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OCT 10 2000

Environmental  
Compliance Division

**REVISED APPLICATION FOR TITLE V AIR PERMIT  
DADE COUNTY RESOURCE RECOVERY FACILITY  
MEDLEY, FLORIDA**

**Prepared For:**

**Dade County Department of Solid Waste Management  
8675 NW 53rd Street, Suite 201  
Miami, FL 33166**

**Prepared By:**

**Golder Associates Inc.  
6241 NW 23rd Street, Suite 500  
Gainesville, Florida 32653-1500**

**October 2000**

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**2 Copies – Golder Associates Inc.**



# Department of Environmental Protection

## Division of Air Resources Management

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Environmental  
Compliance Division

### APPLICATION FOR AIR PERMIT - TITLE V SOURCE

See Instructions for Form No. 62-210.900(1)

#### I. APPLICATION INFORMATION

##### Identification of Facility

1. Facility Owner/Company Name: <b>Dade County Resource Recovery Facility</b>	
2. Site Name: <b>Dade County Resource Recovery Facility</b>	
3. Facility Identification Number: <b>0250348</b> [ ] Unknown	
4. Facility Location: Street Address or Other Locator: <b>6990 NW 97th Avenue</b> City: <b>Medley</b> County: <b>Dade</b> Zip Code: <b>33178</b>	
5. Relocatable Facility? [ ] Yes [X] No	6. Existing Permitted Facility? [X] Yes [ ] No

##### Application Contact

1. Name and Title of Application Contact: <b>Lee Casey, Chief, Environmental Compliance Division</b>	
2. Application Contact Mailing Address: Organization/Firm: <b>Dade County Department of Solid Waste Management</b> Street Address: <b>8675 NW 53rd Street, Suite 201</b> City: <b>Miami</b> State: <b>FL</b> Zip Code: <b>33166</b>	
3. Application Contact Telephone Numbers: Telephone: ( 305 ) <b>594 - 1670</b> Fax: ( 305 ) <b>594 - 1591</b>	

##### Application Processing Information (DEP Use)

1. Date of Receipt of Application:	
2. Permit Number:	
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

## **Purpose of Application**

### **Air Operation Permit Application**

This Application for Air Permit is submitted to obtain: (Check one)

- ☐ Initial Title V air operation permit for an existing facility which is classified as a Title V source.
- ☐ Initial Title V air operation permit for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number: \_\_\_\_\_

- ☒ Title V air operation permit revision to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number: PSD-FL-006D

Operation permit number to be revised: \_\_\_\_\_

- ☐ Title V air operation permit revision or administrative correction to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. (Also check Air Construction Permit Application below.)

Operation permit number to be revised/corrected: \_\_\_\_\_

- ☐ Title V air operation permit revision for reasons other than construction or modification of an emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.

Operation permit number to be revised: \_\_\_\_\_

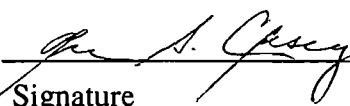
Reason for revision: \_\_\_\_\_

### **Air Construction Permit Application**

This Application for Air Permit is submitted to obtain: (Check one)

- ☐ Air construction permit to construct or modify one or more emissions units.
- ☐ Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.
- ☐ Air construction permit for one or more existing, but unpermitted, emissions units.

**Owner/Authorized Representative or Responsible Official**

1. Name and Title of Owner/Authorized Representative or Responsible Official: <b>Lee Casey, Chief, Environmental Compliance Division</b>
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: <b>Dade County Department of Solid Waste Management</b> Street Address: <b>8675 NW 53rd Street, Suite 201</b> City: <b>Miami</b> State: <b>FL</b> Zip Code: <b>33166</b>
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: <b>( 305 ) 594 - 1670</b> Fax: <b>( 305 ) 594 - 1591</b>
4. Owner/Authorized Representative or Responsible Official Statement:  <i>I, the undersigned, am the owner or authorized representative*(check here [ ], if so) or the responsible official (check here [ X ], if so) of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.</i>  <div style="display: flex; justify-content: space-between;"><div style="text-align: center;"> Signature</div><div style="text-align: center;"><u>10/10/00</u> Date</div></div>

\* Attach letter of authorization if not currently on file.

**Professional Engineer Certification**

1. Professional Engineer Name: <b>David A. Buff</b> Registration Number: <b>19011</b>
2. Professional Engineer Mailing Address: Organization/Firm: <b>Golder Associates Inc.</b> Street Address: <b>6241 NW 23rd Street, Suite 500</b> City: <b>Gainesville</b> State: <b>FL</b> Zip Code: <b>32653-1500</b>
3. Professional Engineer Telephone Numbers: Telephone: <b>( 352 ) 336 - 5600</b> Fax: <b>( 352 ) 336 - 6603</b>

4. Professional Engineer Statement:

*I, the undersigned, hereby certify, except as particularly noted herein\*, that:*

*(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and*

*(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.*

*If the purpose of this application is to obtain a Title V source air operation permit (check here [ X ], if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.*

*If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [ ], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

*If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.*

Signature

(seal)

Date

10/6/00

\* Attach any exception to certification statement.

**Scope of Application**

<b>Emissions Unit ID</b>	<b>Description of Emissions Unit</b>	<b>Permit Type</b>	<b>Processing Fee</b>
001, 002, 003, 004	Units 1 through 4		
--	Refuse Derived Fuel (RDF) Processing and Biomass Production		
--	Ash Building and Handling System		

**Application Processing Fee**

Check one: ☐ Attached - Amount: \$: \_\_\_\_\_ ☒ Not Applicable

**Construction/Modification Information**

1. Description of Proposed Project or Alterations:

2. Projected or Actual Date of Commencement of Construction:

3. Projected Date of Completion of Construction:

**Application Comment**

The purpose of this application is to obtain a revision to the facility's Title V permit to reflect the recently issued PSD permit (Permit No. PSD-FL-006D)

### A. GENERAL FACILITY INFORMATION

1. Facility UTM Coordinates: Zone: <b>17</b>				East (km): <b>564.30</b>	North (km): <b>2857.40</b>	
2. Facility Latitude/Longitude: Latitude (DD/MM/SS): <b>25 / 50 / 06</b>						Longitude (DD/MM/SS): <b>80 / 21 / 30</b>
3. Governmental Facility Code: <b>3</b>	4. Facility Status Code: <b>A</b>	5. Facility Major Group SIC Code: <b>49</b>	6. Facility SIC(s): <b>4953</b>			
7. Facility Comment (limit to 500 characters):						

1. Name and Title of Facility Contact: <b>Francois Screve, Facility Manager</b>
2. Facility Contact Mailing Address: Organization/Firm: <b>Dade County Resource Recovery Facility</b> Street Address: <b>6990 NW 97th Avenue</b> City: <b>Medley</b> State: <b>FL</b> Zip Code: <b>33178</b>
3. Facility Contact Telephone Numbers: Telephone: ( <b>305</b> ) <b>593 - 7000</b> Fax: ( <b>305</b> ) <b>593 - 1826</b>



**Check all that apply:**

## List of Applicable Regulations

DEP Form No. 62-210.900(1) - Form  
Effective: 2/11/99

# Title V Core List

Effective:03/25/97

[**Note:** The Title V Core List is intended to simplify the completion of the "List of Applicable Regulations" that apply facility-wide (see Subsection II.B. of DEP Form No. 62-210.900(1), Application for Air Permit - Long Form. The Title V Core List is a list of rules to which all Title V Sources are presumptively subject. The Title V Core List may be referenced in its entirety, or with specific exceptions. The Department may periodically update the Title V Core List.

Requirements that apply to emissions units must be identified in Subsection III.B. of DEP Form No. 62-210.900(1), Application for Air Permit - Long Form.

Applicants must identify all "applicable requirements" in order to claim the "permit shield" described at Rule 62-213.460, F.A.C.]

## ***Federal:*** (description)

40 CFR 61: National Emission Standards for Hazardous Air Pollutants (NESHAP)  
40 CFR 61, Subpart M: NESHAP for Asbestos.

40 CFR 82: Protection of Stratospheric Ozone.  
40 CFR 82, Subpart B: Servicing of Motor Vehicle Air Conditioners (MVAC).  
40 CFR 82, Subpart F: Recycling and Emissions Reduction.

## ***State:*** (description)

### **CHAPTER 62-4, F.A.C.: PERMITS, effective 10-16-95**

62-4.030, F.A.C.: General Prohibition.  
62-4.040, F.A.C.: Exemptions.  
62-4.050, F.A.C.: Procedure to Obtain Permits; Application  
62-4.060, F.A.C.: Consultation.  
62-4.070, F.A.C.: Standards for Issuing or Denying Permits; Issuance; Denial.  
62-4.080, F.A.C.: Modification of Permit Conditions.  
62-4.090, F.A.C.: Renewals.  
62-4.100, F.A.C.: Suspension and Revocation.  
62-4.110, F.A.C.: Financial Responsibility.  
62-4.120, F.A.C.: Transfer of Permits.  
62-4.130, F.A.C.: Plant Operation - Problems.  
62-4.150, F.A.C.: Review  
62-4.160, F.A.C.: Permit Conditions.  
62-4.210, F.A.C.: Construction Permits.  
62-4.220, F.A.C.: Operation Permit for New Sources.

