.69
July	646.58
August	642.70
September	636.90
October	727.70
November	446.30
December	704.80
<b>TOTAL</b>	<b>7,378.32</b>

*Dec 971,651.51*

*1,926.68*

*1,806.48*

*1,780.97*

*=03*

*1,810.90*

*7,325.03*

*O<sub>3</sub> = 19.4 m/day*

**Emission Information:**

Parameter	Date	Lb/hr
Carbon Monoxide	Aug 96	18.93
Dioxin/Furan		
Fluorides-Total		
Dibenzofurans (HOS8)		
Mercury Compounds (H114)	June 98	0.019 ✓
2,3,7,8- Tetrachlorodibenzo-p-dioxin (H165)		
Nitrogen oxydes (NOx)		
Lead (Elemental + lead compounds)-Pb		
Particulate Mater (Total)	June 98	23.897 ✓
Particulate Mater (PM10)		
Sulfur Dioxide (SO2)		
Volatile Organic Compounds (VOC)		



**MIAMI DADE COUNTY**  
**Resource Recovery**  
**Calendar Year 1998**

**Boiler 4**

**Process/Fuel and Operating Schedule Information**

Annual process or Fuel Usage rate:	<b>190,548</b>	tons/year
Ozone Season Daily Process or Fuel Usage Rate:	<b>509.65</b>	tons/day
Fuel Average % Sulfur:	<b>0.16</b>	%
Fuel Average % Ash:	<b>7.31</b>	%
Fuel Heat Content:	<b>1,839,928</b>	mmBtu/SCCUnit

Month	Operating Hours
January	664.59
February	630.30
March	545.47
April	659.31
May	670.82
June	514.54
July	667.15
August	714.70
September	637.00
October	722.70
November	542.10
December	674.30
<b>TOTAL</b>	<b>7,642.98</b>

1,897.05

1,875.60

1,896.39 = 0.3

1,901.80

7,570.84

*Dec 97: 602.16*

*0.3 = 20.6 hr/day*

**Emission Information:**

Parameter	Date	Lb/hr
Carbon Monoxide		
Dioxin/Furan		
Fluorides-Total		
Dibenzofurans (HOS8)		
Mercury Compounds (H114)	June 98	0.018
2,3,7,8- Tetrachlorodibenzo-p-dioxin (H165)		
Nitrogen oxydes (NOx)		
Lead (Elemental + lead compounds)-Pb		
Particulate Mater (Total)	June 98	22.562
Particulate Mater (PM10)		
Sulfur Dioxide (SO2)		
Volatile Organic Compounds (VOC)		

# Department of Environmental Protection

## DIVISION OF AIR RESOURCES MANAGEMENT

### ANNUAL OPERATING REPORT FOR AIR POLLUTANT EMITTING FACILITY

See Instructions for Form No. 62-210.900(5).

#### I. FACILITY REPORT

##### A. REPORT INFORMATION

1. Year of Report 1998	2. Number of Emissions Units in Report 1
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##### B. FACILITY INFORMATION

1. Facility ID 0250603	2. Facility Status ACTIVE	3. Date of Permanent Facility Shutdown
4. Facility Owner/Company Name METRO DADE SOLID WASTE MANAGEMENT		
5. Site Name NORTH DADE LANDFILL		
6. Facility Location Street Address or Other Locator : 21490 N.W.47 AVE. City : MIAMI County : DADE Zip Code : 33055		
7. Facility Compliance Tracking Code A	8. Governmental Facility Code 0	9. Facility SIC(s) 4953
10. Facility Comment UNPERMITTED		

##### C. FACILITY HISTORY INFORMATION

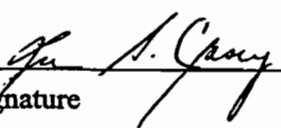
1. Change in Facility Owner/ Company Name During Year?	Previous Name	2. Date of Change
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Facility ID : 0250603

D. OWNER/CONTACT INFORMATION

1. Owner or Authorized Representative	
Name and Title <b>VINCENTE CASTRO</b> <b>ASST. DIRECTOR</b>	
Mailing Address Organization/Firm : <b>METRO DADE SOLID WASTE MGMT</b> Street Address : <b>8675 NW 53RD ST,SUITE 201</b> City : <b>MIAMI</b> State : <b>FL</b> Zip Code : <b>33166</b>	
Telephone : (305)594-1670	Fax : (305)594-1591
2. Facility Contact	
Name and Title <b>LEE CASEY</b> <b>Chief, Environmental Compliance Division</b>	
Mailing Address Organization/Firm : <b>METRO DADE SOLID WASTE MGMT</b> Street Address : <b>8675 NW 53RD ST,SUITE 201</b> City : <b>MIAMI</b> State : <b>FL</b> Zip Code : <b>33166</b>	
Telephone : (305) 594-1670	Fax : (305) 594-1591

E. OWNER OR AUTHORIZED REPRESENTATIVE STATEMENT

I hereby certify that the information given in this report is correct to the best of my knowledge.	
Signature 	Date <u>2/17/99</u>

Facility ID : 0250603

Emissions Unit ID : 001

## II. EMISSIONS UNIT REPORT

### A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description <b>LANDFILL</b>		
2. Emissions Unit ID <b>001</b>	3. Emissions Unit Classification	4. Operated During Year? <b>Y</b>
5. DEP Permit or PPS Number	6. Emissions Unit Status <b>ACTIVE</b>	7. Ozone SIP Base Year Emissions Unit? <b>Y</b>
8. Emissions Unit Startup Date	9. Long-term Reserve Shutdown Date	10. Permanent Shutdown Date

### B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type <b>SINGLE POINT SERVING A SINGLE EMISSIONS UNIT</b>
2a. Description of Control Equipment 'a'
2b. Description of Control Equipment 'b'

### C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation  24 hours/day                      7 days/week	2. Total Operation During Year (hours/year)  8,760
3. Percent Hours of Operation by Season DJF : 24.7%      MAM : 25.2%      JJA : 25.2%      SON : 24.9%	
4. Average Ozone Season Operation (June 1 to August 31)  24 hours/day                      7 days/week	5. Total Operation During Ozone Season (days/season)      92

D. EMISSIONS UNIT COMMENT

Disposal

Prior years: 7,311,596 tons

This year: 370,397

Total: 7,681,993 tons

Facility ID : 0250603

Emissions Unit ID : 001

SCC :

## E. EMISSIONS INFORMATION BY PROCESS/FUEL

## (1) PROCESS/FUEL INFORMATION

1. SCC 5-02-006-02	2. Description of Process or Type of Fuel Solid Waste Disposal, Commercial/Insitutional Municipal Landfill Dump: Fugitive Emissions	
3. Annual Process or Fuel Usage Rate	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit Acres of Landfill
6. Fuel Average % Sulfur	7. Fuel Average % Ash	8. Fuel Heat Content (mmBtu/SCC Unit)

## (2) EMISSIONS INFORMATION

1. Pollutant VOC Volatile Organic Compounds		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 271.64	3. Ozone Season Daily Emissions (lb/day) 1,488.44	4. Emissions Method Code 5	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) ton/yr = 7,681,993 tons X F lb/day = (271.64 ton/yr X 200 lb/ton)/365 day/yr			

Emissions Factor from: EPA-450/4-91-016

$$F = [13.6 \text{ tons VOC/yr} \div (1 \times 10^6 \text{ tons})] \times 2.6$$

$$F = 0.00003536$$

# TONNAGE LANDFILLED CALENDAR YEAR 1998

	SOUTH DADE	NORTH DADE	RESOURCES RECOVERY ASHFILL
FY1997-98	214,952	359,563	138,892
LESS:			
OCTOBER, 1997	(18,373)	(39,743)	(8,908)
NOVEMBER 1997	(16,219)	(29,685)	(9,314)
DECEMBER 1997	(15,889)	(26,191)	(11,193)
ADD:			
OCTOBER, 1998	17,027	35,328	17,782
NOVEMBER 1998	20,171	40,692	12,008
DECEMBER 1998	17,916	30,433	13,329
TOTAL 1998	<u>219,585</u>	370,397	152,596

(QUANTITY IN TONS)	BUDGET FY1997-98	ACTUAL OCT	ACTUAL NOV	ACTUAL DEC	ACTUAL JAN	ACTUAL FEB	ACTUAL MAR	ACTUAL APR	ACTUAL MAY	ACTUAL JUN	ACTUAL JUL	ACTUAL AUG	ACTUAL SEP	BUDGET OCT-SEP	PROJECT OCT-SEP	ACTUAL OCT-SEP	BUDGET DEVIATION OCT-SEP	PROJECT DEVIATION OCT-SEP	PROJECT FY1997-98
<b>NET TONNAGE</b>																			
S. DADE	164,303	18,373	18,219	15,889	20,724	18,960	24,784	23,384	17,516	17,837	19,397	17,062	4,807	184,303	185,841	214,952	50,849	49,111	165,841
N. DADE	235,184	39,743	29,885	28,191	17,885	28,274	36,545	24,226	27,729	34,280	37,105	26,118	31,782	235,184	278,005	359,583	124,379	80,958	278,804
R. RECOVERY INCINERATED	601,540	37,957	39,983	44,342	52,014	46,623	36,939	49,731	45,432	46,552	43,463	50,207	61,934	601,540	584,995	555,377	(46,163)	(29,880)	584,995
R. RECOVERY ASHFILL	173,701	8,908	9,314	11,193	13,582	11,724	9,488	10,984	11,719	10,430	11,688	15,541	14,341	173,701	161,670	138,892	(34,809)	(22,778)	161,670
<b>CONTRACT DISPOSAL</b>																			
GARBAGE TO MEDLEY	28,839	18,456	9,488	6,191	4,081	2,321	8,544	1,398	3,102	4,348	4,993	3,021	4,299	28,839	41,617	70,220	41,381	28,603	41,617
GARBAGE - NONPROCESSABLES TO MEDLEY	0	0	0	15	0	0	0	0	0	30	0	0	0	0	15	45	45	30	15
RR PROCESSED WASTE TO MEDLEY	0	0	0	0	0	0	8	2,384	367	0	349	32	21	0	0	3,161	3,161	3,161	0
RR RTI REJECTS TO MEDLEY	0	0	0	0	0	0	0	0	0	0	0	0	73	0	0	73	73	73	0
TRASH TO MEDLEY	71,161	1,113	3,503	4,122	3,146	3,942	2,298	3,126	4,004	3,356	2,813	5,830	5,634	71,161	58,368	42,887	(28,274)	(15,481)	58,368
STORM RELATED WASTE TO MEDLEY	0	0	0	0	0	59	0	0	0	0	0	0	0	0	0	59	59	59	0
TRASH TO WHEELABRATOR	100,000	7,700	7,254	10,290	7,267	10,196	8,368	3,571	7,594	6,868	8,013	7,875	7,431	100,000	100,000	92,427	(7,573)	(7,573)	100,000
<b>TOTAL NET TONNAGE DISPOSED</b>	<b>1,374,728</b>	<b>132,250</b>	<b>115,426</b>	<b>118,233</b>	<b>118,679</b>	<b>122,299</b>	<b>126,974</b>	<b>118,804</b>	<b>117,463</b>	<b>123,699</b>	<b>127,821</b>	<b>125,686</b>	<b>130,322</b>	<b>1,374,728</b>	<b>1,391,111</b>	<b>1,477,656</b>	<b>102,928</b>	<b>86,283</b>	<b>1,391,110</b>
<b>FACILITY RECYCLING</b>																			
CLEAN YARD TRASH	0	0	0	0	21	0	0	0	0	0	0	0	0	0	0	21	21	21	0
FERROUS FOR RECYCLING	32,705	1,675	1,745	1,969	1,962	2,191	1,634	2,017	2,265	2,056	2,283	2,403	1,987	32,705	29,059	24,187	(8,518)	(4,872)	29,059
FERROUS FROM RR ASHFILL RECOVERY	0	0	0	0	0	0	49	238	(25)	0	0	0	0	0	0	262	262	262	0
ALUMINUM CANS FOR RECYCLING	230	14	17	18	18	21	20	103	13	23	18	23	18	230	228	308	78	78	228
TRASH PROCESSING FINES OUT	0	3,589	3,362	3,317	4,377	4,235	3,459	4,388	2,335	3,301	4,303	4,137	4,279	0	10,288	45,102	45,102	34,814	10,288
RTI BIOMASS FUEL	158,520	0	0	0	0	0	0	400	1,577	1,449	989	972	965	158,520	92,470	6,352	(152,168)	(86,118)	92,470
RTI PRIMARY FINES	44,760	0	0	0	0	0	0	0	1,824	726	811	803	512	44,760	26,110	4,476	(40,284)	(21,634)	26,110
<b>TOTAL FACILITY RECYCLING</b>	<b>236,215</b>	<b>5,278</b>	<b>5,144</b>	<b>5,304</b>	<b>6,378</b>	<b>6,447</b>	<b>5,162</b>	<b>7,146</b>	<b>7,989</b>	<b>7,555</b>	<b>8,404</b>	<b>8,138</b>	<b>7,761</b>	<b>236,215</b>	<b>158,155</b>	<b>80,706</b>	<b>(155,509)</b>	<b>(77,449)</b>	<b>158,155</b>
<b>TONNAGE DIFFERENCE ADJUSTMENT</b>																			
TRANSFER STATION TRANSFERS ONLY	0	(1,023)	(2,015)	3,250	(707)	2,574	(396)	(743)	(1,627)	1,947	1,496	(351)	957	0	217	3,362	3,362	3,145	218
FACILITY STAGING AND TRANSFER ADJUSTMENT AT SOUTH DADE	0	1,041	(1,912)	2,353	2,286	3,005	2,911	(1,503)	1,239	(1,649)	(1,209)	3,518	2,043	0	1,482	12,123	12,123	10,641	1,482
<b>SUBTOTAL FULL FEE REVENUE TONNAGE</b>	<b>1,610,943</b>	<b>134,398</b>	<b>116,643</b>	<b>129,140</b>	<b>126,636</b>	<b>134,325</b>	<b>134,651</b>	<b>123,704</b>	<b>125,064</b>	<b>131,552</b>	<b>136,512</b>	<b>136,991</b>	<b>141,083</b>	<b>1,610,943</b>	<b>1,547,817</b>	<b>1,570,699</b>	<b>(40,244)</b>	<b>22,820</b>	<b>1,547,817</b>
REDUCED FEE COVER MATERIAL	0	0	0	0	283	0	0	0	0	0	0	0	0	0	0	283	283	283	0
<b>SUBTOTAL FULL FEE AND REDUCE FEE REVENUE TONNAGE</b>	<b>1,610,943</b>	<b>134,398</b>	<b>116,643</b>	<b>129,140</b>	<b>126,919</b>	<b>134,325</b>	<b>134,651</b>	<b>123,704</b>	<b>125,064</b>	<b>131,552</b>	<b>136,512</b>	<b>136,991</b>	<b>141,083</b>	<b>1,610,943</b>	<b>1,547,817</b>	<b>1,570,882</b>	<b>(39,961)</b>	<b>22,903</b>	<b>1,547,817</b>
<b>DRYDM CONSTRUCTION TONNAGE</b>																			
OLD SOUTH DADE CLOSURE TO NORTH DADE LANDFILL (see note)	0	3,148	0	0	0	0	0	0	0	0	0	0	0	0	3,148	3,148	3,148	0	3,148
<b>TOTAL DRYDM CONSTRUCTION TONNAGE</b>	<b>0</b>	<b>3,148</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,148</b>	<b>3,148</b>	<b>3,148</b>	<b>0</b>	<b>3,148</b>
<b>TOTAL REVENUE TONS</b>	<b>1,610,943</b>	<b>137,546</b>	<b>116,643</b>	<b>129,140</b>	<b>126,919</b>	<b>134,325</b>	<b>134,651</b>	<b>123,704</b>	<b>125,064</b>	<b>131,552</b>	<b>136,512</b>	<b>136,991</b>	<b>141,083</b>	<b>1,610,943</b>	<b>1,550,965</b>	<b>1,574,130</b>	<b>(36,813)</b>	<b>22,903</b>	<b>1,550,965</b>
<b>EQUIVALENT REVENUE TONNAGE (see note 3)</b>	<b>1,610,943</b>	<b>135,295</b>	<b>116,643</b>	<b>129,140</b>	<b>128,699</b>	<b>134,325</b>	<b>134,651</b>	<b>123,704</b>	<b>125,064</b>	<b>131,552</b>	<b>136,512</b>	<b>136,991</b>	<b>141,083</b>	<b>1,610,943</b>	<b>1,548,714</b>	<b>1,571,659</b>	<b>(39,284)</b>	<b>22,945</b>	<b>1,548,714</b>
TRANSFER REVENUE TONS (M)	747,014	55,527	45,784	53,972	52,565	55,428	54,051	50,405	51,213	53,407	49,443	56,070	61,654	747,014	643,059	639,519	(107,495)	(3,540)	643,059
TRANSFER TONNAGE OUT	747,014	56,550	47,799	50,722	53,272	52,854	54,447	51,148	52,840	51,460	47,947	56,421	60,697	747,014	642,842	636,157	(110,657)	(6,685)	642,841
<b>ESTIMATED PERCENTAGE DIFFERENCE BETWEEN</b>																			
TRANSFER STATION IN AND OUT	0.00%	1.84%	4.40%	-6.02%	1.35%	-4.64%	0.73%	1.47%	3.18%	-3.65%	-3.03%	0.63%	-1.55%	0.00%	-0.03%	-0.53%			-0.03%
INTERFACILITY TRANSFERS	677,209	43,389	46,457	39,241	50,015	49,564	42,049	50,123	52,492	49,711	55,026	57,815	45,031	677,209	629,757	580,813	(96,296)	(48,844)	629,757
INTERFACILITY TRANSFER BACKHAUL	127,860	14,091	14,555	8,758	16,183	17,389	14,370	16,567	15,658	12,802	15,481	16,540	3,487	127,860	147,025	165,861	38,001	18,836	147,025
HAZARDOUS PERIOLUS METALS TO RECOVERIES RECOVERY	2,887	44	147	116	117	31	42	0	11	115	120	60	58	2,887	2,187	861	(2,026)	(1,326)	2,187
R. RECOVERY PUT OR PAY ONSITE	936,000	67,068	69,694	70,232	88,869	83,304	66,836	87,139	78,889	76,389	79,028	89,726	87,809	936,000	936,000	944,783	8,783	8,783	936,000
R. RECOVERY PUT OR PAY RTI	270,000	0	0	0	0	0	0	667	4,333	2,900	2,000	1,750	1,550	270,000	157,500	13,200	(256,800)	(144,300)	157,500

