



# Florida Department of Environmental Protection

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

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

*Electronic Mail – Received Receipt Requested*

## **NOTICE OF FINAL PERMIT REVISION**

In the Matter of an  
Application for Permit Revision by:

Mr. Thomas C. Eriksen  
([Tom.Eriksen@veoliaes.com](mailto:Tom.Eriksen@veoliaes.com))

Facility Manager and Responsible Official

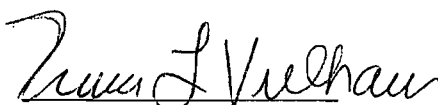
Montenay Power Corporation  
6990 N.W. 97<sup>th</sup> Avenue  
Miami, Florida 33178

FINAL Permit Revision No. **0250348-009-AV**  
**Miami-Dade County Resource Recovery Facility**

Enclosed is FINAL Title V Permit Revision Number 0250348-009-AV for the operation of the Miami-Dade County Resource Recovery Facility, located at 6990 Northwest 97<sup>th</sup> Avenue, Miami-Dade County, issued pursuant to Chapter 403, Florida Statutes (F.S.).

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

Executed in Tallahassee, Florida.

  
Trina L. Vielhauer, Chief  
Bureau of Air Regulation

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this FINAL Title V Air Operation Permit Revision, Final Permit Revision Determination, and all copies were sent electronically (with Received Receipt) before the close of business on 3/27/08 to the person(s) listed below.

Lee S. Casey, Department of Solid Waste Management, Miami-Dade County (le1@miamidade.gov)

David Buff, P.E., Golder Associates, Inc. (DBuff@Golder.com)

Lee Hoefert, P.E., Southeast District Office (lee.hoefert@dep.state.fl.us)

Anetha Lue, P.E., Montenay Power Corporation (anetha.lue@veoliaes.com)

Gracy Danois, EPA Region 4 (danois.gracy@epa.gov)

Clerk Stamp

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

Barbara J. Friday 3/27/08  
(Clerk) (Date)

**FINAL PERMIT REVISION DETERMINATION**

**I. Comment(s).**

No comments were received from Region 4, U.S.EPA, concerning the PROPOSED Title V Permit Revision that was posted on the Department's web-site on February 6, 2008.

**II. Conclusion.**

The permitting authority hereby issues the FINAL Title V Permit Revision.

## STATEMENT OF BASIS

### **Miami-Dade Department of Solid Waste Management Miami-Dade County Resource Recovery Facility**

Facility ID No. 0250348  
Miami-Dade County

Title V Permit Revision No. **0250348-009-AV**

This Title V air operation permit revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-213. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

This facility consists of four identical Zurn Refuse Derived Fuel (RDF) Spreader Stoker Combustion Units 1 thru 4, with auxiliary burners, and a cooling tower. The facility's primary activities are garbage and trash receiving and processing (including a metals recovery system); fuel handling and storage; biomass production and export; RDF, natural gas, and propane combustion; ash storage and processing, including a monofill ash landfill; and maintaining ancillary support equipment. The facility has installed upgraded air pollution control systems pursuant to the requirements of 40 CFR 60, Subpart Cb. The modifications included changes to the overfire air system, fuel feed system, and associated fuel distribution system. Fabric filters, spray dryer absorbers, activated carbon injection units, and selective non-catalytic reduction systems were installed.

The facility is designed to process 3,000 tons/day, 18,000 tons/wk, and 936,000 tons/yr of municipal solid waste (MSW: trash and garbage) into RDF and saleable extractables, such as metals. The biomass fuel preparation system processes up to 400,000 tons per year of the bulky solid waste into biomass, which is either transported off-site for use in biomass-fired cogeneration units or combusted on-site.

#### Compliance Assurance Monitoring (CAM) Applicability

Via earlier permitting action, the Department revised the facility's PSD permit to incorporate the 40 CFR 60 Subpart Cb limits for certain pollutants for Units 1 through 4. Because emissions limits for the following pollutants were taken directly from Subpart Cb, CAM is not applicable for the control devices for these pollutants: visible emissions (VE), and dioxins/furans (PCDD/PCDF). Although the PSD permit contains an additional emissions limit for dioxins/furans in another measurement unit, the Applicant demonstrated that the Cb limit was either equivalent or more restrictive.

The Applicant demonstrated that the pre-control emissions estimates for the following pollutants were below the major source thresholds, and thus the CAM rule does not apply to the control devices for: cadmium (Cd), mercury (Hg), fluoride (F), sulfuric acid mist (SAM), arsenic (As), and beryllium (Be). Since there is no control device installed for volatile organic compounds (VOC), the CAM rule does not apply for that pollutant.

The existing CEMS will be used to demonstrate compliance for NO<sub>x</sub>, SO<sub>2</sub>, and CO; therefore the CAM rule does not apply to the control devices for these pollutants. CO emissions are currently controlled by good combustion practices.

The Applicant submitted CAM plans for particulate matter (PM/PM<sub>10</sub>), lead (Pb), and hydrogen chloride (HCl).

The following change was made to the facility's Title V air operation permit:

From:

**A.35.** The emission limits for carbon monoxide contained in the gases discharged to the atmosphere per emissions unit are 200 parts per million by volume, measured at the combustor outlet in conjunction with a measurement of oxygen concentration, corrected to 7 percent O<sub>2</sub>, dry basis, calculated as a 24-hour daily arithmetic average; and 267.7 tons/yr.  
[40 CFR 60.34b(a); and PSD-FL-006(D).]

To:

**A.35.** The emission limits for carbon monoxide contained in the gases discharged to the atmosphere per emissions unit are 250 parts per million by volume, measured at the combustor outlet in conjunction with a measurement of oxygen concentration, corrected to 7 percent O<sub>2</sub>, dry basis (ppmvd), calculated as a 24-hour block average, geometric mean; and 267.7 tons/yr.  
[Applicant request; 40 CFR 60.34b(a) (revision of May 10, 2006); PSD-FL-006(D); and 025348-008-AC, Specific Condition 5.]

Miami-Dade County Department of Solid Waste Management  
Miami-Dade County Resource Recovery Facility  
Facility ID No. 0250348  
Miami-Dade County

FINAL Title V Permit Revision No. 0250348-009-AV

Permitting Authority  
State of Florida  
Department of Environmental Protection  
Division of Air Resource Management  
Bureau of Air Regulation

Mail Station #5505  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400  
Telephone: 850/488-0114  
Fax: 850/921-9533

Compliance Authority  
Department of Environmental Protection  
Southeast District  
400 North Congress Avenue  
West Palm Beach, Florida 33401  
Telephone: 561/681-6600  
Fax: 561/681-6755

Miami-Dade County Department of Solid Waste Management  
Miami-Dade County Resource Recovery Facility  
Facility ID No. 0250348  
Miami-Dade County

FINAL Title V Operation Permit Revision No. 0250348-009-AV

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# Florida Department of Environmental Protection

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

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

**Permittee:**

Miami-Dade County Dept. of Solid Waste Mgmt.  
2525 NW 62<sup>nd</sup> Street, 5<sup>th</sup> Floor  
Miami, Florida 33147

FINAL Permit Revision No. 0250348-009-AV

Facility ID No.: 0250348

SIC Nos.: 49, 4953

Project: Title V Air Operation Permit Revision

The purpose for this permit is to revise the facility's Title V Air Operation Permit. The existing facility is located at 6990 Northwest 97<sup>th</sup> Avenue, Miami, Florida 33178-6430, better described as approximately 0.5 mile north of Northwest 58<sup>th</sup> Street immediately west of Northwest 97<sup>th</sup> Avenue, Miami, Miami-Dade County. UTM Coordinates: Zone 17, 564.30 km East and 2857.40 km North; Latitude: 25° 50' 06" North and Longitude: 80° 21' 30" West.

This Title V Air Operation Permit Revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-213. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

**Referenced attachments made a part of this permit:**

Appendix I-1: List of Insignificant Emissions Units and/or Activities

Appendix SS-1, Stack Sampling Facilities (version dated 10/7/96).

Appendix TV-6, Title V Conditions (version dated 06/23/06).

Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance (40 CFR 60).

Table 297.310-1, Calibration Schedule.

Appendix Visible Emissions Reduction Plan (received on December 27, 2005)

Appendix CAM

**Permit Effective Date:** May 28, 2007

**Permit Revision Effective Date:** March 23, 2008

**Renewal Application Due Date:** November 29, 2011

**Expiration Date:** May 27, 2012

Joseph Kahn, Director

Division of Air Resource Management

JK/tlv/aal/tbc



## SECTION I. FACILITY INFORMATION

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### SECTION I. FACILITY INFORMATION.

#### Subsection A. Facility Description.

This facility consists of four identical Zurn Refuse Derived Fuel (RDF) Spreader Stoker Combustion Units 1 thru 4, with auxiliary burners, and a cooling tower. The facility's primary activities are garbage and trash receiving and processing (including a metals recovery system); fuel handling and storage; biomass production and export; RDF, natural gas, and propane combustion; ash storage and processing, including a monofill ash landfill; and maintaining ancillary support equipment. The facility has upgraded air pollution control system pursuant to the requirements of 40 CFR 60, Subpart Cb - Emissions Guidelines and Compliance Schedules for Municipal Waste Combustors That Are Constructed on or Before December 19, 1995, for the existing four RDF boilers built in 1987-1989. The modifications included changes to the overfire air system, fuel feed system, and associated fuel distribution system. The electrostatic precipitators were replaced with fabric filters, spray dryer absorbers and activated carbon injection units; and a selective non-catalytic reduction system was installed to comply with 40 CFR 60, Subpart Cb.

The facility is designed to process 3,000 tons/day, 18,000 tons/week, and 936,000 tons/year of municipal solid waste (MSW) into RDF and saleable extractables, such as metals. The biomass fuel preparation system processes up to 400,000 tons per year of the bulky solid waste into biomass, which is either transported off-site for use in biomass-fired cogeneration units or combusted on-site. Biomass, in the energy production industry, refers to living and recently living biological material which can be used as fuel or for industrial production. Each combustor has a design rated (nominal) capacity of 27 tons/hour (TPH) of RDF [648 tons/day (TPD): as determined by a rolling 12-month average]. RDF is the primary fuel; and, propane and natural gas are auxiliary fuels used for startup, shutdown, warmup, malfunctions, and to support good combustion. The auxiliary burners have a maximum heat input of 80 MMBtu/hr. The facility is allowed to burn the facility's processed biomass fuel not transported off-site, natural gas, non-MSW materials as segregated waste (5%, by weight), used tires (3%, by weight), and on-specification used oil, oily water, oily sludge, spent greases and oily solid waste (such as rags) generated on-site. The maximum continuous rating (MCR) for each combustor is 180,000 lbs/hr steam at 625 pounds per square inch gauge (psig) and 730 °F, when firing RDF. Units 1 and 2 provide steam to a turbine-generator with a nameplate rating of 38.5 megawatts (MW; gross); and, Units 3 and 4 provide steam to a turbine-generator with a nameplate rating of 38.5 MW (gross); and, the electricity is used for in-plant electrical load and the excess is sold.

To comply with 40 CFR 60, Subpart Cb, combustion control systems are installed for carbon monoxide and nitrogen oxides, as necessary, to meet the emissions limits. Continuous monitoring systems for combustion, process parameters, SO<sub>2</sub>, NO<sub>x</sub>, and CO are installed to improve combustion efficiency and control. The air pollution control equipment consists of spray dryer absorbers (for acid gases), activated carbon or comparable reactant injection systems (for mercury and dioxin), and fabric filter baghouses (for particulate matter and heavy metals). The facility also has an ash building and handling system, new lime storage silos, and activated carbon storage silos. In addition, the existing stacks and flue gas handling systems were replaced with new stacks and flue gas handling systems: Units 1 and 2 share a common stack, each with its own flue; and Units 3 and 4 share a common stack, each with its own flue. Odors are minimized by keeping the truck access doors closed during non-use; and a negative pressure is maintained on the garbage tipping floor, and the air is collected as combustion air. Also included in this permit are miscellaneous insignificant emissions units and/or activities. Based on the Title V Permit Renewal application received on March 30, 2005, this facility is a major source of hazardous air pollutants (HAP).

The use of 'Permitting Notes' throughout this permit are for informational purposes, only, and are not permit conditions.

## SECTION I. FACILITY INFORMATION

### Subsection B. Summary of Emissions Unit ID Numbers and Brief Descriptions.

The facility consists of the following emissions units/activities:

| E.U./Facility ID No. | Brief Description  |
|----------------------|--|
| -001/Unit 1          | Refuse Derived Fuel (RDF) Spreader Stoker Combustor & Auxiliary Burners    |
| -002/Unit 2          | RDF Spreader Stoker Combustor & Auxiliary Burners                          |
| -003/Unit 3          | RDF Spreader Stoker Combustor & Auxiliary Burners                          |
| -004/Unit 4          | RDF Spreader Stoker Combustor & Auxiliary Burners                          |
| -006/Unit 6          | MSW to RDF Processing Facility with Baghouses                              |
| -007/Unit 7          | Bulky Waste to Biomass Processing Facility with Baghouses                  |
| -008/Unit 8          | Ash Building and Handling System/Ash Storage Silo with Baghouse            |
| -009/Unit 9          | Two Lime Storage Silos each with a Baghouse                                |
| -010/Unit 10         | Activated Carbon or Comparable Reactant Storage Silos each with a Baghouse |

*Please reference the Permit Number, the Facility Identification Number, and the appropriate Emissions Unit(s) ID Number(s) on all correspondence, test report submittals, applications, etc.*

### Subsection C. Relevant Documents.

*{Permitting Note: The documents listed below are not a part of this permit; however, they are specifically related to this permitting action.}*

These documents are provided to the permittee for informational purposes:

Appendix A-1: Abbreviations, Acronyms, Citations, and Identification Numbers (version dated 2/5/97)

Appendix H-1: Permit History/ID Number Changes

These documents are on file with the permitting authority:

Application for a Title V Air Operation Permit Revision received on November 7, 2007.

DRAFT Title V Air Operation Permit Revision clerked on December 21, 2007.

PROPOSED Title V Air Operation Permit Revision posted for EPA review on February 6, 2008.

## SECTION II. FACILITY-WIDE CONDITIONS

### **The following conditions apply facility-wide:**

1. APPENDIX TV-6, TITLE V CONDITIONS, (version dated 06/23/06) is a part of this permit.  
*{Permitting note: APPENDIX TV- 6, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided one copy when requested or otherwise appropriate.}*
2. **Not federally enforceable. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited:** The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. 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. Also, a negative pressure shall be maintained on the garbage tipping floor and air from within the garbage building will be used as combustion air.  
[Rule 62-296.320(2), F.A.C.; Rule 62-296.401(2)(b), F.A.C.; PA 77-08; and, PSD-FL-006(A) & (D)]
3. **General Particulate Emission Limiting Standards. General Visible Emissions Standard:** Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.  
[Rule 62-296.320(4)(b)1 & 4, F.A.C.]
4. **Prevention of Accidental Releases (Section 112(r) of CAA):**
  - a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:  

RMP Reporting Center  
Post Office Box 1515  
Lanham-Seabrook, Maryland 20703-1515  
Telephone: 301/429-5018

and,
  - b. The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.  
[40 CFR 68]
5. **Insignificant Emissions Units and or Activities:** Appendix I - List of insignificant emission units and/or activities, is a part of this permit.  
[Rules 62-213.440(1), 62-213.430 (6) and 62-4.040 (1)(b), F.A.C.]
6. **Not federally enforceable. General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions:** The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.  
*{Permitting Note: No vapor emissions control devices or systems are deemed necessary nor ordered by the Department as of the issuance date of this permit.}*  
[Rule 62-296.320(1)(a), F.A.C. ]

## SECTION II. FACILITY-WIDE CONDITIONS

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7. [Reserved.]

8. Emissions of Unconfined Particulate Matter: Pursuant to Rules 62-296.320(4)(c)1., 3. & 4., F.A.C., reasonable precautions to prevent emissions of unconfined particulate matter at this facility include the following requirements (see Condition 57. of APPENDIX TV-6, TITLE V CONDITIONS):

The following techniques will be used to prevent unconfined particulate matter emissions at this facility as described below:

a. Facility's Processing of Biomass

- 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 will have baghouse pickup points at the transfer points and these shall be used during operations .
- 4) Wind breaks shall be installed around the shredded wood load-out area.
- 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.
- 8) Vegetation shall be planted on-site.

b. Other Precautions to be taken at the Miami-Dade County Complex

- 1) Employment of proper dust-control techniques to prevent fugitive dust emissions during construction activities such as demolition of buildings, grading roads, construction, and land clearing (including construction to be experienced during facility improvements to air pollution control equipment to meet the Emission Guideline requirements of 40 CFR 60, Subpart Cb).
- 2) Application of asphalt, water, oil, chemicals, or other dust suppressants to roads, yards, open stock piles, and similar emissions units/activities as necessary to minimize fugitive dust (except for within the ash landfill).
- 3) Confining abrasive blasting where possible.
- 4) Operation of the landfill in accordance with all applicable portions of Chapter 62-7, F.A.C.
- 5) All roads, except for roads within the ash landfill, shall be adequately paved to control visible emissions.
- 6) Maximum 15 MPH speed limit signs shall be posted to minimize dust generation.
- 7) Residue from 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 fugitive dust.
- 8) The ash/residue in the bottom ash building shall be kept sufficiently moist to minimize fugitive dust during storage and handling operations.

## SECTION II. FACILITY-WIDE CONDITIONS

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9) Transport vehicles for ash shall be covered.

10) Bottom ash and fly ash shall be wetted as necessary to minimize fugitive dust prior to the use of conveyor systems.

[Rule 62-296.320(4)(c)2., F.A.C.; PSD-FL-006(A) & (D); PA 77-08C; and 0250348-001-AV]

9. Timely Recording, Monitoring and Reporting: When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one. [Rule 62-213.440, F.A.C.]

10. Statement of Compliance: The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., shall be submitted to the Department and EPA within 60 (sixty) days after the end of the calendar year using DEP Form No. 62-213.900(7), F.A.C.  
[Rules 62-213.440(3) and 62-213.900, F.A.C.]

*{Permitting Note: This condition implements the requirements of Rules 62-213.440(3)(a)2. & 3., F.A.C. (see Condition 51. of APPENDIX TV-6, TITLE V CONDITIONS)}*

11. State and County Compliance Authority: The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Southeast District office and the Miami-Dade County Department of Environmental Resources Management (DERM; also, known as the "designee") office at the following addresses:

Department of Environmental Protection  
Southeast District  
400 North Congress Avenue  
West Palm Beach, Florida 33401  
Telephone: 561/681-6600  
Fax: 561/681-6755

Miami-Dade County Dept. of Env. Resources Mgmt.  
Air Section  
33 Southwest Second Avenue, Suite 900  
Miami, Florida 33130-1540  
Telephone: 305/372-6925  
Fax: 305/372-6954

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

United States Environmental Protection Agency  
Region 4  
Air, Pesticides & Toxics Management Division  
Air and EPCRA Enforcement Branch  
Air Enforcement Section  
61 Forsyth Street  
Atlanta, Georgia 30303  
Telephone: 404/562-9155, Fax: 404/562-9164

13. Certification by Responsible Official (RO): In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information.  
[Rule 62-213.420(4), F.A.C].

### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection A. RDF Spreader Stoker Combustor & Aux. Burners (Units 1, 2, 3 and 4)

**Subsection A. This section addresses the following emissions unit(s).**

This section addresses the following emissions unit(s).

| Emission Unit I.D. | Brief Description   |
|--------------------|---|
| 001                | Refuse Derived Fuel Spreader Stoker Combustor & Auxiliary Burners |
| 002                | Refuse Derived Fuel Spreader Stoker Combustor & Auxiliary Burners |
| 003                | Refuse Derived Fuel Spreader Stoker Combustor & Auxiliary Burners |
| 004                | Refuse Derived Fuel Spreader Stoker Combustor & Auxiliary Burners |

*{Permitting Note: These emissions units are allowed to burn refuse derived fuel (RDF) as the main fuel. RDF means a type of municipal solid waste (MSW) produced by processing MSW through shredding and size classification. This includes all classes of RDF including: low-density fluff; densified RDF and pelletized RDF. RDF stoker means a steam generating unit that combusts RDF fuel in a semisuspension firing mode using air fed distributors. Each of the four RDF combustors produces at the manufacturer's maximum continuous rating (MCR) steam flow of 180,000 lbs/hr (at 625 psig and 730 °F). Short term capacity is limited by limiting steam production, which effectively limits heat input.}.*

[PSD-FL-006(D); and, 40 CFR 60.51b]

ARMS emissions units Nos. -001, -002, -003 and -004 are identical RDF spreader stoker combustors with Zurn attributes designated as Units 1, 2, 3 and 4, respectively. RDF is burned in suspension and on a grate with a primary and secondary air system to provide air in varying proportions to promote the proper combustion.

Units 1 thru 4 began commercial operation January 1, 1982. Particulate matter emissions from Units 1, 2, 3 and 4 are controlled by fabric filters. Following retrofitting to comply with the NSPS, 40 CFR 60, Subparts Cb and Eb, each boiler has a maximum capacity of 648 tons of RDF per day, as determined by a rolling 12-month average. The design rated (nominal) capacity for each emissions unit is 27 tons/hour of RDF. Auxiliary burners associated with each RDF combustor are permitted to fire propane and natural gas at a maximum heat input of 80 MMBtu/hr for startup, shutdown and malfunction, and at other times when necessary and consistent with good combustion practices.

No. 2 fuel oil (with a maximum sulfur content of 0.08%, by weight) was allowed to be used for startup only in PA 77-08, but the facility has chosen not to use fuel oil in the auxiliary burners to date. Each unit is allowed to produce at the manufacturer's maximum continuous rating steam flow of 180,000 lbs/hr, at 625 psig and 730 °F, when firing RDF.

Combustion control systems were installed for carbon monoxide and nitrogen oxides, as necessary, to meet the emissions limits. Continuous monitoring devices for combustion and process parameters and SO<sub>2</sub>, NO<sub>x</sub> and CO were installed to improve combustion efficiency and control. The air pollution control equipment consists of a spray dryer absorber (for acid gases), an activated carbon or comparable reactant injection system (for mercury and dioxin), and a fabric filter baghouse (for particulate matter and heavy metals). CO emissions are currently controlled by good combustion practices. For NO<sub>x</sub>, a selective non-catalytic reduction system was installed to comply with 40 CFR 60, Subpart Cb.

Units 1 and 2 each have a separate flue and share a common stack: Stack height = 250 feet, flue exit diameter = 8.5 feet, flue gas exit temperature = 300 °F, actual volumetric flow rate = 227,000 acfm, and maximum dry standard volumetric flow rate = 88,250 dscfm @ 7% O<sub>2</sub>. Units 3 and 4 each have a separate flue and share a common stack with identical characteristics to Unit 1/Unit 2 stack.

### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection A. RDF Spreader Stoker Combustor & Aux. Burners (Units 1, 2, 3 and 4)

Two 38.5 MW (gross) turbine-generators (using the steam from the four boilers) supply the in-plant electrical load and the balance of the electricity generated is be sold. Odors are minimized by keeping the truck access doors closed during non-use; and, a negative pressure is maintained on the garbage tipping floor and the air collected is used as combustion air. The by-pass dampers will only be used when the boilers are shut down.

##### Compliance Assurance Monitoring (CAM) Applicability

Via earlier permitting action, the Department revised the facility's PSD permit to incorporate the 40 CFR 60 Subpart Cb limits for certain pollutants for Units 1 through 4. Because emissions limits for the following pollutants were taken directly from Subpart Cb, CAM is not applicable for the control devices for these pollutants: visible emissions (VE), and dioxins/furans (PCDD/PCDF). Although the PSD permit contains an additional emissions limit for dioxins/furans in another measurement unit, the Applicant demonstrated that the Cb limit was either equivalent or more restrictive.

The Applicant demonstrated that the pre-control emissions estimates for the following pollutants were below the major source thresholds, and thus the CAM rule does not apply to the control devices for: cadmium (Cd), mercury (Hg), fluoride (F), sulfuric acid mist (SAM), arsenic (As), and beryllium (Be). Since there is no control device installed for volatile organic compounds (VOC), the CAM rule does not apply for that pollutant.

The existing CEMS will be used to demonstrate compliance for NO<sub>x</sub>, SO<sub>2</sub>, and CO; therefore the CAM rule does not apply to the control devices for these pollutants. CO emissions are currently controlled by good combustion practices.