### **CHAPTER 62-103, F.A.C.: RULES OF ADMINISTRATIVE PROCEDURE, effective 12-31-95**

62-103.150, F.A.C.: Public Notice of Application and Proposed Agency Action.  
62-103.155, F.A.C.: Petition for Administrative Hearing; Waiver of Right to  
Administrative Proceeding

### **CHAPTER 62-210, F.A.C.: STATIONARY SOURCES - GENERAL REQUIREMENTS, effective 03-21-96**

## Title V Core List

Effective:03/25/97

62-210.300, F.A.C.: Permits Required.  
62-210.300(1), F.A.C.: Air Construction Permits.  
62-210.300(2), F.A.C.: Air Operation Permits.  
62-210.300(3), F.A.C.: Exemptions.  
62-210.300(3)(a), F.A.C.: Full Exemptions.  
62-210.300(3)(b), F.A.C.: Temporary Exemption.

62-210.300(5), F.A.C.: Notification of Startup.  
62-210.300(6), F.A.C.: Emissions Unit Reclassification.

62-210.350, F.A.C.: Public Notice and Comment.  
62-210.350(3), F.A.C.: Additional Public Notice Requirements for Sources Subject to  
Operation Permits for Title V Sources.

62-210.360, F.A.C.: Administrative Permit Corrections.

62-210.370(3), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility.

62-210.650, F.A.C.: Circumvention.

62-210.900, F.A.C.: Forms and Instructions.  
62-210.900(1) Application for Air Permit - Long Form, Form and Instructions.  
62-210.900(5) Annual Operating Report for Air Pollutant Emitting Facility, Form and  
Instructions.

### **CHAPTER 62-213, F.A.C.: OPERATION PERMITS FOR MAJOR SOURCES OF AIR POLLUTION, effective 03-20-96**

62-213.205, F.A.C.: Annual Emissions Fee.  
62-213.400, F.A.C.: Permits and Permit Revisions Required.  
62-213.410, F.A.C.: Changes Without Permit Revision.  
62-213.412, F.A.C.: Immediate Implementation Pending Revision Process.  
62-213.420, F.A.C.: Permit Applications.  
62-213.430, F.A.C.: Permit Issuance, Renewal, and Revision.  
62-213.440, F.A.C.: Permit Content.  
62-213.460, F.A.C.: Permit Shield.

62-213.900, F.A.C.: Forms and Instructions.  
62-213.900(1) Major Air Pollution Source Annual Emissions Fee Form, Form and  
Instructions.

### **CHAPTER 62-256, F.A.C.: OPEN BURNING AND FROST PROTECTION FIRES, effective 11-30-94**

### **CHAPTER 62-257, F.A.C.: ASBESTOS NOTIFICATION AND FEE, effective 03/24/96**

### **CHAPTER 62-281, F.A.C.: MOTOR VEHICLE AIR CONDITIONING REFRIGERANT**

## **Title V Core List**

Effective:03/25/97

**RECOVERY AND RECYCLING**, effective 03-07-96

**CHAPTER 62-296, F.A.C.: STATIONARY SOURCES - EMISSION STANDARDS**,  
effective 03-13-96

62-296.320(2), F.A.C.: Objectionable Odor Prohibited.

62-296.320(3), F.A.C.: Industrial, Commercial, and Municipal Open Burning  
Prohibited

62-296.320(4)(c), F.A.C.: Unconfined Emissions of Particulate Matter

## B. FACILITY POLLUTANTS

### List of Pollutants Emitted

1. Pollutant Emitted	2. Pollutant Classif.	3. Requested Emissions Cap		4. Basis for Emissions Cap	5. Pollutant Comment
		lb/hour	tons/year		
PM	A				Particulate Matter - Total and MWC Metals
PM <sub>10</sub>	A				Particulate Matter - PM <sub>10</sub>
NO <sub>x</sub>	A				Nitrogen Oxides
VOC	B				Volatile Organic Compounds
CO	A				Carbon Monoxide
H027	B				Cadmium
PB	B				Lead
H114	B				Mercury Compounds
SO <sub>2</sub>	A				Sulfur Dioxide
H106	A				MWC acid gases (measured as SO <sub>2</sub> and HCl)
DIOX	B				Dioxins/Furans (MWC organics)
HAPs	A				Total HAPs
FL	B				Fluorides - Total
H015	B				Arsenic Compounds
H021	B				Beryllium Compounds
SAM	B				Sulfuric Acid Mist

## C. FACILITY SUPPLEMENTAL INFORMATION

## **Supplemental Requirements**

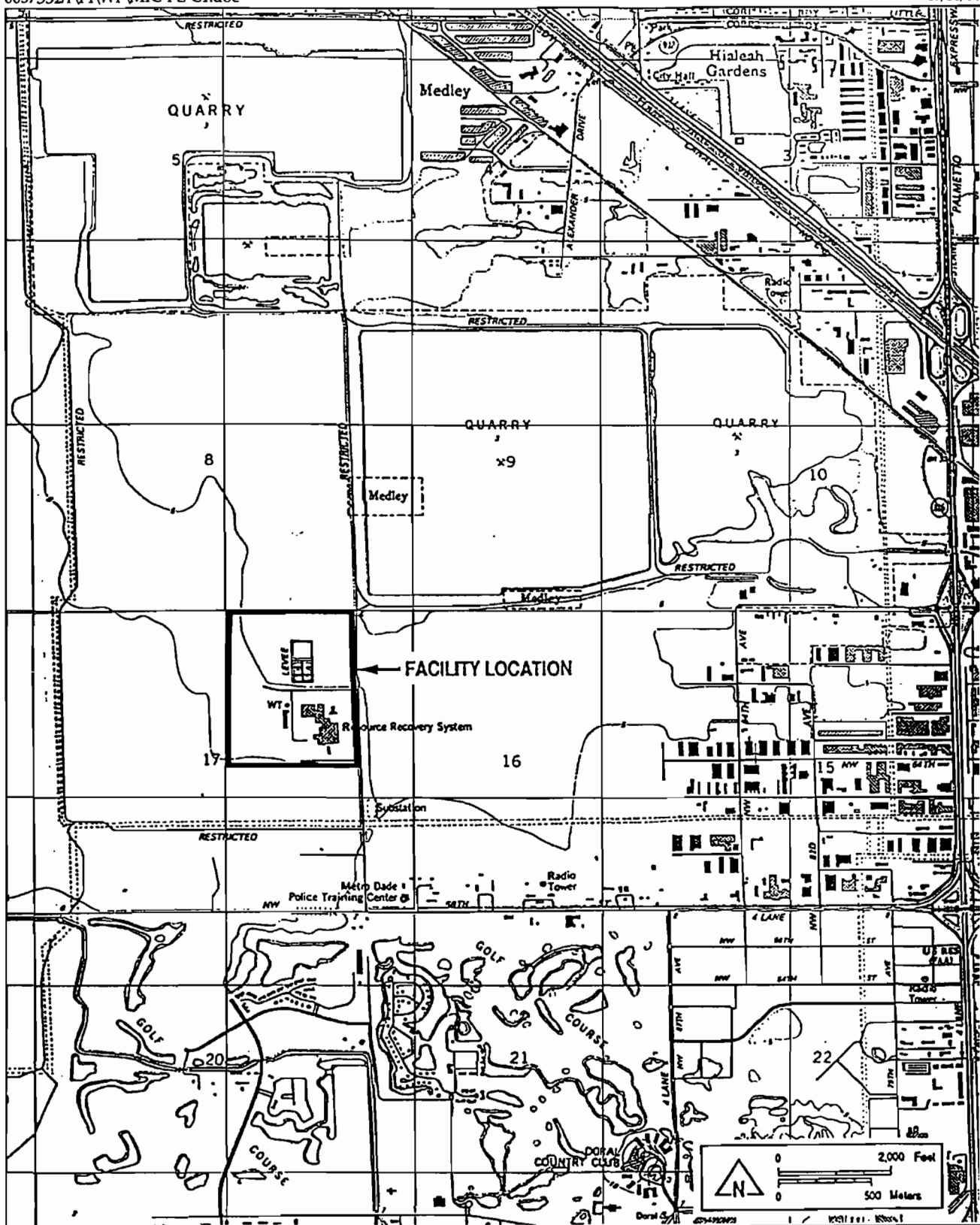
1. Area Map Showing Facility Location: [ X ] Attached, Document ID: <u>MIC-FE-C1</u> [ ] Not Applicable [ ] Waiver Requested
2. Facility Plot Plan: [ X ] Attached, Document ID: <u>MIC-FE-C2</u> [ ] Not Applicable [ ] Waiver Requested
3. Process Flow Diagram(s): [ X ] Attached, Document ID: <u>MIC-FE-C3</u> [ ] Not Applicable [ ] Waiver Requested
4. Precautions to Prevent Emissions of Unconfined Particulate Matter: [ X ] Attached, Document ID: <u>MIC-FE-C4</u> [ ] Not Applicable [ ] Waiver Requested
5. Fugitive Emissions Identification: [ X ] Attached, Document ID: <u>MIC-FE-C5</u> [ ] Not Applicable [ ] Waiver Requested
6. Supplemental Information for Construction Permit Application: [ ] Attached, Document ID: _____ [ X ] Not Applicable
7. Supplemental Requirements Comment:

**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

8. List of Proposed Insignificant Activities: [ X ] Attached, Document ID: <u>MIC-FE-C8</u> [ ] Not Applicable
9. List of Equipment/Activities Regulated under Title VI: [ X ] Attached, Document ID: <u>MIC-FE-C9</u> [ ] Equipment/Activities On site but Not Required to be Individually Listed [ ] Not Applicable
10. Alternative Methods of Operation: [ X ] Attached, Document ID: <u>MIC-FE-C10</u> [ ] Not Applicable
11. Alternative Modes of Operation (Emissions Trading): [ X ] Attached, Document ID: <u>MIC-FE-C11</u> [ ] Not Applicable
12. Identification of Additional Applicable Requirements: [ X ] Attached, Document ID: <u>MIC-FE-C12</u> [ ] Not Applicable
13. Risk Management Plan Verification: [ ] Plan previously submitted to Chemical Emergency Preparedness and Prevention Office (CEPPO). Verification of submittal attached (Document ID: _____) or previously submitted to DEP (Date and DEP Office: _____) [ ] Plan to be submitted to CEPPO (Date required: _____) [ X ] Not Applicable
14. Compliance Report and Plan: [ X ] Attached, Document ID: <u>MIC-FE-C14</u> [ ] Not Applicable
15. Compliance Certification (Hard-copy Required): [ X ] Attached, Document ID: <u>MIC-FE-C15</u> [ ] Not Applicable

**ATTACHMENT MIC-FE-C1**  
**AREA MAP**





ATTACHMENT MIC-FE-C1

AREA MAP

DADE COUNTY RESOURCES RECOVERY FACILITY

Montenay Power Corporation

**Golder  
Associates**

**ATTACHMENT MIC-FE-C2**  
**FACILITY PLOT PLAN**

# LEGEND

## EXISTING FACILITIES

- 1 SCALES
- 2 TRASH RECEIVING BLDG
- 3 TRASH PIT
- 4 TRASH PROCESSING BLDG
- 5 GARBAGE RECEIVING BLDG
- 6 GARBAGE PIT
- 7 GARBAGE PROCESSING BLDG
- 8 RDF-3 FUEL FEED
- 9 RDF-3 FUEL STORAGE
- 10 PROCESS UNDERS BLDG
- 11 BOILERS (4 EA)
- 12 STORE YARD
- 13 TURBINE HALL
- 14 SWITCHYARD
- 15 COOLING TOWER
- 16 AL/FE BUNKERS
- 17 FERROUS PROCESSING BLDG
- 18 TIRE BUNKER
- 19 FUEL OIL DEPOT
- 20 HEAVY EQUIP. MAINT. BLDG
- 21 OFFICES/ADMIN BLDG
- 22 PROPANE STORAGE

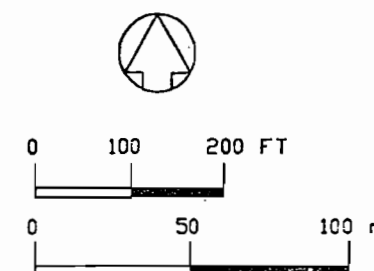
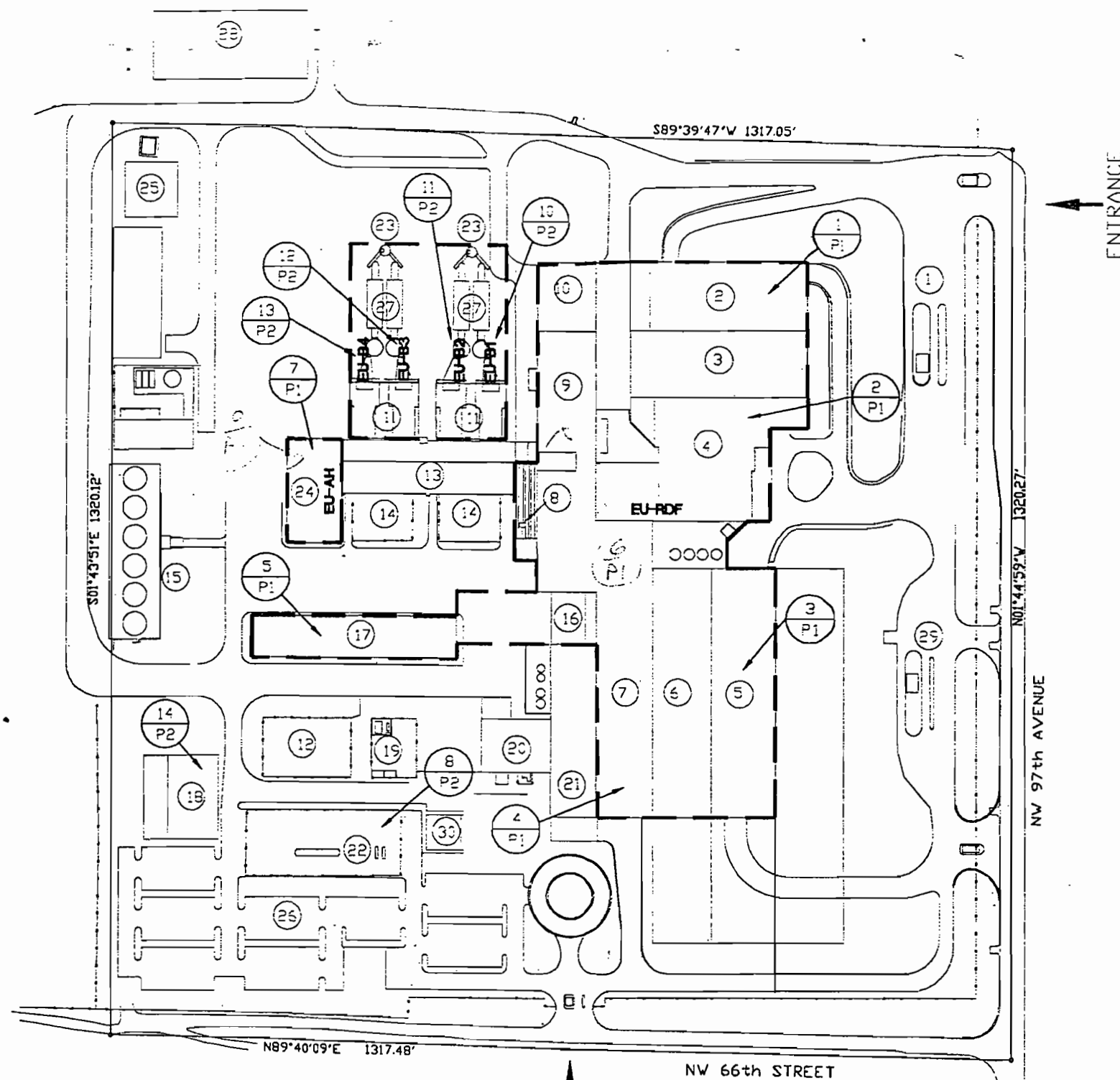
## PROPOSED RETROFIT

- 23 STACKS (2 EA)
- 24 ASH BUILDING
- 25 WATER TREATMENT PLANT
- 26 EMPLOYEE PARKING
- 27 AQCS (4 EA)
- 28 WASTEWATER TREATMENT PLANT (IF REQD)
- 29 NEW SCALES
- 30 DADE COUNTY ADMINISTRATION

EU-B1-4 BOILER 1-4  
EU-AH ASH HANDLING  
EU-RDF REFUSE DERIVED FUEL PROCESSING

## LEGAL DESCRIPTION OF FACILITY

THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4  
SECTION 17, TOWNSHIP 53 SOUTH, RANGE 40  
EAST OF DADE COUNTY, FLORIDA  
CONTAINING APPROXIMATELY 40 ACRES



**BROWN AND  
CALDWELL**

SUBMITTED: \_\_\_\_\_ DATE: \_\_\_\_\_  
APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

LINE IS 2 INCHES  
AT FULL SIZE  
(OF NO. 27 SCALE ACCORDINGLY)  
FILE 2139001C  
DRAWN CEC  
DESIGNED  
CHECKED  
CHECKED

## REVISIONS

ZONE	REV.	DESCRIPTION	BY	DATE	APP.