Note 3: Equivalent Revenue Tonnage = Revenue Tonnage without Daily Cover + Daily Cover Tonnage + \$10 = \$45 + Old South Dade Tonnage + \$21.88 = \$45.



**MIAMI-DADE COUNTY DEPARTMENT OF SOLID WASTE MANAGEMENT  
WORKLOAD MEASURES FOR FUND 49 (DISPOSAL)  
BUDGETED AND ACTUAL REVENUE TONS FOR OCTOBER - DECEMBER FY1998-99**

QUANTITY IN TONS)	BUDGET FY1998-99	ACTUAL OCT	ACTUAL NOV	BUDGET DEC	ACTUAL DEC	BUDGET DEVIATION DEC	BUDGET OCT-DEC	ACTUAL OCT-DEC	BUDGET DEVIATION OCT-DEC
<b>NET TONNAGE</b>									
S. DADE	171,366	17,027	20,171	13,584	17,916	4,332	37,195	55,114	17,919
N. DADE	180,911	35,328	40,692	13,264	30,433	17,169	41,386	106,453	65,067
R. RECOVERY INCINERATED	594,802	48,133	37,864	49,571	52,467	2,896	148,664	138,464	(10,200)
R. RECOVERY ASHFILL	171,889	17,782	12,008	14,324	13,329	(995)	42,972	43,119	147
<b>CONTRACT DISPOSAL</b>									
GARBAGE TO MEDLEY	9,991	7,463	10,758	851	7,959	7,108	2,401	26,180	23,779
GARBAGE - NONPROCESSABLES TO MEDLEY	0	0	0	0	0	0	0	0	0
RR PROCESSED WASTE TO MEDLEY	0	104	0	0	40	40	0	144	144
RR RTI REJECTS TO MEDLEY	0	0	0	0	0	0	0	0	0
TRASH TO MEDLEY	90,009	6,354	2,244	8,008	2,470	(5,538)	22,598	11,068	(11,530)
STORM RELATED WASTE TO MEDLEY	0	0	0	0	0	0	0	0	0
TRASH TO WHEELABRATOR	100,000	2,880	3,163	8,333	3,055	(5,278)	24,999	9,098	(15,901)
<b>TOTAL NET TONNAGE DISPOSED</b>	<b>1,318,968</b>	<b>135,071</b>	<b>126,900</b>	<b>107,935</b>	<b>127,669</b>	<b>19,734</b>	<b>320,215</b>	<b>389,640</b>	<b>69,425</b>
<b>FACILITY RECYCLING</b>									
CLEAN YARD TRASH	0	0	0	0	0	0	0	0	0
FERROUS FOR RECYCLING	30,107	2,293	1,763	2,505	2,116	(389)	7,563	6,172	(1,391)
ALUMINUM CANS FOR RECYCLING	230	30	85	19	88	69	58	203	145
TRASH PROCESSING FINES OUT	0	4,025	2,086	0	2,945	2,945	0	9,056	9,056
RTI BIOMASS FUEL	158,520	949	850	13,210	962	(12,248)	39,630	2,761	(36,869)
RTI PRIMARY FINES	44,760	446	1,040	3,730	568	(3,162)	11,190	2,054	(9,136)
<b>TOTAL FACILITY RECYCLING</b>	<b>233,617</b>	<b>7,743</b>	<b>5,824</b>	<b>19,464</b>	<b>6,679</b>	<b>(12,785)</b>	<b>58,441</b>	<b>20,246</b>	<b>(38,195)</b>
<b>TONNAGE DIFFERENCE ADJUSTMENT</b>									
TRANSFER STATION TRANSFERS ONLY	0	(2,841)	(151)	0	(358)	(358)	0	(3,350)	(3,350)
FACILITY STAGING AND TRANSFER ADJUSTMENT AT SOUTH DADE	0	844	1,516	0	1,621	1,621	0	3,981	3,981
<b>TOTAL FULL FEE REVENUE TONNAGE</b>	<b>1,552,585</b>	<b>140,817</b>	<b>134,089</b>	<b>127,399</b>	<b>135,611</b>	<b>8,212</b>	<b>378,656</b>	<b>410,517</b>	<b>31,861</b>
TRANSFER REVENUE TONS (IN)	632,515	59,245	56,911	53,236	60,021	6,785	157,879	176,177	18,298
TRANSFER TONNAGE OUT	632,515	62,086	57,062	53,236	60,379	7,143	157,879	179,527	21,648
<b>ESTIMATED PERCENTAGE DIFFERENCE BETWEEN TRANSFER STATION IN AND OUT</b>	<b>0.00%</b>	<b>4.80%</b>	<b>0.27%</b>	<b>0.00%</b>	<b>0.60%</b>		<b>0.00%</b>	<b>1.90%</b>	
INTERFACILITY TRANSFERS	676,725	55,608	38,733	56,230	46,209	(9,851)	176,706	140,930	(35,776)
INTERFACILITY TRANSFER BACKHAUL	136,656	13,007	8,192	11,388	11,382	(6)	34,164	32,581	(1,583)
NAMCO FERROUS METALS TO RESOURCES RECOVERY	3,133	100	210	265	70	(195)	747	380	(367)
R. RECOVERY PUT OR PAY ONSITE	936,000	86,352	63,278	78,000	83,534	5,534	234,000	233,164	(836)
R. RECOVERY PUT OR PAY RTI	270,000	1,550	2,100	22,500	1,700	(20,800)	67,500	5,350	(62,150)

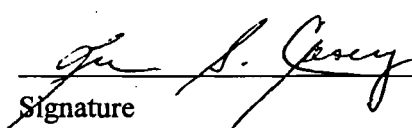


Facility ID : 0250623

D. OWNER/CONTACT INFORMATION

1. Owner or Authorized Representative	
Name and Title <b>Vicente Castro</b> <b>Assistant Director</b>	
Mailing Address Organization/Firm : <b>METRO DADE DEPT. OF SOLID WAST</b> Street Address : <b>8675 N.W. 53RD ST. #201</b> City : <b>MIAMI</b> State : <b>FL</b> Zip Code : <b>33166</b>	
Telephone : (305) 594-1670	Fax : (305) 594-1591
2. Facility Contact	
Name and Title <b>Lee S. Casey</b> <b>Chief, Environmental Compliance Division</b>	
Mailing Address Organization/Firm : <b>METRO DADE DEPT. OF SOLID WAST</b> Street Address : <b>8675 N.W. 53rd Street, #201</b> City : <b>MIAMI</b> State : <b>FL</b> Zip Code : <b>33166</b>	
Telephone : (305) 594-1670	Fax : (305) 594-1591

E. OWNER OR AUTHORIZED REPRESENTATIVE STATEMENT

I hereby certify that the information given in this report is correct to the best of my knowledge.	
 Signature	<u>2/17/99</u> Date

Facility ID : 0250623

Emissions Unit ID : 001

## II. EMISSIONS UNIT REPORT

### A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description <b>LANDFILL GAS EXTRACTION SYSTEM W/ AN ENCLOSED FLARE</b>		
2. Emissions Unit ID <b>001</b>	3. Emissions Unit Classification <b>Regulated Emissions Unit</b>	4. Operated During Year? <b>Y</b>
5. DEP Permit or PPS Number <b>0250623004AC</b>	6. Emissions Unit Status <b>ACTIVE</b>	7. Ozone SIP Base Year Emissions Unit? <b>Y</b>
8. Emissions Unit Startup Date <b>Dec, 1997</b>	9. Long-term Reserve Shutdown Date	10. Permanent Shutdown Date

### B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type <b>SINGLE POINT SERVING A SINGLE EMISSIONS UNIT</b>
2a. Description of Control Equipment 'a'
2b. Description of Control Equipment 'b'

### C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation  22.5 hours/day                      6.5 days/week	2. Total Operation During Year (hours/year)  7,592.5
3. Percent Hours of Operation by Season  DJF : 19.6 %      MAM : 28.0 %      JJA : 26.1 %      SON : 26.4 %	
4. Average Ozone Season Operation (June 1 to August 31)  21.5 hours/day                      6.5 days/week	5. Total Operation During Ozone Season (days/season)    92

**D. EMISSIONS UNIT COMMENT**

**No emissions test required by permit.**

Facility ID : 0250623

Emissions Unit ID : 001

SCC : 5-04-105-63

## (1) PROCESS/FUEL INFORMATION

1. SCC <b>5-04-105-63</b>	2. Description of Process or Type of Fuel <b>Thermal Destruction</b>	
3. Annual Process or Fuel Usage Rate <b>139,842,000 SCF</b>	4. Ozone Season Daily Process or Fuel Usage Rate <b>N/A</b>	5. SCC Unit <b>Tons of Material Processed</b>
6. Fuel Average % Sulfur <b>66 PPM</b>	7. Fuel Average % Ash <b>N/A</b>	8. Fuel Heat Content (mmBtu/SCC Unit) <b>565</b>

## (2) EMISSIONS INFORMATION

(measured by GEM500)

1. Pollutant <b>CO</b> <b>Carbon Monoxide</b>		CAS No. <b>630-08-0</b>	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant <b>NOX</b> <b>Nitrogen Oxides</b>		CAS No. <b>10102-44-0</b>	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant <b>PB</b> <b>Lead - Total (elemental lead and lead compounds)</b>		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

\*: Pollutant subject to emissions limiting standard or emissions cap

1. Pollutant <b>PM</b> <b>Particulate Matter - Total</b>		CAS No.	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant <b>PM10</b> <b>Particulate Matter - PM10</b>		CAS No.	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant <b>SO2</b> <b>Sulfur Dioxide</b>		CAS No. 7446-09-5	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant <b>VOC</b> <b>Volatile Organic Compounds</b>		CAS No.	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

\*: Pollutant subject to emissions limiting standard or emissions cap

Facility ID : 0250623

Emissions Unit ID : 001 (a)

## II. EMISSIONS UNIT REPORT

### A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description <b>LANDFILL</b>		
2. Emissions Unit ID <b>001 (a)</b>	3. Emissions Unit Classification	4. Operated During Year? <b>Y</b>
5. DEP Permit or PPS Number	6. Emissions Unit Status <b>ACTIVE</b>	7. Ozone SIP Base Year Emissions Unit? <b>Y</b>
8. Emissions Unit Startup Date	9. Long-term Reserve Shutdown Date	10. Permanent Shutdown Date

### B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type <b>SINGLE POINT SERVING A SINGLE EMISSIONS UNIT</b>
2a. Description of Control Equipment 'a'
2b. Description of Control Equipment 'b'

### C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation of waste disposal.  24 hours/day                      7 days/week	2. Total Operation During Year (hours/year)  8,760
3. Percent Hours of Operation by Season DJF : 24.7%      MAM : 25.2%      JJA : 25.2%      SON : 24.9%	
4. Average Ozone Season Operation (June 1 to August 31)  24 hours/day                      7 days/week	5. Total Operation During Ozone Season (days/season) 92



## D. EMISSIONS UNIT COMMENT

No emissions test required.

Only VOC calculated from waste disposal.

Disposal

Prior years: 9,903,647 tons

This year: 219,585

Total 10,123,232 tons

## (1) PROCESS/FUEL INFORMATION

1. SCC <b>5-04-105-63</b>	2. Description of Process or Type of Fuel  <b>Waste Disposal: Landfill</b>	
3. Annual Process or Fuel Usage Rate	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit  <b>Acres of landfill</b>
6. Fuel Average % Sulfur	7. Fuel Average % Ash	8. Fuel Heat Content (mmBtu/SCC Unit)

## (2) EMISSIONS INFORMATION

1. Pollutant <b>CO</b> <b>Carbon Monoxide</b>		CAS No. <b>630-08-0</b>	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant <b>NOX</b> <b>Nitrogen Oxides</b>		CAS No. <b>10102-44-0</b>	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant <b>PB</b> <b>Lead - Total (elemental lead and lead compounds)</b>		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

\*: Pollutant subject to emissions limiting standard or emissions cap

1. Pollutant <b>PM</b> <b>Particulate Matter - Total</b>		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant <b>PM10</b> <b>Particulate Matter - PM10</b>		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant <b>SO2</b> <b>Sulfur Dioxide</b>		CAS No. <b>7446-09-5</b>	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant <b>VOC</b> <b>Volatile Organic Compounds</b>		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
<b>(Fugitive Emissions)</b>			
2. Annual Emissions (ton/year) <b>357.96</b>	3. Ozone Season Daily Emissions (lb/day) <b>1,961.42</b>	4. Emissions Method Code <b>5</b>	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

$$\text{ton/yr} = 10,123,232 \text{ tons} \times F$$

$$\text{lb/day} = (357.96 \text{ ton/yr} \times 2000 \text{ lb/ton}) / 365 \text{ days/year}$$

Emission Factor from: EPA-450/4-91-016

$$F = [13.6 \text{ tons VOC/yr} \div (1 \times 10^6 \text{ tons})] \times 2.6$$

$$F = 0.00003536$$

\*: Pollutant subject to emissions limiting standard or emissions cap

As the Florida Department of Environmental Protection (FDEP) air permit holder, it is required that the DSWM submit an Annual Operating Report (AOR) for the South Dade Landfill.

We are requesting the following information to fill in the FDEP form No. 62-210.900(5) and calculate the total amount of some air pollutant emissions for the calendar year 1998.

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**EMISSIONS UNIT INFORMATION**

*from Luis Moreno  
Eng. Div.  
Dec*

Emissions Unit Startup Date: THIS DATE SHOULD BE IN 1997 ✓  
Report.