The Applicant submitted CAM plans for particulate matter (PM/PM<sub>10</sub>), lead (Pb), and hydrogen chloride (HCl). The plans were revised as needed and are included in the Title V Renewal Permit as Appendix CAM.

{Permitting note: These emissions units are regulated under NSPS - 40 CFR 60, Subpart Cb, Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors That Are Constructed on or Before September 20, 1994, adopted and incorporated by reference, subject to provisions, in Rule 62-204.800(8)(b), F.A.C.; NSPS - 40 CFR 60, Subpart E, Standards of Performance for Incinerators, adopted and incorporated by reference in Rule 62-204.800(7), F.A.C.; NSPS - 40 CFR 60, Subpart Eb, Standards of Performance for Large Municipal Waste Combustors That Are Constructed, Modified or Reconstructed on or Before September 20, 1994, adopted and incorporated by reference in Rule 62-204.800(7), F.A.C.; Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD) (PSD-FL-006 and PSD-FL-006(A thru D); Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT); Rule 62-296.401(2), F.A.C., Incinerators; Rule 62-296.416, F.A.C., Waste-to-Energy Facilities; and, PA 77-08 & 77-08(A, B, & C). Also, please note that conditions in 40 CFR 60, Subpart Cb, reference requirements that are contained in 40 CFR 60, Subpart Eb.}

The following specific conditions apply to the emissions unit(s) listed above:

##### **GENERAL**

**A.0.** The by-pass dampers will only be used when the boilers are shut down.  
[Rule 62-4.070(3), F.A.C.]

**A.1.** NSPS: The Standards of Performance for New Stationary Sources adopted by reference in Rule 62-204.800(8), F.A.C., the Emission Guidelines for Existing Sources adopted by reference in Rule 62-204.800(9), F.A.C., and the National Emissions Standards for Hazardous Air Pollutants adopted by reference in Rule 62-204.800(10), F.A.C., shall be controlling over other standards in the air pollution rules of the Department except that any emissions limiting standard contained in or determined pursuant to the air pollution rules of the Department which is more stringent than one

### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection A. RDF Spreader Stoker Combustor & Aux. Burners (Units 1, 2, 3 and 4)

contained in a Standard of Performance, an Emission Guideline, or a National Emission Standard, or which regulates emissions of pollutants or emissions units not regulated by an applicable Standard of Performance, Emission Guideline, or National Emission Standard, shall apply. [Rules 62-204.800(8)(c), (9)(a)1, and (10)(c), F.A.C.]

- A.2. Definitions:** For the purposes of Rules 62-204.800(7), (8), and (9), F.A.C., the definitions contained in the various provisions of 40 CFR Parts 60 and 61, adopted herein shall apply except that the term "Administrator" when used in 40 CFR Parts 60 and 61, shall mean the Secretary or the Secretary's designee except as noted in 40 CFR 61.157. [40 CFR 60.2; and, Rules 62-204.800(7)(a), (8)(a)2, and, (9)(a), F.A.C.]
- A.3. Definitions - Subpart Cb:** For purposes of Rule 62-204.800(8)(b), F.A.C., the definitions in 40 CFR 60.51b shall apply except for the term "municipal waste combustor plant", which shall have the same meaning as defined in 40 CFR 60.31b. [Rule 62-204.800(8)(b)2, F.A.C.]
- A.4. Circumvention:** No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. [40 CFR 60.12]
- A.5. Nameplate:** Each emissions unit shall have a metal name plate affixed in a conspicuous place on the shell showing manufacturer, model number, type waste, rated capacity, and certification number. [PA 77-08; and, PSD-FL-006(D)]
- A.6. Stack Height:** The height of the boiler stacks (2) shall not be less than 250 feet above the ground level at the base of the stack. [PSD-FL-006(A) & (D)]
- A.7. Units 1 thru 4** are subject to the requirements of 40 CFR 60, Subpart E, and all requirements of this permit. [Rule 62-4.070(3), F.A.C.]

#### ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

**A.8. Capacity:**

- 1) *RDF Charging Rate and Heat Input* - The design rated (nominal) capacity of each emissions unit is 27 tons/hour of RDF. The maximum charging rate of each emissions unit is 648 tons/day of RDF and other permitted fuels, as determined by a rolling 12-month average (see specific conditions **A.12** and **A.106**).
- 2) *Processing Capacity* - The facility is permitted to process a maximum of 3,000 tons/day, 18,000 tons/wk, and 936,000 tons/yr of RDF.
- 3) *Biomass Fuel Preparation System* - The biomass fuel preparation system is allowed to process up to 400,000 tons/yr of the bulky solid waste into biomass, which is either transported off-site for use in biomass-fired cogeneration units or combusted on-site.
- 4) *Steam Flow* - Each boiler pair shall not exceed an average of 180,000 pounds of steam produced per hour per unit, based on a 24-hr block averaged measurement.
- 5) *Load Level* - Unit load means the steam load of the municipal waste combustor (MWC) measured as specified in 40 CFR 60.58b(i)(6). Compliance with load level requirements shall be determined by a steam meter using ASME Power Test Code for Steam Generating Units, Power Test Code 4.1, section 4 (see 40 CFR 60.58b(i)(6)(ii) & (iii)). Each MWC unit shall not operate at a load level greater than 110 percent of the unit's "maximum demonstrated unit



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load”, based on a 4-hour block averaged measurements of steam flow. The “maximum demonstrated unit load” is defined by specific condition A.10. Note that item 4, above, provides a cap on steam flow.

- 6) The procedures specified in paragraphs (a) and (b) shall be used for calculating municipal waste combustor unit capacity as defined under 40 CFR 60.51b.
- a) For municipal waste combustor units capable of combusting municipal solid waste continuously for a 24-hour period, municipal waste combustor unit capacity shall be calculated based on 24 hours of operation at the maximum charging rate. The maximum charging rate shall be determined as specified in paragraphs (i) and (ii) as applicable.
  - (i) For combustors that are designed based on heat capacity, the maximum charging rate shall be calculated based on the maximum design heat input capacity of the unit and a heating value of 12,800 kilojoules per kilogram for combustors firing refuse-derived fuel and a heating value of 10,500 kilojoules per kilogram for combustors firing municipal solid waste that is not refuse-derived fuel.
  - (ii) For combustors that are not designed based on heat capacity, the maximum charging rate shall be the maximum design charging rate.

[40 CFR 60.31b and 40 CFR 60.58b(j); Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, PSD-FL-006(D)]

**A.9. Emissions Unit Operating Rate Limitation After Testing.** See specific condition A.69. This condition applies to specific conditions A.8 and A.10.  
[Rule 62-297.310(2), F.A.C.]

**A.10. Maximum Demonstrated Municipal Waste Combustor Unit Load.** Maximum demonstrated municipal waste combustor unit load means the highest 4-hour arithmetic average municipal waste combustor unit load achieved during four consecutive hours during the most recent dioxin/furan performance test demonstrating compliance with the applicable limit for municipal waste combustor organics specified in specific condition A.33.[40 CFR 60.34b(b) and 40 CFR 60.51b]

**A.11. Maximum Demonstrated Particulate Matter Control Device Temperature.** Maximum demonstrated particulate matter control device temperature means the highest 4-hour arithmetic average flue gas temperature measured at the particulate matter control device inlet during four consecutive hours during the most recent dioxin/furan performance test demonstrating compliance with the applicable limit for municipal waste combustor organics specified in specific condition A.33.  
[40 CFR 60.34b(b) and 40 CFR 60.51b]

**A.12. Methods of Operation – Fuels:**

- 1) *Refuse Derived Fuel* - The primary fuel for Units 1 thru 4 is RDF, including the items and materials that fit within the definition of MSW contained in either 40 CFR 60.51b or Section 403.706(5), F.S.
- 2) *Unauthorized Fuel* - Subject to the limitations contained in this permit, the authorized fuels for the facility also include the other solid wastes that are not MSW, which are described in (4) thru (7), below. However, the facility:
  - a) shall not burn:
    - i) those materials that are prohibited by state or federal law;
    - ii) those materials that are prohibited by this permit;
    - iii) lead acid batteries;
    - iv) hazardous waste;

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- v) nuclear waste;
  - vi) radioactive waste;
  - vii) sewage sludge;
  - viii) used oil, except for what is generated on-site;
  - ix) explosives; or,
  - x) beryllium-containing waste, as defined in 40 CFR 61, Subpart C; and,
- b) shall not knowingly burn:
- i) untreated biomedical waste from biomedical waste generators regulated pursuant to Chapter 64E-16, F.A.C., and from other similar generators (or sources); or,
  - ii) segregated loads of biological waste.
- 3) *Fuel Stream* - The fuel may be received either as a mixture or as a single-item stream (segregated load) of discarded materials. If the facility intends to use an authorized fuel that is segregated non-MSW material, the fuel shall be either:
- a) well mixed with MSW in the refuse pit; or
  - b) alternately charged with MSW in the hopper.

The facility operator shall prepare and maintain records concerning the description and quantities of all segregated loads of non-MSW material which are received and used as fuel at the facility, and subject to a percentage weight limitation, below (see items 5, 6 and 7). For the purposes of this permit, a segregated load is defined to mean a container or truck that is almost completely or exclusively filled with a single item or homogeneous composition of waste material, as determined by visual observation. These generic requirements are detailed further below for specific certain types of other solid wastes.

- 4) Other Solid Waste. Subject to the conditions and limitations contained in this permit, the following other solid waste may be used as fuel at the facility:

#### SOLID WASTE FROM ON-SITE OPERATIONS

- a) The constituents and properties of the *on-spec used oil* generated from on-site operations shall comply with the following allowable concentration levels, as stipulated and defined in 40 CFR 279.10 (July 1, 1998 version), which is adopted by reference in Rule 62-730.181, F.A.C.

| Constituent/Property             | Allowable Concentration |
|----------------------------------|-------------------------|
| Cadmium                          | 2 ppm maximum           |
| Arsenic                          | 5 ppm maximum           |
| Chromium                         | 10 ppm maximum          |
| Lead                             | 100 ppm maximum         |
| Total Halogens                   | 1000 ppm maximum        |
| Flash Point                      | 100 ° F minimum         |
| Polychlorinated Byphenyls (PCBs) | Less than 2 ppm         |

- b) The heating value of the waste oil shall also be determined during quarterly testing. No more than 0.5 percent of the maximum design heat input rate to the units, on a monthly average, of oily wastes shall be disposed of in the units.

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- c) On site generated on-specification *used oil, oily water, oily sludge, spent greases and oily solid waste (such as rags)* burned at this facility shall not be a hazardous waste as defined by Rule 62-730.030, F.A.C., or 40 CFR Part 261 (July 1, 1999 version). These materials shall conform to the standards of 40 CFR 279.11 and 40 CFR 761.20(e). It shall not include fuels or blended fuels consisting in whole or in part of hazardous waste or which include mixture of any solid waste generated from the treatment, storage, or disposal of hazardous waste. The on-spec used oil shall be burned in compliance with Section 403.769(3), F.S.
- d) The on-site generated *on-specification* used oil samples (representative of the material disposed of) shall be analyzed by EPA Recommended Analytical Procedures for Used Oil for the following constituent/property, associated unit, and using the test methods indicated:

| Constituent/Property              | Unit     | Test Method                  |
|-----------------------------------|----------|------------------------------|
| Cadmium                           | ppm      | EPA SW-846(6010)             |
| Arsenic                           | ppm      | EPA SW-846(6010)             |
| Chromium                          | ppm      | EPA SW-846(6010)             |
| Lead                              | ppm      | EPA SW-846(6010)             |
| Total Halogens                    | ppm      | EPA SW-846(9252)             |
| Sulfur                            | percent  | ASTM D129 or ASTM D1552      |
| Flash Point                       | degree F | EPA SW-846(1010)             |
| Heat of Combustion                | Btu/gal  | ASTM D240                    |
| Density                           | lbs/gal  |                              |
| Polychlorinated Byphenyls (PCB's) | ppm      | EPA SW-846(0010) and EPA 680 |
| Ash                               |          |                              |

NOTE: Other test methods may be used only after receiving written prior approval from the Department.

#### SOLID WASTE FROM OFF-SITE OPERATIONS

- a) Confidential, proprietary or special documents (including but not limited to business records, lottery tickets, event tickets, coupons and microfilm);
- b) Contraband which is being destroyed at the request of appropriately authorized local, state or federal governmental agencies, provided that such material is not an explosive, a propellant, a hazardous waste, or otherwise prohibited at the facility. For the purposes of this section, contraband includes but is not limited to drugs, narcotics, fruits, vegetables, plants, counterfeit money, and counterfeit consumer goods;
- c) Wood pallets, clean wood, and land clearing debris;
- d) Packaging materials and containers;
- e) Clothing, natural and synthetic fibers, fabric remnants, and similar debris, including but not limited to aprons and gloves; or

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- f) Rugs, carpets, and floor coverings, but not asbestos-containing materials or polyethylene or polyurethane vinyl floor coverings.
- 5) Waste Tires. Subject to the conditions and limitations contained in this permit, waste tires may be used as fuel at the facility. The total quantity of waste tires received as segregated loads and burned at the facility shall not exceed 3%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined as a daily average on a calendar monthly basis in accordance with specific condition **A.107** below.
- 6) Biomass Fuel. Subject to the conditions and limitations contained in this permit, biomass fuel may be burned at this facility (including biomass from offsite sources). The total quantity of biomass material received as segregated load from off-site sources and burned in the combustion units shall not exceed 5%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined as a daily average on a calendar monthly basis in accordance with specific condition **A.107** below. Biomass from on-site production shall be subject to the limitations that apply to bulky solid waste to biomass processing and/or RDF as contained in this permit. See Section III, Subsection B, of this permit.
- 7) Other Solid Waste/Segregated Loads. Subject to the conditions and limitations contained in this permit, the following other solid waste materials may be used as fuel at the facility (i.e. the following are authorized fuels that are non-MSW material). The total quantity of the following non-MSW material received as segregated loads and burned at the facility shall not exceed 5%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined as a daily average on a calendar monthly basis in accordance with specific condition **A.107** below.
  - a) Construction and demolition debris.
  - b) Oil spill debris from aquatic, coastal, estuarine or river environments. Such items or materials include but are not limited to rags, wipes, and absorbents.
  - c) Items suitable for human, plant or domesticated animal use, consumption or application where the item's shelf-life has expired or the generator wishes to remove the items from the market. Such items or materials include but are not limited to off-specification or expired consumer products, pharmaceuticals, medications, health and personal care products, cosmetics, foodstuffs, nutritional supplements, returned goods, and controlled substances.
  - d) Consumer-packaged products intended for human or domesticated animal use or application but not consumption. Such items or materials include but are not limited to carpet cleaners, household or bathroom cleaners, polishes, waxes and detergents.
  - e) Waste materials that:
    - i) are generated in the manufacture of items in categories (c) or (d), above and are functionally or commercially useless (expired, rejected or spent); or
    - ii) are not yet formed or packaged for commercial distribution. Such items or materials must be substantially similar to other items or materials routinely found in MSW.
  - f) Waste materials that contain oil from:
    - i) the routine cleanup of industrial or commercial establishments and machinery; or
    - ii) spills of virgin or used petroleum products. Such items or materials include but are not limited to rags, wipes, and absorbents.
  - g) Used oil and used oil filters. Used oil containing a PCB concentration equal or greater than 50 ppm shall not be burned, pursuant to the limitations of 40 CFR 761.20(e).

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- h) Waste materials generated by manufacturing, industrial or agricultural activities, provided that these items or materials are substantially similar to items or materials that are found routinely in MSW, subject to prior approval of the Department.
- 8) Other fuels or wastes shall not be burned in the emissions units without prior specific written approval from the Bureau of Air Regulation of the Department of Environmental Protection.

[Rules 62-4.160(2), 62-210.200, and 62-213.440(1), F.A.C.; PSD-FL-006(D); and, PA 77-08]

**A.13. Auxiliary Burners.** Auxiliary burners for each emissions unit shall be fired only with propane or natural gas fuel during startups, shutdowns and malfunctions, and at other times when necessary and consistent with good combustion practices. The maximum heat input shall not exceed 80 MMBtu/hr per burner. [PSD-FL-006(D)]

**A.14. Hours of Operation.** Each RDF spreader stoker combustor is allowed to operate continuously, i.e., 8,760 hrs/yr.  
[Rule 62-210.200(PTE), F.A.C.; and, PSD-FL-006(D)]

#### OPERATING PRACTICES AND REQUIREMENTS

**A.15.** No owner or operator of an affected facility shall cause such facility to operate at a load level greater than 110 percent of the maximum demonstrated municipal waste combustor unit load as defined in specific condition **A.10**, except as specified below. The averaging time is specified in specific condition **A.17**.

- 1) During the annual dioxin/furan performance test and the two weeks preceding the annual dioxin/furan performance test, no municipal waste combustor unit load limit is applicable.
- 2) The municipal waste combustor unit load limit may be waived in accordance with permission granted by the Administrator or delegated State regulatory authority for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

[40 CFR 60.34b(b) and 40 CFR 60.53b(b)]

**A.16. Control Device Inlet Temperature.** No owner or operator of an affected facility shall cause such facility to operate at a temperature, measured at the particulate matter control device inlet, exceeding 17°C above the maximum demonstrated particulate matter control device temperature as defined in specific condition **A.11** except as specified below. The averaging time is specified in specific condition **A.17**. These requirements apply to each particulate matter control device utilized at the affected facility.

- 1) During the annual dioxin/furan performance test and the two weeks preceding the annual dioxin/furan performance test, no particulate matter control device temperature limitations are applicable.
- 2) The particulate matter control device temperature limits may be waived in accordance with permission granted by the Administrator or delegated State regulatory authority for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

[40 CFR 60.34b(b) and 40 CFR 60.53b(c)]

**A.17. Operating Requirements.** The procedures specified in paragraphs (1) through (12) shall be used for determining compliance with the operating requirements under 40 CFR 60.53b.

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- 1) Compliance with the carbon monoxide emission limits in 40 CFR 60.53b(a) shall be determined using a 4-hour block arithmetic average for all types of affected facilities except mass burn rotary waterwall municipal waste combustors and refuse-derived fuel stokers.
- 2) For affected mass burn rotary waterwall municipal waste combustors and refuse-derived fuel stokers, compliance with the carbon monoxide emission limits in 40 CFR 60.53b(a) shall be determined using a 24-hour daily arithmetic average.
- 3) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring carbon monoxide at the combustor outlet and record the output of the system and shall follow the procedures and methods specified in paragraphs (i) through (iii).
  - (i) The continuous emission monitoring system shall be operated according to Performance Specification 4A in Appendix B of 40 CFR 60.
  - (ii) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 4A in Appendix B of 40 CFR 60, carbon monoxide and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (A) and (B).
    - (A) For carbon monoxide, EPA Reference Method 10, 10A, or 10B shall be used.
    - (B) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, as applicable shall be used.
  - (iii) The span value of the continuous emission monitoring system shall be 125 percent of the maximum estimated hourly potential carbon monoxide emissions of the municipal waste combustor unit.
- 4) The 4-hour block and 24-hour daily arithmetic averages specified in paragraphs (1) and (2) shall be calculated from 1-hour arithmetic averages expressed in parts per million by volume corrected to 7 percent oxygen (dry basis). The 1-hour arithmetic averages shall be calculated using the data points generated by the continuous emission monitoring system. At least two data points shall be used to calculate each 1-hour arithmetic average.
- 5) The owner or operator of an affected facility may request that compliance with the carbon monoxide emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in 40 CFR 60.58b(b)(6).
- 6) The procedures specified in paragraphs (i) through (iv) shall be used to determine compliance with load level requirements under 40 CFR 60.53b(b).
  - (i) The owner or operator of an affected facility with steam generation capability shall install, calibrate, maintain, and operate a steam flow meter or a feedwater flow meter; measure steam (or feedwater) flow in kilograms per hour (or pounds per hour) on a continuous basis; and record the output of the monitor. Steam (or feedwater) flow shall be calculated in 4-hour block arithmetic averages.
  - (ii) The method included in the American Society of Mechanical Engineers Power Test Codes: Test Code for Steam Generating Units, Power Test Code 4.1-1964 (R1991), section 4 (incorporated by reference, see 40 CFR 60.17) shall be used for calculating the steam (or feedwater) flow required under paragraph (6)(i). The recommendations in American

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Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th edition (1971), chapter 4 (incorporated by reference-see 40 CFR 60.17) shall be followed for design, construction, installation, calibration, and use of nozzles and orifices except as specified in (iii).

- (iii) Measurement devices such as flow nozzles and orifices are not required to be recalibrated after they are installed.
- (iv) All signal conversion elements associated with steam (or feedwater flow) measurements must be calibrated according to the manufacturer's instructions before each dioxin/furan performance test, and at least once per year.
- 7) To determine compliance with the maximum particulate matter control device temperature requirements under 40 CFR 60.53b(c), the owner or operator of an affected facility shall install, calibrate, maintain, and operate a device for measuring on a continuous basis the temperature of the flue gas stream at the inlet to each particulate matter control device utilized by the affected facility. Temperature shall be calculated in 4-hour block arithmetic averages.
- 8) The maximum demonstrated municipal waste combustor unit load shall be determined during the initial performance test for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in 40 CFR 60.52b(c) is achieved. The maximum demonstrated municipal waste combustor unit load shall be the highest 4-hour arithmetic average load achieved during four consecutive hours during the most recent test during which compliance with the dioxin/furan emission limit was achieved.
- 9) For each particulate matter control device employed at the affected facility, the maximum demonstrated particulate matter control device temperature shall be determined during the initial performance test for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in 40 CFR 60.52b(c) is achieved. The maximum demonstrated particulate matter control device temperature shall be the highest 4-hour arithmetic average temperature achieved at the particulate matter control device inlet during four consecutive hours during the most recent test during which compliance with the dioxin/furan limit was achieved.
- 10) At a minimum, valid continuous emission monitoring system hourly averages shall be obtained as specified in paragraphs (i) and (ii) for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that the affected facility is combusting municipal solid waste.
  - (i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.
  - (ii) At a minimum, each carbon monoxide 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
- 11) All valid continuous emission monitoring system data must be used in calculating the parameters specified under 40 CFR 60.58b(i) even if the minimum data requirements of paragraph (10) are not met. When carbon monoxide continuous emission data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained using other monitoring systems as approved by the Administrator or EPA Reference Method 10 to provide, as necessary, the minimum valid emission data.

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- 12) Quarterly accuracy determinations and daily calibration drift tests for the carbon monoxide continuous emission monitoring system shall be performed in accordance with Procedure 1 in Appendix F of 40 CFR 60.