**DADE CO RESOURCES RECOVERY FACILITY**

GENERAL  
**ATTACHMENT MIC-FE-C2  
PLOT PLAN**

SCALE  
1"=100'

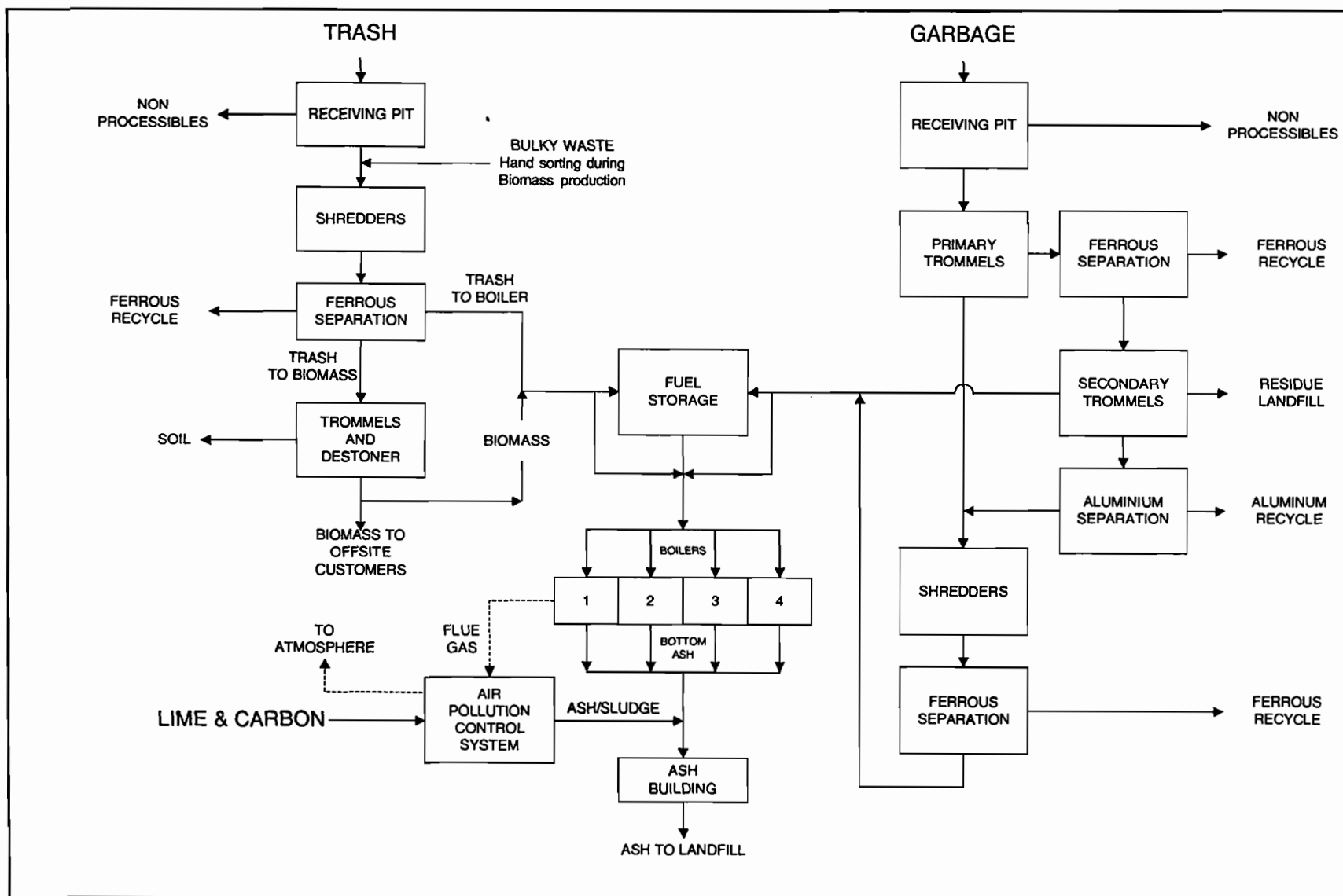
DRAWING NUMBER

**C1**

SHEET NUMBER

OF

**ATTACHMENT MIC-FE-C3**  
**PROCESS FLOW DIAGRAM**



Attachment MIC-FE-3  
Process Flow Diagram

Miami-Dade County  
Resources Recovery Facility

**Process Flow Legend**  
Solid/Liquid →  
Gas - - - - -

Filename: 0037532Y/F1/WP/MIC-FE-C3.VSD

Date: 10/05/00



**ATTACHMENT MIC-FE-C4**  
**PRECAUTIONS TO PREVENT EMISSIONS**  
**OF UNCONFINED PARTICULATE MATTER**

## **PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER**

Emissions of unconfined particulate matter have the potential to occur during routine operations and maintenance activities and temporary construction activities at the Facility. Most activities occur inside buildings, which reduces the potential for fugitive emissions. Other precautions have been or will be taken at the Facility.

Facility roads, except within the ash landfill, will be adequately paved to control visible dust. Maximum 15 MPH speed limit signs are posted to minimize dust generation. Conveyors are covered or enclosed to minimize dust from waste processing and ash handling operations. Residue from the grates, grate siftings, and ash from the combustor/boiler and fabric filter hoppers during normal operations are discharged into the ash handling system to minimize fugitive dust. The fly ash will be handled by enclosed conveyors to an ash silo and then will be conditioned to minimize dust emissions. The ash/residue in the ash building will be kept sufficiently moist to minimize fugitive dust emissions during handling operations and storage.

In accordance with permit conditions, reasonable precautions during the processing of biomass may include, but shall not be limited to the following:

- 1) Windows and doors of the enclosed space will be kept closed except when in use.
- 2) Conveyor systems handling shredded trash fines and dust will be covered or enclosed.
- 3) Shredded trash conveyor systems have baghouse pick up points at the transfer points.
- 4) Wind breaks will be installed around the biomass load-out area.
- 5) Floors in the enclosed area will be cleaned periodically.
- 6) Loading areas for biomass will be cleaned or wetted as needed to minimize fugitive dust.
- 7) Trucks transporting biomass will be covered.

Rule 62-296.320(4)(c) refers to additional precautions that may also include the following:

- 1) Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
- 2) Application of asphalt, water, oil, chemicals, or other dust suppressants to roads, yards, open stock piles, and similar emissions units.
- 3) Confining abrasive blasting where possible.

Furthermore, doors and the building and roof openings can be closed to minimize fugitive dust. Ventilation fans can be turned off to reduce unconfined emissions, provided that safety and operations are not compromised. Water sprays can also be used to reduce unconfined particulate matter.

**ATTACHMENT MIC-FE-C5**  
**FUGITIVE EMISSIONS IDENTIFICATION**



## **FUGITIVE EMISSIONS IDENTIFICATION**

The source of fugitive emissions may be from the locations and activities noted below and other activities such as housekeeping. In addition to unconfined particulate matter, trace amounts of VOC, propane, methane, landfill gas, combustion by-products, and other pollutants may be emitted, but at levels below the regulatory threshold. All fugitive emissions identified below are considered to be unregulated, exempted, or below regulatory thresholds.

### **Trash Handling**

Emissions from transfer of trash from trucks to receiving building  
Emissions from road dust (tires and trash vehicles) (F-RDF-8)  
Emissions from open doors (during hours of operation) (F-RDF-6)  
Emissions from trash handling in pit  
Emissions from trash fires in pit  
Emissions from transfer of trash from pit to trash processing  
Emissions from trash transfer through roof vents (F-RDF-4)  
Emissions from trash transfer through louvers (F-RDF-5)

Trash handling is comprised of a trash tipping floor and trash storage pit. The tipping floor currently has 10 tipping bays and a capacity to handle up to 1,500 trucks per week during normal delivery hours. The trash storage pit contains approximately 20,000 cubic yards of storage capacity (approximately 3,000 tons).

### **Garbage Handling**

Emissions from transfer of garbage from trucks to receiving building  
Emissions from road dust (F-RDF-7)  
Emissions from open doors (during hours of operation) (F-RDF-3)  
Emissions from garbage handling in pit  
Emissions from garbage fires in pit  
Emissions from transfer of garbage from pit to garbage processing  
Emissions from garbage transfer through roof vents (F-RDF-1)  
Emissions from garbage transfer through louvers (F-RDF-2)  
Emissions from classifiers

Garbage handling is comprised of a garbage tipping floor and garbage storage pit. The tipping floor has 12 tipping bays and a capacity to handle up to 2,000 trucks per week during normal delivery hours. The garbage storage pit has approximately 30,000 cubic yards of nominal storage capacity (approximately 6,750 tons).