Shutdown date (if any, Permanent or Long-term Reserve): N/A

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**EMISSIONS UNIT OPERATING SCHEDULE**

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Operating Hours

December, 1997: LAST YEAR REPORT 136

January, 1998: 682

February, 1998: 668  $\xrightarrow{+1486}$

March, 1998: 720

April, 1998: 684

May, 1998: 720  $\xrightarrow{+2124}$

June, 1998: 552

July, 1998: 696.5

August, 1998: 732  $\xrightarrow{+1980.5}$

September, 1998: 617

October, 1998: 690

November, 1998: 695  $\xrightarrow{+2002}$

December, 1998: 654

$(Dec - Nov) = 7,592.5 \text{ hrs}$

$(Jan - Dec) = 8,110.5 \text{ hrs}$

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Average Annual Operation

Operation During Year

hours/day: ~~676~~ 22.5

days/week: 6.5

$6.5 \times 52 = 338 \text{ days/yr}$   
*days/week weeks/yr*

$7,592.5 \text{ hr/yr} \div 338 \text{ days/yr}$   
 $= 22.46 \text{ hrs/day}$

Ozone Season Operation

hours/day: 21.5

days/week: 6.5

$1980.5 \text{ hr} \div 92 \text{ days} = 21.5 \text{ hrs/day}$

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**PROCESS/FUEL INFORMATION**

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Annual Process or Fuel Usage Rate: 139,842,000 scf  
Ozone Season Daily Process or Fuel Usage Rate:  
Fuel Average % Sulfur: 60 PPM ✓  
Fuel Average % Ash: N/A  
Fuel Heat Content (mmBtu/SCC Unit): 565 (measure by GEM500) ✓

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**EMISSIONS INFORMATION**

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Carbon Monoxide (lb/hr): N/A  
Test date (month/year): N/A

Nitrogen Oxides (lb/hr): N/A  
Test date (month, year): N/A

Lead, Total (lb/hr): N/A  
Test date (month, year): N/A

Particulate Matter, Total (lb/hr): N/A  
Test date (month, year): N/A

Particulate Matter - PM10 (lb/hr): N/A  
Test date (month, year): N/A

Sulfur Dioxide (lb/hr): N/A  
Test date (month, year): N/A

Volatile Organic Compounds (lb/hr): N/A  
Test date (month, year): N/A

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Currently, Miami-Dade County is designated by the US Environmental Protection Agency as an attainment area for ozone. For this reason, the AOR must include some questions about the ozone season (June 1 - August 31).

Please, complete the requested information as soon as you can. Let me know if you have any question (x 1774).

# TONNAGE LANDFILLED CALENDAR YEAR 1998

	SOUTH DADE	NORTH DADE	RESOURCES RECOVERY ASHFILL
FY1997-98	214,952	359,563	138,892
LESS:			
OCTOBER, 1997	(18,373)	(39,743)	(8,908)
NOVEMBER 1997	(16,219)	(29,685)	(9,314)
DECEMBER 1997	(15,889)	(26,191)	(11,193)
ADD:			
OCTOBER, 1998	17,027	35,328	17,782
NOVEMBER 1998	20,171	40,692	12,008
DECEMBER 1998	17,916	30,433	13,329
TOTAL 1998	219,585	<u>370,397</u>	152,596

(QUANTITY IN TONS)	BUDGET FY1997-98	ACTUAL OCT	ACTUAL NOV	ACTUAL DEC	ACTUAL JAN	ACTUAL FEB	ACTUAL MAR	ACTUAL APR	ACTUAL MAY	ACTUAL JUN	ACTUAL JUL	ACTUAL AUG	ACTUAL SEP	BUDGET OCT-SEP	PROJECT OCT-SEP	ACTUAL OCT-SEP	BUDGET DEVIATION OCT-SEP	PROJECT DEVIATION OCT-SEP	PROJECT FY1997-98
NET TONNAGE																			
S. DADE	164,303	18,373	16,219	15,889	20,724	18,960	24,784	23,384	17,516	17,837	19,397	17,062	4,807	164,303	165,841	214,952	50,649	49,111	165,841
N. DADE	235,184	39,743	29,885	28,191	17,885	28,274	36,545	24,226	27,729	34,280	37,105	26,118	31,782	235,184	278,805	359,563	124,379	80,958	278,804
R. RECOVERY INCINERATED	601,540	37,957	39,983	44,342	52,014	48,823	36,939	49,731	45,432	46,552	43,463	50,207	61,934	601,540	584,995	555,377	(46,163)	(29,880)	584,995
R. RECOVERY ASHPILL	173,701	8,908	9,314	11,193	13,582	11,724	9,488	10,984	11,719	10,430	11,888	15,541	14,341	173,701	161,870	138,892	(34,809)	(22,778)	161,870
CONTRACT DISPOSAL																			
GARBAGE TO MEDLEY	28,839	18,456	9,488	6,191	4,081	2,321	8,544	1,398	3,102	4,346	4,993	3,021	4,299	28,839	41,617	70,220	41,381	28,803	41,617
GARBAGE - NONPROCESSABLES TO MEDLEY	0	0	0	15	0	0	0	0	0	30	0	0	0	0	15	45	45	30	15
RR PROCESSED WASTE TO MEDLEY	0	0	0	0	0	0	8	2,384	367	0	349	32	21	0	0	3,161	3,161	3,161	0
RR RTI REJECTS TO MEDLEY	0	0	0	0	0	0	0	0	0	0	0	0	73	0	0	73	73	73	0
TRASH TO MEDLEY	71,161	1,113	3,503	4,122	3,146	3,942	2,298	3,126	4,004	3,358	2,813	5,830	5,634	71,161	58,368	42,887	(26,274)	(15,481)	58,368
STORM RELATED WASTE TO MEDLEY	0	0	0	0	0	59	0	0	0	0	0	0	0	0	0	59	59	59	0
TRASH TO WHEELABRATOR	100,000	7,700	7,254	10,290	7,267	10,196	8,368	3,571	7,594	6,888	8,013	7,875	7,431	100,000	100,000	92,427	(7,573)	(7,573)	100,000
TOTAL NET TONNAGE DISPOSED	1,374,728	132,250	115,426	118,233	118,679	122,299	126,974	118,804	117,463	123,699	127,821	125,686	130,322	1,374,728	1,391,111	1,477,656	102,928	86,283	1,391,110
FACILITY RECYCLING																			
CLEAN YARD TRASH	0	0	0	0	21	0	0	0	0	0	0	0	0	0	0	21	21	21	0
FERROUS FOR RECYCLING	32,705	1,875	1,745	1,968	1,962	2,191	1,634	2,017	2,285	2,058	2,283	2,403	1,987	32,705	29,059	24,187	(8,518)	(4,872)	29,059
FERROUS FROM RR ASHPILL RECOVERY	0	0	0	0	0	0	49	238	(25)	0	0	0	0	0	0	282	282	282	0
ALUMINUM CANS FOR RECYCLING	230	14	17	18	18	21	20	103	13	23	18	23	18	230	228	306	76	76	228
TRASH PROCESSING FINES OUT	0	3,589	3,382	3,317	4,377	4,235	3,459	4,388	2,335	3,301	4,303	4,137	4,279	0	10,288	45,102	45,102	34,814	10,288
RTI BIOMASS FUEL	158,520	0	0	0	0	0	0	400	1,577	1,449	989	972	965	158,520	92,470	8,352	(152,188)	(86,118)	92,470
RTI PRIMARY FINES	44,760	0	0	0	0	0	0	0	1,824	726	811	603	512	44,760	28,110	4,476	(40,284)	(21,634)	28,110
TOTAL FACILITY RECYCLING	236,215	5,278	5,144	5,304	6,378	6,447	5,162	7,146	7,989	7,555	8,404	8,138	7,781	236,215	158,155	80,706	(155,509)	(77,449)	158,155
TONNAGE DIFFERENCE ADJUSTMENT																			
TRANSFER STATION TRANSFERS ONLY	0	(1,023)	(2,015)	3,250	(707)	2,574	(396)	(743)	(1,827)	1,947	1,496	(351)	957	0	217	3,362	3,362	3,145	218
FACILITY STAGING AND TRANSFER ADJUSTMENT AT SOUTH DADE	0	1,041	(1,912)	2,353	2,286	3,005	2,911	(1,503)	1,239	(1,649)	(1,209)	3,518	2,043	0	1,482	12,123	12,123	10,641	1,482
SUBTOTAL FULL FEE REVENUE TONNAGE	1,610,943	134,398	116,643	129,140	126,636	134,325	134,651	123,704	125,064	131,552	136,512	136,991	141,083	1,610,943	1,547,817	1,570,699	(40,244)	22,820	1,547,817
REDUCED FEE COVER MATERIAL	0	0	0	0	263	0	0	0	0	0	0	0	0	0	0	283	283	283	0
SUBTOTAL FULL FEE AND REDUCED FEE REVENUE TONNAGE	1,610,943	134,398	116,643	129,140	126,919	134,325	134,651	123,704	125,064	131,552	136,512	136,991	141,083	1,610,943	1,547,817	1,570,982	(39,961)	22,903	1,547,817
DEVAM CONSTRUCTION TONNAGE																			
OLD SOUTH DADE CLOSURE TO NORTH DADE LANDFILL (see note 3)	0	3,148	0	0	0	0	0	0	0	0	0	0	0	0	3,148	3,148	3,148	0	3,148
TOTAL DEVAM CONSTRUCTION TONNAGE	0	3,148	0	0	0	0	0	0	0	0	0	0	0	0	3,148	3,148	3,148	0	3,148
TOTAL REVENUE TONS	1,610,943	137,546	116,643	129,140	126,919	134,325	134,651	123,704	125,064	131,552	136,512	136,991	141,083	1,610,943	1,550,965	1,574,130	(38,813)	22,903	1,550,965
EQUIVALENT REVENUE TONNAGE (see note 3)	1,610,943	135,295	116,643	129,140	126,699	134,325	134,651	123,704	125,064	131,552	136,512	136,991	141,083	1,610,943	1,548,714	1,571,659	(39,284)	22,945	1,548,714
TRANSFER REVENUE TONS (RM)	747,014	55,527	45,784	53,972	52,585	55,428	54,051	50,405	51,213	53,407	49,443	58,070	61,854	747,014	643,059	638,519	(107,495)	(3,540)	643,059
TRANSFER TONNAGE OUT	747,014	58,550	47,799	50,722	53,272	52,854	54,447	51,148	52,840	51,480	47,947	58,421	60,697	747,014	642,842	636,157	(110,857)	(6,885)	642,841
ESTIMATED PERCENTAGE DIFFERENCE BETWEEN TRANSFER STATION IN AND OUT	0.00%	1.84%	4.40%	-6.02%	1.35%	-4.64%	0.73%	1.47%	3.18%	-3.65%	-3.03%	0.63%	-1.55%	0.00%	-0.03%	-0.53%			-0.03%
INTERFACILITY TRANSFERS	677,209	43,389	46,457	39,241	50,015	49,584	42,049	50,123	52,492	49,711	55,028	57,815	45,031	677,209	629,757	580,913	(96,296)	(48,844)	629,757
INTERFACILITY TRANSFER BACKHAUL	127,860	14,091	14,555	8,758	16,163	17,389	14,370	16,567	15,658	12,802	15,481	16,540	3,487	127,860	147,025	165,861	38,001	18,836	147,025
HANDS PERVIOUS METALS TO REBOURCES RECOVERY	2,887	44	147	116	117	31	42	0	11	115	120	60	58	2,887	2,187	861	(2,026)	(1,326)	2,187
R. RECOVERY PUT OR PAY ON SITE	938,000	67,069	69,694	70,232	88,889	83,304	66,836	87,139	78,889	78,389	79,028	89,726	87,609	938,000	936,000	944,783	8,783	8,783	936,000
R. RECOVERY PUT OR PAY RTI	270,000	0	0	0	0	0	0	667	4,333	2,900	2,000	1,750	1,550	270,000	157,500	13,200	(256,800)	(144,300)	157,500

Note 3. Equivalent Revenue Tonnage = Revenue Tonnage without Daily Cover + Daily Cover Tonnage + \$10 + \$45 + Old South Dade Tonnage + \$21.08 + \$45.

**MIAMI-DADE COUNTY DEPARTMENT OF SOLID WASTE MANAGEMENT  
WORKLOAD MEASURES FOR FUND 49 (DISPOSAL)  
BUDGETED AND ACTUAL REVENUE TONS FOR OCTOBER - DECEMBER FY1998-99**

(QUANTITY IN TONS)	BUDGET FY1998-99	ACTUAL OCT	ACTUAL NOV	BUDGET DEC	ACTUAL DEC	BUDGET DEVIATION DEC	BUDGET OCT-DEC	ACTUAL OCT-DEC	BUDGET DEVIATION OCT-DEC
<b>NET TONNAGE</b>									
S. DADE	171,366	17,027	20,171	13,584	17,916	4,332	37,195	55,114	17,919
N. DADE	180,911	35,328	40,692	13,264	30,433	17,169	41,386	106,453	65,067
R. RECOVERY INCINERATED	594,802	48,133	37,864	49,571	52,467	2,896	148,664	138,464	(10,200)
R. RECOVERY ASHFILL	171,889	17,782	12,008	14,324	13,329	(995)	42,972	43,119	147
<b>CONTRACT DISPOSAL</b>									
GARBAGE TO MEDLEY	9,991	7,463	10,758	851	7,959	7,108	2,401	26,180	23,779
GARBAGE - NONPROCESSABLES TO MEDLEY	0	0	0	0	0	0	0	0	0
RR PROCESSED WASTE TO MEDLEY	0	104	0	0	40	40	0	144	144
RR RTI REJECTS TO MEDLEY	0	0	0	0	0	0	0	0	0
TRASH TO MEDLEY	90,009	6,354	2,244	8,008	2,470	(5,538)	22,598	11,068	(11,530)
STORM RELATED WASTE TO MEDLEY	0	0	0	0	0	0	0	0	0
TRASH TO WHEELABRATOR	100,000	2,880	3,163	8,333	3,055	(5,278)	24,999	9,098	(15,901)
<b>TOTAL NET TONNAGE DISPOSED</b>	<b>1,318,968</b>	<b>135,071</b>	<b>126,900</b>	<b>107,935</b>	<b>127,669</b>	<b>19,734</b>	<b>320,215</b>	<b>389,640</b>	<b>69,425</b>
<b>FACILITY RECYCLING</b>									
CLEAN YARD TRASH	0	0	0	0	0	0	0	0	0
FERROUS FOR RECYCLING	30,107	2,293	1,763	2,505	2,116	(389)	7,563	6,172	(1,391)
ALUMINUM CANS FOR RECYCLING	230	30	85	19	88	69	58	203	145
TRASH PROCESSING FINES OUT	0	4,025	2,086	0	2,945	2,945	0	9,056	9,056
RTI BIOMASS FUEL	158,520	949	850	13,210	962	(12,248)	39,630	2,761	(36,869)
RTI PRIMARY FINES	44,760	446	1,040	3,730	568	(3,162)	11,190	2,054	(9,136)
<b>TOTAL FACILITY RECYCLING</b>	<b>233,617</b>	<b>7,743</b>	<b>5,824</b>	<b>19,464</b>	<b>6,679</b>	<b>(12,785)</b>	<b>58,441</b>	<b>20,246</b>	<b>(38,195)</b>
<b>TONNAGE DIFFERENCE ADJUSTMENT</b>									
TRANSFER STATION TRANSFERS ONLY	0	(2,841)	(151)	0	(358)	(358)	0	(3,350)	(3,350)
FACILITY STAGING AND TRANSFER ADJUSTMENT AT SOUTH DADE	0	844	1,516	0	1,621	1,621	0	3,981	3,981
<b>TOTAL FULL FEE REVENUE TONNAGE</b>	<b>1,552,585</b>	<b>140,817</b>	<b>134,089</b>	<b>127,399</b>	<b>135,611</b>	<b>8,212</b>	<b>378,656</b>	<b>410,517</b>	<b>31,861</b>
<b>TRANSFER REVENUE TONS (IN)</b>	<b>632,515</b>	<b>59,245</b>	<b>56,911</b>	<b>53,236</b>	<b>60,021</b>	<b>6,785</b>	<b>157,879</b>	<b>176,177</b>	<b>18,298</b>
<b>TRANSFER TONNAGE OUT</b>	<b>632,515</b>	<b>62,086</b>	<b>57,062</b>	<b>53,236</b>	<b>60,379</b>	<b>7,143</b>	<b>157,879</b>	<b>179,527</b>	<b>21,648</b>
<b>ESTIMATED PERCENTAGE DIFFERENCE BETWEEN TRANSFER STATION IN AND OUT</b>	<b>0.00%</b>	<b>4.80%</b>	<b>0.27%</b>	<b>0.00%</b>	<b>0.60%</b>		<b>0.00%</b>	<b>1.90%</b>	
INTERFACILITY TRANSFERS	676,725	55,608	38,733	56,230	46,209	(9,851)	176,706	140,930	(35,776)
INTERFACILITY TRANSFER BACKHAUL	136,656	13,007	8,192	11,388	11,382	(6)	34,164	32,581	(1,583)
NAMCO FERROUS METALS TO RESOURCES RECOVERY	3,133	100	210	265	70	(195)	747	380	(367)
R. RECOVERY PUT OR PAY ONSITE	936,000	86,352	63,278	78,000	83,534	5,534	234,000	233,164	(836)
R. RECOVERY PUT OR PAY RTI	270,000	1,550	2,100	22,500	1,700	(20,800)	67,500	5,350	(62,150)



# INTEROFFICE MEMORANDUM

(Draft)

**Date:** 19-Feb-1999 09:05am

**From:** Mike Harley TAL

**Dept:**

**Tel No:**

**To:** Alvaro Linero TAL ( LINERO\_A )  
**CC:** Martin Costello TAL ( COSTELLO\_M )  
**CC:** Paul Brandl TAL ( BRANDL\_P )  
**CC:** Matthew Boze TAL ( BOZE\_M )

**Subject:** Montenay

This is the written follow-up to our conversation that you requested. We have examined Montenay's December document concerning the proposed testing and monitoring revisions. The proposal to use EPA Method 29 in lieu of the 40 CFR 61 methods 101A, 104, and 108 for mercury, lead, beryllium, and arsenic appears to be satisfactory.