[40 CFR 60.38b and 40 CFR 60.58b(i); and, PSD-FL-006(D)]

#### OPERATOR TRAINING AND CERTIFICATION

##### A.18. Standards for municipal waste combustor operator training and certification.

- a) No later than the date 6 months after the date of startup of an affected facility or 12 months after State plan approval [40 CFR 60.39b(c)(4)(ii)], whichever is later, each chief facility operator and shift supervisor shall obtain and maintain a current provisional operator certification from either the American Society of Mechanical Engineers [QRO-1-1994 (incorporated by reference - see 40 CFR 60.17 of Subpart A)] or a State certification program.
- b) No later than the date 6 months after the date of startup of an affected facility or 12 months after State plan approval [40 CFR 60.39b(c)(4)(ii)], whichever is later, each chief facility operator and shift supervisor shall have completed full certification or shall have scheduled a full certification exam with either the American Society of Mechanical Engineers [QRO-1-1994 (incorporated by reference - see 40 CFR 60.17 of Subpart A)] or a State certification program.
- c) No owner or operator of an affected facility shall allow the facility to be operated at any time unless one of the following persons is on duty and at the affected facility: A fully certified chief facility operator, a provisionally certified chief facility operator who is scheduled to take the full certification exam according to the schedule specified in paragraph (b), a fully certified shift supervisor, a provisionally certified shift supervisor who is scheduled to take the full certification exam according to the schedule specified in paragraph (b).
  - (1) The requirement specified in paragraph (c) shall take effect 6 month after the date of startup of the affected facility or 12 months after State plan approval [40 CFR 60.39b(c)(4)(ii)], whichever is later.
  - (2) If one of the persons listed in paragraph (c) must leave the affected facility during their operating shift, a provisionally certified control room operator who is onsite at the affected facility may fulfill the requirement in paragraph (c).
- d) All chief facility operators, shift supervisors, and control room operators at affected facilities must complete the EPA or State municipal waste combustor operator training course no later than the date 6 months after the date of startup of the affected facility, or by 12 months after State plan approval [40 CFR 60.39b(c)(4)(iii)], whichever is later.
- e) The owner or operator of an affected facility shall develop and update on a yearly basis a site-specific operating manual that shall, at a minimum, address the elements of municipal waste combustor unit operation specified in paragraph (e)(1) through (e)(11).
  - (1) A summary of the applicable standards;
  - (2) A description of basic combustion theory applicable to a municipal waste combustor unit;
  - (3) Procedures for receiving, handling, and feeding municipal solid waste;
  - (4) Municipal waste combustor unit startup, shutdown, and malfunction procedures;
  - (5) Procedures for maintaining proper combustion air supply levels;



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- (6) Procedures for operating the municipal waste combustor unit within the standards established;
  - (7) Procedures for responding to periodic upset or off-specification conditions;
  - (8) Procedures for minimizing particulate matter carryover;
  - (9) Procedures for handling ash;
  - (10) Procedures for monitoring municipal waste combustor unit emissions; and
  - (11) Reporting and recordkeeping procedures.
- f) The owner or operator of an affected facility shall establish a training program to review the operating manual according to the schedule specified in paragraphs (f)(1) and (f)(2) with each person who has responsibilities affecting the operation of an affected facility including, but not limited to, chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load handlers.
- (1) Each person specified in paragraph (f) shall undergo initial training no later than the date specified in paragraph (f)(1)(i), (f)(1)(ii), or (f)(1)(iii), whichever is later.
    - (i) The date 6 months after the date of startup of the affected facility;
    - (ii) The date prior to the day the person assumes responsibilities affecting municipal waste combustor unit operation; or
    - (iii) 12 months after State plan approval [40 CFR 60.39b(c)(4)(iii)].
  - (2) Annually, following the initial review required by paragraph (f)(1).
- g) The operating manual required by paragraph (e) shall be kept in a readily accessible location for all persons required to undergo training under paragraph (f). The operating manual and records of training shall be available for inspection by the EPA or its delegated enforcement agency upon request.
- h) A list of all certified personnel shall be submitted to the Department's Southeast District office and the Dade County's DERM office.

[40 CFR 60.35b, 40 CFR 60.39b(c)(4)(ii) & (iii), and 40 CFR 60.54b; and, PSD-FL-006(D)]

**A.19.** The requirement specified in 40 CFR 60.54b(d) does not apply to chief operators, shift supervisors, and control room operators who have obtained full certification from the American Society of Mechanical Engineers on or before the date of State plan approval. [40 CFR 60.39b(c)(4)(iii)(A)]

**A.20.** The owner or operator of a designated facility may request that the EPA Administrator waive the requirement specified in 40 CFR 60.54b(d) for chief operators, shift supervisors, and control room operators who have obtained provisional certification from the American Society of Mechanical Engineers on or before the date of State plan approval. [40 CFR 60.39b(c)(4)(iii)(B)]

**A.21.** The initial training requirements specified in 40 CFR 60.54b(f)(1) shall be completed no later than the date specified in (1), (2), or (3), whichever is later.

- (1) The date six (6) months after the date of startup of the affected facility;
- (2) Twelve (12) months after State plan approval; or
- (3) The date prior to the day when the person assumes responsibilities affecting municipal waste combustor unit operation.

[40 CFR 60.39b(c)(4)(iii)(C)]

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##### EMISSION LIMITATIONS AND STANDARDS

##### Particulate Matter

A.22. Particulate matter (PM) 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, and 29.0 tons/yr per emissions unit. [PSD-FL-006(D)]

##### PM<sub>10</sub>

A.23. PM emissions less than 10 micron diameter from the baghouse shall not exceed 0.011 gr/dscf, corrected to 7 percent O<sub>2</sub>, dry basis, and 29.0 tons/yr per emissions unit. [PSD-FL-006(D)]

##### Visible Emissions

A.24. The emission limit for opacity exhibited by the gases discharged to the atmosphere is 10 percent (6-minute block average). Consent Order OGC File No. 05-1530 mandates that the permittee comply with all requirements of the Visible Emissions Reduction Plan that identifies the preventative measures the Facility will take to minimize opacity excursions. This Plan is included in the Title V Air Operation Permit Renewal as an Appendix.  
[40 CFR 60.33b(a)(1)(iii); and PSD-FL-006(D)]

##### Cadmium

A.25. Cadmium emissions shall not exceed 15 ug/m<sup>3</sup>, corrected to 7 percent O<sub>2</sub>, dry basis, and 0.027 ton/yr per emissions unit. [PSD-FL-006(D)]

##### Mercury

A.26. The maximum emission limits for mercury contained in the gases discharged to the atmosphere per emissions unit are:

- (1) 0.070 milligrams per dry standard cubic meter, corrected to 7 percent O<sub>2</sub>, dry basis; or,
- (2) 15 percent, by weight, of the mercury in the flue gas upstream of the mercury control device (85-percent reduction by weight), whichever is less stringent; and,
- (3) 0.080 ton/yr.

[40 CFR 60.33b(a)(3); Rule 62-296.416(3)(a)1., F.A.C.; and PSD-FL-006(D)]

A.27. 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. [Rule 62-296.416(3)(a)2., F.A.C.]

A.28. 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. [Rule 62-296.416(3)(a)3., F.A.C.]

A.29. 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. [Rule 62-296.416(3)(c), F.A.C.]

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##### **Lead**

A.30. Lead emissions, per emissions unit, shall not exceed 380 ug/m<sup>3</sup>, corrected to 7 percent O<sub>2</sub>, dry basis; and 0.44 ton/yr. [PSD-FL-006(D)]

##### **Sulfur Dioxide**

A.31. The emission limits for sulfur dioxide contained in the gases discharged to the atmosphere per emissions unit are:

- (1) 29 parts per million by volume, corrected to 7 percent O<sub>2</sub>, dry basis; or,
- (2) 25 percent of the potential sulfur dioxide emission concentration (75-percent reduction by weight or volume); and,
- (3) 214.2 tons/yr.
- (4) Compliance with the limits of (1) and (2), above, is based on a 24-hour daily period (i.e., block; midnight to midnight) geometric mean, whichever is less stringent.

[40 CFR 60.33b(b)(3)(i); and, PSD-FL-006(D)]

##### **Hydrogen Chloride**

A.32. The emission limits for hydrogen chloride contained in the gases discharged to the atmosphere per emissions unit are:

- (1) 25 parts per million by volume, corrected to 7 percent O<sub>2</sub>, dry basis; or
- (2) 5 percent of the potential hydrogen chloride emission concentration (95-percent reduction by weight or volume), whichever is less stringent; and,
- (3) 57.1 tons/yr.

[40 CFR 60.33b(b)(3)(ii); and, PSD-FL-006(D)]

##### **Dioxins/Furans**

A.33. The emission limits for dioxins/furans contained in the gases discharged to the atmosphere per emissions unit that do not employ an electrostatic precipitator-based emission control system are 30 nanograms per dry standard cubic meter (total mass of tetra- through octa- chlorinated dibenzo-p-dioxins and dibenzofurans), corrected to 7 percent oxygen; and 0.000038 ton/yr.

[40 CFR 60.33b(c)(1)(ii); and, PSD-FL-006(D)]

##### **Nitrogen Oxides**

A.34. The emission limits for nitrogen oxides contained in the gases discharged to the atmosphere per emissions unit are 250 parts per million by volume, corrected to 7 percent O<sub>2</sub>, dry basis, 24-hour daily arithmetic average; and, 614.9 tons/yr. As specified in 40 CFR 60.33b(d)(1), a facility-wide average emissions limit of 230 ppmvd, corrected to 7 percent O<sub>2</sub>, 24-hour average, shall be applied in lieu of the per emissions unit limit provided that the conditions of 40 CFR 60.33b(d)(1) are met. [40 CFR 60.33b(d); and, PSD-FL-006(D)]

##### **Carbon Monoxide**

A.35. The emission limits for carbon monoxide contained in the gases discharged to the atmosphere per emissions unit are 250 parts per million by volume, measured at the combustor outlet in conjunction with a measurement of oxygen concentration, corrected to 7 percent O<sub>2</sub>, dry basis (ppmvd), calculated as a 24-hour block average, geometric mean; and 267.7 tons/yr.

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[Applicant request; 40 CFR 60.34b(a) (revision of May 10, 2006); PSD-FL-006(D); and 025348-008-AC, Specific Condition 5.]

**Arsenic**

A.36. Arsenic emissions, per emissions unit, shall not exceed 9.3 ug/m<sup>3</sup>, corrected to 7 percent O<sub>2</sub>, dry basis; and, 0.011 ton/yr. [PSD-FL-006(D)]

**Beryllium**

A.37. Beryllium emissions, per emissions unit, shall not exceed 0.46 ug/m<sup>3</sup>, corrected to 7 percent O<sub>2</sub>, dry basis; and, 0.0005 ton/yr. [PSD-FL-006(D)]

**Total Fluorides**

A.38. Fluoride emissions, per emissions unit, shall not exceed 840 ug/m<sup>3</sup>, corrected to 7 percent O<sub>2</sub>, dry basis; and, 0.97 ton/yr. [PSD-FL-006(D)]

**Sulfuric Acid Mist**

A.39. Sulfuric acid mist emissions, per emissions unit, shall not exceed 2.1 ppmv, corrected to 7 percent O<sub>2</sub>, dry basis; and, 9.8 tons/yr. [PSD-FL-006(D)]

**Volatile Organic Compounds (VOC)**

A.40. VOC (hydrocarbons) emissions, per emissions unit, shall not exceed 25 ppmv, corrected to 7 percent O<sub>2</sub>, dry basis; and, 19.1 tons/yr. 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. [PSD-FL-006(D)]

**EXCESS EMISSIONS**

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

A.41. The opacity standards set forth in 40 CFR 60 shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard. [40 CFR 60.11(c)]

A.42. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [40 CFR 60.11(d)]

A.43. Startup, Shutdown and Malfunction Provisions: The provisions from the applicable federal new source performance standards for startup, shutdown, and malfunction are provided in paragraph (1).

(1) Except as provided by Section 60.56b, the standards under 40 CFR 60, Subpart Cb, as incorporated in Rule 62-204.800, F.A.C., and this permit shall apply at all times except during periods of startup, shutdown, or malfunction. Duration of startup, shutdown, or malfunction periods are limited to 3 hours per occurrence, except as provided in CFR 60.58b(a)(1)(iii).

(i) The startup period commences when the affected facility begins the continuous burning of municipal solid waste and does not include any warm-up period when the affected

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facility is combusting fossil fuel or other non-municipal solid waste and no municipal solid waste is being fed to the combustor.

- (ii) Continuous burning is the continuous, semi-continuous, or batch feeding of municipal solid waste for purposes of waste disposal, energy production, or providing heat to the combustion system in preparation for waste disposal or energy production. The use of municipal solid waste solely to provide thermal protection of the grate or hearth during the startup period when municipal solid waste is not being fed to the grate is not considered to be continuous burning.
  - (iii) For the purposes of compliance with the carbon monoxide emission limits in Sec. 60.53b(a), if a loss of a boiler water level control (e.g. boiler waterwall tube failure) or a loss of combustion air control (e.g. loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction, the duration of the malfunction period is limited to 15 hours per occurrence.
- (2) For the purposes of this condition, a malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

[40 CFR 60.38b; 40 CFR 60.58b(a); and 40 CFR 60.2, Definitions]

#### A.44. Allowed Excess Emissions resulting from Warm-up, Startup, Shutdown, or Malfunction:

- (1) Excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in a 24-hour period unless specifically authorized by the Department for longer duration. As referenced below, the Department specifically authorizes a longer duration.
  - a. The emission limitations for this unit shall apply at all times, except during periods of warm-up, startup, shutdown, or malfunctions, provided that the duration of excess emissions during startup, shutdown, or malfunction does not exceed three hours in a 24-hour period.
  - b. The startup and warm-up periods are defined to be consistent with the applicable federal new source performance standards, as described in specific condition A.43.
  - c. The shutdown period shall be defined as to commence with the cessation of charging municipal waste to the boiler and ending when steam flow decreases to 70,000 lbs/hr and 13.5% flue gas oxygen, as programmed into the Data Acquisition System (DAS). (That is, when the unit's steam flow is less than 70,000 lbs/hr and the flue gas oxygen is greater than 13.5%, the DAS receives the 'unit off line' signal.)
  - d. The exclusion of CEMS data for purposes of allowed excess emissions and demonstrating compliance with an emissions standard shall be based on a one-hour block average period.
- (2) A *warm-up period* is defined to be consistent with the applicable federal new source performance standards as in specific condition A.43. The emission limitations for this unit shall apply at all times, except during periods of warm-up (but only when firing natural gas or propane exclusively), startup, shutdown, or malfunctions, during which the duration of excess emissions shall not exceed three hours in a 24-hour period. During all warm-ups, startups, shutdowns, and malfunctions, the owner/operator shall use best operational practices to minimize air pollutant emissions.

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- (3) The commencement of startup is programmed into the Data Acquisition System (DAS) as a steam flow of 70,000 lbs/hr and 13.5% flue gas oxygen. (That is, when the unit's steam flow is greater than or equal to 70,000 lbs/hr and the flue gas oxygen is less than or equal to 13.5%, the DAS receives the 'unit on line' signal, and the unit is considered no longer in warm-up.)
- (4) The shutdown commences with the cessation of charging municipal waste to the boiler and ends when steam flow decreases to 70,000 lbs/hr and 13.5% flue gas oxygen, as programmed into the DAS. (That is, when the unit's steam flow is less than 70,000 lbs/hr and the flue gas oxygen is greater than 13.5%, the DAS receives the 'unit off line' signal.)
- (5) During warm-up, *to provide thermal protection to the grate*, the refuse derived fuel (RDF) shall be fired in the unit for a period of no longer than 2 hours.
- (6) During a routine warm-up event, propane shall not be used for more than 5 hours. During non-routine warm-up events, propane shall not be used for more than 11 hours. Descriptions of these two types of events follow.

##### Routine Warm-up Event:

- Routine Cold Startup: A cold startup occurs after a long period (more than 12 hours) of the boiler being offline. Propane is fired during the warm-up to allow the metal to be heated at a safe rate of approximately 100 degrees F per hour. Following warm-up, the startup begins when the steam flow rate reaches 70,000 lb/hr.

##### Non-routine Warm-up Event:

- Extended Cold Start-up: Approximately once per year, each unit has an extended cold start-up. This is done to condition the boiler internal surfaces after extensive boiler tube or metal surface work such as resurfacing. The surface conditioning procedure involves the burning of propane gas for a maximum of 10 hours before RDF is used. Once RDF is introduced, the timing of events is similar to the routine cold start-up as described above.

For the purposes of this specific condition, a malfunction means any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner.

[Rule 62-210.700(1), F.A.C.; PSD-FL-006(E); Rule 62-210.200(194), F.A.C., Definitions; Applicant request dated March 30, 2005; and 0250348-006-AC, Specific Condition 5.]

**A.45. Excess Emissions Prohibited.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.  
[Rule 62-210.700(4), F.A.C.; and, PSD-FL-006(D)]

#### **TEST METHODS AND PROCEDURES**

*{Permitting note: The permittee may stagger its pollutant performance tests throughout the year with prior Department approval.}*

**A.46.** Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility and at such other times as

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may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s). [40 CFR 60.8(a)]

- A.47.** Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act. [40 CFR 60.8(b)]
- A.48.** Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [40 CFR 60.8(c)]
- A.49.** The owner or operator of an affected facility shall provide the Administrator (Department or its designee) at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. [40 CFR 60.8(d)]
- A.50.** The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:
- (1) Sampling ports adequate for test methods applicable to such facility. This includes (i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.
  - (2) Safe sampling platform(s).
  - (3) Safe access to sampling platform(s).
  - (4) Utilities for sampling and testing equipment.
- {Permitting note: See specific condition A.72 and Appendix SS-1, Stack Sampling Facilities (version dated 10/7/96) for State of Florida Stack Sampling Requirements.}*
- [40 CFR 60.8(e)]
- A.51.** Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control,

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compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs. [40 CFR 60.8(f)]

**A.52.** Compliance with the emission limiting standards shall be demonstrated using EPA Reference Methods, as specified in 40 CFR Part 60, Appendix A, or 40 CFR 61, 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 62-279.620, F.A.C. A test protocol shall be submitted to the Department's Bureau of Air Regulation and Southeast District offices and Dade County's DERM office at least 90 days prior to testing. [PSD-FL-006(A), (B) & (D)]

#### **Particulate Matter and Opacity**

**A.53.** The procedures and test methods specified in paragraphs (1) through (13) shall be used to determine compliance with the emission limits for particulate matter and opacity.

- (1) The EPA Reference Method 1 shall be used to select sampling site and number of traverse points.
- (2) The EPA Reference Method 3, 3A, or 3B, as applicable shall be used for gas analysis.
- (3) The EPA Reference Method 4 shall be used for the moisture content in the stack gases.
- (4) The EPA Reference Method 5 shall be used for determining compliance with the particulate matter emission limit. The minimum sample volume shall be 1.7 cubic meters. The probe and filter holder heating systems in the sample train shall be set to provide a gas temperature no greater than 160 +14 °C. An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 5 run.
- (5) The owner or operator of an affected facility may request that compliance with the particulate matter emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph 40 CFR 60.58b(b)(6).
- (6) As specified under 40 CFR 60.8, all performance tests shall consist of three test runs. The average of the particulate matter emission concentrations from the three test runs is used to determine compliance.
- (7) In accordance with paragraphs (8) and (12), EPA Reference Method 9 shall be used for determining compliance with the opacity limit except as provided under 40 CFR 60.11(e)
- (8) The owner or operator of an affected facility shall conduct an initial performance test for particulate matter emissions and opacity as required under 40 CFR 60.8.
- (9) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous opacity monitoring system for measuring opacity and shall follow the methods and procedures specified in paragraphs (9)(i) through (9)(iv).
  - (i) The output of the continuous opacity monitoring system shall be recorded on a 6-minute average basis.
  - (ii) The continuous opacity monitoring system shall be installed, evaluated, and operated in accordance with 40 CFR 60.13.
  - (iii) The continuous opacity monitoring system shall conform to Performance Specification 1 in Appendix B of 40 CFR 60.



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- (iv) The initial performance evaluation shall be completed no later than 180 days after the date of the initial startup of the municipal waste combustor unit, as specified under 40 CFR 60.8.
- (10) Following the date that the initial performance test for particulate matter is completed or is required to be completed under 40 CFR 60.8 for an affected facility, the owner or operator shall conduct a performance test for particulate matter on an annual basis (no more than 12 calendar months following the previous performance test).
- (11) [reserved]
- (12) Following the date that the initial performance test for opacity is completed or is required to be completed under 40 CFR 60.8 for an affected facility, the owner or operator shall conduct a performance test for opacity on an annual basis (no more than 12 calendar months following the previous performance test) using the test method specified in paragraph (7).
- (13) The EPA Reference Method 2 shall be used for determining stack gas velocity and volumetric flow rate.

[40 CFR 60.38b and 40 CFR 60.58b(c); and, PSD-FL-006(B) & (D)]

#### PM<sub>10</sub>

**A.54.** Compliance with the PM<sub>10</sub> limits shall be demonstrated using EPA Method 201 or 201A during the initial compliance test and annually thereafter. However, if compliance with the PM emission limit in specific condition **A.23** is met, these tests are not required.

[PSD-FL-006(B) & (D)]

#### Cadmium, Lead and Mercury

**A.55.** The procedures and test methods specified in paragraphs (1) and (2) shall be used to determine compliance with the emission limits for cadmium, lead, and mercury.

- (1) The procedures and test methods specified in paragraphs (1)(i) through (1)(x) shall be used to determine compliance with the emission limits for cadmium and lead.
  - (i) The EPA Reference Method 1 shall be used for determining the location and number of sampling points.
  - (ii) The EPA Reference Method 3, 3A, or 3B, as applicable, shall be used for flue gas analysis.
  - (iii) The EPA Reference Method 29 shall be used for determining compliance with the cadmium and lead emission limits.
  - (iv) An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 29 test run for cadmium and lead required under paragraph (1)(iii).
  - (v) The owner or operator of an affected facility may request that compliance with the cadmium or lead emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph 40 CFR 60.58b(b)(6).
  - (vi) All performance tests shall consist of a minimum of three test runs conducted under representative full load operating conditions. The average of the cadmium or lead emission concentrations from three test runs or more shall be used to determine compliance.

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- (vii) Following the date of the initial performance test or the date on which the initial performance test is required to be completed under 40 CFR 60.8, the owner or operator of an affected facility shall conduct a performance test for compliance with the emission limits for cadmium and lead on an annual basis (no more than 12 calendar months following the previous performance test).
  - (viii) [reserved]
  - (ix) [reserved]
  - (x) The EPA Reference Method 2 shall be used for determining stack gas velocity and volumetric flow rate.
- (2) The procedures and test methods specified in paragraphs (2)(i) through (2)(xii) shall be used to determine compliance with the mercury emission limit.
- (i) The EPA Reference Method 1 shall be used for determining the location and number of sampling points.
  - (ii) The EPA Reference Method 3, 3A, or 3B, as applicable, shall be used for flue gas analysis.
  - (iii) The EPA Reference Method 29 shall be used to determine the mercury emission concentration. The minimum sample volume when using Method 29 for mercury shall be 1.7 cubic meters.
  - (iv) An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 29 test run for mercury required under paragraph (2)(iii).
  - (v) The percent reduction in the potential mercury emissions (% P<sub>Hg</sub>) is computed using equation 1:  
$$[\% P_{Hg}] = [(E_i - E_o)/E_i] \times 100 \quad \text{(Equation 1)}$$

where:

% P<sub>Hg</sub> = percent reduction of the potential mercury emissions achieved.

E<sub>i</sub> = potential mercury emission concentration measured at the control device inlet, corrected to 7 percent oxygen (dry basis).

E<sub>o</sub> = controlled mercury emission concentration measured at the mercury control device outlet, corrected to 7 percent oxygen (dry basis).
  - (vi) All performance tests shall consist of a minimum of three test runs conducted under representative full load operating conditions. The average of the mercury emission concentrations or percent reductions from three test runs or more is used to determine compliance.
  - (vii) The owner or operator of an affected facility may request that compliance with the mercury emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph 40 CFR 60.58b(b)(6).
  - (viii) The owner or operator of an affected facility shall conduct an initial performance test for mercury emissions as required under 40 CFR 60.8.

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- (ix) Following the date that the initial performance test for mercury is completed or is required to be completed under 40 CFR 60.8, the owner or operator of an affected facility shall conduct a performance test for mercury emissions on an annual basis (no more than 12 calendar months from the previous performance test).
- (x) [reserved]
- (xi) The owner or operator of an affected facility where activated carbon injection is used to comply with the mercury emission limit shall follow the procedures specified in 40 CFR 60.58b(m) (see specific condition A.110) for measuring and calculating carbon usage.
- (xii) The EPA Reference Method 2 shall be used for determining stack gas velocity and volumetric flow rate.

[40 CFR 60.38b and 40 CFR 60.58b(d); and, PSD-FL-006(B) & (D)]

#### **A.56. Control of Mercury Emissions: Flue Gas Temperature Standard and Carbon Usage Rate.**

- (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) (see specific condition A.16), incorporated by reference in Rule 62-204.800, F.A.C., shall apply.
  - (b) Temperature Monitoring. The temperature monitoring requirements set forth in 40 CFR 60.58b(i) (see specific condition A.17), incorporated by reference in Rule 62-204.800, F.A.C., shall apply.
- (5) Carbon Usage Rate. The carbon injection rate operating standard, based on an 8-hour block average, and monitoring requirements set forth in 40 CFR 60.58b(m) (see specific condition A.110), incorporated by reference in Rule 62-204.800, F.A.C., shall apply.

[Rules 62-296.416(3)(d)(4) and (5), F.A.C.; and, PSD-FL-006(D)]

#### **Sulfur Dioxide**

**A.57.** The procedures and test methods specified in paragraphs (1) through (14) shall be used for determining compliance with the sulfur dioxide emission limit.