### **Trash Processing**

- Emissions through roof-top vent structures (F-RDF-7)**
- Emissions through wall opening (F-RDF-8)**
- Emissions from material transfer**
- Emissions from dust collection conveyors**
- Emissions from shredder explosions**

### **Garbage Processing**

- Emissions from road dust (unders material transport)**
- Emissions from passive vents (turbine ventilators)**
- Emissions from conveyors, storage pile, and material transfer to trucks**
- Emissions through roof-top vent structures (F-RDF-10)**
- Emissions through shredder vents (F-RDF-9)**
- Emissions from dust collection conveyors**
- Emissions from shredder explosions**

### **RDF Fuel Feed Storage and Unders Building**

- Emissions from fuel and material transfer (F-RDF-2)**
- Emissions from conveyors and enclosures**
- Emissions from material transfer from conveyors to storage pile**
- Emissions from storage piles**
- Emissions through roof-top vents (F-RDF-1)**

### **Ash Handling System**

- Emissions from the transfer of materials from the conveyors to the ash building**
- Emissions from the Ash Handling building (F-AH-1)**
- Emissions from the loading of ash into trucks (F-AH-3)**
- Emissions from road dust associated with the dump trucks**
- Emissions from ash monofill (F-AH-2)**

### **Closed Ash Monofill**

- Emissions from monofill unit**
- Emissions from road dust caused by trucks**

## **Active Ash Monofill**

Emissions from monofill unit  
Emissions from road dust caused by trucks

## **Water Treatment and Cooling Tower System**

Emissions from above ground storage and process tanks  
Emissions from water treatment lime silo and equipment  
Emissions from cooling tower operation

## **Ferrous Processing**

Emissions from shredding process  
Emissions from separation processes  
Emissions from material transfer  
Emissions from road dust associated with vehicles  
Emissions through roof-vents

## **Heavy Maintenance Area**

Emissions from welding operations

## **Boilers and AQCS**

Emissions from #1 boiler, AQCS, and ash conveyors FB1-1  
Emissions from #2 boiler, AQCS, and ash conveyors FB2-1  
Emissions from #3 boiler, AQCS, and ash conveyors FB3-1  
Emissions from #4 boiler, AQCS, and ash conveyors FB4-1  
Emissions from lime, and mercury reagent unloading operations

## **Tire Processing and Other**

Emissions from tire shredding operations  
Emissions from chemical and fuel unloading operations

**ATTACHMENT MIC-FE-C8**  
**LIST OF PROPOSED INSIGNIFICANT ACTIVITIES**

**ATTACHMENT MIC-FE-C8**  
**LIST OF PROPOSED INSIGNIFICANT ACTIVITIES**

Combustion Emissions from Mobile Sources  
Air Conditioning Units  
Ventilation Systems and Related Facilities  
Non-Commercial Food Operations  
Plumbing Vents and Drains  
Plant Operations, Maintenance and Upkeep  
Repair and Maintenance Shop Activities  
Portable Electric Generators  
Cutting, Grinding, and Other Hand Held Equipment  
Welding Equipment, Cutting Torches, and Related Equipment  
Air Compressors  
Batteries and UPS Systems  
Storage Tanks, Vents, and Drains  
Continuous Emissions Monitors and Analyzer Vents  
Pressure Regulator Vents  
Laboratory Equipment and Vents  
Analytical Instruments  
Fugitive Emissions Noted On Attachment MIC-FE-C5  
Demineralizer and Water Treatment Systems  
Cooling Towers  
Deaerators  
Fire Suppression Systems  
Steam Vents and Safety Relief Valves  
Steam Leaks  
Housekeeping  
Landscaping  
Ash Quenching and Conveying  
Ash Monofill  
Plant Roads  
Chemical Tanks, Vents, Drains

Lubrication Oil, Hydraulic Oil, Grease Tanks, Drums, Vents, Drains  
Waste Oil Tanks  
Diesel Engine Powered Generators - Cooling Tower, Lift Station, Fire Water  
Degreaser, Solvents, and Other Tanks, Drums, Vents, Drains  
Propane Tanks  
Propane Vaporizers  
LP Gas Cylinders  
Acetylene and Oxygen Bottles  
Portable Tire Shredder  
Stormwater, Wastewater, Leachate Systems  
Oil/Water Separators  
Recovered Material Processing (Ferrous, Aluminum, Etc.)  
Deodorizer  
Electric Transformers and Equipment  
Insecticides, Pesticides, and Herbicides  
Paints, Cleaners  
Truck Washing  
Temporary Construction  
Lime Silo Loading Operations  
Activated Carbon Silo Loading Operations  
Truck Loading and Unloading Operations for Metals and Unprocessable Materials  
Module #1 Blowdown Tank  
Module #2 Blowdown Tank

The above facilities and pollutant emitting activities are eligible for exemption in accordance with the criteria of Rule 62-213.430(6), F.A.C., based upon the low levels of emissions anticipated. Additionally, activities defined in Attachment A to the U.S. EPA document entitled "White Paper for Streamlined Development of Part 70 Permit Applications", dated July 10, 1995 are assumed to be presumptively exempt whether identified specifically in this application or not.

**ATTACHMENT MIC-FE-C9**  
**LIST OF EQUIPMENT/ACTIVITIES REGULATED UNDER TITLE VI**

**ATTACHMENT MIC-FE-C9****LIST OF EQUIPMENT REGULATED UNDER TITLE VI**

No individual piece of equipment at the facility contains more than 50 pounds of charge of any Class I or Class II ozone depleting substance. Air conditioners and other small quantity units are operated onsite and may be repaired onsite. No activities exist at the facility which are subject to the requirements under Title VI of the Clean Air Act.



**ATTACHMENT MIC-FE-C10**  
**ALTERNATIVE METHODS OF OPERATION**

**ATTACHMENT MIC-FE-C10**  
**ALTERNATIVE METHODS OF OPERATION**

There are no alternative methods of operation anticipated that would significantly affect air pollutant emissions from the facility. The primary activities of garbage and trash receiving and processing, materials recovery and processing, fuel handling and storage, biomass production and export, RDF, natural gas, and propane combustion, ash landfilling, and all associated activities will continue as currently conducted or allowed by permit.

Three fuel segments have been identified for the Zurn Boilers. Refuse derived fuel (RDF) is the primary fuel and propane and natural gas are auxillary fuels only. RDF quality will vary within a wide range of characteristics of incoming trash, garbage, and tires. No biological waste, bio-medical waste, sewage sludge or hazardous waste will be combusted without obtaining proper modification to the site certification conditions. Up to three percent (by weight) of used tires may be combusted with the RDF.

**ATTACHMENT MIC-FE-C11**  
**ALTERNATIVE MODES OF OPERATION (EMISSIONS TRADING)**

**ATTACHMENT MIC-FE-C11**  
**ALTERNATIVE MODES OF OPERATION (EMISSIONS TRADING)**

There are no alternative modes of operation proposed for this facility or any of the emissions units at this facility. Each of the four boilers has been identified as a separate emissions unit with limits for pollutants on a "per unit" basis. No facility-wide emissions cap is proposed and no emissions trading is requested.

**ATTACHMENT MIC-FE-C12**  
**IDENTIFICATION OF ADDITIONAL APPLICABLE REQUIREMENTS**

ATTACHMENT MIC-FE-C12

IDENTIFICATION OF ADDITIONAL APPLICABLE REQUIREMENTS

1. FDEP Conditions of Certification PA77-08, revised March 2, 1994.
2. FDEP/EPA Permit No. PSD-FL-006D, issued July 21, 2000.

**ATTACHMENT MIC-FE-C14**  
**COMPLIANCE REPORT AND PLAN**

**ATTACHMENT MIC-FE-14**  
**COMPLIANCE REPORT AND PLAN**

The Dade County Resources Recovery Facility is in compliance with (or in the process of implementing changes to comply with) all currently applicable air regulations, air permits, and settlement agreements referenced in this application.

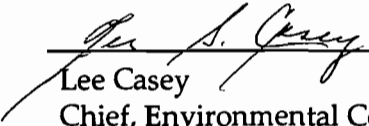
1. The facility is in the process of implementing changes to meet the MACT standards of 40 CFR 60 Subpart Cb. The four boilers were recently modified to comply with the Subpart Cb emission limits for carbon monoxide. The modifications consisted of changes to the overfire air system, fuel feed system and associated fuel distribution system. Dade County is also currently evaluating the voluntary installation of a selective non-catalytic reduction (SNCR) system for NO<sub>x</sub> control on the four boilers. Final compliance with the MACT standards of Subpart Cb will be achieved by December 2000.



**ATTACHMENT MIC-FE-C15**  
**COMPLIANCE CERTIFICATION**

**ATTACHMENT MIC-FE-C15  
COMPLIANCE CERTIFICATION**

"I, the undersigned, am the responsible official as defined in Chapter 62-210.200, F.A.C., of the Title V source for which this report is being submitted. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made and data contained in this report are true, accurate, and complete."

  
\_\_\_\_\_  
Lee Casey  
Chief, Environmental Compliance Division  
Department of Solid Waste Management

  
\_\_\_\_\_  
Date

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION**  
(All Emissions Units)

**Emissions Unit Description and Status**

1. Type of Emissions Unit Addressed in This Section: (Check one)			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).			
<input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.			
2. Regulated or Unregulated Emissions Unit? (Check one)			
<input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.			
<input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.			
3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):			
<b>Zurn RDF Spreader Stoker Combustion Units 1-4</b>			
4. Emissions Unit Identification Number:		<input type="checkbox"/> No ID <input type="checkbox"/> ID Unknown	
ID: <b>001-004</b>			
5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
<b>A</b>		<b>49</b>	<input type="checkbox"/>
9. Emissions Unit Comment: (Limit to 500 Characters)			
<b>Information contained within is for each individual combustor of the emission unit. The combustion units power two 38.5 MW rated steam electric turbine generators.</b>			

**Emissions Unit Control Equipment****1. Control Equipment/Method Description (Limit to 200 characters per device or method):**

There will be a spray dry scrubber (for acid gases), an activated carbon or comparable reactant injection system (for dioxin), and a fabric filter baghouse (for particulate matter and heavy metals) to control emissions. NO<sub>x</sub> and CO controlled by good combustion practices.