The proposal to be allowed to use EPA Method 26A for HCl emissions is acceptable. As a matter of fact it would be desirable to alter the particulate testing requirement to allow the use of either EPA Method 5 or EPA Method 26A. This will reduce the number of separate tests that the company will need to conduct.

With regard to hydrogen fluoride, we need to know why the testing is required. Where is the HF generated in the municipal waste combustion process? It seems as though someone would have to burn a lot of toothpaste and teflon to generate sufficient HF emissions to require testing. However, it is not possible to decide whether testing is required without seeing the basis. If testing is required, the company needs to continue to use EPA Method 13A or 13B. EPA Methods 26 and 26A are not as well validated for the measurement of compounds such as HF and F<sup>-</sup>.

Again, we're not sure why a requirement to measure temperature at the baghouse inlet has been included in the permit. The origin appears to be the mercury limits for waste-to-energy facilities in Rule 62-296.416, F.A.C. If the requirement is indeed related to hazardous air pollutant emissions of mercury, it probably should remain in place. Attached is information concerning the procedures for calibration of "K" type thermocouples. The procedure is inconsistent with that required for soil burners. Based on the calibration procedure, an accuracy of 1% does not appear to be unreasonable.

cc: Goldman  
Harley✓

# MONTENAY PROJECTS, INC.



February 9, 1999

RECEIVED

FEB 16 1999

Bureau of Air Monitoring  
& Mobile Sources

DEPARTMENT OF  
ENVIRONMENTAL PROTECTION

FEB 15 1999

SITING COORDINATION

Mr. Hamilton S. Oven, P.E.  
Administrator, Siting Coordination Office  
Florida Dept. of Environmental Protection  
Marjory Stoneman Douglas Building  
3900 Commonwealth Blvd.

**Re: Dade County Resources Recovery Facility  
Case Number PA 77-08  
Conditions of Certification**

Gentlemen,

In accordance with F.A.C. Rule 17-297, Montenay is submitting the attached test protocol for the new Air Quality Control System being installed at the facility.

Test methods for metals are in accordance with proposed permit changes which have been indicated to be acceptable per M. Costello on 12-21-98.

Sincerely,

Terry L. Thornton  
Project Manager

## Attachments

cc: W. Uchdorf, MDC  
F. Screve, MPC  
A. Leu, MIC - 854 2229  
I.E. Johnson, MIC

reasonable time to conform to the new or additional conditions,  
and on application of the permittee, the Department may grant  
additional time.

## 2. COMPLIANCE DETERMINATIONS

### a. STACK TESTING

#### 1) Test Methods

Compliance with emission limitation standards referenced  
in Specific Condition No. 1 shall be demonstrated using  
EPA Methods, as specified in 40 CFR Part 60 (Standards of  
Performance for New Stationary Sources), or 40 CFR Part 61  
(National Emission Standards for Hazardous Air  
Pollutants), or any other method approved by the  
Department, in accordance with F.A.C. Rule 17-297. A test  
protocol shall be submitted for approval to the Bureau of  
Air Regulation at least 90 days prior to testing.

<u>EPA Method</u>	<u>For Determination of</u>
<u>1</u>	<u>Selection of sample site and velocity traverses.</u>
<u>2</u>	<u>Stack gas flow rate when converting</u> <u>concentrations to or from mass emission limits.</u>
<u>3 or 3A</u>	<u>Gas analysis when needed for calculation of</u> <u>molecular weight or percent O<sub>2</sub>.</u>
<u>4</u>	<u>Moisture content when converting stack velocity</u> <u>to dry volumetric flow rate for use in</u> <u>converting concentrations in dry gases to or</u> <u>from mass emission limits.</u>
<u>5</u>	<u>Particulate matter (PM) concentration and mass</u> <u>emissions.</u>



SPECIFICATION  
FOR  
PERFORMANCE TEST

SPECIFICATION NO.  
1729-MS-400-001  
Rev: 01  
DATE: 11/06/98  
PAGE: 1

1.0

TEST METHODS

A Performance Test shall be performed by the vendor to determine if the complete air Quality Control System performs in accordance with this specification and complete system guarantees of this specification. Each process train shall be tested using performance test procedures subject to Engineer's approval.

All performance testing shall be in accordance with 40 CFR60, Appendix A and 40 CFR 61, Appendix B.

System guarantees shall be demonstrated by stack testing.

1.1

**PARTICULATE**

1. Three 1-hour runs conducted using EPA Method 5. *or 26A*
2. Three 1-hour runs conducted using EPA Method 201 or 201-A.
3. During particulate stack testing, the correlation between total particulate emissions and continuous opacity measurement ~~must be~~ *may* determined.

1.2

**OPACITY**

Opacity measurements shall be made ~~in stack~~ by EPA Method 9 ~~or by a properly adjusted and calibrated transmissometer, over an optical path length not to exceed 10 feet. At least 24 readings shall be measured and averaged over a 6 minute period.~~

1.3

**SULFUR DIOXIDE**

Three 1-hour test runs shall be conducted upstream and downstream of the acid gas control equipment of each train using EPA Method 6C. Such tests of any train must be conducted simultaneously.

1.4

**PRESSURE DROP**

The system pressure drop shall be determined by measuring the static pressure head using an inclined manometer, at the air preheater outlet pressure port, the spray dryer inlet, the spray dryer outlet test port, for the spray dryer pressure drop (inlet minus outlet readings), and at the ID fan inlet pressure port. The difference in total head shall constitute the system



SPECIFICATION  
FOR  
PERFORMANCE TEST

SPECIFICATION NO.  
1729-MS-400-001  
Rev: 01  
DATE: 11/06/98  
PAGE:

pressure drop. At least 8 readings shall be measured and averaged during a 24 hour period.

**1.5 LIME CONSUMPTION**

Prior to commencement of a test run, the slurry test tank shall be filled to maximum capacity and a sample of the slurry taken. The slaker shall remain off during the test. At the end of the test, tank draw shall be measured using a vertical ruler. At least 8 readings shall be taken and averaged over a 24 hour period. The lime slurry shall be analyzed for density, availability and total solids.

The pebble lime shall be analyzed for reactivity. Methods used shall be ASTM C25 and C110.

**1.6 POWER CONSUMPTION**

Power consumption shall be measured with a rotating dial kilowatt hour meter at the FGD System's 4160 V and 480V, 3-phase bus feeders. Power consumption shall be measured during and averaged over a 24 hour period. During the test, all equipment not included in the guaranteed value shall be shut off or monitored separately and deducted from the power consumption readings taken. (Items not included: HVAC, lighting, hopper heaters, and heat tracing).

**1.7 FLUE GAS TEMPERATURE**

The flue gas temperature entering into the baghouse shall be determined by continuously recording from the baghouse inlet temperature port. The recording will be noted to indicate the beginning and completion of the test. The entire recording will show the minimum and will serve as the compliance data for the guaranteed minimum temperature.

**1.8 COMPRESSED AIR CONSUMPTION**

The system compressed air consumption shall be measured by totalizing the air flow measured by the permanently installed nozzle air flow meters (after field calibration of the meters per factory specification) over a 24 hour period.

*and maximum (4 hour Ave)*



SPECIFICATION  
FOR  
PERFORMANCE TEST

SPECIFICATION NO.  
1729-MS-400-001  
Rev: 01  
DATE: 11/06/98  
PAGE: 1/2

1.9 HCL EMISSIONS

Stack emissions of HCl shall be measured by EPA method 26. At least three measurements shall be collected and averaged during an 8 hour test period.

1.10 EMISSIONS

Stack emissions of HF shall be measured by EPA method 13B. At least three measurements shall be collected and averaged during an 8 hour test period.

1.11 SULFURIC ACID EMISSIONS

Stack emissions of Sulfuric Acid mist shall be measured by EPA method 8. At least three measurements shall be collected and averaged during an 8 hour test period.

1.12 DIOXINS / FURANS

Stack emissions of Dioxins and Furans shall be measured by EPA method 23. At least three measurements shall be collected and averaged during an 8 hour test period.

1.13 MERCURY


Three test runs shall be conducted on each train using EPA Multi Metal Test Method, EPA Test Method 29, Test Procedure in accordance with Chapter 17-297 FAC.

1.14 TOXIC METALS

For each listed metal three successive test runs shall be performed using EPA multi-metal test methods. EPA Test Method 29.

- a. Lead
- b. Beryllium
- c. Arsenic
- d. Cadmium
- e. Nickel
- f. ~~HEX~~ Chromium *as chromium*

Delete  
since  
standard  
was removed

	<p style="text-align: center;">SPECIFICATION FOR</p> <p style="text-align: center;">PERFORMANCE TEST</p>	<p>SPECIFICATION NO. 1729-MS-400-001</p> <p>Rev: 01</p> <p>DATE: 11/06/98</p> <p>PAGE: 7 of 12</p>
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### 1.15 ACTIVATED CARBON

During testing catch material from screw feeder, to determine how much carbon is being used. Final method to be determined.

### 1.16 PCDD/PCDF (ORGANIC EMISSIONS MEASURED AS DIOXIN/FURAN)

Sampling and analysis shall be in accordance with EPA Method 23. Emissions shall be reported as TEQ and total mass corrected to 7% oxygen dry.

## 1.2 PERFORMANCE TEST QUALIFICATIONS

The following provisions shall apply to the performance testing:


- a. All guarantee performance tests shall be executed by an independent third party experienced in such work and mutually acceptable to engineer and ABBES.
- b. Performance tests shall be conducted with the boiler and FGD equipment operating at steady state conditions. No imposed means shall be used to create test conditions different from normal operating conditions.
- c. Performance tests for SO<sub>2</sub> and particulate emission shall have a minimum duration of one hour.
- d. Engineer will maintain all DFGD system recording devices as well as boiler process and maintenance logs necessary to monitor operation, from the initial equipment start-up date through the final performance testing period.
- e. Vendor will provide ABBES with eight (8) copies of the final test report, including all raw data.

## 1.3 RESULT ANALYSIS (FOR CONSUMABLES)

This section is applicable to all guarantees *only and not criteria for compliance with rules and permit conditions*

- a. Number of Tests Required

A minimum of eight (8) tests are required for evaluation.

	<p style="text-align: center;">SPECIFICATION FOR</p> <p style="text-align: center;">PERFORMANCE TEST</p>	<p>SPECIFICATION NO. 1729-MS-400-001 Rev: 01 DATE: 11/06/98 PAGE: 12</p>
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b. Outliers

The arithmetic mean of the data shall be calculated and each of the data points shall be examined for outliers using the Dixon Ratio Test (Reference: "Federal EPA, Quality Assurance Handbook for Air Pollution Measurement Systems - Volume I, Principles") assuming a 95% confidence level. All outliers will be examined to determine if there is an operational explanation and will only be rejected based on the Dixon Ratio Test.

c. t-Test

The t-Test shall be used to determine whether the measured performance meets the guarantees as stated herein. The t-Test, a standard approach used in statistical analysis, shall be based on a 95% confidence level and corresponding number of degrees of freedom. (Reference: "Federal EPA, Quality Handbook for Air Pollution Measurement Systems - Volume I, Principles").



## BEST AVAILABLE COPY

## PERMITTEE:

Dade County Department of Solid Waste  
Management

Permit Number: PSD-FL-006A

Expiration Date: ~~June 30, 1999~~ November 13,  
2000

<u>Pollutant</u>	<u>Emission Limits</u>
(PM)	Particulate emissions from the baghouse shall not exceed <del>0.011</del> <u>0.012</u> grains/dry standard ft <sup>3</sup> (gr/dscf), corrected to 7 percent O <sub>2</sub> (dry basis); <del>6.6 lbs/hr per unit and 29.0 tons/year per unit.</del>
(PM <sub>10</sub> )	Particulate emissions less than 10 micron diameter shall not exceed <del>0.011</del> <u>0.012</u> gr/dscf, corrected to 7 percent O <sub>2</sub> (dry basis); <del>6.6 lbs/hr per unit and 29.0 tons/year per unit.</del>
(SO <sub>2</sub> )	Sulfur Dioxide emissions shall not exceed <del>30</del> <u>29</u> parts per million by volume (ppmvd), corrected to 7 percent O <sub>2</sub> (dry basis) ; or <del>70</del> <u>75</u> percent removal efficiency, whichever is least restrictive, based on a 24-hour daily period (i.e., block; midnight to midnight) geometric mean; <del>not to exceed 70 ppmvd corrected to</del> <del>7 percent O<sub>2</sub>, 0.16 lb/MMBtu per unit, 48.9 lbs/hr per unit, 24-</del> <del>hour block average; and 214.2 tons/year per unit.</del>
(NO <sub>x</sub> )	Nitrogen Oxide emissions shall not exceed <del>280</del> <u>250</u> ppmvd corrected to 7 percent O <sub>2</sub> (dry basis); <del>0.5 lb/MMBtu, 140.3 lbs/hr</del> <del>per unit, 24-hour daily arithmetic average ; and 614.9 tons/year</del> per unit. As specified in 40 CFR 60.33b(d)(1) a facility-wide average emission limit of 230 ppmvd, corrected to 7 percent O <sub>2</sub> (dry basis), 24-hour average, shall be applied in lieu of the per unit limit provided that the conditions of 40 CFR 60.33b(d)(1) are met.
(CO)	Carbon Monoxide emissions shall not exceed 200 ppmvd at 7 percent O <sub>2</sub> (dry basis) ; <del>0.20 lb/MMBtu, 61.1 lbs/hr per unit, 24-</del> hour daily arithmetic average ; <del>and, 267.7 tons/year per unit.</del>
(VOC)	Volatile Organic Compound (Hydrocarbons) emissions shall not exceed 25 ppmvd, corrected to 7 percent O <sub>2</sub> (dry basis) ; <del>0.0145</del> <del>lb/MMBtu, 4.37 lbs/hr per unit and 15.1 tons/yr per unit.</del> Due to

**PERMITTEE:**

Dade County Department of Solid Waste  
Management

**Permit Number: PSD-FL-006A**

**Expiration Date:** ~~June 30, 1999~~ November 13,  
2000

DCRRF's location in a non-attainment area for ozone, the permittee must furnish to the Department evidence (i.e. test results) that this facility emits less than 100 tons per year of hydrocarbons, or must obtain legally enforceable limits for the hydrocarbon emissions from this facility.