- (1) The EPA Reference Method 19, section 4.3, shall be used to calculate the daily geometric average sulfur dioxide emission concentration.
- (2) The EPA Reference Method 19, section 5.4, shall be used to determine the daily geometric average percent reduction in the potential sulfur dioxide emission concentration.
- (3) The owner or operator of an affected facility may request that compliance with the sulfur dioxide emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in 40 CFR 60.58b(b)(6).
- (4) The owner or operator of an affected facility shall conduct an initial performance test for sulfur dioxide emissions as required under 40 CFR 60.8. Compliance with the sulfur dioxide emission limit (concentration or percent reduction) shall be determined by using the continuous

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emission monitoring system specified in paragraph (5) to measure sulfur dioxide and calculating a 24-hour daily geometric average emission concentration or a 24-hour daily geometric average percent reduction using EPA Reference Method 19, sections 4.3 and 5.4, as applicable.

- (5) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring sulfur dioxide emissions discharged to the atmosphere and record the output of the system.
- (6) Following the date that the initial performance test for sulfur dioxide is completed or is required to be completed under 40 CFR 60.8, compliance with the sulfur dioxide emission limit shall be determined based on the 24-hour (measured between 12:00 midnight and the following midnight) daily geometric average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data if compliance is based on an emission concentration, or continuous emission monitoring system inlet and outlet data if compliance is based on a percent reduction.
- (7) At a minimum, valid continuous monitoring system hourly averages shall be obtained as specified in paragraphs (7)(i) and (7)(ii) for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that the affected facility is combusting municipal solid waste.
  - (i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.
  - (ii) Each sulfur dioxide 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
- (8) The 1-hour arithmetic averages required under paragraph (6) shall be expressed in parts per million corrected to 7 percent oxygen (dry basis) and used to calculate the 24-hour daily geometric average emission concentrations and daily geometric average emission percent reductions. The 1-hour arithmetic averages shall be calculated using the data points required under 40 CFR 60.13(e)(2).
- (9) All valid continuous emission monitoring system data shall be used in calculating average emission concentrations and percent reductions even if the minimum continuous emission monitoring system data requirements of paragraph (7) are not met.
- (10) The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the continuous emission monitoring system.
- (11) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the municipal waste combustor as specified under 40 CFR 60.8.
- (12) The continuous emission monitoring system shall be operated according to Performance Specification 2 in 40 CFR 60 Appendix B.
  - (i) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 2 in 40 CFR 60 Appendix B, sulfur dioxide and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (A) and (B).
    - (A) For sulfur dioxide, EPA Reference Method 6, 6A, or 6C shall be used.

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- (B) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, as applicable shall be used.
- (ii) The span value of the continuous emissions monitoring system at the inlet to the sulfur dioxide control device shall be 125 percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit. The span value of the continuous emission monitoring system at the outlet of the sulfur dioxide control device shall be 50 percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit.
- (13) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 1 in Appendix F of 40 CFR 60.
- (14) When sulfur dioxide emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 75 percent of the hours per day that the affected facility is operated and combusting municipal solid waste for 90 percent of the days per calendar quarter that the affected facility is operated and combusting municipal solid waste.

[40 CFR 60.38b and 40 CFR 60.58b(e); and, PSD-FL-006(B) & (D)]

#### **Hydrogen Chloride**

**A.58.** The procedures and test methods specified in paragraphs (1) through (8) shall be used for determining compliance with the hydrogen chloride emission limit:

- (1) The EPA Reference Method 26 or 26A, as applicable, shall be used to determine the hydrogen chloride emission concentration. The minimum sampling time for Method 26 shall be 1 hour.
- (2) An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 26 test run for hydrogen chloride required by paragraph (1).
- (3) The percent reduction in potential hydrogen chloride emissions (% P<sub>HCl</sub>) is computed using equation 2:

$$[\% P_{HCl}] = [(E_i - E_o)/E_i] \times 100 \quad \text{(Equation 2)}$$

where:

% P<sub>HCl</sub> = percent reduction of the potential hydrogen chloride emissions achieved.

E<sub>i</sub> = potential hydrogen chloride emission concentration measured at the control device inlet, corrected to 7 percent oxygen (dry basis).

E<sub>o</sub> = controlled hydrogen chloride emission concentration measured at the control device outlet, corrected to 7 percent oxygen (dry basis).

- (4) The owner or operator of an affected facility may request that compliance with the hydrogen chloride emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in 40 CFR 60.58b(b)(6).
- (5) As specified under 40 CFR 60.8, all performance tests shall consist of three test runs. The average of the hydrogen chloride emission concentrations or percent reductions from the three test runs is used to determine compliance.

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- (6) The owner or operator of an affected facility shall conduct an initial performance test for hydrogen chloride as required under 40 CFR 60.8.
  - (7) Following the date that the initial performance test for hydrogen chloride is completed or is required to be completed under 40 CFR 60.8, the owner or operator of an affected facility shall conduct a performance test for hydrogen chloride emissions on an annual basis (no more than 12 calendar months following the previous performance test).
  - (8) [reserved]
- [40 CFR 60.38b and 40 CFR 60.58b(f); and, PSD-FL-006(B) & (D)]

#### **Mercury, Sulfur Dioxide and Hydrogen Chloride**

**A.59.** Testing shall be conducted upstream (removal efficiency for SO<sub>2</sub> and HCl) and downstream (mass emissions) of the applicable control device for the following pollutants, Hg, SO<sub>2</sub> and HCl, if compliance demonstration is based on percent removal efficiency. Soot blowers shall be operated in a mode consistent with normal cleaning requirements of the system during the compliance testing.  
[PSD-FL-006(A) & (D)]

#### **Dioxin/Furan**

**A.60.** The procedures and test methods specified in paragraphs (1) through (10) shall be used to determine compliance with the limits for dioxin/furan emissions.

- (1) The EPA Reference Method 1 shall be used for determining the location and number of sampling points.
- (2) The EPA Reference Method 3, 3A, or 3B, as applicable, shall be used for flue gas analysis.
- (3) The EPA Reference Method 23 shall be used for determining the dioxin/furan emission concentration.
  - (i) The minimum sample time shall be 4 hours per test run.
  - (ii) An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 23 test run for dioxins/furans.
- (4) The owner or operator of an affected facility shall conduct an initial performance test for dioxin/furan emissions in accordance with paragraph (3), as required under 40 CFR 60.8.
- (5) Following the date that the initial performance test for dioxins/furans is completed or is required to be completed under 40 CFR 60.8, the owner or operator of an affected facility shall conduct performance tests for dioxin/furan emissions in accordance with paragraph (3), according to one of the schedules specified in paragraphs (i) through (iii).
  - (i) For affected facilities, performance tests shall be conducted on an annual basis (no more than 12 calendar months following the previous performance test.)
  - (ii) [reserved]
  - (iii) Where all performance tests over a 2-year period indicate that dioxin/furan emissions are less than or equal to 15 nanograms per dry standard cubic meter (total mass) for all affected facilities located within a municipal waste combustor plant, the owner or operator of the municipal waste combustor plant may elect to conduct annual performance tests for one affected facility (i.e., unit) per year at the municipal waste combustor plant. At a minimum, a performance test for dioxin/furan emissions shall be conducted annually (no more than 12 months following the previous performance test)

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for one affected facility at the municipal waste combustor plant. Each year a different affected facility at the municipal waste combustor plant shall be tested, and the affected facilities at the plant shall be tested in sequence (e.g., Unit 1, Unit 2, Unit 3, as applicable). If each annual performance test continues to indicate a dioxin/furan emission level less than or equal to 15 nanograms per dry standard cubic meter (total mass), the owner or operator may continue conducting a performance test on only one affected facility per year. If any annual performance test indicates a dioxin/furan emission level greater than 15 nanograms per dry standard cubic meter (total mass), performance tests thereafter shall be conducted annually on all affected facilities at the plant until and unless all annual performance tests for all affected facilities at the plant over a 2-year period indicate a dioxin/furan emission level less than or equal to 15 nanograms per dry standard cubic meter (total mass).

- (6) The owner or operator of an affected facility that selects to follow the performance testing schedule specified in paragraph (5)(iii) shall follow the procedures specified in 40 CFR 60.59b(g)(4) for reporting the selection of this schedule.
- (7) The owner or operator of an affected facility where activated carbon is used to comply with the dioxin/furan emission limits specified in 40 CFR 60.52b(c) or the dioxin/furan emission level specified in paragraph (5)(iii) shall follow the procedures specified in 40 CFR 60.58b(m) for measuring and calculating the carbon usage rate.
- (8) The owner or operator of an affected facility may request that compliance with the dioxin/furan emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in 40 CFR 60.58b(b)(6).
- (9) As specified under 40 CFR 60.8, all performance tests shall consist of three test runs. The average of the dioxin/furan emission concentrations from the three test runs is used to determine compliance.
- (10) The EPA Reference Method 2 shall be used for determining stack gas velocity and volumetric flow rate.

[40 CFR 60.38b and 40 CFR 60.58b(g); and, PSD-FL-006(B)]

#### **Nitrogen Oxides**

**A.61.** The procedures and test methods specified in paragraphs (1) through (12) shall be used to determine compliance with the nitrogen oxides emission limit for affected facilities under 40 CFR 60.52b(d).

- (1) The EPA Reference Method 19, section 4.1, shall be used for determining the daily arithmetic average nitrogen oxides emission concentration.
- (2) The owner or operator of an affected facility may request that compliance with the nitrogen oxides emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in 40 CFR 60.58b(b)(6).
- (3) The owner or operator of an affected facility subject to the nitrogen oxides limit shall conduct an initial performance test for nitrogen oxides as required under 40 CFR 60.8. Compliance with the nitrogen oxides emission limit shall be determined by using the continuous emission monitoring system specified in paragraph (4) for measuring nitrogen oxides and calculating a 24-hour daily arithmetic average emission concentration using EPA Reference Method 19, section 4.1.

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- (4) The owner or operator of an affected facility subject to the nitrogen oxides emission shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring nitrogen oxides discharged to the atmosphere, and record the output of the system.
- (5) Following the date that the initial performance test for nitrogen oxides is completed or is required to be completed under 40 CFR 60.8, compliance with the emission limit for nitrogen oxides shall be determined based on the 24-hour (measured between 12:00 midnight and the following midnight) daily arithmetic average of the hourly emission concentrations using continuous emission monitoring system outlet data.
- (6) At a minimum, valid continuous emission monitoring system hourly averages shall be obtained as specified in paragraphs (i) and (ii) for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that the affected facility is combusting municipal solid waste.
  - (i) At least 2 data points per hour shall be used to calculate each 1-hour arithmetic average.
  - (ii) Each nitrogen oxides 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
- (7) The 1-hour arithmetic averages required by paragraph (5) shall be expressed in parts per million by volume (dry basis) and used to calculate the 24-hour daily arithmetic average concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under 40 CFR 60.13(e)(2).
- (8) All valid continuous emission monitoring system data must be used in calculating emission averages even if the minimum continuous emission monitoring system data requirements of paragraph (6) are not met.
- (9) The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the continuous emission monitoring system. The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the municipal waste combustor unit, as specified under 40 CFR 60.8.
- (10) The owner or operator of an affected facility shall operate the continuous emission monitoring system according to Performance Specification 2 in Appendix B of 40 CFR 60 and shall follow the procedures and methods specified in paragraphs(i) and (ii).
  - (i) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 2 of Appendix B of 40 CFR 60, nitrogen oxides and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (A) and (B).
    - (A) For nitrogen oxides, EPA Reference Method 7, 7A, 7C, 7D, or 7E shall be used.
    - (B) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, as applicable shall be used.
  - (ii) The span value of the continuous emission monitoring system shall be 125 percent of the maximum estimated hourly potential nitrogen oxide emissions of the municipal waste combustor unit.
- (11) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 1 in Appendix F of 40 CFR 60.



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- (12) When nitrogen oxides continuous emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained using other monitoring systems as approved by the Administrator or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 75 percent of the hours per day for 90 percent of the days per calendar quarter the unit is operated and combusting municipal solid waste.

[40 CFR 60.38b and 40 CFR 60.58b(h); and, PSD-FL-006(B) & (D)]

#### **Beryllium**

**A.62.** (a) Unless a waiver of emission testing is obtained under 40 CFR 61.13, each owner or operator required to comply with 40 CFR 61.32(a) shall test emissions from the source according to Method 104 or 29 of Appendix B to 40 CFR 61. EPA Method 104 of Appendix B to 40 CFR 61 is approved by the Administrator as an alternative method for sources subject to 40 CFR 61.32(a). The emission test shall be performed according to the following:

- (1) Within 90 days of the effective date in the case of an existing source or a new source which has an initial startup date preceding the effective date; or
  - (2) Within 90 days of startup in the case of a new source which did not have an initial startup date preceding the effective date.
- (b) The Administrator shall be notified at least 30 days prior to an emission test so that he may at his option observe the test.
- (c) Samples shall be taken over such a period or periods as are necessary to accurately determine the maximum emissions which will occur in any 24-hour period. Where emissions depend upon the relative frequency of operation of different types of processes, operating hours, operating capacities, or other factors, the calculation of maximum 24-hour-period emissions will be based on that combination of factors which is likely to occur during the subject period and which result in the maximum emissions. No changes in the operation shall be made, which would potentially increase emissions above that determined by the most recent source test, until a new emission level has been estimated by calculation and the results reported to the Administrator.
- (d) All samples shall be analyzed and beryllium emissions shall be determined within 30 days after the source test. All determinations shall be reported to the Administrator by a registered letter dispatched before the close of the next business day following such determination.
- (e) Records of emission test results and other data needed to determine total emissions shall be retained at the source and made available, for inspection by the Administrator, for a minimum of 5 years.
- (f) An initial compliance test is required; and, a compliance test prior to permit renewal is required.

[40 CFR 61.33; Rule 62-213.440(b), F.A.C.; and, PSD-FL-006(B) & (D)]

#### **Total Fluoride**

**A.63.** Compliance with the total fluoride emissions shall be demonstrated using EPA Method 13A or 13B. An initial compliance test is required; and, a compliance test prior to permit renewal is required.

[PSD-FL-006(B) & (D)]

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##### Carbon Monoxide

A.64. See specific condition A.17 [PSD-FL-006(A) & (D)]

##### Volatile Organic Compounds

A.65. Compliance with the volatile organic compounds limits shall be demonstrated using EPA Method 25; or, EPA Method 25A in conjunction with EPA Method 18. [PSD-FL-006(D)]

##### Sulfuric Acid Mist

A.66. Compliance with the sulfuric acid mist emissions limits shall be demonstrated using EPA Method 8. Only an initial compliance test is required. [PSD-FL-006(B) & (D)]

##### Arsenic

A.67. Compliance with the arsenic emissions limits shall be demonstrated using EPA Method 108 or 29. Only an initial compliance test is required. [PSD-FL-006(B) & (D)]

A.68. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards. [Rule 62-297.310(1), F.A.C.]

A.69. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.  
[Rules 62-297.310(2) & (2)(b), F.A.C.]

A.70. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]

##### A.71. Applicable Test Procedures:

###### (a) Required Sampling Time

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

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2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
  - a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
  - b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
  - c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
- (b) Minimum Sample Volume: Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.
- (c) Required Flow Rate Range: For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
- (d) Calibration of Sampling Equipment: Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, attached as part of this permit.
- (e) Allowed Modification to EPA Method 5: When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

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

**A.72. Required Stack Sampling Facilities:** When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit. [Rule 62-297.310(6), F.A.C.]

**A.73. Frequency of Compliance Tests:** The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing:

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

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#### Subsection A. RDF Spreader Stoker Combustor & Aux. Burners (Units 1, 2, 3 and 4)

require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

- a. Did not operate; or
  - b. In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours.
4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
- a. Visible emissions, if there is an applicable standard;
  - b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
  - c. Each NESHAP pollutant, if there is an applicable emission standard.
5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.
9. The owner or operator shall notify the Department's Southeast District office and the Dade County's DERM office at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
- (b) Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
- (c) Waiver of Compliance Test Requirements: If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply. [Rule 62-297.310(7), F.A.C.; PSD-FL-006(D); and, SIP approved]

#### COMPLIANCE WITH STANDARDS AND MAINTENANCE REQUIREMENTS

**A.74.** Compliance with standards in 40 CFR 60, other than opacity standards, shall be determined by performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard.

[40 CFR 60.11(a)]

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#### Subsection A. RDF Spreader Stoker Combustor & Aux. Burners (Units 1, 2, 3 and 4)

- A.75.** Compliance with opacity standards in 40 CFR 60 shall be determined by conducting observations in accordance with Reference Method 9 in Appendix A, 40 CFR 60, any alternative method that is approved by the Administrator, or as provided in 40 CFR 60.11(e)(5). [40 CFR 60.11(b)]
- A.76.** The owner or operator of an affected facility subject to an opacity standard may submit, for compliance purposes, continuous opacity monitoring system (COMS) data results produced during any performance test required under 40 CFR 60.8 in lieu of EPA Method 9 observation data. If an owner or operator elects to submit COMS data for compliance with the opacity standard, he or she shall notify the Administrator of that decision, in writing, at least 30 days before any performance test required under 40 CFR 60.8 is conducted. Once the owner or operator of an affected facility has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent tests required under 40 CFR 60.8 until the owner or operator notifies the Administrator, in writing, to the contrary. For the purpose of determining compliance with the opacity standard during a performance test required under 40 CFR 60.8 using COMS data, the minimum total time of COMS data collection shall be averages of all 6-minute continuous periods within the duration of the mass emission performance test. Results of the COMS opacity determinations shall be submitted along with the results of the performance test required under 60.8. The owner or operator of an affected facility using a COMS for compliance purposes is responsible for demonstrating that the COMS meets the requirements specified in 40 CFR 60.13(c), that the COMS has been properly maintained and operated, and that the resulting data have not been altered in any way. If COMS data results are submitted for compliance with the opacity standard for a period of time during which EPA Method 9 data indicates noncompliance, the EPA Method 9 data will be used to determine opacity compliance. [40 CFR 60.11(e)(5)]

#### MONITORING REQUIREMENTS

- A.77.** For the purposes of 40 CFR 60.13, all continuous monitoring systems (CMS) required under applicable subparts shall be subject to the provisions of 40 CFR 60.13 upon promulgation of performance specifications for continuous monitoring systems under Appendix B of 40 CFR 60 and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, Appendix F of 40 CFR 60, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987. [40 CFR 60.13(a)]
- A.78. Continuous Monitoring Systems:** Continuous monitoring systems (CMS) with recorders for the output shall be installed, calibrated, maintained and operated for each emissions unit, subject to approval by the Department, for the following:
- Flue Gas Temperature (to be located at the inlet to the final particulate matter control device; the monitors shall be calibrated, operated and maintained in accordance with the manufacturers' instructions; and, the monitoring is to be certified by the manufacturer to be accurate within +1 percent of the temperature being measured);
  - Opacity;
  - Oxygen;
  - Carbon Monoxide;
  - Nitrogen Oxides;
  - 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, when using percent removal to determine compliance with the SO<sub>2</sub> limits), as specified in 40 CFR 60, Appendix B.
  - Total Steam Production (lbs/hr, pressure, and temperature);

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- h. Power Generation;
- i. Slaked Lime Production/Utilization;
- j. Activated Carbon or Mercury Reactant Injection or Usage Rate;
- k. Combustion Zone Temperature (as determined by surrogate temperature monitoring at the boiler roof); and,
- l. Baghouse Pressure Drop (to be located downstream of the dry lime scrubbers).

The monitoring equipment shall meet the applicable requirements of Chapter 62-297, F.A.C., 40 CFR 60, Appendix F, 40 CFR 60.58b, 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), Notification Requirements. Data on monitoring equipment specifications, manufacturer, type calibration and maintenance requirements, and the proposed location of each monitor shall be provided to the Department's Southeast District office and the Dade County's DERM office for review at least 90 days prior to installation.

[PSD-FL-006(A) & (D)]

**A.79. Opacity.** If the owner or operator of an affected facility elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under 40 CFR 60.11(e)(5), he shall conduct a performance evaluation of the COMS as specified in Performance Specification 1, Appendix B, of 40 CFR 60 before the performance test required under 40 CFR 60.8 is conducted. Otherwise, the owner or operator of an affected facility shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under 40 CFR 60.8 or within 30 days thereafter in accordance with the applicable performance specification in Appendix B of 40 CFR 60. The owner or operator of an affected facility shall conduct COMS or CEMS performance evaluations at such other times as may be required by the Administrator under section 114 of the Act.

- (1) The owner or operator of an affected facility using a COMS to determine opacity compliance during any performance test required under 60.8 and as described in 40 CFR 60.11(e)(5) shall furnish the Administrator two or, upon request, more copies of a written report of the results of the COMS performance evaluation described in 40 CFR 60.13(c) at least 10 days before the performance test required under 60.8 is conducted.

[40 CFR 60.13(c)(1)]

**A.80. (1) CEMS Zero and Span Values:** Owners and operators of all continuous emission monitoring systems (CEMS) installed in accordance with the provisions of this 40 CFR Part 60 shall check the zero (or low-level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span shall, as a minimum, be adjusted whenever the 24-hour zero drift or 24-hour span drift exceeds two times the limits of the applicable performance specifications in Appendix B. The system must allow the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified, whenever specified. For continuous monitoring systems measuring opacity of emissions, the optical surfaces exposed to the effluent gases shall be cleaned prior to performing the zero and span drift adjustments except that for systems using automatic zero adjustments. The optical surfaces shall be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.

- (2) **Opacity:** Unless otherwise approved by the Administrator, the following procedures shall be followed for continuous monitoring systems measuring opacity of emissions. Minimum procedures shall include a method for producing a simulated zero opacity condition and an

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upscale (span) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of the analyzer internal optical surfaces and all electronic circuitry including the lamp and photo detector assembly.

[40 CFR 60.13(d)(1) and (2)]

**A.81.** Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), all continuous monitoring systems (CMS) shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

- (1) Opacity. All continuous monitoring systems referenced by 40 CFR 60.13(c) for measuring opacity of emissions shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.
- (2) All continuous monitoring systems referenced by 40 CFR 60.13(c) for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

[40 CFR 60.13(e)(1) and (2)]

**A.82.** All continuous monitoring systems (CMS) or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of Appendix B of 40 CFR 60 shall be used. [40 CFR 60.13(f)]

**A.83.** When the effluents from a single affected facility or two or more affected facilities subject to the same emission standards are combined before being released to the atmosphere, the owner or operator may install applicable continuous monitoring systems (CMS) on each effluent or on the combined effluent. When the affected facilities are not subject to the same emission standards, separate continuous monitoring systems shall be installed on each effluent. When the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator shall install an applicable continuous monitoring system on each separate effluent unless the installation of fewer systems is approved by the Administrator. When more than one continuous monitoring system is used to measure the emissions from one affected facility (e.g., multiple branchings, multiple outlets), the owner or operator shall report the results as required from each continuous monitoring system. [40 CFR 60.13(g)]

**A.84. Opacity:** Owners or operators of all continuous monitoring systems for measurement of opacity shall reduce all data to 6-minute averages and for continuous monitoring systems other than opacity to 1-hour averages for time periods as defined in 40 CFR 60.2. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period. For continuous monitoring systems other than opacity, 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period. Data recorded during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or non reduced form (e.g., ppm pollutant and percent O<sub>2</sub> or ng/J of pollutant). All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in subparts. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the applicable subparts to specify the emission limit (e.g., rounded to the nearest 1 percent opacity). [40 CFR 60.13(h)]

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##### A.85. Determination of Process Variables:

- (a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- (b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

##### A.86. CMS for Oxygen or Carbon Dioxide: The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous monitoring system and record the output of the system for measuring the oxygen or carbon dioxide content of the flue gas at each location where carbon monoxide, sulfur dioxide, or nitrogen oxides emissions are monitored and shall comply with the test procedures and test methods specified in paragraphs (1) through (7).