**2. Control Device or Method Code(s): 016, 013, 024, 025, 099****Emissions Unit Details**

<b>1. Package Unit:</b>	
Manufacturer:	Model Number:
<b>2. Generator Nameplate Rating: 38.5 MW each (2 generators)</b>	
<b>3. Incinerator Information:</b>	
Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F

**B. EMISSIONS UNIT CAPACITY INFORMATION**  
(Regulated Emissions Units Only)**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:	345.6	mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:	180,000	lb steam/hr (24-hr block average)
5. Requested Maximum Operating Schedule:		
	24	hours/day
	7	days/week
	52	weeks/year
	8,760	hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):		
Maximum heat input rate is per unit based on 198,000 lb/hr steam at 625 psig and 721°F. Each boiler pair cannot exceed 180,000 lb/hr per unit, 24-hr block average.		

**C. EMISSIONS UNIT REGULATIONS**  
**(Regulated Emissions Units Only)****List of Applicable Regulations**

40 CFR 60.33b
40 CFR 60.34b
40 CFR 60.35b
40 CFR 60.36b
40 CFR 60.38b
40 CFR 60.39b
40 CFR 60.58b
62-204.800(8), F.A.C.
62-296.401, F.A.C.
62-296.500, F.A.C.
62-297.310, F.A.C.
62-297.401, F.A.C.
62-296.416 (3), F.A.C.

**D. EMISSION POINT (STACK/VENT) INFORMATION**  
**(Regulated Emissions Units Only)****Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? <b>23</b>		2. Emission Point Type Code: <b>3</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):  <b>A common stack for Units 1 and 2 that is made up of two flues, one for each unit. A common stack for Units 3 and 4 that is made up of two flues; one for each unit.</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: <b>V</b>	6. Stack Height: <b>250</b> feet	7. Exit Diameter: <b>8.44</b> feet	
8. Exit Temperature: <b>300</b> °F	9. Actual Volumetric Flow Rate: <b>227,000</b> acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: <b>88,250</b> dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: East (km): North (km):			
14. Emission Point Comment (limit to 200 characters):  <b>Maximum dry standard flow rate is corrected to 7% O<sub>2</sub>.</b>			

**E. SEGMENT (PROCESS/FUEL) INFORMATION**  
(All Emissions Units)**Segment Description and Rate:** Segment 1 of 3

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>Solid waste disposal – Government; municipal incineration; refuse derived fuel</b>		
2. Source Classification Code (SCC): <b>5-01-001-03</b>		3. SCC Units: <b>Tons burned</b>
4. Maximum Hourly Rate: <b>43.9</b>	5. Maximum Annual Rate: <b>262,800</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: <b>10.4</b>
10. Segment Comment (limit to 200 characters):  <b>Max hourly rate based on min heating value of 3,940 Btu/lb. Max annual rate based on average heating value of 5,220 Btu/lb.</b>		

**Segment Description and Rate:** Segment 2 of 3

1. Segment Description (Process/Fuel Type ) (limit to 500 characters):  <b>External combustion boiler; industrial; propane</b>		
2. Source Classification Code (SCC): <b>1-02-010-02</b>		3. SCC Units: <b>1,000 gallons burned</b>
4. Maximum Hourly Rate: <b>0.842</b>	5. Maximum Annual Rate: <b>7,377</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: <b>95.0</b>
10. Segment Comment (limit to 200 characters):  <b>Limited to 80 MMBtu/hr per unit.</b>		



**E. SEGMENT (PROCESS/FUEL) INFORMATION**  
(All Emissions Units)**Segment Description and Rate:** Segment 3 of 3

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>External combustion; industrial; natural gas 10-100 MMBtu/hr</b>		
2. Source Classification Code (SCC): <b>1-02-006-02</b>		3. SCC Units: <b>Million cubic feet burned</b>
4. Maximum Hourly Rate: <b>0.08</b>	5. Maximum Annual Rate: <b>700.8</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: <b>1000</b>
10. Segment Comment (limit to 200 characters):  <b>Limited to 80 MMBtu/hr per unit.</b>		

**Segment Description and Rate:** Segment      of     

1. Segment Description (Process/Fuel Type ) (limit to 500 characters):          		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
8. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):          		

**F. EMISSIONS UNIT POLLUTANTS**  
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	016		EL
PM <sub>10</sub>	016		EL
NO <sub>x</sub>	024	025	EL
H021	016		EL
VOC			EL
CO	024	025	EL
H027	016		EL
PB	016		EL
H114	016	099	EL
SO <sub>2</sub>	013		EL
H106	013		EL
dIOX	099		EL
H015	016		EL
FL			EL
SAM	013		EL

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION****(Regulated Emissions Units -****Emissions-Limited and Preconstruction Review Pollutants Only)****Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>PM</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>8.3 lb/hour                      29.0 tons/year</b>		4. Synthetically Limited? [ ]	
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/year			
6. Emission Factor: <b>0.011 gr/dscf @ 7% O<sub>2</sub></b> Reference: <b>PSD Permit Condition: PSD-FL-006D</b>		7. Emissions Method Code: <b>0</b>	
8. Calculation of Emissions (limit to 600 characters):  <b>See Attachment MIC-EU1-G8.</b>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Emissions are per unit. Annual emissions are limited by permit condition (PSD-FL-006D).</b>			

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>0.011 gr/dscf @ 7% O<sub>2</sub></b>		4. Equivalent Allowable Emissions: <b>8.3 lb/hour                      29.0 tons/year</b>	
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 5</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Permit No. PSD-FL-006D. Emissions are per unit.</b>			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>PM<sub>10</sub></b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>8.3 lb/hour                      29.0 tons/year</b>		4. Synthetically Limited? [ ]	
5. Range of Estimated Fugitive Emissions: [ ] 1            [ ] 2            [ ] 3            _____ to _____ tons/year			
6. Emission Factor: <b>0.011 gr/dscf @ 7% O<sub>2</sub></b> Reference: <b>PSD Permit Condition: PSD-FL-006D</b>		7. Emissions Method Code: <b>0</b>	
8. Calculation of Emissions (limit to 600 characters):  <b>See Attachment MIC-EU1-G8.</b>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Emissions are per unit. Annual emissions are limited by permit condition (PSD-FL-006D).</b>			

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>0.011 gr/dscf @ 7% O<sub>2</sub></b>		4. Equivalent Allowable Emissions: <b>8.3 lb/hour                      29.0 tons/year</b>	
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 201 or 201A.</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Permit No. PSD-FL-006D. If compliance with PM emissions are met, compliance tests for PM<sub>10</sub> are not needed. Annual emissions limited by permit condition.</b>			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>NO<sub>x</sub></b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: <b>158.0 lb/hour      614.9 tons/year</b>	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/year	
6. Emission Factor: <b>250 ppmvd corrected to 7% O<sub>2</sub></b> Reference: <b>40 CFR 60.33b(d)</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions (limit to 600 characters):  <b>See Attachment MIC-EU1-G8.</b>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions per unit. Annual emissions limited by permit condition (PSD-FL-006D).</b>	

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>RULE</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>250 ppmvd corrected to 7% O<sub>2</sub></b>	4. Equivalent Allowable Emissions: <b>158.0 lb/hour      614.9 tons/year</b>
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 7E and 19, or certified CEMS</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>40 CFR 60.33b(d). Emissions are per unit. Annual emissions limited by permit condition (PSD-FL-006D).</b>	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>H021</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b><math>1.5 \times 10^{-4}</math> lb/hour      <math>5 \times 10^{-4}</math> tons/year</b>		4. Synthetically Limited? [ ]	
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/year			
6. Emission Factor: <b>0.46 <math>\mu\text{g}/\text{dscm}</math> corrected to 7% O<sub>2</sub></b> Reference: <b>PSD Permit Condition: PSD-FL-006D.</b>		7. Emissions Method Code: <b>0</b>	
8. Calculation of Emissions (limit to 600 characters):  <b>See Attachment MIC-EU1-G8.</b>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions are per unit. Annual emissions limited by permit condition (PSD-FL-006D).</b>			

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>0.46 <math>\mu\text{g}/\text{dscm}</math> corrected to 7% O<sub>2</sub></b>		4. Equivalent Allowable Emissions: <b><math>1.5 \times 10^{-4}</math> lb/hour      <math>5 \times 10^{-4}</math> tons/year</b>	
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 29.</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Permit No. PSD-FL-006D.</b>			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>VOC</b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: <b>5.5</b> lb/hour <b>19.1</b> tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      to      tons/year	
6. Emission Factor: <b>25</b> ppmvd corrected to 7% O <sub>2</sub> Reference: <b>PSD permit Condition: PSD-FL-006D</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions (limit to 600 characters):  <b>See Attachment MIC-EU1-G8.</b>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions are per unit. Annual emissions limited by permit condition. Evidence must be furnished to FDEP to show that the facility is emitting less than 100 TPY or obtain legally enforceable limits (PSD-FL-006D).</b>	