(HCl)

Hydrogen Chloride emissions shall not exceed ~~25~~ 29 ppmvd, corrected to 7 percent O<sub>2</sub> (dry basis); or, ~~90~~ 95 percent removal, whichever is least restrictive, ~~not to exceed 78 ppmvd corrected to 7 percent O<sub>2</sub>, 0.10 lb/MMBtu, 30.6 lbs/hr per unit, and 134.2 tons/year per unit.~~

(Hg)

Mercury emissions shall not exceed 70 micrograms per dry standard cubic meter (ug/dscm), corrected to 7 percent O<sub>2</sub> (dry basis); or, 20 percent by weight of the mercury in the flue gas upstream of the mercury control device (80 percent reduction by weight) ~~not to exceed 6.1 x 10<sup>-5</sup> lb/MMBtu, or 0.018 lb/hr per unit, and 0.080 ton/year per unit.~~

(Dioxins/Furans)

Emissions of total (tetra-through octa-chlorinated) dibenzo-p dioxins and dibenzofurans shall not exceed ~~60~~ 30 nanograms per standard cubic meter (ng/m<sub>3</sub>) corrected to 7 percent O<sub>2</sub> (dry basis) ~~, 5.2 x 10<sup>-3</sup> lb/MMBtu, 1.6 x 10<sup>-5</sup> lb/hr per unit, and 6.3 x 10<sup>-5</sup> ton/year per unit.~~

~~(F)~~

~~Fluoride emissions shall not exceed 843 ug/m<sub>3</sub>, corrected to 7 percent O<sub>2</sub> (dry basis), 7.3 x 10<sup>-4</sup> lb/MMBtu, 0.22 lb/hr per unit and 0.97 ton/year per unit.~~

(Cd)

Cadmium emissions shall not exceed ~~15~~ 40 ug/m<sub>3</sub>, corrected to 7 percent O<sub>2</sub> (dry basis), ~~0.006 lb/hr per unit and 0.027 ton/year per unit.~~

**PERMITTEE:**

Dade County Department of Solid Waste  
Management

**Permit Number: PSD-FL-006A**

**Expiration Date: June 30, 1999** November 13,  
2000

- ~~(H<sub>2</sub>SO<sub>4</sub>)~~ Sulfuric Acid Mist emissions shall not exceed 2.1 ppmvd corrected to 7 percent O<sub>2</sub> (dry basis), 0.007 lb/MMBtu, 2.20 lbs/hr per unit and 9.8 tons/year per unit.
- (Pb) Lead emissions shall not exceed 380-490 ug/m<sub>3</sub> corrected to 7 percent O<sub>2</sub> (dry basis),  $3.3 \times 10^{-4}$  lb/MMBtu, 0.10 lb/hr per unit and 0.44 ton/year per unit.
- ~~(Be)~~ Beryllium emissions shall not exceed 0.46 ug/m<sub>3</sub> corrected to 7 percent O<sub>2</sub> (dry basis),  $4.0 \times 10^{-7}$  lb/MMBtu, 0.00012 lb/hr per unit and 0.0005 ton/yr per unit.
- ~~(As)~~ Arsenic emissions shall not exceed 9.3 ug/m<sub>3</sub> corrected to 7 percent O<sub>2</sub> (dry basis),  $3.1 \times 10^{-6}$  lb/MMBtu, 0.0024 lb/hr per unit and 0.011 ton/yr per unit.
- (VE) There shall be no visible emissions during the lime silo loading operations (i.e., less than 5 percent opacity).
- (VE) Emissions from the biomass and ash silo baghouses, ash conditioning agent silo baghouses, and mercury reactant silo baghouses shall not exceed a particulate matter limit of 0.01 grains/dscf, or visible emissions of 5 percent opacity.
- (VE) Visible emissions from any other baghouse exhaust shall not exceed 10 percent opacity (six minute average).

Pursuant to Rule 62-4.080 F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions for any regulated pollutants and visible emissions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on request of the permittee, the Department may grant additional time.

## BEST AVAILABLE COPY

Subj: Dade County RRF permit changes

Date: 12/21/98 12:57:00 PM Eastern Standard Time

From: COSTELLO\_M@dep.state.fl.us (Martin Costello TAL 850/488-0114)

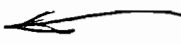
To: anethal@aol.com

CC: LINERO\_A@dep.state.fl.us (Alvaro Linero TAL), HARLEY\_M@dep.state.fl.us (Mike Harley TAL)

I am reviewing your Dec. 15 request to Al Linero concerning test methods for the Dade County Resource Recovery Facility.

1) On the cover sheet you asked for clarification whether certified CEMS measurements would be acceptable for determining emissions rates during performance tests (both initial and annual). Are you asking to make the plant CEMS the compliance method instead of annual stack testing? This would likely require permit changes which specify the CEMS as the compliance method (with a specified averaging time for the emission limit). Which pollutants do you request compliance by CEMS? Are you aware that annual stack testing (Relative Accuracy Test Audits (RATA) ) would be required to quality assure the CEMS pursuant to 40 CFR 60 Appendix F (the QA procedures in the NSPS in cases where the CEMS is the compliance method). You may already be subject to this QA testing if the current permit requires it (I have not checked).

2) On page 3 you asked to remove the 1% accuracy requirement for the baghouse inlet thermocouple. What accuracy can you meet with a standard thermocouple? Note that 62-297.310 in the table, the stack testing equipment thermocouple is required to be accurate to +/- 5 F. This is approximately 2% accuracy for stack test temperatures of about 250 F. These are standard thermocouples.

3) The proposed test methods for HCL, Pb, Hg, HF, H2SO4, Be, and Ar are acceptable and can be incorporated as a permit amendment. 

You can call me (850 921-9511) or return my e-mail with any questions.

Sincerely,

Martin Costello, P.E.

Emissions Monitoring Section

Department of Environmental Protection

Tallahassee, FL

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Headers

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Return-Path: <COSTELLO\_M@dep.state.fl.us>

Received: from rly-zd02.mx.aol.com (rly-zd02.mail.aol.com [172.31.33.226]) by air-zd05.mail.aol.com (v53.29) with SMTP; Mon, 21 Dec 1998 12:56:59 -0500

Received: from epic66.dep.state.fl.us (epic66.dep.state.fl.us [199.73.128.6]) by rly-zd02.mx.aol.com (8.8/8.8.5/AOL-4.0.0) with ESMTP id MAA11949 for <anethal@aol.com>; Mon, 21 Dec 1998 12:56:58 -0500 (EST)

Received: from mr.dep.state.fl.us by EPIC66.DEP.STATE.FL.US (PMDF V5.1-4 #7204) id <01J5UOW0ZZ4000S65@EPIC66.DEP.STATE.FL.US> for anethal@aol.com; Mon, 21 Dec 1998 11:37:50 EDT

Received: with PMDF-MR; Mon, 21 Dec 1998 11:19:03 -0400 (EDT)

MR-Received: by mta DER1; Relayed: Mon, 21 Dec 1998 11:19:03 -0400

MR-Received: by mta EPIC66; Relayed: Mon, 21 Dec 1998 11:19:07 -0400

Alternate-recipient: prohibited

Date: Mon, 21 Dec 1998 11:19:02 -0400 (EDT)



**RECEIVED**

**DEC 18 1998**

**BUREAU OF  
AIR REGULATION**

December 15, 1998

Mr. Al Linero  
Department of Air Resources Management  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

Re: Dade County Resource Recovery Facility  
PSD-FL-006A & PA 77-08 – Monitoring & Measurement Methods

Dear Mr. Linero:

The purpose of the inquiry is to clarify and agree to monitoring and measurement methods, which apply to the Miami Dade County Resources Recovery Facility. This inquiry is being made on behalf of the facility owner (Dade County Department of Solid Waste Management - DSWM) by the facility operator (Montenay Power Corp - MPC.). MPC is currently attempting to contract for the performance and demonstration testing for the facility which will be done in June 1999, and thus, needs to be able to inform the contractors of the methods to be used.

Discrepancies exist in the test methods which apply to the facility as stated in the site permits and applications – the Prevention of Significant Deterioration Permit, the Conditions of Certification, and the Title V operating permit application - and the new federal requirements 40 CFR 60 Subpart Cb. These differences, and the proposed changes, were discussed recently at a meeting with FDEP and are repeated in the attachment to this letter. Essentially, DSWM and MPC are requesting that the test methods and monitoring instrument accuracy standards be made consistent with the federal requirements. Additionally, we need to verify that certified CEMs measurements will be acceptable for determining emissions rates during performance and demonstration testing and during annual stack testing.

If possible, a response to this matter would be appreciated as soon as possible. DSWM will then follow with applications to modify all affected permits to reflect the methods that have been agreed to.

Please contact me by telephone or e-mail at [anethal@aol.com](mailto:anethal@aol.com) with any questions on this request. Thank you for your assistance.

Sincerely,

D. Anetha Lue, P.E.  
Environmental Coordinator, MIC

**montenay international corp.**

3225 aviation avenue, 4th floor, miami, florida 33133 (305) 854-2229 fax (305) 854-2272

cc: H. Oven – FDEP, Power Plant Siting Office  
E. Anderson - DERM  
E. Delosantos – FDEP, Palm Beach  
L. Casey – DSWM  
V. Castro - DSWM  
F. Screve – MPC  
B. Gilbert – MPC  
E. Johnson – BMI  
A. Lue - MIC

**Attachment to FDEP Letter – DCRRF Monitoring Methods**

PARAMETER	40 CFR Subpart Cb Method	DCRRF Permit Method <sup>1</sup>	Proposed Permit Revision
Hydrochloric Acid	26 or 26A	26	add method 26A as option
Lead	29	12	change to 29
Mercury	29	101A	change to 29
Hydrogen Fluoride	-	13 or 13B	add method 26 & 26A to allow HF testing with HCl run
Sulfuric Acid Mist	-	-	use method 8
Beryllium	-	104	add method 29 as option
Arsenic	-	108	add method 29 as option
Baghouse Inlet Temperature	monitor (accuracy of monitor not specified)	monitor & certify monitor to 1% accuracy	remove certification requirement for 1% accuracy as requirement cannot be met by standard thermocouple.

<sup>1</sup> Methods are contained in COC and PSD permits, and in Title V permit application.

Date: 9/10/98 6:07:12 PM  
From: Alvaro Linero TAL  
Subject: FWD: Dade County RRF - PSD FL 006A  
To: Scott Sheplak TAL  
To: Cindy Phillips TAL  
CC: Teresa Heron TAL  
CC: Steven Palmer TAL

Scott. Can you guys take over setting up the meeting with Dade? Unless we are "relaxing" a permit condition, I don't see any construction permitting.

Feel free to set up meeting with Steve Palmer instead of Buck. Clair does not need to be there either. I'm available if you want me there.

MACT can be implemented through Title V Permitting. At least EPA seems to be trying to implement MACTs that way where feasible. I recommend processing that Title V permit early. In any case, if you want others there, let them know.

Candidates are:

Teresa - Writer of the PSD permit  
Joe - Knowledgeable about solid waste matters  
Mike Hewett - Knows about Implementation Schedule for RRF's  
Mike Harley - Monitoring issues  
Ed Svec - RRF permitting

We just need to establish clearly who is the lead person on the matter and let that person get input from everyone else. Thank you. Al.

Kim - To the  
New (or re-activated)  
Dade (Hortney) RRF file.

① Clair - Teresa set up meeting.  
② Scott - We will go ahead  
and set up meeting.  
F.Y.I. H&K was much  
different since it involves  
massive reconstruction of  
boilers and a production  
increase. Dade is a  
straight pollution control project with  
no emissions increases.  
AL

This does not seem to  
be any different than  
Mekey Bay, which was  
handled by Fort Kahn in  
the new source review (NSR)  
section (A1), Thursday.  
This is a NSR jurisdiction  
not Title V.  
Shubert  
Bum

10-29-98  
Seth Levine  
ALH

Bruce  
Can Ed set this  
meeting up? If not  
Cindy can.  
S.H.  
9/30

AL





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SEP 04 1998

BUREAU OF  
AIR REGULATION

August 31, 1998

Mr. Hamilton Oven  
Office of Siting Coordinator  
Florida Department of Environmental Protection  
2699 Blair Stone Road  
Tallahassee, FL 32399-2400

Mr. Clair Fancy  
Department of Air Resources Management  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

Re: Dade County Resource Recovery Facility  
PA 77-08 & PSD-FL-006A

Dear Messrs. Oven & Fancy:

As permittee for the Miami Dade County Resource Recovery Facility the Department of Solid Waste Management (DSWM) is in the process of establishing a start-up schedule for the facility retrofit project, and is seeking FDEP's assistance in this matter. You may recall that Permits PA77-08 and PSD-FL-006A were issued to allow the upgrade of the air pollution control systems for the combustion units using baghouses, scrubbers and carbon injection, and to allow the installation of continuous emission monitors. It is anticipated that these upgrades will be completed by June 1999, and that the units will, at that time, meet the emission standards of the permit for which controls were installed - i.e. particulate matter, sulfur oxides, hydrogen chloride, metals and organics. When the retrofit project was permitted, the plan was to proceed with these changes in advance of the MACT requirements and to follow with any remaining changes needed to meet the final standard by the MACT deadline. Thus, in keeping with this approach we are proposing that initial performance and demonstration testing of the units be conducted after all of the initially planned changes are made.

8675 Northwest 53 Street, Suite 201, Miami, Florida 33166 • 305-592-1776

*"Love Your Neighbor"*



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Messrs. Oven & Fancy  
August 31, 1998  
Page 2

After those upgrades are completed in June 1999, we plan to use the data from the continuous emissions monitoring system (CEMS) to finalize the control system design for CO and NO<sub>x</sub>, and to complete the procurement and installation of any necessary additional controls. These additional activities, including performance and demonstration testing for all emissions and operational parameters, and for the CEMS, will be completed by December 19, 2000, which is consistent with the facility's Compliance Plan for MACT (40 CFR 60 Subpart Cb) which was accepted by FDEP.

If FDEP finds this proposal acceptable, it first will be necessary to extend the expiration date of the Prevention of Significant Deterioration (PSD) permit from June 30, 1999, to December 20, 2000. Please advise us how to proceed with such a request for extension. Additionally should more controls be necessary, a revision to the permit will also be needed to reflect any control equipment changes. In scheduling these activities, it would be prudent to consider and include the permit amendments which will be needed to make the existing Conditions of Certification (COC) and PSD permits consistent with MACT. Our objective in making these changes will be to, as far as is possible, minimize the number of revisions that need to be made, thus FDEP's guidance and active input will be needed.

Given that there are a few inter-related activities associated with the start-up schedule, as discussed above, it may be helpful to meet in order to ensure that we fully understand FDEP's time requirements related to these activities. Therefore, if possible, we DSWM and our operator - Montenay Power Corp. - would like to meet with you, and other appropriate FDEP staff, this month to review this proposal. We will contact you to determine your availability.

Thank you for your prompt attention to this matter,

Sincerely,



Vicente Castro  
Assistant Director  
Technical Services

cc: J. Ruiz - DSWM  
J. Lurix - FDEP Palm Beach  
L. Casey - DSWM  
L. Moreno - DSWM  
F. Screve - MPC  
B. Gilbert - MPC  
E. Johnson - BMI  
A. Lue - MIC

(5) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule comply with the following requirements.

(a) The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C.

(b) The test method for particulate emissions shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet.

(c) The test method for carbon monoxide shall be EPA Method 10, incorporated and adopted by reference in Chapter 62-297, F.A.C.