- (1) The span value of the oxygen (or carbon dioxide) monitor shall be 25 percent oxygen (or carbon dioxide).
- (2) The monitor shall be installed, evaluated, and operated in accordance with 40 CFR 60.13.
- (3) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under 40 CFR 60.8.
- (4) The monitor shall conform to Performance Specification 3 in Appendix B of 40 CFR 60 except for section 2.3 (relative accuracy requirement).
- (5) The quality assurance procedures of Appendix F of 40 CFR 60 except for section 5.1.1 (relative accuracy test audit) shall apply to the monitor.
- (6) If carbon dioxide is selected for use in diluent corrections, the relationship between oxygen and carbon dioxide levels shall be established during the initial performance test according to the procedures and methods specified in paragraphs(i) through(iv). This relationship may be reestablished during performance compliance tests.
  - (i) The fuel factor equation in Method 3B shall be used to determine the relationship between oxygen and carbon dioxide at a sampling location. Method 3, 3A, or 3B, as applicable, shall be used to determine the oxygen concentration at the same location as the carbon dioxide monitor.
  - (ii) Samples shall be taken for at least 30 minutes in each hour.
  - (iii) Each sample shall represent a 1-hour average.
  - (iv) A minimum of three runs shall be performed.
- (7) The relationship between carbon dioxide and oxygen concentrations that is established in accordance with paragraph (6) shall be submitted to the EPA Administrator as part of the initial performance test report and, if applicable, as part of the annual test report if the relationship is reestablished during the annual performance test. [40 CFR 60.38b and 40 CFR 60.58b(b)]



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##### RECORDKEEPING AND REPORTING REQUIREMENTS

**A.87.** The owner or operator subject to the provisions of 40 CFR 60 shall furnish the Administrator written notification as follows:

- (4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice. [40 CFR 60.7(a)(4)]

**A.88.** The owner or operator subject to the provisions of 40 CFR 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or, any periods during which a continuous monitoring system or monitoring device is inoperative. [40 CFR 60.7(b)]

**A.89.** Each owner or operator required to install a continuous monitoring system (CMS) or monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form [see 40 CFR 60.7(d)] to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or, the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or, the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each calendar half (or quarter, as appropriate). Written reports of excess emissions shall include the following information:

- (1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.
- (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.
- (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
- (4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

[40 CFR 60.7(c)(1), (2), (3), and (4)]

**A.90.** The summary report form shall contain the information and be in the format shown in Figure 1 (attached) unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

- (1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator.

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- (2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

*{See attached Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance}*[40 CFR 60.7(d)(1) and (2)]

**A.91.** (1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7(c), an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

- (i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;
- (ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in 40 CFR 60, Subpart A, and the applicable standard; and
- (iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in 40 CFR 60.7(e)(2).

- (2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

- (3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the non-complying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in 40 CFR 60.7(e)(1) and (e)(2).

[40 CFR 60.7(e)(1), (2), and (3)]

**A.92.** Any owner or operator subject to the provisions of 40 CFR 60 shall maintain a file of: all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance

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performed on these systems or devices; calibration logs for all instruments; and, all other information required by 40 CFR 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least 5 years following the date of such measurements, maintenance, reports, and records.

[40 CFR 60.7(f); PSD-FL-006(A) & (D); and, Rule 62-213.440(1)(b)2.b., F.A.C.]

**A.93. Notification of Construction or Reconstruction.** The owner or operator of an affected facility with a capacity to combust greater than 250 tons per day shall submit a notification of construction, which includes the information specified in paragraphs (1) through (4).

- (1) Intent to construct.
- (2) Planned initial startup date.
- (3) The types of fuels that the owner or operator plans to combust in the affected facility.
- (4) The municipal waste combustor unit capacity and supporting capacity calculations prepared in accordance with 40 CFR 60.58b(j).

[40 CFR 60.39b and 40 CFR 60.59b(b)]

**A.94.** The owner or operator of an affected facility subject to the standards under 40 CFR 60.53b, 60.54b, and 60.55b shall maintain records of the information specified in paragraphs (1) through (15), as applicable, for each affected facility for a period of at least 5 years.

- (1) The calendar date of each record.
- (2) The emission concentrations and parameters measured using continuous monitoring systems as specified under paragraphs (i) and (ii).
  - (i) The measurements specified in paragraphs (A) through (D) shall be recorded and be available for submittal to the Administrator or review onsite by an inspector.
    - (A) All 6-minute average opacity levels as specified under 40 CFR 60.58b(c).
    - (B) All 1-hour average sulfur dioxide emission concentrations as specified under 40 CFR 60.58b(e).
    - (C) All 1-hour average nitrogen oxides emission concentrations as specified under 40 CFR 60.58b(h).
    - (D) All 1-hour average carbon monoxide emission concentrations, municipal waste combustor unit load measurements, and particulate matter control device inlet temperatures as specified under 40 CFR 60.58b(i).
  - (ii) The average concentrations and percent reductions, as applicable, specified in paragraphs (2)(ii)(A) through (2)(ii)(D) shall be computed and recorded, and shall be available for submittal to the Administrator or review on-site by an inspector.
    - (A) All 24-hour daily geometric average sulfur dioxide emission concentrations and all 24-hour daily geometric average percent reductions in sulfur dioxide emissions as specified under 40 CFR 60.58b(e).
    - (B) All 24-hour daily arithmetic average nitrogen oxides emission concentrations as specified under 40 CFR 60.58b(h).
    - (C) All 4-hour block or 24-hour daily arithmetic average carbon monoxide emission concentrations, as applicable, as specified under 40 CFR 60.58b(i).

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- (D) All 4-hour block arithmetic average municipal waste combustor unit load levels and particulate matter control device inlet temperatures as specified under 40 CFR 60.58b(i).
- (3) Identification of the calendar dates when any of the average emission concentrations, percent reductions, or operating parameters recorded under paragraphs (2)(ii)(A) through (2)(ii)(D), or the opacity levels recorded under paragraph (2)(i)(A) are above the applicable limits, with reasons for such exceedances and a description of corrective actions taken.
- (4) For affected facilities that apply activated carbon for mercury or dioxin/furan control, the records specified in paragraphs (i) through (v).
  - (i) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated as required under 40 CFR 60.58b(m)(1)(i) during the initial mercury performance test and all subsequent annual performance tests, with supporting calculations.
  - (ii) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated as required under 40 CFR 60.58b(m)(1)(ii) during the initial dioxin/furan performance test and all subsequent annual performance tests, with supporting calculations.
  - (iii) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated for each hour of operation as required under 40 CFR 60.58b(m)(3)(ii), with supporting calculations.
  - (iv) The total carbon usage for each calendar quarter estimated as specified by 40 CFR 60.58b(m)(3), with supporting calculations.
  - (v) Carbon injection system operating parameter data for the parameter(s) that are the primary indicator(s) of carbon feed rate (e.g., screw feeder speed).
- (5) [Reserved]
- (6) Identification of the calendar dates for which the minimum number of hours of any of the data specified in paragraphs (i) through (v) have not been obtained including reasons for not obtaining sufficient data and a description of corrective actions taken.
  - (i) Sulfur dioxide emissions data;
  - (ii) Nitrogen oxides emissions data;
  - (iii) Carbon monoxide emissions data;
  - (iv) Municipal waste combustor unit load data; and
  - (v) Particulate matter control device temperature data.
- (7) Identification of each occurrence that sulfur dioxide emissions data, nitrogen oxides emissions data (large municipal waste combustors only), or operational data (i.e., carbon monoxide emissions, unit load, and particulate matter control device temperature) have been excluded from the calculation of average emission concentrations or parameters, and the reasons for excluding the data.
- (8) The results of daily drift tests and quarterly accuracy determinations for sulfur dioxide, nitrogen oxides, and carbon monoxide continuous emission monitoring systems, as required under Appendix F of this part, procedure 1.
- (9) The test reports documenting the results of the initial performance test and all annual performance tests listed in paragraphs (i) and (ii) shall be recorded along with supporting calculations.

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- (i) The results of the initial performance test and all annual performance tests conducted to determine compliance with the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission limits.
  - (ii) For the initial dioxin/furan performance test and all subsequent dioxin/furan performance tests recorded under paragraph (9)(i), the maximum demonstrated municipal waste combustor unit load and maximum demonstrated particulate matter control device temperature (for each particulate matter control device).
- (10) [Reserved]
- (12) The records specified in paragraphs (i) through (iii).
- (i) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have been provisionally certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program as required by 40 CFR 60.54b(a) including the dates of initial and renewal certifications and documentation of current certification.
  - (ii) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have been fully certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program as required by 40 CFR 60.54b(b) including the dates of initial and renewal certifications and documentation of current certification.
  - (iii) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have completed the EPA municipal waste combustor operator training course or a State-approved equivalent course as required by 40 CFR 60.54b(d) including documentation of training completion.
- (13) Records showing the names of persons who have completed a review of the operating manual as required by 40 CFR 60.54b(f) including the date of the initial review and subsequent annual reviews.
- (14) For affected facilities that apply activated carbon for mercury or dioxin/furan control, identification of the calendar dates when the average carbon mass feed rates recorded under (4)(iii) were less than either of the hourly carbon feed rates estimated during performance tests for mercury or dioxin/furan emissions and recorded under paragraphs (4)(i) and (4)(ii), respectively, with reasons for such feed rates and a description of corrective actions taken.
- (15) For affected facilities that apply activated carbon for mercury or dioxin/furan control, identification of the calendar dates when the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate (e.g., screw feeder speed) recorded under paragraph (4)(v) are below the level(s) estimated during the performance tests as specified in 40 CFR 60.58b(m)(1)(i) and 40 CFR 60.58b(m)(1)(ii), with reasons for such occurrences and a description of corrective actions taken.

[40 CFR 60.39b and 40 CFR 60.59b(d)]

**A.95.** The owner or operator of an affected facility shall submit the information specified in paragraphs (1) through (6) in the initial performance test report.

- (1) The initial performance test data as recorded under 40 CFR 60.59b(d)(2)(ii)(A) through (d)(2)(ii)(D) for the initial performance test for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, and particulate matter control device inlet temperature.

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- (2) The test report documenting the initial performance test recorded under 40 CFR 60.59b(d)(9) for particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emissions.
- (3) The performance evaluation of the continuous emission monitoring system using the applicable performance specifications in Appendix B of this part.
- (4) The maximum demonstrated municipal waste combustor unit load and maximum demonstrated particulate matter control device inlet temperature(s) established during the initial dioxin/furan performance test as recorded under 40 CFR 60.59b(d)(9).
- (5) For affected facilities that apply activated carbon injection for mercury control, the owner or operator shall submit the average carbon mass feed rate recorded under 40 CFR 60.59b(d)(4)(i).
- (6) For those affected facilities that apply activated carbon injection for dioxin/furan control, the owner or operator shall submit the average carbon mass feed rate recorded under 40 CFR 60.59b(d)(4)(ii).

[40 CFR 60.39b and 40 CFR 60.59b(f)]

**A.96.** Following the first year of municipal combustor operation, the owner or operator of an affected facility shall submit an annual report including the information specified in paragraphs (1) through (4), as applicable, no later than February 1 of each year following the calendar year in which the data were collected (once the unit is subject to permitting requirements under Title V of the Act, the owner or operator of an affected facility must submit these reports semiannually).

- (1) A summary of data collected for all pollutants and parameters regulated under this subpart, which includes the information specified in paragraphs (i) through (v).
  - (i) A list of the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission levels achieved during the performance tests recorded under 40 CFR 60.59b (d)(9).
  - (ii) A list of the highest emission level recorded for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, and particulate matter control device inlet temperature based on the data recorded under 40 CFR 60.59b(d)(2)(ii)(A) through (d)(2)(ii)(D).
  - (iii) List the highest opacity level measured, based on the data recorded under 40 CFR 60.59b(d)(2)(i)(A).
  - (iv) The total number of days that the minimum number of hours of data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, and particulate matter control device temperature data were not obtained based on the data recorded under 40 CFR 60.59b(d)(6).
  - (v) The total number of hours that data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, and particulate matter control device temperature were excluded from the calculation of average emission concentrations or parameters based on the data recorded under 40 CFR 60.59b(d)(7).
- (2) The summary of data reported under paragraph (1) shall also provide the types of data specified in paragraphs (1)(i) through (1)(vi) for the calendar year preceding the year being reported, in order to provide the Administrator with a summary of the performance of the affected facility over a 2-year period.

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- (3) The summary of data including the information specified in paragraphs (1) and (2) shall highlight any emission or parameter levels that did not achieve the emission or parameter limits specified under this subpart.
- (4) A notification of intent to begin the reduced dioxin/furan performance testing schedule specified in 40 CFR 60.58b(g)(5)(iii) during the following calendar year.

[40 CFR 60.39b and 40 CFR 60.59b(g)]

**A.97.** The owner or operator of an affected facility shall submit a semiannual report that includes the information specified in paragraphs (1) through (5) for any recorded pollutant or parameter that does not comply with the pollutant or parameter limit specified under this subpart, according to the schedule specified under paragraph (6).

- (1) The semiannual report shall include information recorded under 40 CFR 60.59b(d)(3) for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, particulate matter control device inlet temperature, and opacity.
- (2) For each date recorded as required by 40 CFR 60.59b(d)(3) and reported as required by paragraph (1), the semiannual report shall include the sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, particulate matter control device inlet temperature, or opacity data, as applicable, recorded under 40 CFR 60.59b(d)(2)(ii)(A) through (d)(2)(ii)(D) and (d)(2)(i)(A), as applicable.
- (3) If the test reports recorded under 40 CFR 60.59b(d)(9) document any particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission levels that were above the applicable pollutant limits, the semiannual report shall include a copy of the test report documenting the emission levels and the corrective actions taken.
- (4) The semiannual report shall include the information recorded under 40 CFR 60.59b(d)(15) for the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate.
- (5) For each operating date reported as required by paragraph (4), the semiannual report shall include the carbon feed rate data recorded under 40 CFR 60.59b(d)(4)(iii).
- (6) Semiannual reports required by this condition shall be submitted according to the schedule specified in paragraphs (i) and (ii).
  - (i) If the data reported in accordance with paragraphs (1) through (5) were collected during the first calendar half, then the report shall be submitted by August 1 following the first calendar half.
  - (ii) If the data reported in accordance with paragraphs (1) through (5) were collected during the second calendar half, then the report shall be submitted by February 1 following the second calendar half.

[40 CFR 60.39b and 40 CFR 60.59b(h)]

**A.98.** All reports specified under 40 CFR 60.59b(a), (b), (c), (f), (g), (h), and (i) shall be submitted as a paper copy, postmarked on or before the submittal dates specified under these paragraphs, and maintained on-site as a paper copy for a period of 5 years.

[40 CFR 60.39b and 40 CFR 60.59b(j); PSD-FL-006(A) & (D); and, Rule 62-213.440, F.A.C.]

**A.99.** All records specified under 40 CFR 60.59b(d) and (e) shall be maintained onsite in either paper copy or computer-readable format, unless an alternative format is approved by the Administrator.

[40 CFR 60.39b and 40 CFR 60.59b(k)]

### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection A. RDF Spreader Stoker Combustor & Aux. Burners (Units 1, 2, 3 and 4)

- A.100.** If the owner or operator of an affected facility would prefer a different annual or semiannual date for submitting the periodic reports required by 40 CFR 60.59b(g), (h) and (i), then the dates may be changed by mutual agreement between the owner or operator and the Administrator according to the procedures specified in 40 CFR 60.19(c) of Subpart A of 40 CFR 60. [40 CFR 60.39b and 40 CFR 60.59b(l)]
- A.101.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department's Southeast District office and the Miami-Dade County's DERM office in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department or its agent. [Rule 62-210.700(6), F.A.C.]
- A.102.** Submit to the Department's Southeast District office and the Miami-Dade County's DERM office a written report of emissions in excess of emission limiting standards for each calendar quarter. The nature and cause of the excess emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file by the Source for a period of five years. [Rule 62-213.440, F.A.C.]
- A.103.** The owner or operator shall submit excess emission reports to the Department's Southeast District office and the Miami-Dade County's DERM office 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 measure 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, 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)].
- [PSD-FL-006(A)]
- A.104. Test Reports:**
- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department's Southeast District office and the Miami-Dade County's DERM office on the results of each such test.
  - (b) The required test report for each boiler unit shall be filed with the Department's Southeast District office and the Miami-Dade County's DERM office as soon as practical but no later than 45 days after completion of the last sampling run of all pollutants tested under a common



### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection A. RDF Spreader Stoker Combustor & Aux. Burners (Units 1, 2, 3 and 4)

test protocol as approved by the Department. A separate test protocol shall be provided for each "testing event", regardless of its duration. A "testing event" is defined as each individual time that a tester comes on site, sets up, does testing, and then departs.

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

### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection A. RDF Spreader Stoker Combustor & Aux. Burners (Units 1, 2, 3 and 4)

21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department's Southeast District or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.; and Applicant request.]

- A.105.** Monthly records shall be maintained of the amount of propane and natural gas used by the auxiliary burners of each emissions unit and the equivalent heat input from the propane and natural gas (calculated using the heat value for the propane and natural gases provided by the gas supplier).  
[Rule 62-213.440, F.A.C.; and, PSD-FL-006(D)]

- A.106. Charging Rate Monitoring:** The average daily RDF charging rate shall be determined on a monthly basis and recorded for each combustor unit. The daily charging rate shall be determined each month on an average daily basis for each combustor unit using the facility's truck scale weight data, refuse pit inventory data and RDF operating data for the preceding calendar month. Monthly truck scale weight records of the weight of solid waste received and processed at the facility, and refuse pit inventory data, shall be used to determine the amount of RDF charged during the preceding calendar month on an average daily basis. The RDF load level measurements or other operating data shall be used to determine the number of operating hours per combustor unit for each day during the preceding calendar month. [Rule 62-213.440, F.A.C.; PSD-FL-006(D); and, 40 CFR 60.53(a)]

- A.107. Segregated Solid Waste Recordkeeping:** The following records shall be made and kept to demonstrate compliance with the segregated non-MSW percentage limitations of specific condition **A.12**:

- (1) Each segregated load of non-MSW materials, that is subject to the percentage weight limitations of specific condition **A.12**, which is received for processing shall be documented as to waste description and weight. The weight of all waste materials received for processing shall be measured using the facility truck scales and recorded.
- (2) Each day the total weight of segregated tires received shall be computed, and the daily total shall be added to the sum of the daily totals from the current calendar month. At the end of each calendar month, the resultant monthly total weight of tires shall be divided by the total weight of all waste materials received in the same calendar month, and the resulting number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 3% limitation.
- (3) Each day the total weight of segregated non-MSW materials received that are subject to the 5% restriction shall be computed, and the daily total shall be added to the sum of the daily totals from the previous days in the current calendar month. At the end of each calendar month, the resultant monthly total weight of segregated non-MSW materials shall be divided by the total weight of all waste materials received in the same calendar month, and the resulting number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 5% limitation.

[Rule 62-213.440, F.A.C.; and, PSD-FL-006(D)]

- A.108.** The owner or operator 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:

### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection A. RDF Spreader Stoker Combustor & Aux. Burners (Units 1, 2, 3 and 4)

- 1) the data collected from in-stack monitoring instruments;
- 2) the records on RDF input rates per emissions unit;
- 3) the amount of propane gas burned per emissions unit;
- 4) the results of all source tests or performance tests;
- 5) the amount of activated carbon or other reactant chemicals used for mercury control;
- 6) calibration logs for all instruments;
- 7) maintenance/repair logs for any work performed on equipment or instrument which is subject to this permit; and,
- 8) fuel analyses data.

All measurements, records, and other data required to be maintained by owner or operator shall be retained for at least 5 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 Department's Southeast District office and the Miami-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. [PSD-FL-006(A) & (D); and, Rule 62-213.440, F.A.C.]

#### A.109. Reports:

- a) A copy of the results of any formal emission test for any emissions unit shall be submitted to the Department's Southeast District office and the Miami-Dade County's DERM office within forty-five days after completion of the last sampling run of the emissions unit of all pollutants tested under a common test protocol as approved by the Department. A separate test protocol shall be provided for each "testing event", regardless of its duration. A "testing event" is defined as each individual time that a tester comes on site, sets up, does testing, and then departs. Reports shall be in a format consistent with and shall include the information in accordance with Rule 62-297.570, F.A.C.
- b) Emissions monitoring shall be reported to the Department's Southeast District office and the Dade County's DERM office on a quarterly basis in accordance with Chapter 62-297, F.A.C., and 40 CFR Part 60.7, as appropriate.
- c) Notice of anticipated and actual start-up dates of control devices under this permit shall be submitted to Department's Southeast District office and the Miami-Dade County's DERM office.

[PSD-FL-006(A) & (D); and Applicant request.]

#### MISCELLANEOUS REQUIREMENTS

**A.110. Activated Carbon Injection:** The owner or operator of an affected facility where activated carbon injection is used to comply with the mercury emission limit (see specific condition A.26), or the dioxin/furan emission limits (see specific condition A.33), or the dioxin/furan emission level specified in 40 CFR 60.58b(g)(5)(iii), shall follow the procedures specified in paragraphs (1) through (3).

- (1) During the performance tests for dioxins/furans and mercury, as applicable, the owner or operator shall estimate an average carbon mass feed rate based on carbon injection system operating parameters such as the screw feeder speed, hopper volume, hopper refill frequency,

### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection A. RDF Spreader Stoker Combustor & Aux. Burners (Units 1, 2, 3 and 4)

or other parameters appropriate to the feed system being employed, as specified in paragraphs (i) and(ii).

- (i) An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance test for mercury emissions and each subsequent performance test for mercury emissions.
  - (ii) An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance test for dioxin/furan emissions and each subsequent performance test for dioxin/furan emissions.
- (2) During operation of the affected facility, the carbon injection system operating parameter(s) that are the primary indicator(s) of the carbon mass feed rate (e.g., screw feeder setting) must equal or exceed the level(s) documented during the performance tests specified under paragraphs (1)(i) and (1)(ii).
- (3) The owner or operator of an affected facility shall estimate the total carbon usage of the plant (kilograms or pounds) for each calendar quarter by two independent methods, according to the procedures in paragraphs (i) and (ii).
- (i) The weight of carbon delivered to the plant.
  - (ii) Estimate the average carbon mass feed rate in kilograms per hour or pounds per hour for each hour of operation for each affected facility based on the parameters specified under paragraph (1), and sum the results for all affected facilities at the plant for the total number of hours of operation during the calendar quarter.

[40 CFR 60.38b and 40 CFR 60.58b(m); and, PSD-FL-006(D)]

- A.111. Acid Rain Part Application:** For any unit which was a solid waste incinerator, burning less than 20 percent fossil fuel as described in 40 CFR 72.6(b)(7), adopted and incorporated by reference at Rule 62-204.800, F.A.C., the designated representative of the source containing the unit shall submit a complete Acid Rain Part application governing such unit to the Department before the later of January 1, 1998, or March 1 of the year following the three calendar year period in which the incinerator consumed 20 percent or more fossil fuel on a British thermal unit (BTU) basis.

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

- A.112. Baghouse Operations: Air-to-Cloth Ratio:** The baghouses shall have a maximum air-to-cloth ratio of 4:1.

[PSD-FL-006(A) & (D)]

- A.113.** The permittee is authorized to install and operate permanently mounted gas burners, selective noncatalytic reduction (SNCR) systems, and other controls to achieve the nitrogen oxides and carbon monoxide emissions limits. [PSD-FL-006(D)]

- A.114. Credible Evidence.** For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in 40 CFR 60, nothing in 40 CFR 60 shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed. [40 CFR 60.11(g)]

### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection B. MSW to RDF Processing and Bulky Waste to Biomass Processing (Units 6 & 7)

**Subsection B. This section addresses the following emissions units.**

| E.U. ID No. | Brief Description   |
|-------------|---|
| -006/Unit 6 | MSW to RDF Processing Facility: 3,000 TPD; 18,000 tons/wk; and, 936,000 TPY |
| -007/Unit 7 | Bulky Waste to Biomass Processing Facility: 400,000 TPY                     |

Emissions Unit -006/Unit 6 is a processing activity of receiving, handling and converting of MSW into RDF and saleable extractables, such as metals and glass. The facility is designed to process 3,000 tons/day, 18,000 tons/wk, and 936,000 tons/yr of RDF.

Emissions Unit -007/Unit 7 is an existing bulky waste processing system that was modified into a biomass fuel preparation system and is designed to process up to 400,000 tons/yr of the bulky waste into biomass, which will be transported off-site for use in biomass-fired cogeneration units or combusted on-site.

Bulky waste or bulky refuse is a technical term taken from waste management to describe waste types that are too large to be accepted by the regular waste collection. It is usually picked up regularly in many countries from the streets or pavements of the area. This service is provided free of charge in many places, but often a fee has to be paid. Bulky waste items include discarded furniture (couches, recliners, tables), large appliances (refrigerators, ovens, tv's), and white goods (bathtubs, toilets, sinks). Branches, brush and logs are also categorized as bulky waste, although they may be collected separately for recycling. Reference: Wikipedia®

*{Permitting note(s): Emissions units -006/Unit 6 and -007/Unit 7 are each minor emissions units regulated under Rule 62-210.300, F.A.C., Permits Required; Rule 62-212.400, F.A.C., Prevention of Significant Deterioration [PSD; and, PSD-FL-006(A), (B) & (D)]}*

Since the estimated potential uncontrolled PM emissions are below the major source threshold, the CAM rule does not apply to the biomass processing facility silo's baghouse.