**Allowable Emissions** Allowable Emissions \_\_\_\_\_ of \_\_\_\_\_

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour      tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>CO</b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: <b>76.9 lb/hour      267.7 tons/year</b>	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/year	
6. Emission Factor: <b>200 ppmvd corrected to 7% O<sub>2</sub></b> Reference: <b>40 CFR 60.34b</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions (limit to 600 characters):  <b>See Attachment MIC-EU1-G8.</b>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions are per unit. Annual emissions limited by permit condition (PSD-FL-006D).</b>	

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>RULE</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>200 ppmvd corrected to 7% O<sub>2</sub></b>	4. Equivalent Allowable Emissions: <b>76.9 lb/hour      267.7 tons/year</b>
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 10</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>40 CFR 60.34b. Emissions are per unit.</b>	



**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>H027</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>0.005</b> lb/hour <b>0.027</b> tons/year		4. Synthetically Limited? [ ]	
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/year			
6. Emission Factor: <b>15</b> $\mu\text{g}/\text{dscm}$ corrected to 7% $\text{O}_2$ Reference: <b>40 CFR 60.33b(2)(i)</b>		7. Emissions Method Code: <b>0</b>	
8. Calculation of Emissions (limit to 600 characters):  <b>See Attachment MIC-EU1-G8.</b>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions are per unit. Annual emissions are based on permit condition (PSD-FL-006D).</b>			

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>RULE</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>15</b> $\mu\text{g}/\text{dscm}$ corrected to 7% $\text{O}_2$		4. Equivalent Allowable Emissions: <b>0.005</b> lb/hour <b>0.027</b> tons/year	
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 29</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>40 CFR 60.33b(2)(i). Emissions are per unit.</b>			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>PB</b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: <b>0.13 lb/hour 0.44 tons/year</b>	4. Synthetically Limited? <input type="checkbox"/>
5. Range of Estimated Fugitive Emissions: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/year	
6. Emission Factor: <b>380 µg/dscm at 7% O<sub>2</sub></b> Reference: <b>PSD Permit Condition: PSD-FL-006D</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions (limit to 600 characters):  <b>See Attachment MIC-EU1-G8.</b>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions are per unit. Annual emissions limited by permit condition (PSD-FL-006D).</b>	

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>380 µg/dscm at 7% O<sub>2</sub></b>	4. Equivalent Allowable Emissions: <b>0.13 lb/hour 0.44 tons/year</b>
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 29</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Permit No. PSD-FL-006D. Emissions are per unit.</b>	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>H114</b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: <b>0.023 lb/hour 0.080 tons/year</b>	4. Synthetically Limited? <input type="checkbox"/>
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: <b>70 µg/dscm corrected to 7% O<sub>2</sub></b> Reference: <b>PSD Permit No. PSD-FL-006D</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions (limit to 600 characters):  <b>See Attachment MIC-EU1-G8.</b>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions are per unit. Annual emissions are limited by permit condition (PSD-FL-006D).</b>	

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>70 µg/dscm @ 7% O<sub>2</sub></b>	4. Equivalent Allowable Emissions: <b>0.023 lb/hour 0.080 tons/year</b>
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 29</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>PSD Permit No. PSD-FL-006D. Numeric limit or 80% reduction applies, whichever is least stringent. Emissions are per unit.</b>	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>SO<sub>2</sub></b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>25.5 lb/hour      214.2 tons/year</b>		4. Synthetically Limited? <input type="checkbox"/>	
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/year			
6. Emission Factor: <b>29 ppmvd corrected to 7% O<sub>2</sub></b> Reference: <b>40 CFR 60.33b(b)(3)(i)</b>		7. Emissions Method Code: <b>0</b>	
8. Calculation of Emissions (limit to 600 characters):  <b>See Attachment MIC-EU1-G8.</b>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions are per unit. Emission factor based on 24-hr geometric mean. Annual emissions based on permit specific condition (PSD-FL-006D).</b>			

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>RULE</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>29 ppmvd corrected to 7% O<sub>2</sub></b>		4. Equivalent Allowable Emissions: <b>25.5 lb/hour      214.2 tons/year</b>	
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 6c and 19</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>40 CFR 60.33b(b)(3)(i). Numeric emission limit applies or 75% removal, whichever is least stringent. Emission factor is based on 24-hr geometric mean. Emissions are per unit.</b>			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>H106</b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: <b>14.3 lb/hour      57.1 tons/year</b>	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: <b>29 ppmvd corrected to 7% O<sub>2</sub></b> Reference: <b>40 CFR 60.33b(b)(3)(i)</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions (limit to 600 characters):  <b>See Attachment MIC-EU1-G8.</b>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions are per unit.</b>	

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>RULE</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>29 ppmvd corrected to 7% O<sub>2</sub></b>	4. Equivalent Allowable Emissions: <b>14.3 lb/hour      57.1 tons/year</b>
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 26 or 26A</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>40 CFR 60.33b(b)(3)(i). Numeric emission limit or 95% removal applies, whichever is least stringent. Emissions are per unit.</b>	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>DIOX</b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: <b>9.9 x 10<sup>-6</sup> lb/hour      3.8 x 10<sup>-5</sup> tons/year</b>	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/year	
6. Emission Factor: <b>30 ng/dscm corrected to 7% O<sub>2</sub></b> Reference: <b>40 CFR 60.33b(c)(1)(ii)</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions (limit to 600 characters):  <b>See Attachment MIC-EU1-G8.</b>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions are per unit as total tetra-through octa-dioxins/furans. Annual emissions are limited by permit condition (PSD-FL-006D).</b>	

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>RULE</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>30 ng/dscm corrected to 7% O<sub>2</sub></b>	4. Equivalent Allowable Emissions: <b>3.8 x 10<sup>-6</sup> lb/hour      3.8 x 10<sup>-5</sup> tons/year</b>
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 23</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>40 CFR 60.33b(c)(1)(ii). Emissions are per unit as total tetra - through octa-dioxin/furans</b>	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>H015</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>0.0031</b> lb/hour <b>0.011</b> tons/year		4. Synthetically Limited? [ ]	
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/year			
6. Emission Factor: <b>9.3 <math>\mu\text{g}/\text{dscm}</math> corrected to 7% O<sub>2</sub></b> Reference: <b>PSD Permit Condition: (PSD-FL-006D)</b>		7. Emissions Method Code: <b>0</b>	
8. Calculation of Emissions (limit to 600 characters):  <b>See Attachment MIC-EU1-G8.</b>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions are per unit. Annual emissions are limited by a permit condition (PSD-FL-006D).</b>			

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>9.3 <math>\mu\text{g}/\text{dscm}</math> corrected to 7% O<sub>2</sub></b>		4. Equivalent Allowable Emissions: <b>0.0031</b> lb/hour <b>0.011</b> tons/year	
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 108 or 29.</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>PSD Permit No. PSD-FL-006D. Annual emissions limited by permit condition (PSD-FL-006D). Emissions are per unit.</b>			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>FL</b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: <b>0.278</b> lb/hour <b>0.97</b> tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/year	
6. Emission Factor: <b>840</b> $\mu\text{g/dscm}$ corrected to 7% O <sub>2</sub> Reference: <b>PSD Permit Condition (PSD-FL-006D).</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions (limit to 600 characters):  <b>See Attachment MIC-EU1-G8.</b>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions are per unit. Annual emissions are limited by permit condition (PSD-FL-006D).</b>	

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>840 <math>\mu\text{g/dscm}</math> corrected to 7% O<sub>2</sub></b>	4. Equivalent Allowable Emissions: <b>0.278</b> lb/hour <b>0.97</b> tons/year
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 13A or 13B.</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>PSD Permit No. PSD-FL-006D. Potential emissions are per unit. Annual emissions limited by permit condition (PSD-FL-006D). Emissions are per unit.</b>	



**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>SAM</b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: <b>2.8 lb/hour                      9.8 tons/year</b>	4. Synthetically Limited? <input type="checkbox"/>
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: <b>2.1 ppmvd corrected to 7% O<sub>2</sub></b> Reference: <b>PSD Permit Condition: PSD-FL-006D</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions (limit to 600 characters):  <b>See Attachment MIC-EU1-G8.</b>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Emissions are per unit. Annual emissions are limited by permit condition (PSD-FL-006D).</b>	

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>2.1 ppmvd corrected to 7% O<sub>2</sub></b>	4. Equivalent Allowable Emissions: <b>2.8 lb/hour                      9.8 tons/year</b>
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 8</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>PSD Permit No. PSD-FL-006D. Potential emissions are per unit. Annual emissions limited by permit condition (PSD-FL-006D).</b>	

**H. VISIBLE EMISSIONS INFORMATION**  
(Only Regulated Emissions Units Subject to a VE Limitation)

**Visible Emissions Limitation:** Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: <b>VE10</b>	2. Basis for Allowable Opacity: [ <input checked="" type="checkbox"/> ] Rule [ <input type="checkbox"/> ] Other
3. Requested Allowable Opacity: Normal Conditions: <b>10</b> %      Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: <b>EPA Method 9</b>	
5. Visible Emissions Comment (limit to 200 characters):  <b>40 CFR 60, Subpart Cb. 10% based on 6 minutes block arithmetic mean.</b>	