(d) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

(6) Continuous Emissions Monitoring Requirements. Any facility subject to this rule shall be equipped with instruments to continuously monitor and record the temperature and the carbon monoxide concentration of the flue gases leaving the high temperature zone, but before any dilution air is mixed with the flue gases. The temperature monitor shall be certified by the manufacturer to be accurate to within 1% of the temperature being measured. The temperature monitoring system shall be calibrated at least annually by the procedure recommended by the manufacturer. The calibration shall be at a minimum of three temperatures and over a range from 10% below to 10% above the designed flue gas hot zone temperature of the soil thermal treatment facility. Calibration records shall be kept for a minimum of three years. The carbon monoxide monitor shall be certified by the manufacturer to be accurate to within 10% of the carbon monoxide concentration by volume, mean value, or 5% of the applicable standard of 100 ppm, whichever is greater, as determined by EPA Test Method 10 in 40 CFR Part 60, Appendix A, adopted by reference in Rule 62-204.800(7), F.A.C. The carbon monoxide continuous emission monitoring device shall be certified, calibrated, and operated according to Performance Specification 4 of 40 CFR Part 60, Appendix B, adopted by reference in Rule 62-204.800(7), F.A.C., excluding Section 5.2, Calibration Drift Test Period, of Performance Specification 2. Specific Authority 403.061, FS.

Law Implemented 403.021, 403.031, 403.061, 403.087, FS.

History -- Formerly 17-2.100; Amended 11-62-92; Formerly 17-296.415; Amended 11-23-94, 1-1-96, 3-13-96.

#### **62-296.416 Waste-to-Energy Facilities.**

(1) Applicability. The requirements of this rule apply to all waste-to-energy facilities with charging rates of 40 tons per day or more. For those facilities subject to this rule and Rule 62-204.800(8)(b), F.A.C., the mercury emissions limiting standards in this rule shall apply in place of the less restrictive mercury emission limiting standard set forth at Rule 62-204.800(8)(b), F.A.C. However, the mercury percent reduction standard (85 percent) in Rule 62-204.800(8)(b), F.A.C., shall apply in place of the less restrictive mercury percent reduction standard (80 percent) set forth in this rule.

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**Effective 11-13-97**

(2) Relationship to Best Available Control Technology. The emission limitations in this rule supersede any less stringent emission limitations including those based on a best available control technology (BACT) determination made pursuant to Rule 62-212.400, F.A.C., or 40 CFR 52.21. The application of BACT shall not result in emissions of any air contaminant which exceeds the emission limits set forth in this rule

(3) Mercury Emissions Limiting Standards. Waste-to-energy facilities subject to the requirements of this rule shall comply with the mercury emission limiting standards of Rule 62-296.416(3)(a) or (b), F.A.C., depending on whether the facility chooses to control mercury emissions through the use of post-combustion control equipment designed to remove mercury from flue gases or mercury waste separation, respectively. Facilities choosing to control mercury emissions through the use of mercury control equipment must also comply with the flue gas temperature standard of Rule 62-296.416(4), F.A.C.

(a) Emissions Standard for Facilities Using Mercury Control Equipment.

1. Mercury emissions from facilities using post-combustion control equipment designed to remove mercury from flue gases shall not exceed 70 micrograms per dry standard cubic meter of flue gas, corrected to 7 percent O<sub>2</sub>, or 20 percent by weight of the mercury in the flue gas upstream of the mercury control device (80 percent reduction by weight), whichever occurs first.

2. Facilities with sulfur dioxide and hydrogen chloride control equipment in place or under construction as of July 1, 1993, and which choose to control mercury emissions through the use of mercury control equipment, shall comply with the mercury emissions limiting standard of Rule 62-296.416(3)(a)1., F.A.C., by July 1, 1995. All other facilities choosing to control mercury emissions through the use of mercury control equipment shall comply with the mercury emissions limiting standard of Rule 62-296.416(3)(a)1., F.A.C., by the date that the facility is required to demonstrate compliance with sulfur dioxide and hydrogen chloride emission limits, which limits are established at Rule 62-204.800(8)(b), F.A.C.

3. Facilities subject to the mercury emissions limiting standard of Rule 62-296.416(3)(a)1., F.A.C., shall demonstrate individual emissions unit compliance by the compliance date specified in Rule 62-296.416(3)(a)2., F.A.C., and annually thereafter.

(b) Emissions Standards for Facilities Using Waste Separation. The Department recognizes that reduction of mercury emissions from waste-to-energy facilities may be achieved by implementation of mercury waste separation programs. Such programs would require removal of objects containing mercury from the waste stream before the waste is used as a fuel.

1. Facilities with sulfur dioxide and hydrogen chloride control equipment in place or under construction as of July 1, 1993, and which choose to control mercury emissions exclusively through the use of a waste separation program, shall submit a

program plan to the Department by March 1, 1994, and shall comply with the following emissions limiting schedule.

a. After July 1, 1995, mercury emissions shall not exceed 140 micrograms per dry standard cubic meter of flue gas, corrected to 7 percent O<sub>2</sub>.

b. After July 1, 1997, mercury emissions shall not exceed 70 micrograms per dry standard cubic meter of flue gas, corrected to 7 percent O<sub>2</sub>.

2. Beginning no later than July 1, 1994, facilities subject to Rule 62-296.416(3)(b)1., F.A.C., shall perform semiannual individual emissions unit mercury emissions tests. Facilities shall stagger the semiannual testing of individual emissions units such that at least one test is performed quarterly. All tests conducted after July 1, 1995, shall be used to demonstrate compliance with the mercury emissions limiting standards of Rule 62-296.416(3)(b)1., F.A.C.

3. Facilities which do not have sulfur dioxide and hydrogen chloride control equipment in place or under construction as of July 1, 1993, and which choose to control mercury emissions exclusively through the use of a waste separation program, shall comply with a mercury emission limitation of 70 micrograms per dry standard cubic meter of flue gas, corrected to 7 percent O<sub>2</sub>, by the later of July 1, 1997, or the date that the facility is required to demonstrate compliance with sulfur dioxide and hydrogen chloride emission limits, which limits are established after July 1, 1993. If the facility is required to demonstrate compliance with sulfur dioxide and hydrogen chloride emission limits by a date prior to July 1, 1997, it shall comply with a mercury emission limitation of 140 micrograms per dry standard cubic meter of flue gas, corrected to 7 percent O<sub>2</sub>, by that date and until July 1, 1997.

4. Facilities subject to Rule 62-296.416(3)(b)3., F.A.C., shall demonstrate individual emissions unit compliance with the mercury emission limiting standard by the date specified therein and semiannually thereafter. Facilities shall stagger the semiannual testing of individual emissions units such that at least one test is performed quarterly.

(c) Mercury Emissions Inventory. For emissions inventory purposes, all waste-to-energy facilities with charging rates of 40 tons or more per day shall perform annual individual emissions unit mercury emissions tests and report the results to the Department. This testing shall begin during calendar year 1993 and end upon initiation of mercury testing pursuant to Rule 62-296.416(3)(a) or (b), F.A.C.

(d) Mercury Emissions Test Method and Procedures. All mercury emissions tests performed pursuant to the requirements of this rule shall comply with the following provisions.

1. The test method for mercury shall be EPA Method 29 adopted in Rule 62-297, F.A.C.

2. Test procedures shall meet all applicable requirements of Rule 62-297, F.A.C.

(4) Flue Gas Temperature Standard. Waste-to-energy facilities choosing to control mercury emissions through the use of post-combustion control equipment



designed to remove mercury from flue gases shall comply with the flue gas temperature standard of Rule 62-296.416(4)(a), F.A.C.

(a) Temperature Standard. The flue gas temperature standard set forth in 40 CFR 60.53b(c), incorporated by reference in Rule 62-2-4.800, F.A.C., shall apply.

(b) Temperature Monitoring. The temperature monitoring requirements set forth in 40 CFR 60.58b(i), incorporated by reference in Rule 62-204.800, F.A.C., shall apply.

(5) Carbon Usage Rate. The carbon injection rate operating standard and monitoring requirements set forth in 40 CFR 60.58b(m), incorporated by reference in Rule 62-204.800, F.A.C.; shall apply.

(6) Review of Standards. The Department shall review the mercury emission limits contained in Rule 62-296.416(3), F.A.C., and make recommendations to the Environmental Regulation Commission on revising the mercury emission limits no later than July 1, 1998. The review shall include an examination of available mercury emissions data and advances in mercury control technologies and mercury source separation techniques.

Specific Authority 403.061, FS

Law Implemented 403.021, 403.031, 403.061, 403.087, FS.

History -- New 10-5-93; Formerly 17-296.416; Amended 11-23-94, 1-1-96, 10-20-96.

#### **62-296.417 Volume Reduction, Mercury Recovery and Mercury Reclamation.**

The terms volume reduction process, mercury recovery process and mercury reclamation process are intended to have the same meanings as volume reduction facility, mercury recovery facility and mercury reclamation facility, respectively, as defined in Rule 62-737.200, F.A.C. The term facility as used in this rule is intended to have the meaning as defined in Rule 62-210.200, F.A.C. The following standards apply to all new and existing volume reduction, mercury recovery and mercury reclamation processes except those exempted in Rule 62-210.300(3), F.A.C.

(1) Operating Requirements. Facilities subject to this rule shall meet all operating requirements set forth herein, except that a facility may choose to control mercury emissions through the use of dual air handling systems or a single air handling system with redundant mercury controls, pursuant to either Rule 62-296.417(1)(c) or (d), F.A.C., respectively.

(a) Permissible Exposure Limit. The United States Occupational Safety and Health Administration (OSHA) permissible exposure limit for mercury vapor, set forth in 29 CFR 1910.1000, is hereby adopted and incorporated by reference.

(b) Negative Pressure Requirement for Processing Area. The area in which the processing equipment is located shall be fully enclosed and kept under negative pressure while processing mercury-containing lamps or devices. The term processing equipment is intended to have the meaning as defined in Rule 62-737.200, F.A.C.

(c) Facilities with Dual Air Handling Systems.

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**Effective 11-13-97**

1. The owner or operator shall install a primary air handling system with air pollution control equipment in order to reduce the mercury content of the air collected during the volume reduction and mercury recovery and reclamation processes.

2. The air collected by the primary system shall be vented within a fully enclosed area of the facility after the air is filtered through the air pollution control equipment.

3. Once each day the facility processes any mercury- containing lamps or devices and while mercury-containing lamps or devices are being processed, a sample of air shall be collected within the fully enclosed area of the facility in which the air collected by the primary air handling system is vented. The mercury content of the sample shall be determined for comparison with the OSHA permissible exposure limit. The terms mercury-containing lamps and mercury- containing devices are intended to have the meanings as defined in Rule 62-737.200, F.A.C.

4. The owner or operator shall operate, monitor and maintain the primary system air pollution control equipment in such a manner as not to exceed the OSHA permissible exposure limit for mercury vapor within the fully enclosed area of the facility in which the air collected by the primary air handling system is vented.

5. The owner or operator shall install a secondary air handling system in order to maintain negative pressure in the fully enclosed area of the facility in which the air collected by the primary system is vented.

6. The owner or operator shall install, operate, monitor and maintain air pollution control equipment in order to reduce the mercury content of the air collected by the secondary air handling system.

7. The primary system with air pollution controls shall be independent and separate from the secondary system with air pollution controls. The primary and secondary system air pollution controls shall incorporate carbon filters or equivalent technology.

(d) Facilities Using a Single Air Handling System with Redundant Mercury Controls.

1. The owner or operator shall operate, monitor and maintain an air handling system with redundant air pollution control equipment in order to reduce the mercury content of the air collected during the volume reduction and mercury recovery and reclamation processes.

2. Redundant air pollution control equipment shall incorporate at least two carbon filters or equivalent technology arranged in series so that the air passes through both filters before being released. Each filter shall be designed as to ensure compliance with the OSHA permissible exposure limit for mercury vapor at the emission point in the event of a single filter failure.

3. Once each day the facility processes any mercury- containing lamps or devices and while mercury-containing lamps or devices are being processed, a sample of air shall be collected downstream of the first carbon filter (or equivalent technology)

and upstream of the second. The mercury content of the sample shall be determined for comparison with the OSHA permissible exposure limit.

4. The owner or operator shall operate, monitor and maintain the air pollution control equipment in such a manner as not to exceed the OSHA permissible exposure limit for mercury vapor downstream of the first carbon filter (or equivalent technology) and upstream of the second.

(2) Recordkeeping Requirements. The owner or operator of a facility subject to this rule shall maintain records of monitoring information that specify the date, place, and time of measurement; the methodology used; and the analytical results. These shall include all calibration and maintenance records of monitoring equipment. The owner or operator shall retain records of all monitoring data and supporting information, available for Department inspection, for a period of at least five years from the date of collection.

Specific Authority 403.061, 403.087, FS.

Law Implemented 403.021, 403.031, 403.061, 403.087, FS.

History -- New 10-16-95, Amended 3-13-96.

**62-296.500 Reasonably Available Control Technology  
(RACT) - Volatile Organic Compounds (VOC) and Nitrogen Oxides (NOx) Emitting Facilities.**

(1) Applicability.

(a) The specific emission limiting standards and other requirements of Rules 62-296.500 through 62-296.516, F.A.C., shall apply to existing VOC-emitting facilities in all designated ozone nonattainment and air quality maintenance areas. In addition, the emission limiting standards of these rules shall apply to new and modified VOC-emitting facilities in all designated ozone nonattainment and air quality maintenance areas except those new and modified VOC-emitting facilities which have been or would be subject to review pursuant to 40 CFR 52.21 or Rule 17-2.17 (repealed), 17-2.500 (transferred), 17-2.510 (transferred), 62-212.400 or 62-212.500, F.A.C.

(b) In addition to the applicable requirements of this rule the specific emission limiting standards and other requirements of Rule 62-296.570, F.A.C., shall apply in Broward, Dade, and Palm Beach counties to major VOC-emitting facilities not regulated in whole under Rules 62-296.501 through 62-296.516, F.A.C., and major NOx-emitting facilities, except those new and modified major VOC- and NOx-emitting facilities which have been or would be subject to review pursuant to 40 CFR 52.21 or Rule 17-2.17 (repealed,) 17-2.500 (transferred), 17-2.510 (transferred), 62-212.400, or 62-212.500, F.A.C.

(2) Permit, Recordkeeping, and Compliance Reporting Requirements.

(a) Permits - Special Considerations.

1. Permits to construct or operate are required for all emissions units subject to a specific emission limiting standard or other requirement of Rules 62-296.501

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**Effective 11-13-97**



Method 10 in 40 CFR Part 60, Appendix A, adopted by reference in Rule 62-204.800(7), F.A.C. The carbon monoxide continuous emission monitoring device shall be certified, calibrated, and operated according to Performance Specification 4 of 40 CFR Part 60, Appendix B, adopted by reference in Rule 62-204.800(7), F.A.C., excluding Section 5.2, Calibration Drift Test Period, of Performance Specification 2. Specific Authority 403.061, FS.

Law Implemented 403.021, 403.031, 403.061, 403.087, FS.

History -- Formerly 17-2.100; Amended 11-62-92; Formerly 17-296.415; Amended 11-23-94, 1-1-96, 3-13-96.

#### **62-296.416 Waste-to-Energy Facilities.**

(1) **Applicability.** The requirements of this rule apply to all waste-to-energy facilities with charging rates of 40 tons per day or more. For those facilities subject to this rule and Rule 62-204.800(8)(b), F.A.C., the mercury emissions limiting standards in this rule shall apply in place of the less restrictive mercury emission limiting standard set forth at Rule 62-204.800(8)(b), F.A.C. However, the mercury percent reduction standard (85 percent) in Rule 62-204.800(8)(b), F.A.C., shall apply in place of the less restrictive mercury percent reduction standard (80 percent) set forth in this rule.

(2) **Relationship to Best Available Control Technology.** The emission limitations in this rule supersede any less stringent emission limitations including those based on a best available control technology (BACT) determination made pursuant to Rule 62-212.400, F.A.C., or 40 CFR 52.21. The application of BACT shall not result in emissions of any air contaminant which exceeds the emission limits set forth in this rule.

(3) **Mercury Emissions Limiting Standards.** Waste-to-energy facilities subject to the requirements of this rule shall comply with the mercury emission limiting standards of Rule 62-296.416(3)(a) or (b), F.A.C., depending on whether the facility chooses to control mercury emissions through the use of post-combustion control equipment designed to remove mercury from flue gases or mercury waste separation, respectively. Facilities choosing to control mercury emissions through the use of mercury control equipment must also comply with the flue gas temperature standard of Rule 62-296.416(4), F.A.C.