The following specific conditions apply to the emissions unit(s) listed above:

#### GENERAL

#### ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

**B.1. Hours of Operation.** Each emissions unit may operate continuously, i.e., 8,760 hrs/yr.  
[Rules 62-213.440, 62-210.200(PTE), and 62-296.700(4)(a)7., F.A.C.; and, PSD-FL-006(D)]

#### EMISSION LIMITATIONS AND STANDARDS

##### **B.2. Particulate Matter Emissions:**

- (1) Bulky Waste to Biomass Processing Facility. Particulate matter emissions from any baghouse shall not exceed 0.01 gr/dscf.

[PSD-FL-006(A) & (D)]

##### **B.3. Visible Emissions:**

- a. MSW to RDF Processing Facility. Visible emissions from each baghouse exhaust shall not exceed 10 percent opacity, six-minute average.
- b. Bulky Waste to Biomass Processing Facility. Visible emissions from each baghouse exhaust shall not exceed 5 percent opacity, since each emissions unit's potential particulate matter emissions are less than 100 TPY and is equipped with a baghouse control system. As long as the visible emissions do not exceed 5 percent opacity, compliance is assumed for the particulate matter limitations established in specific condition **B.2** above.

### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection B. MSW to RDF Processing and Bulky Waste to Biomass Processing (Units 6 & 7)

If the Department has reason to believe that the particulate matter weight emissions standard in specific condition **B.2** is not being met, it shall require that compliance be demonstrated by the test method specified in specific condition **B.9**.

[PSD-FL-006(A) & (D); and, Rule 62-297.620(4), F.A.C.]

#### EXCESS EMISSIONS

- B.4.** Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]
- B.5.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

#### MONITORING OF OPERATIONS

**B.6.** Determination of Process Variables:

- (a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- (b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

#### TEST METHODS AND PROCEDURES

- B.7.** Annual Tests Required: Annual visible emissions compliance tests shall be performed for each emissions unit. [Rule 62-297.310(7), F.A.C.]
- B.8.** Visible Emissions: The test method for visible emissions for all emissions units shall be EPA Method 9, in accordance with Rule 62-297.401, F.A.C., and 40 CFR 60, Appendix A.  
[Rule 62-297.401, F.A.C.; and, PSD-FL-006(A), (B) & (D)]
- B.9.** Particulate Matter Emissions: The test method for particulate matter emissions for all units shall be EPA Method 5, in accordance with Rule 62-297.401, F.A.C., and 40 CFR 60, Appendix A.  
[Rule 62-297.401, F.A.C.; and, PSD-FL-006(A), (B) & (D)]
- B.10.** Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may

### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection B. MSW to RDF Processing and Bulky Waste to Biomass Processing (Units 6 & 7)

accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards. [Rule 62-297.310(1), F.A.C.]

**B.11. Operating Rate During Testing:** Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rules 62-297.310(2) & (2)(b), F.A.C.]

**B.12. Calculation of Emission Rate:** The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]

**B.13. Applicable Test Procedures:**

(a) Required Sampling Time:

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
  2. **Opacity Compliance Tests.** When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
    - a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
    - b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
    - c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
- (b) Minimum Sample Volume: Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.
- (c) Required Flow Rate Range: For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.

### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection B. MSW to RDF Processing and Bulky Waste to Biomass Processing (Units 6 & 7)

- (d) Calibration of Sampling Equipment: Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, attached to this permit.
- (e) Allowed Modification to EPA Method 5: When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

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

**B.14. Required Stack Sampling Facilities**: When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit. [Rule 62-297.310(6), F.A.C.]

**B.15. Frequency of Compliance Tests**: The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing:

- 3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
    - a. Did not operate.
  - 4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
    - a. Visible emissions, if there is an applicable standard;
    - b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
    - c. Each NESHAP pollutant, if there is an applicable emission standard.
  - 9. The owner or operator shall notify the Department's Southeast District office and the Dade County's DERM office at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
- (b) Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
- (c) Waiver of Compliance Test Requirements: If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter



### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection B. MSW to RDF Processing and Bulky Waste to Biomass Processing (Units 6 & 7)

sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; PSD-FL-006(D); and, SIP approved]

#### RECORDKEEPING AND REPORTING

**B.16.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department's Southeast District office and then Dade County's DERM office in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department or its agent. [Rule 62-210.700(6), F.A.C.]

#### **B.17.** Test Reports:

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department's Southeast District office and the Dade County's DERM office on the results of each such test.
- (b) The required test report shall be filed with the Department's Southeast District office and the Miami-Dade County's DERM office as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- (c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department's Southeast District office and the Dade County's DERM office to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
  1. The type, location, and designation of the emissions unit tested.
  2. The facility at which the emissions unit is located.
  3. The owner or operator of the emissions unit.
  4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
  5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
  6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
  7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
  8. The date, starting time and duration of each sampling run.
  9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
  10. The number of points sampled and configuration and location of the sampling plane.
  11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
  12. The type, manufacturer and configuration of the sampling equipment used.
  13. Data related to the required calibration of the test equipment.
  14. Data on the identification, processing and weights of all filters used.

### SECTION III. UNIT SPECIFIC CONDITIONS

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#### **Subsection B. MSW to RDF Processing and Bulky Waste to Biomass Processing (Units 6 & 7)**

15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department's Southeast District or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

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

### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection C. Ash Building and Handling System (Unit 8)

**Subsection C. This section addresses the following emissions unit.**

| E.U. ID No. | Brief Description   |
|-------------|---|
| 008/Unit 8  | Ash Building and Handling System/Ash Storage Silo with Baghouse |

Fly ash collected by the fabric filters is conveyed to the fly ash silo, fly ash conditioner and to the ash transfer building, where it is combined with bottom ash from the boilers. The combined ash is then conveyed to the ash storage building. The ash handling system is enclosed to decrease the potential for fugitive emissions. The bottom ash is quenched and wetted before being conveyed to the ash transfer building. The fly ash is wetted in the fly ash conditioner prior to being conveyed to the ash transfer building.

*{Permitting note(s). This emissions unit is regulated under NSPS - 40 CFR 60, Subpart Cb, Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors That Are Constructed on or Before September 20, 1994, adopted and incorporated by reference, subject to provisions, in Rule 62-204.800(8)(b), F.A.C.; and, Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration [PSD; PSD-FL-006, -006(A), (B) & (D)]. Note: This project is subject to the requirements of 40 CFR 60, Subpart Cb. This permit may refer to the requirements of 40 CFR 60, Subpart Eb, where these requirements are referenced by 40 CFR 60, Subpart Cb. The fugitive particulate matter control requirements for the ash handling activities are specified in 40 CFR 60.55b.}*

Since the estimated potential uncontrolled PM emissions are below the major source threshold, the CAM rule does not apply to the ash storage silo's baghouse.

**The following specific Conditions apply to the emissions unit(s) listed above:**

#### GENERAL

**C.1. Definitions:** For the purposes of Rule 62-204.800(8), F.A.C., the definitions contained in the various provisions of 40 CFR Part 60, adopted herein shall apply except that the term "Administrator" when used in 40 CFR Part 60, shall mean the Secretary or the Secretary's designee.  
[Rule 62-204.800(8)(a)2., F.A.C.; and, 40 CFR 60.2]

#### ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

**C.2. Hours of Operation:** This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.; and, PSD-FL-006(D)]

#### EMISSION LIMITATIONS AND STANDARDS

**C.3. PM and VE: Ash Silo:**

- (a) PM emissions from the ash silo baghouse shall not exceed 0.01 gr/dscf; or,
- (b) Visible emissions shall not exceed 5 percent opacity, since the emissions unit's potential particulate matter emissions are less than 100 TPY and is equipped with a baghouse control system. As long as the visible emissions do not exceed 5 percent opacity, compliance is assumed for the particulate matter limitations established in paragraph (a) above.

If the Department has reason to believe that the particulate matter weight emissions standard in paragraph (a) above is not being met, it shall require that compliance be demonstrated by the test method specified in specific condition C.11.

- (c) Compliance testing of the ash silo (baghouse) shall be conducted within 90 days of completion of construction and initial operation; and, annually thereafter.

[PSD-FL-006(A) & (D); and, Rule 62-297.620(4), F.A.C.]

### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection C. Ash Building and Handling System (Unit 8)

- C.4. Fugitive Ash Emissions:** (a) On and after the date on which the initial performance test is completed or is required to be completed under 40 CFR 60.8 of Subpart A (see specific condition C.10), no owner or operator of an affected facility shall cause to be discharged to the atmosphere visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5 percent of the observation period (i.e., 9 minutes per 3-hour period), as determined by EPA Reference Method 22 observations as specified in 40 CFR 60.58b(k), except as provided in paragraphs (b) and (c). See specific condition C.7.
- (b) The emission limit specified in paragraph (a) does not cover visible emissions discharged inside buildings or enclosures of ash conveying systems; however, the emission limit specified in paragraph (a) does cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems.
- (c) The provisions of paragraph (a) do not apply during maintenance and repair of ash conveying systems.
- [40 CFR 60.36b and 40 CFR 60.55b; and, PSD-FL-006(D)]
- C.5.** The potential for dust generation by ash handling activities will be mitigated by quenching the ash prior to loading in ash transport trucks. The ash handling facilities shall be enclosed. 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, or otherwise handled in a manner to minimize visible dust. The ash/residue in the ash handling building shall remain sufficiently moist to prevent dust during storage and handling operations.
- [PSD-FL-006(A) & (D); and, Rule 62-4.070(3), F.A.C.]

#### EXCESS EMISSIONS

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

- C.6.** At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [40 CFR 60.11(d)]
- C.7.** Excess emissions from these emissions units resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
- [Rule 62-210.700(1), F.A.C.]
- C.8.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

#### TEST METHODS AND PROCEDURES

- C.9.** The procedures specified in paragraphs (1) through (4) shall be used for determining compliance with the fugitive ash emission limit under 40 CFR 60.55b. (See specific condition C.4.)
- (1) The EPA Reference Method 22 shall be used for determining compliance with the fugitive ash emission limit under 40 CFR 60.55b. The minimum observation time shall be a series of three 1-hour

### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection C. Ash Building and Handling System (Unit 8)

observations. The observation period shall include times when the facility is transferring ash from the municipal waste combustor unit to the area where ash is stored or loaded into containers or trucks.

- (2) The average duration of visible emissions per hour shall be calculated from the three 1-hour observations. The average shall be used to determine compliance with 40 CFR 60.55b.
- (3) The owner or operator of an affected facility shall conduct an initial performance test for fugitive ash emissions as required under 40 CFR 60.8.
- (4) Following the date that the initial performance test for fugitive ash emissions is completed or is required to be completed under 40 CFR 60.8 for an affected facility, the owner or operator shall conduct a performance test for fugitive ash emissions on an annual basis (no more than 12 calendar months following the previous performance test).

[40 CFR 60.38b and 40 CFR 60.58b(k)]

**C.10.** Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [40 CFR 60.8(c)]

**C.11. Particulate Matter:** The test methods for particulate emissions shall be EPA Method 5 incorporated by reference in Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A. [Rules 62-213.440 and 62-297.401, F.A.C.]

**C.12. Visible Emissions:** EPA Method 9 shall be used to determine opacity compliance pursuant to Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A. [Rule 62-297.401, F.A.C.]

**C.13. Operating Rate During Testing:** Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rules 62-297.310(2) & (2)(b), F.A.C.]

**C.14. Applicable Test Procedures:**

(a) Required Sampling Time:

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. **Opacity Compliance Tests.** When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection C. Ash Building and Handling System (Unit 8)

- a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
- b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
- c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

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

**C.15. Frequency of Compliance Tests:** The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

**(a) General Compliance Testing.**

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
    - a. Did not operate.
  4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
    - a. Visible emissions, if there is an applicable standard;
    - b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
    - c. Each NESHAP pollutant, if there is an applicable emission standard.
  9. The owner or operator shall notify the Department's Southeast District office and the Dade County's DERM office at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
- (b) Special Compliance Tests:** When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
- (c) Waiver of Compliance Test Requirements:** If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure

### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection C. Ash Building and Handling System (Unit 8)

established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; PSD-FL-006(D); and, SIP approved]

- C.16.** Compliance with standards in 40 CFR 60, other than opacity standards, shall be determined only by performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard. [40 CFR 60.11(a)]

#### MONITORING OF OPERATIONS

**C.17.** Determination of Process Variables:

- (a) Required Equipment: The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- (b) Accuracy of Equipment: Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

#### RECORDKEEPING AND REPORTING REQUIREMENTS

- C.18.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department's Southeast District office in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department or its agent. [Rule 62-210.700(6), F.A.C.]

- C.19.** The owner or operator subject to the provisions of 40 CFR 60 shall furnish the Administrator written notification as follows:

- (4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

[40 CFR 60.7(a)(4)]

- C.20.** The owner or operator subject to the provisions of 40 CFR 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or, any periods during which a continuous monitoring system or monitoring device is inoperative. [40 CFR 60.7(b)]

### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection C. Ash Building and Handling System (Unit 8)

- C.21.** (1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7(c), an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met: (i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;
- (i) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in 40 CFR 60, Subpart A, and the applicable standard; and
  - (ii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in 40 CFR 60.7(e)(2).
- (2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.
- (3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in 40 CFR 60.7(e)(1) and (e)(2).

[40 CFR 60.7(e)(1)]

{See attached Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance}

- C.22.** Any owner or operator subject to the provisions of 40 CFR 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and, all other information required by 40 CFR 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least 5 years following the date of such measurements, maintenance, reports, and records. [40 CFR 60.7(f); and, Rule 62-213.440(1)(b)2.b., F.A.C.]



### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection C. Ash Building and Handling System (Unit 8)

##### C.23. Test Reports:

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department's Southeast District office and the Dade County's DERM office on the results of each such test.
- (b) The required test report shall be filed with the Department's Southeast District office and the Dade County's DERM office as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- (c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department's Southeast District office and the Dade County's DERM office to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
  1. The type, location, and designation of the emissions unit tested.
  2. The facility at which the emissions unit is located.
  3. The owner or operator of the emissions unit.
  4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
  5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
  6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
  7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
  8. The date, starting time and duration of each sampling run.
  9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
  10. The number of points sampled and configuration and location of the sampling plane.
  11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
  12. The type, manufacturer and configuration of the sampling equipment used.
  13. Data related to the required calibration of the test equipment.
  14. Data on the identification, processing and weights of all filters used.
  15. Data on the types and amounts of any chemical solutions used.
  16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
  17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
  18. All measured and calculated data required to be determined by each applicable test procedure for each run.
  19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
  20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.

### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection C. Ash Building and Handling System (Unit 8)

21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department's Southeast District or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

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

#### MISCELLANEOUS REQUIREMENTS

- C.24. Definitions:** For the purposes of Rules 62-204.800(7), (8), and (9), F.A.C., the definitions contained in the various provisions of 40 CFR Parts 60 and 61, adopted herein shall apply except that the term "Administrator" when used in 40 CFR Parts 60 and 61, shall mean the Secretary or the Secretary's designee except as noted in 40 CFR 61.157.

[40 CFR 60.2; and, Rules 62-204.800(7)(a), (8)(a)2., and, (9)(a), F.A.C.]

- C.25. Circumvention:** No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. [40 CFR 60.12]

- C.26. General Applicability and Definitions:** The Standards of Performance for New Stationary Sources adopted by reference in Rule 62-204.800(8), F.A.C., the Emission Guidelines for Existing Sources adopted by reference in Rule 62-204.800(9), F.A.C., and the National Emissions Standards for Hazardous Air Pollutants adopted by reference in Rule 62-204.800(10), F.A.C., shall be controlling over other standards in the air pollution rules of the Department except that any emissions limiting standard contained in or determined pursuant to the air pollution rules of the Department which is more stringent than one contained in a Standard of Performance, an Emission Guideline, or a National Emission Standard, or which regulates emissions of pollutants or emissions units not regulated by an applicable Standard of Performance, Emission Guideline, or National Emission Standard, shall apply. [Rules 62-204.800(8)(c), (9)(a)1., and (10)(c), F.A.C.]

### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection D. Two Lime Storage Silos (Unit 9)

**Subsection D. This section addresses the following emissions unit(s).**

| E.U. ID No. | Brief Description                            |
|-------------|--|
| -009/Unit 9 | Two Lime Storage Silos each with a Baghouse. |

Lime used in the spray dryer absorbers for the municipal waste combustors is stored in two silos. Emissions from each silo are controlled by a baghouse.

*{Permitting note(s): Emissions unit -009/Unit 9 is a minor emissions unit regulated under Rule 62-210.300, F.A.C., Permits Required; and, Rule 62-212.400, F.A.C., Prevention of Significant Deterioration [PSD; and, PSD-FL-006(A), (B) & (D)]}*

Since the estimated potential uncontrolled PM emissions are below the major source threshold, the CAM rule does not apply to the lime storage silos' baghouses.

**The following specific conditions apply to the emissions unit listed above:**

#### **ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS**

**D.1. Hours of Operation:** This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.; and, PSD-FL-006(D)]

#### **EMISSION LIMITATIONS AND STANDARDS**

**D.2. Visible Emissions:** Visible emissions shall not exceed five (5) percent opacity. [PSD-FL-006(A), (B) & (D)]

#### **EXCESS EMISSIONS**

**D.3.** Excess emissions from these emissions units resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

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

#### **TEST METHODS AND PROCEDURES**

##### **D.5. Visible Emissions:**

- EPA Method 9 shall be used to determine opacity compliance pursuant to Rule 62-297.401, F.A.C., and 40 CFR 60, Appendix A. The emissions unit is to be operating (i.e., receiving or discharging) during any compliance test.
- Compliance testing of the lime silo loading operation shall be conducted within 90 days of completion of construction and initial operation; and, annually thereafter.

[Rules 62-4.070(3), 62-213.440, and 62-297.401, F.A.C.; and, PSD-FL-006(D)]

**D.6. Operating Rate During Testing.** Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance

### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection D. Two Lime Storage Silos (Unit 9)

testing to regain the authority to operate at the permitted capacity.

[Rules 62-297.310(2) & (2)(b), F.A.C.]

#### D.7. Applicable Test Procedures:

##### (a) Required Sampling Time:

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
  - a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
  - b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
  - c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

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

#### D.8. Frequency of Compliance Tests: The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

##### (a) General Compliance Testing.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
  - a. Did not operate.
4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
  - a. Visible emissions, if there is an applicable standard.
9. The owner or operator shall notify the Department's Southeast District office and the Dade County's DERM office at least 15 days prior to the date on which each formal compliance test is

### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection D. Two Lime Storage Silos (Unit 9)

to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

- (b) Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
- (c) Waiver of Compliance Test Requirements: If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; PSD-FL-006(D); and, SIP approved]

#### MONITORING OF OPERATIONS

##### D.9. Determination of Process Variables:

- (a) Required Equipment: The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- (b) Accuracy of Equipment: Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

#### RECORDKEEPING AND REPORTING REQUIREMENTS

**D.10.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department's Southeast District office in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department or its agent.  
[Rule 62-210.700(6), F.A.C.]

**D.11.** Any measurements, maintenance, reports, and records shall be retained for at least 5 years following the date of such measurements, maintenance, reports, and records. [Rule 62-213.440(1)(b)2.b., F.A.C.]

##### D.12. Test Reports:

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department's Southeast District office and the Dade County's DERM office on the results of each such test.

### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection D. Two Lime Storage Silos (Unit 9)

- (b) The required test report shall be filed with the Department's Southeast District office and the Miami-Dade County's DERM office as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- (c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department's Southeast District office and the Dade County's DERM office to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
1. The type, location, and designation of the emissions unit tested.
  2. The facility at which the emissions unit is located.
  3. The owner or operator of the emissions unit.
  4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
  5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
  6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
  7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
  8. The date, starting time and duration of each sampling run.
  9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
  10. The number of points sampled and configuration and location of the sampling plane.
  11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
  12. The type, manufacturer and configuration of the sampling equipment used.
  13. Data related to the required calibration of the test equipment.
  14. Data on the identification, processing and weights of all filters used.
  15. Data on the types and amounts of any chemical solutions used.
  16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
  17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
  18. All measured and calculated data required to be determined by each applicable test procedure for each run.
  19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
  20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
  21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department's Southeast District or its agent, the person who conducts the test shall provide the certification with respect to the test

### **SECTION III. UNIT SPECIFIC CONDITIONS**

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#### **Subsection D. Two Lime Storage Silos (Unit 9)**

procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

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

### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection E. Activated Carbon Storage Silos (Unit 10)

**Subsection E. This section addresses the following emissions unit(s).**

| E.U. ID No.  | Brief Description                                       |
|--------------|---|
| -010/Unit 10 | Activated Carbon (or Comparable Reactant) Storage Silos |

Activated carbon (or comparable reactant) used in the injection system for the municipal waste combustors is stored in two silos. The activated carbon (or comparable reactant) will be utilized for the control of mercury and dioxin/furans. Emissions from each silo are controlled by a baghouse.

*{Permitting note(s): Emissions unit -010/Unit 10 is a minor emissions unit regulated under Rule 62-210.300, F.A.C., Permits Required; and, Rule 62-212.400, F.A.C., Prevention of Significant Deterioration [PSD; and, PSD-FL-006(A), (B) & (D)]}*

Since the estimated potential uncontrolled PM emissions are below the major source threshold, the CAM rule does not apply to the activated carbon storage silos' baghouses.

**The following specific conditions apply to the emissions unit listed above:**

#### ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

**E.1. Hours of Operation:** This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.; and, PSD-FL-006(D)]

#### EMISSION LIMITATIONS AND STANDARDS

##### **E.2. Particulate Matter and Visible Emissions:**

- Particulate matter emissions shall not exceed 0.01 grains per dry standard cubic foot, front-half catch; or,
- Visible emissions shall not exceed 5 percent opacity, since each emissions unit's potential particulate matter emissions are less than 100 TPY and is equipped with a baghouse control system. As long as the visible emissions do not exceed 5 percent opacity, compliance is assumed for the particulate matter limitations established in paragraph (a) above.

If the Department has reason to believe that the particulate matter weight emissions standard in paragraph (a) above is not being met, it shall require that compliance be demonstrated by the test method specified in specific condition E.6. [PSD-FL-006(A), (B) & (D); and, Rule 62-297.620(4), F.A.C.]

#### EXCESS EMISSIONS

- E.3.** Excess emissions from these emissions units resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]
- E.4.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]



### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection E. Activated Carbon Storage Silos (Unit 10)

##### MONITORING OF OPERATIONS

##### E.5. Determination of Process Variables:

- (a) Required Equipment: The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- (b) Accuracy of Equipment: Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

##### TEST METHODS AND PROCEDURES

- E.6. Particulate Matter: The test methods for particulate emissions shall be EPA Method 5 pursuant to Rule 62-297.401, F.A.C., and 40 CFR 60, Appendix A. [Rule 62-297.401, F.A.C.]
- E.7. Visible Emissions: EPA Method 9 shall be used to determine opacity compliance pursuant to Rule 62-297.401, F.A.C., and 40 CFR 60, Appendix A. Compliance testing of the carbon silo loading operation shall be conducted within 90 days of completion of construction and initial operation; and, annually thereafter. [Rule 62-297.401, F.A.C.]
- E.8. Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards. [Rule 62-297.310(1), F.A.C.]
- E.9. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rules 62-297.310(2) & (2)(b), F.A.C.]
- E.10. Calculation of Emission Rate: The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]

### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection E. Activated Carbon Storage Silos (Unit 10)

##### **E.11. Applicable Test Procedures:**

###### **(a) Required Sampling Time:**

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
  - a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
  - b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
  - c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

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

**E.12. Required Stack Sampling Facilities:** When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit. [Rule 62-297.310(6), F.A.C.]

**E.13. Frequency of Compliance Tests:** The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

###### **(a) General Compliance Testing:**

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
  - a. Did not operate.
4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection E. Activated Carbon Storage Silos (Unit 10)

- a. Visible emissions, if there is an applicable standard;
  - b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
  - c. Each NESHAP pollutant, if there is an applicable emission standard.
9. The owner or operator shall notify the Department's Southeast District office and the Dade County's DERM office at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
- (b) Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
- (c) Waiver of Compliance Test Requirements: If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; PSD-FL-006(D); and, SIP approved]

#### MONITORING OF OPERATIONS

##### E.14. Determination of Process Variables:

- (a) Required Equipment: The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- (b) Accuracy of Equipment: Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection E. Activated Carbon Storage Silos (Unit 10)

##### RECORDKEEPING AND REPORTING REQUIREMENTS

**E.15.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department's Southeast District office in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department or its agent. [Rule 62-210.700(6), F.A.C.]