(a) **Emissions Standard for Facilities Using Mercury Control Equipment.**

1. Mercury emissions from facilities using post-combustion control equipment designed to remove mercury from flue gases shall not exceed 70 micrograms per dry standard cubic meter of flue gas, corrected to 7 percent O<sub>2</sub>, or 20 percent by weight of the mercury in the flue gas upstream of the mercury control device (80 percent reduction by weight), whichever occurs first.

2. Facilities with sulfur dioxide and hydrogen chloride control equipment in place or under construction as of July 1, 1993, and which choose to control mercury emissions through the use of mercury control equipment, shall comply with the mercury emissions limiting standard of Rule 62-296.416(3)(a)1., F.A.C., by July 1, 1995. All

other facilities choosing to control mercury emissions through the use of mercury control equipment shall comply with the mercury emissions limiting standard of Rule 62-296.416(3)(a)1., F.A.C., by the date that the facility is required to demonstrate compliance with sulfur dioxide and hydrogen chloride emission limits, which limits are established at Rule 62-204.800(8)(b), F.A.C.

3. Facilities subject to the mercury emissions limiting standard of Rule 62-296.416(3)(a)1., F.A.C., shall demonstrate individual emissions unit compliance by the compliance date specified in Rule 62-296.416(3)(a)2., F.A.C., and annually thereafter.

(b) Emissions Standards for Facilities Using Waste Separation. The Department recognizes that reduction of mercury emissions from waste-to-energy facilities may be achieved by implementation of mercury waste separation programs. Such programs would require removal of objects containing mercury from the waste stream before the waste is used as a fuel.

1. Facilities with sulfur dioxide and hydrogen chloride control equipment in place or under construction as of July 1, 1993, and which choose to control mercury emissions exclusively through the use of a waste separation program, shall submit a program plan to the Department by March 1, 1994, and shall comply with the following emissions limiting schedule.

a. After July 1, 1995, mercury emissions shall not exceed 140 micrograms per dry standard cubic meter of flue gas, corrected to 7 percent O<sub>2</sub>.

b. After July 1, 1997, mercury emissions shall not exceed 70 micrograms per dry standard cubic meter of flue gas, corrected to 7 percent O<sub>2</sub>.

2. Beginning no later than July 1, 1994, facilities subject to Rule 62-296.416(3)(b)1., F.A.C., shall perform semiannual individual emissions unit mercury emissions tests. Facilities shall stagger the semiannual testing of individual emissions units such that at least one test is performed quarterly. All tests conducted after July 1, 1995, shall be used to demonstrate compliance with the mercury emissions limiting standards of Rule 62-296.416(3)(b)1., F.A.C.

3. Facilities which do not have sulfur dioxide and hydrogen chloride control equipment in place or under construction as of July 1, 1993, and which choose to control mercury emissions exclusively through the use of a waste separation program, shall comply with a mercury emission limitation of 70 micrograms per dry standard cubic meter of flue gas, corrected to 7 percent O<sub>2</sub>, by the later of July 1, 1997, or the date that the facility is required to demonstrate compliance with sulfur dioxide and hydrogen chloride emission limits, which limits are established after July 1, 1993. If the facility is required to demonstrate compliance with sulfur dioxide and hydrogen chloride emission limits by a date prior to July 1, 1997, it shall comply with a mercury emission limitation of 140 micrograms per dry standard cubic meter of flue gas, corrected to 7 percent O<sub>2</sub>, by that date and until July 1, 1997.

4. Facilities subject to Rule 62-296.416(3)(b)3., F.A.C., shall demonstrate individual emissions unit compliance with the mercury emission limiting standard by the date specified therein and semiannually thereafter. Facilities shall stagger the semiannual testing of individual emissions units such that at least one test is performed quarterly.

(c) Mercury Emissions Inventory. For emissions inventory purposes, all waste-to-energy facilities with charging rates of 40 tons or more per day shall perform annual individual emissions unit mercury emissions tests and report the results to the Department. This testing shall begin during calendar year 1993 and end upon initiation of mercury testing pursuant to Rule 62-296.416(3)(a) or (b), F.A.C.

(d) Mercury Emissions Test Method and Procedures. All mercury emissions tests performed pursuant to the requirements of this rule shall comply with the following provisions.

1. The test method for mercury shall be EPA Method 29 adopted in Rule 62-297, F.A.C.

2. Test procedures shall meet all applicable requirements of Rule 62-297, F.A.C.

(4) Flue Gas Temperature Standard. Waste-to-energy facilities choosing to control mercury emissions through the use of post-combustion control equipment designed to remove mercury from flue gases shall comply with the flue gas temperature standard of Rule 62-296.416(4)(a), F.A.C.

(a) Temperature Standard. The flue gas temperature standard set forth in 40 CFR 60.53b(c), incorporated by reference in Rule 62-2-4.800, F.A.C., shall apply.

(b) Temperature Monitoring. The temperature monitoring requirements set forth in 40 CFR 60.58b(i), incorporated by reference in Rule 62-204.800, F.A.C., shall apply.

(5) Carbon Usage Rate. The carbon injection rate operating standard and monitoring requirements set forth in 40 CFR 60.58b(m), incorporated by reference in Rule 62-204.800, F.A.C.; shall apply.

(6) Review of Standards. The Department shall review the mercury emission limits contained in Rule 62-296.416(3), F.A.C., and make recommendations to the Environmental Regulation Commission on revising the mercury emission limits no later than July 1, 1998. The review shall include an examination of available mercury emissions data and advances in mercury control technologies and mercury source separation techniques.

Specific Authority 403.061, FS

Law Implemented 403.021, 403.031, 403.061, 403.087, FS.

History -- New 10-5-93; Formerly 17-296.416; Amended 11-23-94, 1-1-96, 10-20-96.

(b) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

Specific Authority 403.061, FS.

Law Implemented 403.021, 403.031, 403.061, 403.087, FS.

History -- Formerly 17-2.650(1)(f)17.; Formerly 17-296.516; Amended 11-23-94, 1-1-96.

**62-296.570 Reasonably Available Control Technology (RACT) - Requirements for Major VOC- and NOx-Emitting Facilities.**

(1) Applicability.

(a) The requirements of this rule shall apply to those major VOC- and NOx-emitting facilities specified in Rule 62-296.500(1)(b), F.A.C.; specifically, to those VOC emissions units within such facilities which are not regulated for VOC under Rules 62-296.501 through 62-296.516, F.A.C., and those VOC and NOx emissions units which have not been exempted pursuant to Rule 62-296.500(1)(b), F.A.C., or by a specific provision of Rules 62-296.500 through 62-296.516, F.A.C.

(b) The requirements of this rule shall not apply to emissions units that are exempt from the air permitting requirements of the Department pursuant to Rule 62-210.300, F.A.C.

(2) Compliance Requirements. Emissions units subject to the requirements of this rule shall comply with the operation permit requirements of Rule 62-296.570(3), F.A.C., and the RACT emission limiting standards of Rule 62-296.570(4), F.A.C. If, pursuant to an air operation or construction permit, the owner or operator of a emissions unit subject to the requirements of this rule assumes (or has assumed) a more stringent NOx or VOC emissions limit than the RACT emissions limit established in Rule 62-296.570(4), F.A.C., for the applicable emissions unit category, compliance with the emissions unit's NOx or VOC emissions limit in its air operation or construction permit shall be considered compliance with RACT for purposes of this rule.

(3) Operation Permit Requirements.

(a) The owner or operator of any emissions unit subject to the requirements of this rule shall apply for a new or revised permit to operate in accordance with the provisions of this rule by March 1, 1993, unless a later filing date is specified by the Department in writing.

(b) If the existing operation permit for any emissions unit subject to the requirements of this rule would expire between the effective date of this rule and March 1, 1993, or any later filing date specified by the Department, the expiration date of such permit is hereby extended until March 1, 1993, or such later date. This provision shall not apply in the case of a revocation or suspension of such permit pursuant to Chapter 62-4, F.A.C.

(4) RACT Emission Limiting Standards.

(a) Compliance Dates and Monitoring.

1. Each applicant for a new or revised operation permit for an emissions unit subject to the requirements of this rule shall propose a schedule for implementing

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**Effective 11-13-97**



the RACT emission limiting standards as expeditiously as practicable but no later than May 31, 1995. The emissions unit shall demonstrate compliance with the RACT emission limiting standards in accordance with a schedule specified in the emissions unit's air operation permit issued pursuant to Rule 62-296.570(3), F.A.C.

2. Fuel-specific NO<sub>x</sub> and VOC emission limits established under this rule shall be incorporated into the new or revised operation permit for each emissions unit and become effective in accordance with the terms of the permit.

3. For units that are not equipped with a continuous emission monitoring system (CEMS) for NO<sub>x</sub> or VOCs, compliance with the emission limits established in this rule shall be demonstrated by annual emission testing in accordance with applicable EPA Reference Methods from Rule 62-297.401, F.A.C., or other methods approved by the Department in accordance with the requirements of Rule 62-297.620, F.A.C., except as otherwise provided in Rule 62-296.570(4)(b), F.A.C. If required, such annual emission testing shall be conducted during each federal fiscal year (October 1 - September 30). Annual compliance testing while firing oil is unnecessary for units operating on oil for less than 400 hours in the current federal fiscal year.

4. For units that are equipped with a CEMS, compliance shall be demonstrated based on a 30-day rolling average. The CEMs must meet the performance specifications contained in 40 Code of Federal Regulations Part 60, Appendix B, or 40 Code of Federal Regulations Part 75, hereby adopted and incorporated by reference.

(b) Emission Limiting Standards.

1. Emissions of NO<sub>x</sub> from any rear wall fired, forced circulation, 16-burner, compact furnace shall not exceed 0.20 lb/million BTU while firing natural gas and 0.36 lb/million BTU while firing oil.

2. Emissions of NO<sub>x</sub> from any front wall fired, natural circulation, 18-burner, compact furnace shall not exceed 0.40 lb/million BTU while firing natural gas and 0.53 lb/million BTU of NO<sub>x</sub> while firing oil.

3. Emissions of NO<sub>x</sub> from any front wall fired, natural circulation, 24-burner, compact furnace shall not exceed 0.50 lb/million BTU while firing natural gas and 0.62 lb/million BTU of NO<sub>x</sub> while firing oil.

4. Emissions of NO<sub>x</sub> from any tangentially fired, low heat release, large furnace shall not exceed 0.20 lb/million BTU while firing natural gas.

5. Emissions of NO<sub>x</sub> from any gas turbine shall not exceed 0.50 lb/million BTU while firing natural gas and 0.90 lb/million BTU while firing oil. Unless compliance is demonstrated using a CEMS, compliance shall be demonstrated by a stack test on one representative turbine unit within a facility if the turbines are substantially similar.

6. Emissions of VOC and NO<sub>x</sub> from carbonaceous fuel burning facilities, other than waste-to-energy facilities, shall not exceed 5.0 lbs/million BTU and 0.9 lb/million BTU, respectively.

7. Emissions of NO<sub>x</sub> from any oil-fired diesel generator shall not exceed 4.75 lb/million BTU.

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Effective 11-13-97

8. Emissions of NO<sub>x</sub> from any cement plant shall not exceed 2.0 lb/million BTU.

9. Emissions of NO<sub>x</sub> from any other combustion emissions unit subject to the requirements of this rule and not covered in Rule 62-296.570(4)(b)1. through 8., F.A.C., shall not exceed 0.50 lb/million BTU. Compliance shall be demonstrated annually in accordance with the applicable EPA Method from Rule 62-297.401, F.A.C., or other method approved by the Department in accordance with the requirements of Rule 62-297.620, F.A.C.

10. Emissions of VOC from resin coating operations shall be limited by the use of low-VOC resin or thermal oxidation of emissions from the purge cycle.

11. Emissions of VOC from any emissions unit subject to this rule but specifically exempted from any of the control technology requirements of Rules 62-296.501, through 62-296.516, F.A.C., shall not exceed the applicable exemption criteria.

(c) Exception for Startup, Shutdown, or Malfunction. The emission limits in this rule shall apply at all times except during periods of startup, shutdown, or malfunction as provided by Rule 62-210.700, F.A.C.

Specific Authority 403.061, FS.

Law Implemented 403.021, 403.031, 403.061, 403.087, FS.

History -- New 2-2-93; Amended 4-62-94; Formerly 17-296.570; Amended 11-23-94, 1-1-96.

#### **62-296.600 Reasonably Available Control Technology (RACT) - Lead.**

(1) Applicability. Any new or existing lead processing operation that is located in an area designated under Chapter 62-275, F.A.C., as a lead nonattainment or air quality maintenance area, or in the area of influence of such an area, shall limit the emission of lead through the application of reasonably available control technology (RACT) as specified in Rules 62-296.601 through 62-296.605, F.A.C.

(2) Compliance Requirements. Lead processing operations subject to the requirements of this rule shall comply with the permit requirements, operation and maintenance plan requirements, recordkeeping and reporting requirements, and compliance demonstration requirements of Rules 62-296.600(3) through 62-296.600(6), F.A.C., respectively, the general requirements of Rule 62-296.601, F.A.C., and the specific emission limiting standards of Rules 62-296.602 through 62-296.605, F.A.C. For existing facilities, compliance with these requirements shall be achieved as expeditiously as possible, in accordance with a schedule of compliance established in the permit required pursuant to this rule.

(3) Permit Requirements. By September 30, 1994, the owner or operator of any existing facility subject to the requirements of this rule shall apply for a new or revised federally enforceable, as defined in Rule 62-210.200, F.A.C., air permit, pursuant to Chapter 62-4, F.A.C., addressing the requirements of this rule.

(4) Operation and Maintenance Plan. In any application for a permit, the owner or operator of any facility subject to the requirements of this rule shall submit to the Department an operation and maintenance plan for the lead emissions control devices, collection systems, and processing systems. The operation and maintenance plan shall include quarterly inspection methods for the lead emissions control devices, including black light leak detection tests or broken bag detectors in the baghouses, to prevent reduced lead collection efficiency. Lead oxide handling operations with the potential to emit 200 pounds or less of lead per year shall be exempt from this operation and maintenance plan provision.

(5) Recordkeeping and Reporting. The owner or operator of any facility subject to the requirements of this rule shall keep the following records for a minimum of two years, and make them available to any representative of the Department or an approved local air program upon request:

- (a) Records of control equipment operating parameters.
- (b) Maintenance records on the control equipment, including black-light tests, bag replacements, structural repairs, and motor replacements.
- (c) Records of control system malfunctions or failures and corrective actions taken.

(6) Compliance Demonstration. The owner or operator of any facility subject to an emissions limiting standard pursuant to Rule 62-296.602 through 62-296.605, F.A.C., shall demonstrate compliance with such limit by the initial compliance date established in the permit required pursuant to this rule or in accordance with the terms of any construction permit addressing the requirements of this rule, and every five years thereafter unless a more frequent schedule is specified in the permit.

Compliance shall be demonstrated as follows:

- (a) Compliance with lead emission standards shall be demonstrated by EPA Method 12, adopted and incorporated by reference in Chapter 62-297, F.A.C.
- (b) Compliance with opacity standards shall be demonstrated by EPA Method 9, adopted and incorporated by reference in Chapter 62-297, F.A.C..

Specific Authority 403.061, FS.

Law Implemented 403.021, 403.031, 403.061, 403.087, FS.

History -- New: 8-8-94, Formerly 17-296.600; Amended 1-1-96, Amended 3-13-96.

#### **62-296.601 Lead Processing Operations in General.**

(1) Applicability. The provisions of this rule shall apply to all lead processing operations as specified in Rule 62-296.600(1), F.A.C.

(2) Prohibition.

(a) No owner or operator of a lead processing operation shall cause, allow, or permit the emissions of lead, including emissions of lead from vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrially-related activities such as loading, unloading, charging, melting, tapping,

casting, storing or handling, unless reasonably available control technology is employed to control such lead emissions.