**E.16.** Any measurements, maintenance, reports, and records shall be retained for at least 5 years following the date of such measurements, maintenance, reports, and records.  
[Rule 62-213.440(1)(b)2.b., F.A.C.]

**E.17. Test Reports:**

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department's Southeast District office and the Dade County's DERM office on the results of each such test.
- (b) The required test report shall be filed with the Department's Southeast District office and the Dade County's DERM office as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- (c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department's Southeast District office and the Dade County's DERM office to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
  1. The type, location, and designation of the emissions unit tested.
  2. The facility at which the emissions unit is located.
  3. The owner or operator of the emissions unit.
  4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
  5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
  6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
  7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
  8. The date, starting time and duration of each sampling run.
  9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
  10. The number of points sampled and configuration and location of the sampling plane.
  11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
  12. The type, manufacturer and configuration of the sampling equipment used.
  13. Data related to the required calibration of the test equipment.
  14. Data on the identification, processing and weights of all filters used.

### SECTION III. UNIT SPECIFIC CONDITIONS

#### Subsection E. Activated Carbon Storage Silos (Unit 10)

15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department's Southeast District or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

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

**COMPLIANCE ASSURANCE MONITORING PLAN  
FOR  
LEAD (Pb) EMISSIONS**

Baghouse for Control of Pb Emissions  
Facility: Miami-Dade Resource Recovery Facility

**1.0 BACKGROUND**

**1.1 Emissions Unit (EU):**

Description: Municipal Waste Combustion Units  
Identification: EU No. 1, 2, 3, and 4  
Facility: Miami-Dade Resource Recovery Facility

**1.2 Applicable Regulation, Emission Limit, and Monitoring Requirements:**

Regulation No.: PSD-FL-006(D), air construction permit and Federal Emissions Guidelines (EG) 40 CFR 60 Subpart Cb. The more stringent limit/guideline applies, in this case the PSD Limit.  
Emission Limit: 0.380 mg/dscm (PSD-FL-006(D))  
0.440 mg/dscm (Federal EG)  
Monitoring Requirement: Annual Stack Test – EPA Method 29 for determination of multi-metals

**1.3 Control Technology:**

Baghouse

**2.0 MONITORING APPROACH**

The key elements of the monitoring approach are presented below:

**2.1 Indicator**

Lead concentration as determined by annual stack testing will be used as an indicator. (40 CFR 60 Subpart Cb). [40 CFR 60.38b and 40 CFR 60.58b]

**2.2 Measurement Approach**

Testing shall be performed in accordance with the requirements of Specific Condition A.55. of the facility's Title V permit. [40 CFR 60.38b and 40 CFR 60.58b]

**2.3 Indicator Range**

The emission limit for lead contained in the gases discharged to the atmosphere is 0.380 milligrams per dry standard cubic meter, corrected to 7 percent oxygen. [PSD-FL-006(D)]

**2.4 QIP Threshold / Performance Criteria**

Test Procedures are performed in strict accordance with the EPA Method 29 found in the Code of Federal Regulations (40 CFR 60) Appendix A.

### 3.0 JUSTIFICATION

Emission limiting standards written subsequent to the 1990 Clean Air Act Amendments (November 15, 1990) presumptively contain minimum compliance assurance monitoring (CAM) to ensure continuous compliance. Accordingly, pollutants regulated by such standards are exempt from requirements to develop a CAM plan. The Pb emission limiting standard of 40 CFR 60, Subpart Cb mandates a compliance demonstration approach of annual stack testing. The presumptive CAM was used as a basis for this CAM Plan for the Pb limit established in PSD-FL-006(D). The Pb emission limiting standard established by PSD-FL-006(D) is more stringent than the post-1990 Pb NSPS standard. The historical actual emissions are significantly less than the standard at a level less than 5 percent. Based on a review of the historical actual emissions data, the Pb monitoring requirements of 40 CFR 60, Subpart Cb are sufficient to ensure compliance with the PSD Pb limit. Therefore, the monitoring under Cb is proposed as CAM for the PSD-FL-006(D) Pb limitation.

The federal MWC standards are revisited every 5 years. The presumptively minimum CAM used for this CAM Plan shall be revisited at the time of renewal.

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**COMPLIANCE ASSURANCE MONITORING PLAN  
FOR  
PARTICULATE MATTER (PM/PM<sub>10</sub>) EMISSIONS**

Baghouse for Control of PM/PM<sub>10</sub> Emissions  
Facility: Miami-Dade Resource Recovery Facility

**1.0 BACKGROUND**

**1.1 Emissions Unit (EU):**

Description: Municipal Waste Combustion Units  
Identification: EU No. 1, 2, 3, and 4  
Facility: Miami-Dade Resource Recovery Facility

**1.2 Applicable Regulation, Emission Limit, and Monitoring Requirements:**

Regulation No.: PSD-FL-006(D), air construction permit and Federal Emissions Guidelines (EG) 40 CFR 60 Subpart Cb. The more stringent limit/guideline applies, in this case the PSD Limit.

Emission Limit: 0.011 gr/dscf (PSD-FL-006(D)); 10% opacity as a 6-minute average.  
0.0118 gr/dscf (Federal EG); 10% opacity as a 6-minute average.

Monitoring Requirement: Annual Stack Test – EPA Method 5 for determination of particulate matter  
Continuous opacity monitoring system for determining opacity of emissions.

**1.3 Control Technology:**

Baghouse

**2.0 MONITORING APPROACH**

The key elements of the monitoring approach are presented below:

**2.1 Indicator**

Opacity as determined by the facility's continuous opacity monitoring system (COMS) will be used as an indicator. The opacity limit under 40 CFR 60 Subpart Cb is 10 percent opacity as a 6-minute average.

**2.2 Measurement Approach**

Opacity shall be measured in accordance with the requirements of the facility's Title V permit and the COMS monitoring and quality assurance requirements.

**2.3 Indicator Range and Monitoring Approach**

The indicator levels of opacity for taking corrective action will be as set forth in the facility's Visible Emissions Reduction Plan (dated December 22, 2005) (attached as an Appendix). Details follow in Table 1. and Table 2., below:



**Table 1. Monitoring Approach**

|  | <b>Indicator 1.</b>   | <b>Indicator 2.</b>   |
|--|---|---|
| <b>I. Indicator</b>                          | Duct opacity.   | Change in duct opacity  |
| <b>Measurement Approach</b>                  | Continuous opacity monitoring system (COMS).  | Continuous opacity monitoring system (COMS).  |
| <b>II. Indicator Range</b>                   | An excursion is defined as opacity greater than 3.0%, based on a six-minute block average (other than startup and shutdown periods).              | An excursion is defined as any sudden and sustained step-change (increase) in opacity of greater than 1.0%, as documented by the trend of the six-minute block average (other than startup and shutdown periods).   |
| <b>III. Performance Criteria</b>             |   |   |
| <b>A. Data Representativeness</b>            | Based on past stack test results, a sustained opacity greater than 3.0% may indicate a potential problem with the baghouse.                       | Under normal operation, opacity varies with load and operating conditions. Variability is typically a gradual increase or decrease, with occasional sudden spikes and dips. A sudden and sustained step-increase in opacity could indicate a failure in one or more of the baghouse compartments. |
| <b>B. Verification of Operational Status</b> | Annual testing during normal operation is used to verify particulate mass loading. The COM system is audited quarterly.                           | The COM system is audited quarterly.  |
| <b>C. QA/QC Practices and Criteria</b>       | Install and operate COMS according to 40 CFR Part 60 Appendix B, Performance Specification 1 and general provisions 60.13.                        | Install and operate COMS according to 40 CFR Part 60 Appendix B, Performance Specification 1 and general provisions 60.13.  |
| <b>D. Monitoring Frequency</b>               | Continuous.   | Continuous.   |
| <b>E. Data Collection Procedures</b>         | The COMS collects data that are reduced to six-minute block averages. Consecutive six-minute block averages are tracked through the CEM software. | The COMS collects data that are reduced to six-minute block averages. Consecutive six-minute block averages are tracked through the CEM software.   |
| <b>F. Averaging Period</b>                   | Six-minute block average.   | Not applicable Change in duct opacity is unit less.   |

**Table 2. Corrective Action Procedures Summary**

|  | Description  |
|--|--|
| I. Initiation of Corrective Action Procedures          | Corrective action shall be initiated with the discovery of opacity greater than 3.0%, based on a six-minute block average and that defines an excursion (as defined in CAM Table-1). The plant staff that made the discovery shall immediately notify the shift supervisor or responsible official. This action describes a corrective action trigger. {Note: A step-change in opacity for no known reason may also trigger the below actions, but does not necessarily represent an excursion as defined by this plan.}   |
| II. Time of Completion of Corrective Action Procedures | As soon as practically possible.   |
| III. Corrective Action                                 | <p>The shift supervisor or responsible official shall implement the minimum corrective actions:</p> <ul style="list-style-type: none"><li>• Perform operational diagnostics to identify cause of the excursion;</li><li>• If operational diagnostics indicate a malfunction of the baghouse, the reason for failure will be identified;</li><li>• If isolation of the compartment can be accomplished to reduce opacity below the excursion level, such measures will be undertaken; and,</li><li>• In the event of the need for the unit shutdown to bring opacity to below excursion levels, the task will be undertaken based on facility standard operating procedures.</li></ul> <p>Regardless of the failure mechanism, baghouse operation shall be restored such that the cause of an excursion is identified and appropriate actions are taken to ensure opacity below excursion levels.</p> |

#### **2.4 QIP Threshold / Performance Criteria**

Test Procedures are performed in strict accordance with the EPA Performance Specification 1 found in the Code of Federal Regulations (40 CFR 60), Appendix B.

#### **3.0 JUSTIFICATION**

Measuring the opacity of emissions is an accepted method for limiting PM emissions from combustion sources. Opacity is used in a number of CAM plans in Florida as an acceptable indicator parameter.

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**COMPLIANCE ASSURANCE MONITORING PLAN  
FOR**

**HYDROGEN CHLORIDE (HCL) EMISSIONS**

Spray Dryer/Baghouse for Control of HCl Emissions

Facility: Miami-Dade Resource Recovery Facility

**1.0 BACKGROUND**

**1.1 Emissions Unit (EU):**

Description: Municipal Waste Combustion Units

Identification: EU No. 1, 2, 3, and 4

Facility: Miami-Dade Resource Recovery Facility

**1.2 Applicable Regulation, Emission Limit, and Monitoring Requirements:**

Regulation No.: PSD-FL-006(D), air construction permit and Federal Emissions Guidelines (EG) 40 CFR 60 Subpart Cb The more stringent limit/guideline applies, in this case the PSD Limit.

Emission Limit: 25 ppmvd (PSD-FL-006(D))  
28 ppmvd (Federal EG)

Monitoring Requirement: Annual Stack Test – EPA Method 26A for determination of hydrogen chloride

**1.3 Control Technology:**

Spray Dryer/Baghouse

**2.0 MONITORING APPROACH**

The key elements of the monitoring approach are presented below:

**2.1 Indicator**

Hydrogen Chloride (HCl) concentration as determined by annual stack testing will be used as an indicator. (40 CFR 60 Subpart Cb). [40 CFR 60.38b and 40 CFR 60.58b]

**2.2 Measurement Approach**

Testing shall be performed in accordance with the requirements of Specific Condition A.58. of the facility's Title V permit. [40 CFR 60.38b and 40 CFR 60.58b]

**2.3 Indicator Range**

The emission limit for HCl contained in the gases discharged to the atmosphere is 25 parts per million by volume, dry basis, corrected to 7 percent oxygen. [PSD-FL-006(D)]

**2.4 QIP Threshold / Performance Criteria**

Test Procedures are performed in strict accordance with the EPA Method 5 found in the Code of Federal Regulations (40 CFR 60) Appendix A.

---

### 3.0 JUSTIFICATION

Emission limiting standards written subsequent to the 1990 Clean Air Act Amendments (November 15, 1990) presumptively contain minimum compliance assurance monitoring (CAM) to ensure continuous compliance. Accordingly, pollutants regulated by such standards are exempt from requirements to develop a CAM plan. The HCl emission limiting standard of 40 CFR 60, Subpart Cb mandates a compliance demonstration approach of annual stack testing. The presumptive CAM was used as a basis for this CAM Plan for the HCl limit established in PSD-FL-006(D). The HCl emission limiting standard established by PSD-FL-006(D) is more stringent than the post-1990 PM NSPS standard. The historical actual emissions are significantly less than the standard at a level less than 75 percent. Based on a review of the historical actual emissions data, the HCl monitoring requirements of 40 CFR 60, Subpart Cb are sufficient to ensure compliance with the PSD HCl limit. Therefore, the monitoring under Cb is proposed as CAM for the PSD-FL-006(D) HCl limitation.

The federal MWC standards are revisited every 5 years. The presumptively minimum CAM used for this CAM Plan shall be revisited at the time of renewal.

## Appendix H-1: Permit History/ID Number Changes

Miami-Dade County Dept. of Solid Waste Management  
Miami-Dade County Resource Recovery Facility

Title V Permit Revision No. **0250348-009-AV**  
Facility ID No. **0250348**

### Permit History (for tracking purposes):

| E.U. ID No. | Description | Permit No.             | Effective Date | Expiration Date | Project Type              |
|-------------|-------------|------------------------|----------------|-----------------|---------------------------|
| -001        | Boiler #1   | PSD-FL-006<br>PA 77-08 | 2/27/78        |                 |                           |
|             |             | PA 77-08B              | 2/24/93        |                 |                           |
|             |             | PSD-FL-006(A)          | 12/16/94       |                 |                           |
|             |             | PSD-FL-006(B)          | 3/22/99        |                 |                           |
|             |             | PSD-FL-006(D)          | 7/21/2000      |                 |                           |
|             |             | 0250348-001-AV         | 10/12/2000     | 10/02/2005      | Initial                   |
|             |             | 0250348-004-AV         | 08/12/2001     | 10/02/2005      | Revision                  |
|             |             | 0250348-005-AV         |                |                 | Revision (open for cause) |
| -002        | Boiler #2   | PSD-FL-006<br>PA 77-08 | 2/27/78        |                 |                           |
|             |             | PA 77-08B              | 2/24/93        |                 |                           |
|             |             | PSD-FL-006(A)          | 12/16/94       |                 |                           |
|             |             | PSD-FL-006(B)          | 3/22/99        |                 |                           |
|             |             | PSD-FL-006(D)          | 7/21/2000      |                 |                           |
|             |             | 0250348-001-AV         | 10/12/2000     | 10/02/2005      | Initial                   |
|             |             | 0250348-004-AV         | 08/12/2001     | 10/02/2005      | Revision                  |
|             |             | 0250348-005-AV         |                |                 | Revision (open for cause) |
| -003        | Boiler #3   | PSD-FL-006<br>PA 77-08 | 2/27/78        |                 |                           |
|             |             | PA 77-08B              | 2/24/93        |                 |                           |
|             |             | PSD-FL-006(A)          | 12/16/94       |                 |                           |
|             |             | PSD-FL-006(B)          | 3/22/99        |                 |                           |
|             |             | PSD-FL-006(D)          | 7/21/2000      |                 |                           |
|             |             | 0250348-001-AV         | 10/12/2000     | 10/02/2005      | Initial                   |
|             |             | 0250348-004-AV         | 08/12/2001     | 10/02/2005      | Revision                  |
|             |             | 0250348-005-AV         |                |                 | Revision (open for cause) |
| -004        | Boiler #4   | PSD-FL-006<br>PA 77-08 | 2/27/78        |                 |                           |
|             |             | PA 77-08B              | 2/24/93        |                 |                           |
|             |             | PSD-FL-006(A)          | 12/16/94       |                 |                           |
|             |             | PSD-FL-006(B)          | 3/22/99        |                 |                           |
|             |             | PSD-FL-006(D)          | 7/21/2000      |                 |                           |
|             |             |                        |                |                 |                           |

|  |                |            |            |                           |
|--|----------------|------------|------------|---------------------------|
|  | 0250348-001-AV | 10/12/2000 | 10/02/2005 | Initial                   |
|  | 0250348-004-AV | 08/12/2001 | 10/02/2005 | Revision                  |
|  | 0250348-005-AV |            |            | Revision (open for cause) |

| E.U. ID No | Description  | Permit No.     | Effective Date | Expiration Date | Project Type               |
|------------|--|----------------|----------------|-----------------|----------------------------|
| -006       | MSW to RDF Processing Facility with Baghouses                      | PSD-FL-006(A)  | 12/16/94       |                 |                            |
|            |  | PSD-FL-006(B)  | 3/22/99        |                 |                            |
|            |  | PSD-FL-006(D)  | 7/21/2000      |                 |                            |
|            |  | 0250348-001-AV | 10/12/2000     | 10/02/2005      | Initial                    |
|            |  | 0250348-004-AV | 08/12/2001     | 10/02/2005      | No Change                  |
|            |  | 0250348-005-AV |                |                 | Revision (open for cause)  |
| -007       | Bulky Waste to Biomass Processing Facility with Baghouses          | PSD-FL-006(A)  | 12/16/94       |                 |                            |
|            |  | PSD-FL-006(B)  | 3/22/99        |                 |                            |
|            |  | PSD-FL-006(D)  | 7/21/2000      |                 |                            |
|            |  | 0250348-001-AV | 10/12/2000     | 10/02/2005      | Initial                    |
|            |  | 0250348-004-AV | 08/12/2001     | 10/02/2005      | No Change                  |
|            |  | 0250348-005-AV |                |                 | Revision (open for cause)  |
| -008       | Ash Building and Handling System Ash Storage Silo with Baghouse    | PSD-FL-006(A)  | 12/16/94       |                 |                            |
|            |  | PSD-FL-006(B)  | 3/22/99        |                 |                            |
|            |  | PSD-FL-006(D)  | 7/21/2000      |                 |                            |
|            |  | 0250348-001-AV | 10/12/2000     | 10/02/2005      | Initial                    |
|            |  | 0250348-004-AV | Pending        | 10/02/2005      | No Change                  |
| -009       | Lime Storage Silo with Baghouse                                    | PSD-FL-006(A)  | 12/16/94       |                 |                            |
|            |  | PSD-FL-006(B)  | 3/22/99        |                 |                            |
|            |  | PSD-FL-006(D)  | 7/21/2000      |                 |                            |
|            |  | 0250348-001-AV | 10/12/2000     | 10/02/2005      | Initial                    |
|            |  | 0250348-004-AV | 08/12/2001     | 10/02/2005      | No Change                  |
|            |  | 0250348-005-AV |                |                 | Revision (open for cause)  |
| -010       | Activated Carbon or Comparable Reactant Storage Silo with Baghouse | PSD-FL-006(A)  | 12/16/94       |                 |                            |
|            |  | PSD-FL-006(B)  | 3/22/99        |                 |                            |
|            |  | PSD-FL-006(D)  | 7/21/2000      |                 |                            |
|            |  | 0250348-001-AV | 10/12/2000     | 10/02/2005      | Initial                    |
|            |  | 0250348-004-AV | 08/12/2001     | 10/02/2005      | No Change                  |
|            |  | 0250348-005-AV |                | 10/02/2005      | Revision (open for cause)  |
|            |  | 0250348-006-AC |                | 4/30/07         | AC modification            |
|            |  | 0250348-007-AV | 5/28/07        | 5/27/12         | Title V Renewal            |
|            |  | 0250348-008-AC |                | 3/31/08         | AC modification (CO limit) |

**Appendix I-1: List of Insignificant Emissions Units and/or Activities**

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, or that meet the criteria specified in Rule 62-210.300(3)(b)1., F.A.C., Generic Emissions Unit Exemption, are exempt from the permitting requirements of Chapters 62-210, 62-212 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have the potential to emit any pollutant in such amount as to make the facility a Title V source.

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

| <b>Brief Description of Emissions Units and/or Activities</b> |
|---|
| 1. Combustion Emissions from Mobile Sources                   |
| 2. Air Conditioning Units                                     |
| 3. Ventilation Systems and Related Facilities                 |
| 4. Non-Commercial Food Operations                             |
| 5. Plumbing Vents and Drains                                  |
| 6. Plant Operations, Maintenance and Upkeep                   |
| 7. Repair and Maintenance Shop Activities                     |
| 8. Portable Electric Generators                               |
| 9. Cutting, Grinding, and other Hand Held Equipment           |
| 10. Welding Equipment, Cutting Torches, and Related Equipment |
| 11. Air Compressors   |
| 12. Batteries and UPS Systems                                 |
| 13. Storage Tanks, Vents, and Drains                          |
| 14. Continuous Emissions Monitors and Analyzer Vents          |
| 15. Pressure Regulator Vents                                  |
| 16. Laboratory Equipment                                      |
| 17. Analytical Instruments                                    |
| 18. Fugitive Particulate Matter Emissions                     |
| 19. Demineralizer and Water Treatment Systems                 |
| 20. Cooling Towers  |
| 21. Deaerators  |
| 22. Fire Suppression Systems                                  |
| 23. Steam Vents and Safety Relief Valves                      |
| 24. Steam Leaks   |

|  |
|--|
| 25. Housekeeping   |
| 26. Landscaping  |
| 27. Ash Quenching and Conveying  |
| 28. Ash Monofill   |
| 29. Plant Roads Unconfined PM Emissions  |
| 30. Chemical Tanks, Vents, and Drains  |
| 31. Lubrication Oil, Hydraulic Oil, Grease Tanks, Drums, Vents, and Drains         |
| 32. Waste Oil Tanks  |
| 33. Diesel Engine Powered Generators – Cooling Tower, Lift Station, and Fire Water |
| 34. Degreaser, Solvents, and other Tanks, Drums, Vents, and Drains                 |
| 35. Propane Tanks  |
| 36. Propane Vaporizers   |
| 37. LP Gas Cylinders   |
| 38. Acetylene and Oxygen Bottles   |
| 39. Portable Tire Shredder   |
| 40. Stormwater, Wastewater, and Leachate Systems                                   |
| 41. Oil/Water Separator  |
| 42. Recovered Material Processing (Ferrous, Aluminum, etc.)                        |
| 43. Deodorizer   |
| 44. Electric Transformers and Equipment  |
| 45. Insecticides, Pesticides, and Herbicides                                       |
| 46. Paints and Cleaners  |
| 47. Truck Washing  |
| 48. Temporary Construction   |
| 49. Lime Silo with Baghouse Located in the Water Treatment Area                    |



# **MONTENAY POWER CORP.**



**RECEIVED**

**DEC 27 2005**

**DEPT OF ENV PROTECTION  
WEST PALM BEACH**

December 22, 2005

Kevin R. Neal  
Florida Department of Environmental Protection  
Southeast District  
400 N. Congress Avenue, Suite 200  
West Palm Beach, FL 33401

**RE: Settlement by Consent Order in the case of State of Florida Department of  
Environmental Protection vs. Montenay Power Corp.  
Facility ID No.: 0250348  
OGC File No.: 05-1530**

Dear Mr. Neal:

Enclosed please find a copy of the Visible Emissions Reduction Plan developed by Montenay Power Corp. for the Miami-Dade County Resources Recovery Facility. This Plan was developed in accordance to paragraph 14 of the recently executed Consent Order (OGC File No.: 05-1530).

If you have any questions or would like to discuss this Plan further, please feel free to contact our office.