(b) Examples of measures that constitute RACT are:

1. Paving, curbing, and maintaining roads, parking areas and yards which are routinely used by vehicular traffic.
2. Applying water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
3. Installing a permanent sprinkler system to continuously moisten open stock piles.
4. Vacuuming the roads and other paved areas under the control of the owner or operator of the facility to prevent lead from becoming airborne.
5. Landscaping or vegetating unpaved roads, parking areas and yards.
6. Using hoods, fans, filters, and similar equipment to capture, contain, and control lead emissions.
7. Enclosing or covering conveyor systems.
8. Using walls or windbreaks to contain lead-bearing scrap, products, or raw materials.

(c) As part of any application for a permit, the owner or operator of any facility subject to the requirements of this rule shall submit to the Department a description of the reasonably available control technology that will be employed to meet the requirements of this rule.

Specific Authority 403.061, FS.

Law Implemented 403.021, 403.031, 403.061, 403.087, FS.

History -- New 8-8-94, Formerly 17-296.601; Amended 1-1-96.

#### **62-296.602 Primary Lead-Acid Battery Manufacturing Operations.**

(1) Emission Limiting Standards. No owner or operator of a primary lead-acid battery manufacturing operation subject to Rule 62-296.600, F.A.C., shall cause, allow, or permit the discharge into the atmosphere of lead in excess of the following emission standards, in grains of lead per dry standard cubic foot, nor shall visible emissions exceed the following standards, in percent opacity:

- (a) Grid casting sources: 0.000176 grains and 0% opacity.
- (b) Paste mixing sources: 0.00044 grains and 0% opacity.
- (c) Three-process operation sources: 0.00044 grains and 0% opacity.
- (d) Lead oxide manufacturing sources: 0.0005 grains and 0% opacity.
- (e) Lead reclamation sources: 0.00198 grains and 5% opacity.
- (f) Any other lead sources: 0.00044 grains and 0% opacity.

(2) Collection Systems. Collection systems representing RACT shall be installed and operated to capture, contain, and control lead emissions resulting from all lead-emitting processes including charging, melting, tapping, and casting. No lead emissions shall be vented to the outside of any enclosed or partially enclosed process unless RACT is employed to control such emission.



(3) Attainment Demonstration. As part of the initial application for the permit required pursuant to Rule 62-296.600(3), F.A.C., the owner or operator of a facility subject to the requirements of this rule shall demonstrate to the Department that, after the application of RACT, the facility shall not cause or contribute to a violation of the ambient air quality standard for lead as set forth in Rule 62-204.240, F.A.C. The demonstration shall be made using air quality models as provided in Rule 62-204.220(2), F.A.C., and shall address both stack and fugitive emissions.

Specific Authority 403.061, FS.

Law Implemented 403.021, 403.031, 403.061, 403.087, FS.

History -- New 8-8-94, Formerly 17-296.602; Amended 1-1-96, 3-13-96.

### **62-296.603 Secondary Lead Smelting Operations.**

(1) Emission Limiting Standards. No owner or operator of a secondary lead smelting operation subject to Rule 62-296.600, F.A.C., shall cause, allow, or permit the discharge into the atmosphere of lead in excess of the following emission standards, in grains of lead per dry standard cubic foot, nor shall visible emissions exceed the following standards, in percent opacity:

(a) Blast and slag furnaces: 0.010 grains and 3% opacity at the exit point of the emissions control device.

(b) Blast furnace charging: 0.002 grains and 3% opacity at the exit point of the emissions control device.

1. Visible emissions from the closed charge doors on the blast furnace shall not exceed 3% opacity during furnace operation.

2. Visible emissions from the charge doors on the blast furnace shall not exceed 6% opacity during charging operation.

(c) Blast and slag furnaces, slag and product tapping: 0.002 grains and 3% opacity at the exit point of the emissions control device.

(d) Melt kettles and pot furnaces: 0.0002 grains and 3% opacity.

(e) Battery cracking operations: 3% opacity.

(f) Slag handling and processing operations: 0.0000333 grains and 3% opacity.

(2) Collection Systems. Collection systems representing RACT shall be installed and operated to capture, contain, and control lead emissions resulting from the storage, transport, and processing of all lead-bearing materials and products at secondary lead smelting operations. No lead emissions shall be vented to the outside of any enclosed or partially enclosed process unless RACT is employed to control such emissions.

(3) Attainment Demonstration. As part of the initial application for the permit required pursuant to Rule 62-296.600(3), F.A.C., the owner or operator of a facility subject to the requirements of this rule shall demonstrate to the Department that, after the application of RACT, the facility shall not cause or contribute to a violation of the ambient air quality standard for lead as set forth in Rule 62-272.300, F.A.C. The

and upstream of the second. The mercury content of the sample shall be determined for comparison with the OSHA permissible exposure limit.

4. The owner or operator shall operate, monitor and maintain the air pollution control equipment in such a manner as not to exceed the OSHA permissible exposure limit for mercury vapor downstream of the first carbon filter (or equivalent technology) and upstream of the second.

(2) Recordkeeping Requirements. The owner or operator of a facility subject to this rule shall maintain records of monitoring information that specify the date, place, and time of measurement; the methodology used; and the analytical results. These shall include all calibration and maintenance records of monitoring equipment. The owner or operator shall retain records of all monitoring data and supporting information, available for Department inspection, for a period of at least five years from the date of collection.

Specific Authority 403.061, 403.087, FS.

Law Implemented 403.021, 403.031, 403.061, 403.087, FS.

History -- New 10-16-95, Amended 3-13-96.

**62-296.500 Reasonably Available Control Technology  
(RACT) - Volatile Organic Compounds (VOC) and Nitrogen Oxides (NOx) Emitting  
Facilities.**

(1) Applicability.

(a) The specific emission limiting standards and other requirements of Rules 62-296.500 through 62-296.516, F.A.C., shall apply to existing VOC-emitting facilities in all designated ozone nonattainment and air quality maintenance areas. In addition, the emission limiting standards of these rules shall apply to new and modified VOC-emitting facilities in all designated ozone nonattainment and air quality maintenance areas except those new and modified VOC-emitting facilities which have been or would be subject to review pursuant to 40 CFR 52.21 or Rule 17-2.17 (repealed), 17-2.500 (transferred), 17-2.510 (transferred), 62-212.400 or 62-212.500, F.A.C.

(b) In addition to the applicable requirements of this rule the specific emission limiting standards and other requirements of Rule 62-296.570, F.A.C., shall apply in Broward, Dade, and Palm Beach counties to major VOC-emitting facilities not regulated in whole under Rules 62-296.501 through 62-296.516, F.A.C., and major NOx-emitting facilities, except those new and modified major VOC- and NOx-emitting facilities which have been or would be subject to review pursuant to 40 CFR 52.21 or Rule 17-2.17 (repealed,) 17-2.500 (transferred), 17-2.510 (transferred), 62-212.400, or 62-212.500, F.A.C.

(2) Permit, Recordkeeping, and Compliance Reporting Requirements.

(a) Permits - Special Considerations.

1. Permits to construct or operate are required for all emissions units subject to a specific emission limiting standard or other requirement of Rules 62-296.501

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**Effective 11-13-97**

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## EMISSION MEASUREMENT CENTER GUIDELINE DOCUMENT

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### TEMPERATURE MEASUREMENTS AND CALIBRATION OF TYPE K THERMOCOUPLES IN HIGH TEMPERATURE STACKS

#### INTRODUCTION

A common type of thermocouple material is the K-type. There are some limitations for the application of any thermocouple type but the discussion here will be limited to the application of the K-type. The manufacturer's specifications are a starting point for assurance of accuracy for temperature measurement with the thermocouple. The manufacturer usually specifies the accuracy, and temperature range for the give application.

#### DISCUSSION

Once the thermocouple has been placed in a stack (with the assumption that it is placed in a protective sheath and loosely insulated for protection from the harsh stack gases) the manufacturer's calibration data has been altered. Manufacturer's specifications are from data obtained under ideal laboratory conditions. It would be impractical to remove the thermocouple from the stack routinely to calibrate it against a reference thermocouple in the laboratory for QA purposes because of the obvious environmental differences. One important difference is the temperature profile of the thermocouple in the stack than in the lab. One possible alternative way of calibrating the thermocouple would be to compare results of a reference thermometer or other temperature measurement device placed in the stack near the thermocouple. Another alternative would be to slide either an R or S type thermocouple that have been calibrated in a thermology lab into the protective sheath, along side the one in question, for making reference comparisons for accuracy.

Drift under ideal conditions for a typical type K thermocouple is around .25 to .5 percent for every 1000 operating hours. Therefore, to ensure that the usual manufacturers "out of the box" initial accuracy (0.75 percent) plus about 1.25 percent drift (Total CD = 2.0 percent) is not exceeded, the thermocouple calibration should be verified every 3 months or replaced.

ANNUAL

Type K thermocouples, even with large wire gauge sizes, will eventually fail if subjected to sustained temperatures above 2000 degrees Fahrenheit. Even short excursions will shorten the useful life of the thermocouple. Other types of thermocouples should be considered for sustained temperatures above 2000 degrees Fahrenheit.

The National Institute of Standards and Technology (NIST) was the reference for this information and the expert contact at NIST is Mr. George Burns, Electrical Engineer for the Thermocouple Group. His number is (301)975-4817.

TO: District Air Program Administrators  
Local Air Program Administrators  
Bureau of Air Regulation Engineers

FROM: Howard L. Rhodes, Director  
Division of Air Resources Management

DATE: October 10, 1994

SUBJECT: Guidance on Calibration of the Temperature  
Monitoring System for Soil Thermal Treatment Facilities

Rule 62-296.415(1)(c), F.A.C., requires the temperature of the flue gases leaving the high temperature zone of a soil thermal treatment facility to be monitored continuously. Rule 62-297.500(6), F.A.C., requires the temperature monitoring system to be calibrated at least annually from 10 percent below to 10 percent above its normal operation range by the procedures recommended by the manufacturer. The temperature monitoring system generally consists of a thermocouple, a temperature indicator, and a recorder. The purpose of the calibration is to provide reasonable assurance that the temperature being recorded by the monitoring system is the actual temperature of the flue gases.

If the manufacturer has provided recommended calibration procedures, those procedures should be followed. If the manufacturer has not provided recommended calibration procedures, the following general calibration procedures should be used:

**THERMOCOUPLE:** The calibration points should bracket the hot zone temperature range over which the thermocouple is to be used. The rule requires the voltage output from the thermocouple to be measured at a minimum of three temperatures and over a range from 10% below to 10% above the designed flue gas hot zone temperature. The thermocouple should be calibrated against a NIST (National Institute of Standards and Technology) traceable reference thermocouple. The thermocouple may be calibrated using ASTM E 220, Method B. For these high temperature calibrations, electrical tube furnaces or dry fluidized baths can be used as stable heat sources. The incinerator duct may also be used for thermocouple calibration as discussed in guideline document GD-24, "Temperature Measurements and Calibration of Type K Thermocouples in High Temperature Stacks."

District Air Program Administrators and  
Local Air Program Administrators  
October 10, 1994  
Page Two

This document is available from the EPA Emission Measurement and Technical Information Center (EMTIC). The telephone number for the EPA bulletin board system is (919) 541-5742. Alternatively, the thermocouple can be replaced each year with a new thermocouple certified by the manufacturer to be accurate to within 0.9% of the flue gas temperatures being measured. A certificate of conformance from the manufacturer (certifying that the new thermocouple conforms to published specifications) will satisfy the annual calibration requirements of Rule 62-297.500(6), F.A.C. New  
A

TEMPERATURE INDICATOR: The instrument, which converts voltage output from the thermocouple to a temperature reading, can be calibrated by applying known voltages (mv), and reading the reported temperatures. The voltage values should correspond to the voltages generated by the thermocouple for temperatures over a range from 10% below to 10% above the designed flue gas hot zone temperature. The reference voltage supply should be accurate to within 0.1% of the reading.

RECORDER: The strip chart recorder or digital data acquisition system should be connected to the temperature indicator during its calibration and can be calibrated at the same time. The recorder should be adjusted to reproduce the readings of the temperature indicator.

The temperature monitoring system calibration error should not exceed 1% of the temperature reading pursuant to Rule 62-297.500(6), F.A.C.

HLR/mh/hf

Teresa

In order to validate the claim that the thermocouples in question cannot perform within the specified 1% of span in the units of measurement, it would be reasonable that the facility submit:

1. The type, model, and manufacturer of thermocouples used to make the measurements.
2. A copy of the manufacturers accuracy specifications for the thermocouples.
3. The latest calibration error test results for the thermocouples in question demonstrating the accuracy of the thermocouples relative to the expected measurement span.
4. A copy of the procedure by which any calibration data has been obtained would be expected to accompany the calibration data.
5. Maintenance records showing any repair, or replacement of the thermocouples could give the Department an ideal as to the durability of the devices in the environment that they are exposed to and the possible affects that may effect the drift of the instruments.

Matthew

1           2. Test procedures shall meet all applicable  
2 requirements of Rule 62-297, F.A.C.

3           (4) Flue Gas Temperature Standard. Waste-to-energy  
4 facilities choosing to control mercury emissions through the  
5 use of post-combustion control equipment designed to remove  
6 mercury from flue gases shall comply with the flue gas  
7 temperature standard of Rule 62-296.416(4)(a), F.A.C.

8           (a) Temperature Standard. The flue gas temperature  
9 standard set forth in 40 CFR 60.53b(c), incorporated by  
10 reference in Rule 62.204.800, F.A.C., shall apply. Except  
11 ~~during a malfunction, the maximum flue gas temperature at~~  
12 ~~the final particulate matter control device inlet, during~~  
13 ~~the combustion of solid waste, shall not exceed 30 degrees~~  
14 ~~Fahrenheit above the maximum temperature measured at the~~  
15 ~~particulate matter control device inlet during the most~~  
16 ~~recent mercury compliance test under which the facility was~~  
17 ~~found to be in compliance pursuant to Rule 62-296.416(3)(a),~~  
18 ~~F.A.C. If the maximum flue gas temperature standard is~~  
19 ~~exceeded during a malfunction, then up to three hours of~~

1 ~~that malfunction may be excluded from the four hour block~~  
2 ~~arithmetic average.~~

3 (b) Temperature Monitoring. The temperature monitoring  
4 requirements set forth in 40 CFR 60.58b(i), incorporated by  
5 reference in Rule 62-204.800, F.A.C., shall apply.

6 ~~Facilities subject to the temperature standard of Rule~~  
7 ~~62-296.416(4)(a), F.A.C., shall install, operate, and~~  
8 ~~maintain, in accordance with the manufacturer's~~  
9 ~~instructions, continuous monitoring equipment to monitor the~~  
10 ~~flue gas temperature at the inlet to the final particulate~~  
11 ~~matter control device and record the output.~~

12 ~~1. The temperature shall be calculated in four hour~~  
13 ~~block arithmetic averages.~~

14 ~~2. The monitoring equipment shall be installed by the~~  
15 ~~date required for initial compliance with the mercury~~  
16 ~~emission standard of Rule 62-296.416(3)(a), F.A.C.~~

17 ~~3. The monitoring equipment shall meet the requirements~~  
18 ~~of 40 CFR 60.13, including certification of each device in~~  
19 ~~accordance with 40 CFR 60.7(a)(5).~~ The monitoring equipment



1 ~~is to be certified by the manufacturer to be accurate within~~  
2 ~~+ 1 percent of the temperature being measured.~~

3 4. ~~Each facility shall maintain a complete file of all~~  
4 ~~measurements including continuous monitoring equipment~~  
5 ~~performance testing results; all continuous monitoring~~  
6 ~~equipment performance evaluations; all continuous monitoring~~  
7 ~~equipment calibration checks; and all adjustments and~~  
8 ~~maintenance performed on the equipment. This information~~  
9 ~~shall be recorded in a permanent legible form suitable for~~  
10 ~~inspection. The file shall be retained for at least two~~  
11 ~~years following the date of such measurements, checks and~~  
12 ~~maintenance activities.~~

13 (5) Carbon Usage Rate. The carbon injection rate  
14 operating standard and monitoring requirements set forth in  
15 40 CFR 60.58b(m), incorporated by reference in Rule 62-  
16 204.800, F.A.C., shall apply. ~~Waste to energy facilities~~  
17 ~~choosing to control mercury emissions through the use of~~  
18 ~~carbon injection equipment shall comply with the following~~  
19 ~~carbon usage rate requirements.~~