Sincerely,

Tom Morello  
Plant Manager

CC:

G. Aleman – MPC  
L. Casey – DSWM

G. Marcusa – MPC  
W. Urchdorf – DSWM

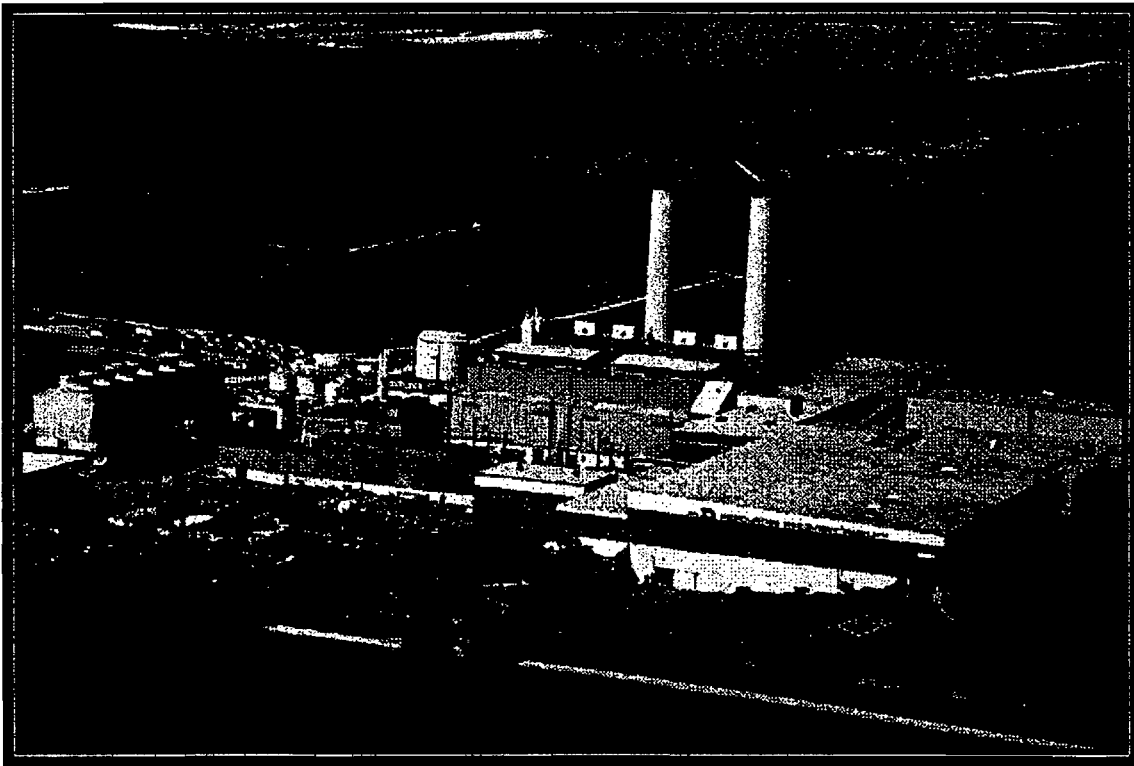
A. Lue – MPC  
D. Graziani – FDEP

C. Neu – MPC



***Montenay Power Corp.***

***VISIBLE EMISSIONS REDUCTION PLAN***



**DECEMBER 2005**

**Miami – Dade County Resources Recovery Facility**

**I) Background:**

Montenay Power Corp. (MPC) experienced several bag failures in the baghouse compartments of Boiler 2 between the months of August through October 2004. As a result of these bag failures, there were opacity exceedences of the permit limit and ultimately enforcement by the Florida Department of Environmental Protection (FDEP) by means of a Consent Order dated 11/28/05.

This Consent Order required MPC to prepare a Visible Emissions Reduction Plan that identifies the preventative measures that it will under take to minimize opacity excursions. As a minimum, the plan shall:

- (a) Identify operating parameters (e.g., opacity, pressure drop, etc.) and action levels that will be monitored for purposes of reducing opacity excursions.
- (b) Identify the operating procedures to be implemented when an operating parameter approaches an identified action level.

MPC has since made some modifications to its operating parameters and procedures that it feels meets the requirements of the Consent Order and are presented in this Plan.

**II) Operating Procedures:**

According to the facility's Title V Air Permit, the Opacity must not exceed 10% for a 6-minute average. As a preventative measure, the facility's Continuous Emissions Monitoring System's (CEMS) Data Acquisition Handling System (DAHS) is programmed to show alarms at different opacity set points below the permit limit. These set points depict when there is an increase in opacity, which can either be gradual or sudden depending on the cause.

When the alarm is triggered, the operator will begin to take corrective actions to determine the possible cause of the elevated readings. He will begin to isolate compartments in the baghouse to determine if there is a difference in the opacity readings. If by isolating a compartment there is a difference in opacity, then that compartment will remain isolated until repairs can be completed.

If the cause of the opacity increase is determined to be an opacity monitor malfunction, it will count against the monitor downtime for the quarter. If the cause is determined to be a malfunction of the filter bags or components, then it will be counted as an exceedence if the 6-minute average is above the 10% limit. In this event, the Air Emissions Immediate Notification log must be sent to FDEP within 24-hrs or the next business day via fax.

If the opacity reaches 8% or higher at any time during his investigation, the boiler will be immediately shut down and the compartments will be manually checked for damaged bags.

MPC previously submitted the operating procedures for opacity control to FDEP – See Attachment “PH-Environmental Procedure Opacity Excursion”. These procedures have been revised as follows:

- The operator will begin to take corrective actions when the opacity has a sudden or gradual increase of more than 1% or when the opacity reaches 3% instead of 5%.
- Additional alarm set points have been programmed into the CEMS to alert the operator when opacity increases.
- The frequency of training operators in the opacity excursion procedure will be changed from yearly to semi-annually.

### **III) Maintenance Procedures:**

MPC currently has an extensive maintenance program, which covers the entire facility. Some of these maintenance procedures, which have a direct impact on opacity, are as follows:

- Each of the baghouse compartments is inspected annually by either MPC personnel or an independent contractor to determine overall conditions of internal components.
- If at any time the facility determines that the conditions of the filter bags in the baghouses are no longer providing adequate or reliable opacity reduction, the facility schedules a replacement of the filter bags as needed.
- Preventative maintenance is conducted as recommended by the manufacturer. Records of these maintenance activities are maintained.

In an effort to reduce opacity excursions, additional maintenance procedures have been implemented:

- The cleaning cycle settling time was increased to ensure ample time for the ash from the filter bags to be pulled out of the hopper. By increasing the settling time after a cleaning cycle is performed, the likelihood that ash collected in the hopper will drawn out of the stack will be reduced in the event that there is a damaged filter bag when the compartment is reinstated
- The material of the clamps that secure the filter bags will be replaced with corrosion resistant clamps. By changing the material of the clamps, premature failure due to corrosion will be prevented.

**IV) Training:**

Currently the operators are trained annually on all emergency response procedures, which include opacity excursion response. The operators will also be trained on the changes in the procedures as well. As an additional improvement, the training frequency will be increased to semi-annually instead of annually.

**IV) Review:**

All of the above mentioned procedural and operational improvements will be evaluated to determine its effectiveness in reducing opacity excursions. As part of the facility's Environmental Management System (EMS) all operating and maintenance procedures are periodically reviewed for effectiveness and modified as needed. The modification highlighted in this Plan will also undergo an evaluation to determine its effectiveness.

---

# **MONTENAY POWER CORP.**

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## **PH-ENVIRONMENTAL PROCEDURE OPACITY EXCURSION**



**Written by:**  
**James Pennebaker**

## **I. PURPOSE**

The purpose of this procedure is to provide a guideline for **responding and answering to an opacity excursion** and to a **monitor malfunction**.

Our actual air permit (PSD-FL-006) limits our opacity at a maximum limit of 10% per 6-minutes average period, and also requires that we continuously monitor our opacity.

In order to control the particulate emission from our stacks, baghouses, with 10 separate cells, have been installed on each of the units. Opacity monitors also have been installed in each flue (at the stack, elevation 100 feet). Individual Programmable Logic Controllers (PLCs) control the (4) CEMS/COMS for the facility. The PLC transmits data to a Data Acquisition Handling System (DAHS).

The operator can read instantaneous opacity readings on each of the unit on the CEMS screens in his control room and can also generate reports at any time. The analyzers and the DAHS server are located in the CEMS trailer.

A daily calibration is automatically done on the opacity monitor. This calibration has to pass in order to meet the monitoring requirements

The main goal is to take any preventive action to avoid any opacity excursion above 10%, and any monitor downtime above 1 hour.

## **II. DEFINITIONS**

CEMS: Continuous Emission Monitoring System

COMS: Continuous Opacity Monitoring System

DAHS: Data Acquisition Handling System

## **III. PROCEDURE**

### **A. Respond to an Opacity Excursion**

If Control Room operator gets any reading above 3%, it may mean:

1. One or more bags in the baghouse are cracked/damaged.
2. There is dirt and/or fogging on the monitor lens (generally when boiler restarts after a shutdown period). In this case, it is not an exceedance, but a Monitor Malfunction (refer to **B. Respond to an Opacity Monitor Malfunction**)

The operator will stop feeding fuel to the boiler immediately if opacity reaches 8%, and if it is not caused by dust/fogging on opacity mirror.

(See Flowchart "*Opacity Excursion Response*")

#### **B. Respond to an Opacity Monitor Downtime**

We are required to continuously monitor and record the opacity on each boiler when it is on line (steam flow above 70,000 lbs./hr and burning of RDF).

If the control room operator does not get any opacity signal on his screen or gets an alarm from CEMS, it may be caused by:

- Opacity monitor equipment failure at the stack itself
- Hardware failure (lost of signal from stack to CEMS and/or to Control room)
- Software failure (DAHS system down)
- False signal (dust, or fogging on the mirror which false the reading)
- Calibration failure (data not valid, considered as downtime)

If the opacity monitor is down for more than 24 hours, the boiler must be shutdown and FDEP notified within 24 hours.

As an operational practice, the monitor downtime should never exceed two hours duration per day. The boiler will be shut down otherwise.

**If the Monitor Malfunction exceeds 24 hours, FDEP and Dade County must be notified immediately** (use the Air Emission Notification Log sheet to record notification).

**If procedure properly followed (downtime < 2 hours), no notification to FDEP or Dade County will be required.**

(See Flowchart "*Opacity Monitor Malfunction Response*")

#### **IV. POSITIONS TO BE TRAINED ON THE PROCEDURE**

See job requirements in the Pilgrim software

#### **V. REFERENCES**

Emissions and Monitoring Requirements:

Permit COC PA 77-08

Rule FAC 62-297

Rule FAC 62-210.700

40 CFR 60.13

40 CFR 60.58a

40 CFR 60, Appendix B      40 CFR 60, Appendix F

##### **Contact for Notification:**

**FDEP West palm Beach**

Raisa Neginski or Darrel Graziani

Phone: (561) 681-6600      Fax: (561) 681-6790

##### **Dade County**

Lee Casey

Phone: (305) 514-6672      Fax: (305) 514-6874



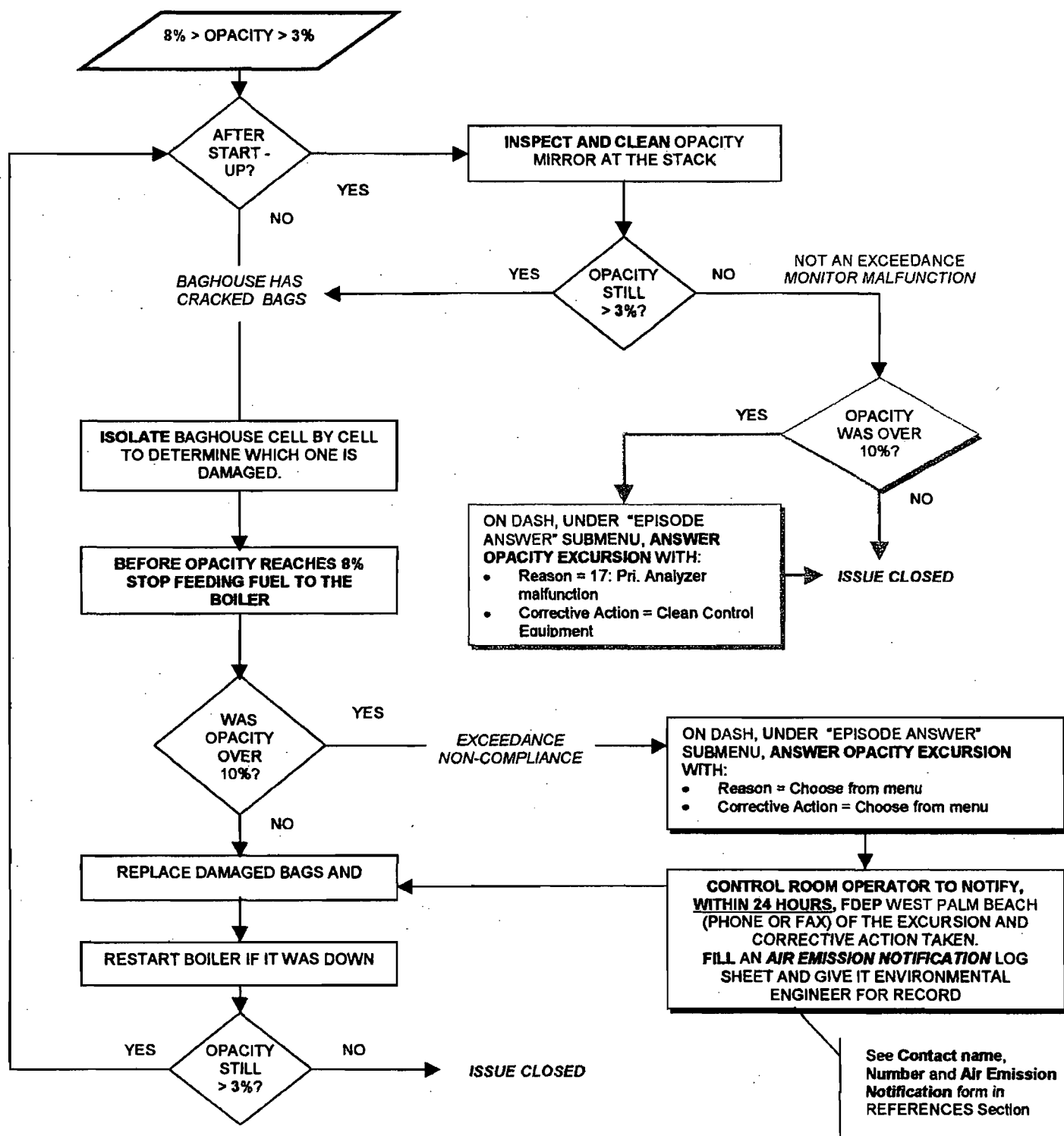
## **VI. ATTACHMENTS**

*Opacity Excursion Response* Flowchart

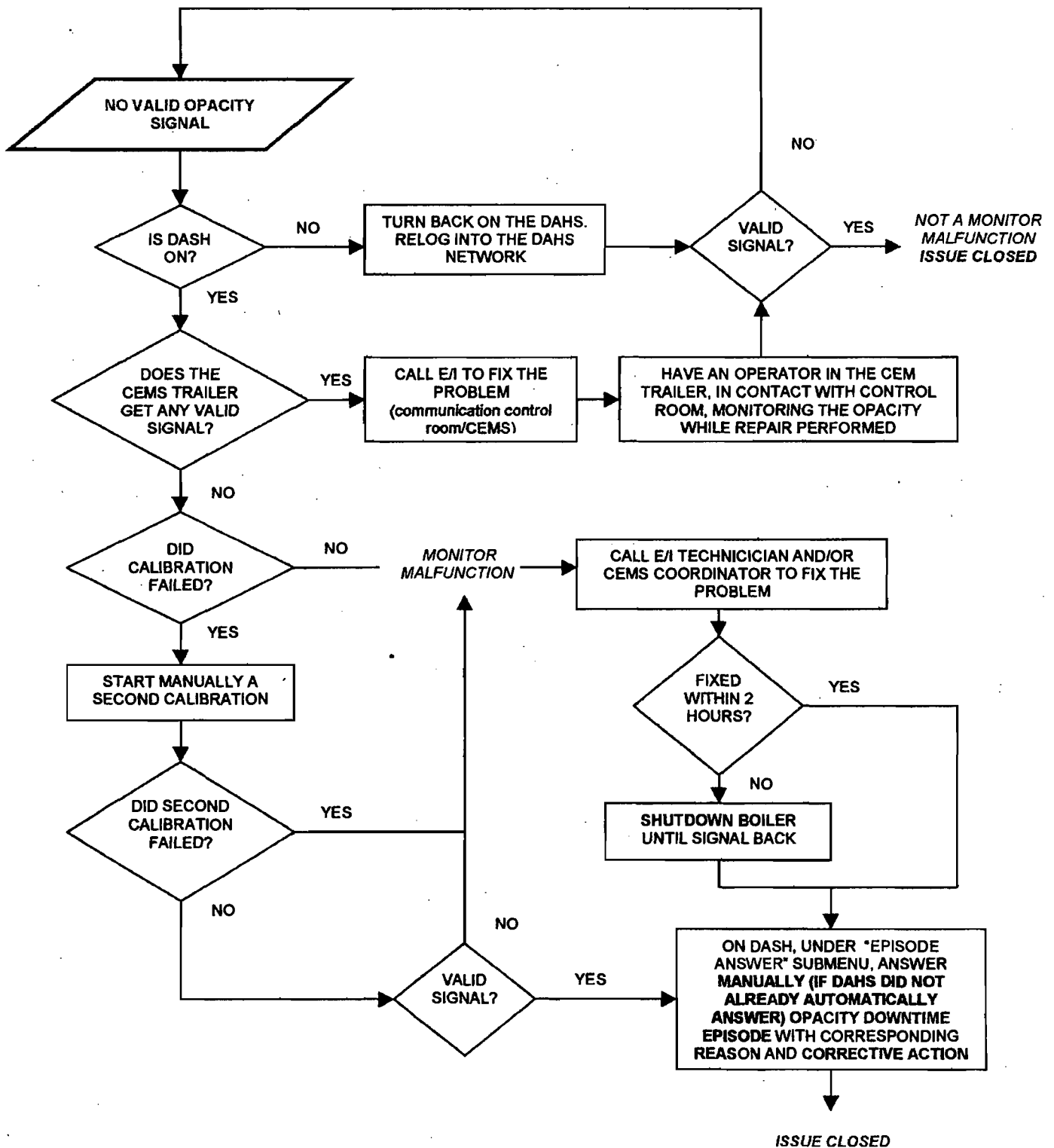
*Opacity Monitor Malfunction Response* Flowchart

*Air Emission Immediate Notification* Log sheet

## Opacity Excursion Response



## Opacity Monitor Malfunction Response



**Friday, Barbara**

---

**To:** le1@miamidade.gov; 'dbuff@golder.com'; Hoefert, Lee; anetha.lue@veoliaes.com  
**Cc:** Cascio, Tom  
**Subject:** FINAL Title V Permit Revision No.: 0250348-009-AV - Miami Dade Resource Recovery Facility  
**Attachments:** VE Reduction Plan 2008.pdf; 0250348FinalPermitSignaturePage.pdf; 0250348009NoticeofFinalPermit&Determination.pdf; CAM Plans 2008.pdf; Final Title V Permit Revision 2008.pdf; History 2008.pdf; Insignificant 2008.pdf; Statement of Basis 2008.pdf

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); this may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

The document(s) may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible.

The document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <http://www.adobe.com/products/acrobat/readstep.html>  
<<http://www.adobe.com/products/acrobat/readstep.html>> <<http://www.adobe.com/products/acrobat/readstep.html>>  
<<http://www.adobe.com/products/acrobat/readstep.html>> > .

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record.

Thank you,

DEP, Bureau of Air Regulation

3/27/2008

**Friday, Barbara**

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**From:** System Administrator  
**To:** Hoefert, Lee  
**Sent:** Thursday, March 27, 2008 1:50 PM  
**Subject:** Delivered:FINAL Title V Permit Revision No.: 0250348-009-AV - Miami Dade Resource Recovery Facility

Your message

**To:** 'le1@miamidade.gov'; 'dbuff@golder.com'; Hoefert, Lee; 'anetha.lue@veoliaes.com'  
**Cc:** Cascio, Tom  
**Subject:** FINAL Title V Permit Revision No.: 0250348-009-AV - Miami Dade Resource Recovery Facility  
**Sent:** 3/27/2008 1:50 PM

was delivered to the following recipient(s):

Hoefert, Lee on 3/27/2008 1:50 PM

**Friday, Barbara**

---

**From:** System Administrator  
**To:** Cascio, Tom  
**Sent:** Thursday, March 27, 2008 1:51 PM  
**Subject:** Delivered:FINAL Title V Permit Revision No.: 0250348-009-AV - Miami Dade Resource Recovery Facility

Your message

**To:** 'le1@miamidade.gov'; 'dbuff@golder.com'; Hoefert, Lee; 'anetha.lue@veoliaes.com'  
**Cc:** Cascio, Tom  
**Subject:** FINAL Title V Permit Revision No.: 0250348-009-AV - Miami Dade Resource Recovery Facility  
**Sent:** 3/27/2008 1:50 PM

was delivered to the following recipient(s):

Cascio, Tom on 3/27/2008 1:50 PM

## Friday, Barbara

---

**From:** Exchange Administrator  
**Sent:** Thursday, March 27, 2008 1:51 PM  
**To:** Friday, Barbara  
**Subject:** Delivery Status Notification (Relay)

**Attachments:** ATT549603.txt; FINAL Title V Permit Revision No.: 0250348-009-AV - Miami Dade Resource Recovery Facility



ATT549603.txt FINAL Title V Permit  
(284 B) Revision ...

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

lel@miamidade.gov

**Friday, Barbara**

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**From:** Exchange Administrator  
**Sent:** Thursday, March 27, 2008 1:51 PM  
**To:** Friday, Barbara  
**Subject:** Delivery Status Notification (Relay)

**Attachments:** ATT549648.txt; FINAL Title V Permit Revision No.: 0250348-009-AV - Miami Dade Resource Recovery Facility



ATT549648.txt FINAL Title V Permit  
(290 B) Revision ...

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

anetha.lue@veoliaes.com



**Friday, Barbara**

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**From:** Mail Delivery System [MAILER-DAEMON@sophos.golder.com]  
**Sent:** Thursday, March 27, 2008 1:51 PM  
**To:** Friday, Barbara  
**Subject:** Successful Mail Delivery Report

**Attachments:** Delivery report; Message Headers



Delivery report.txt  
(465 B)



Message  
Headers.txt (2 KB)

This is the mail system at host sophos.golder.com.

Your message was successfully delivered to the destination(s) listed below. If the message was delivered to mailbox you will receive no further notifications. Otherwise you may still receive notifications of mail delivery errors from other systems.

The mail system

<dbuff@golder.com>: delivery via 127.0.0.1[127.0.0.1]:10025: 250 OK, sent  
47EBDE8D\_3729\_61\_6 889A9F8A1FD

**Friday, Barbara**

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**From:** Buff, Dave [DBuff@GOLDER.com]  
**To:** undisclosed-recipients  
**Sent:** Thursday, March 27, 2008 1:54 PM  
**Subject:** Read: FINAL Title V Permit Revision No.: 0250348-009-AV - Miami Dade Resource Recovery Facility

Your message

To: DBuff@GOLDER.com  
Subject:

was read on 3/27/2008 1:54 PM.

## Friday, Barbara

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**From:** Cascio, Tom  
**To:** Friday, Barbara  
**Sent:** Thursday, March 27, 2008 2:06 PM  
**Subject:** Read: FINAL Title V Permit Revision No.: 0250348-009-AV - Miami Dade Resource Recovery Facility

### Your message

**To:** 'le1@miamidade.gov'; 'dbuff@golder.com'; Hoefert, Lee; 'anetha.lue@veoliaes.com'  
**Cc:** Cascio, Tom  
**Subject:** FINAL Title V Permit Revision No.: 0250348-009-AV - Miami Dade Resource Recovery Facility  
**Sent:** 3/27/2008 1:50 PM

was read on 3/27/2008 2:06 PM.

## Friday, Barbara

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**From:** Hoefert, Lee  
**To:** Friday, Barbara  
**Sent:** Thursday, March 27, 2008 2:21 PM  
**Subject:** Read: FINAL Title V Permit Revision No.: 0250348-009-AV - Miami Dade Resource Recovery Facility

### Your message


**To:** 'le1@miamidade.gov'; 'dbuff@golder.com'; Hoefert, Lee; 'anetha.lue@veoliaes.com'  
**Cc:** Cascio, Tom  
**Subject:** FINAL Title V Permit Revision No.: 0250348-009-AV - Miami Dade Resource Recovery Facility  
**Sent:** 3/27/2008 1:50 PM

was read on 3/27/2008 2:21 PM.

## MEMORANDUM

To: Joseph Kahn

From: Trina L. Vielhauer

Subject:  Miami-Dade County Resource Recovery Facility  
Title V Air Operation Permit Revision No. 0250348-009-AV

Date: March 24, 2008

Attached is the FINAL Title V Air Operation Permit Revision for the subject facility. *No comments* were received from EPA on the PROPOSED Title V Permit that was posted on our web-site on February 6, 2008. Day 45 was March 22, 2008.

We recommend your signature.