**I. CONTINUOUS MONITOR INFORMATION**  
(Only Regulated Emissions Units Subject to Continuous Monitoring)

**Continuous Monitoring System:** Continuous Monitor 1 of 10

1. Parameter Code: <b>EM</b>	2. Pollutant(s): <b>NO<sub>x</sub></b>
3. CMS Requirement: [ <input checked="" type="checkbox"/> ] Rule [ <input type="checkbox"/> ] Other	
4. Monitor Information: Manufacturer: <b>KVB Analect</b> Model Number:      Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):  <b>40 CFR 60.58b and 62-204.800(8), F.A.C.</b>	

**H. VISIBLE EMISSIONS INFORMATION**  
(Only Regulated Emissions Units Subject to a VE Limitation)

**Visible Emissions Limitation:** Visible Emissions Limitation \_\_\_\_\_ of \_\_\_\_\_

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: _____ %      Exceptional Conditions: _____ % Maximum Period of Excess Opacity Allowed: _____ min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

**I. CONTINUOUS MONITOR INFORMATION**  
(Only Regulated Emissions Units Subject to Continuous Monitoring)

**Continuous Monitoring System:** Continuous Monitor 2 of 10

1. Parameter Code: <b>EM</b>	2. Pollutant(s): <b>CO</b>
3. CMS Requirement:	[ X ] Rule [ ] Other
4. Monitor Information: Manufacturer: <b>KVB Analect</b> Model Number: _____ Serial Number: _____	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):  <b>40 CFR 60.58b and 62-204.800(8), F.A.C.</b>	

**H. VISIBLE EMISSIONS INFORMATION**  
(Only Regulated Emissions Units Subject to a VE Limitation)

**Visible Emissions Limitation:** Visible Emissions Limitation \_\_\_\_\_ of \_\_\_\_\_

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: _____ %      Exceptional Conditions: _____ % Maximum Period of Excess Opacity Allowed: _____ min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

**I. CONTINUOUS MONITOR INFORMATION**  
(Only Regulated Emissions Units Subject to Continuous Monitoring)

**Continuous Monitoring System:** Continuous Monitor 3 of 10

1. Parameter Code: <b>VE</b>	2. Pollutant(s):
3. CMS Requirement:	[ X ] Rule [ ] Other
4. Monitor Information: Manufacturer: <b>KVB Analect</b> Model Number: _____ Serial Number: _____	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):  <b>40 CFR 60.58b and 62-204.800(8), F.A.C.</b>	

**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE Limitation)**

**Visible Emissions Limitation:** Visible Emissions Limitation \_\_\_\_\_ of \_\_\_\_\_

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: _____ %      Exceptional Conditions: _____ % Maximum Period of Excess Opacity Allowed: _____ min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units Subject to Continuous Monitoring)**

**Continuous Monitoring System:** Continuous Monitor 4 of 10

1. Parameter Code: <b>EM</b>	2. Pollutant(s): <b>SO<sub>2</sub></b>
3. CMS Requirement:	[ <input checked="" type="checkbox"/> ] Rule [ ] Other
4. Monitor Information: Manufacturer: <b>KVB Analect</b> Model Number: _____ Serial Number: _____	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):  <b>40 CFR 60.58b and 62-204.800(8), F.A.C.</b>	

**H. VISIBLE EMISSIONS INFORMATION**  
(Only Regulated Emissions Units Subject to a VE Limitation)

**Visible Emissions Limitation:** Visible Emissions Limitation \_\_\_\_\_ of \_\_\_\_\_

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: _____ %      Exceptional Conditions: _____ % Maximum Period of Excess Opacity Allowed: _____ min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

**I. CONTINUOUS MONITOR INFORMATION**  
(Only Regulated Emissions Units Subject to Continuous Monitoring)

**Continuous Monitoring System:** Continuous Monitor 5 of 10

1. Parameter Code: <b>O<sub>2</sub></b>	2. Pollutant(s):
3. CMS Requirement:	[ <b>X</b> ] Rule [ ] Other
4. Monitor Information: Manufacturer: <b>KVB Analect</b> Model Number: _____ Serial Number: _____	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):  <b>40 CFR 60.58b and 62-204.800(8), F.A.C.</b>	

**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE Limitation)**

**Visible Emissions Limitation:** Visible Emissions Limitation \_\_\_\_\_ of \_\_\_\_\_

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: _____ %      Exceptional Conditions: _____ % Maximum Period of Excess Opacity Allowed: _____ min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units Subject to Continuous Monitoring)**

**Continuous Monitoring System:** Continuous Monitor 6 of 10

1. Parameter Code: <b>See Comment</b>	2. Pollutant(s):
3. CMS Requirement:	[ X ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number: _____ Serial Number: _____	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):  <b>Total steam production (lb/hr, press., temp) or feedwater flow rate (lb/hr) as per 40 CFR 60.58(b) and 62-204.500(8), F.A.C.</b>	

**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE Limitation)**

**Visible Emissions Limitation:** Visible Emissions Limitation \_\_\_\_\_ of \_\_\_\_\_

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: _____ %      Exceptional Conditions: _____ % Maximum Period of Excess Opacity Allowed: _____ min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units Subject to Continuous Monitoring)**

**Continuous Monitoring System:** Continuous Monitor 7 of 10

1. Parameter Code: <b>TEMP</b>	2. Pollutant(s):
3. CMS Requirement:	[ <input checked="" type="checkbox"/> ] Rule [ ] Other
4. Monitor Information: Manufacturer: <b>KVB Analect</b> Model Number: _____ Serial Number: _____	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):  <b>Measure temp. of flue gas at fabric filter inlet as per 40 CFR 60.58b and 62-204.800(8), F.A.C.</b>	



**H. VISIBLE EMISSIONS INFORMATION**  
(Only Regulated Emissions Units Subject to a VE Limitation)

**Visible Emissions Limitation:** Visible Emissions Limitation \_\_\_\_\_ of \_\_\_\_\_

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: _____ %      Exceptional Conditions: _____ % Maximum Period of Excess Opacity Allowed: _____ min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

**I. CONTINUOUS MONITOR INFORMATION**  
(Only Regulated Emissions Units Subject to Continuous Monitoring)

**Continuous Monitoring System:** Continuous Monitor 8 of 10

1. Parameter Code: <b>See Comment</b>	2. Pollutant(s):
3. CMS Requirement:	[ X ] Rule [ ] Other
4. Monitor Information: Manufacturer: _____ Model Number: _____ Serial Number: _____	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):  <b>Carbon injection system operating parameters as per 40 CFR 60.58b and 62-204.800(8), F.A.C. Carbon injection rate averaged over 8-hr block.</b>	

**H. VISIBLE EMISSIONS INFORMATION**  
(Only Regulated Emissions Units Subject to a VE Limitation)**Visible Emissions Limitation:** Visible Emissions Limitation \_\_\_\_\_ of \_\_\_\_\_

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: _____ %      Exceptional Conditions: _____ % Maximum Period of Excess Opacity Allowed: _____ min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

**I. CONTINUOUS MONITOR INFORMATION**  
(Only Regulated Emissions Units Subject to Continuous Monitoring)**Continuous Monitoring System:** Continuous Monitor 9 of 10

1. Parameter Code: <b>See Comment</b>	2. Pollutant(s):
3. CMS Requirement:	[ X ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number: _____ Serial Number: _____	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):  <b>Power generation (MW) as per 40 CFR 60.58b and 62-204.800(8), F.A.C.</b>	

**H. VISIBLE EMISSIONS INFORMATION**  
(Only Regulated Emissions Units Subject to a VE Limitation)**Visible Emissions Limitation:** Visible Emissions Limitation \_\_\_\_\_ of \_\_\_\_\_

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: _____ %      Exceptional Conditions: _____ % Maximum Period of Excess Opacity Allowed: _____ min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

**I. CONTINUOUS MONITOR INFORMATION**  
(Only Regulated Emissions Units Subject to Continuous Monitoring)**Continuous Monitoring System:** Continuous Monitor 10 of 10

1. Parameter Code: <b>TEMP</b>	2. Pollutant(s):
3. CMS Requirement:	[ X ] Rule [ ] Other
4. Monitor Information: Manufacturer: <b>KVB Analect</b> Model Number: _____ Serial Number: _____	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):  <b>Temperature of combustion zone as per 40 CFR 60.58b and 62-204.800(8), F.A.C. Indicated by surrogate monitor at boiler roof.</b>	

**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION**  
(Regulated Emissions Units Only)**Supplemental Requirements**

1. Process Flow Diagram [ X ] Attached, Document ID: <u>MCI-EU1-J1</u> [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [ X ] Attached, Document ID: <u>MCI-EU1-J2</u> [ ] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ X ] Attached, Document ID: <u>MCI-EU1-J3</u> [ ] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [ X ] Attached, Document ID: <u>MCI-EU1-J4</u> [ ] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID: _____ [ ] Previously submitted, Date: _____ [ X ] Not Applicable
6. Procedures for Startup and Shutdown [ X ] Attached, Document ID: <u>MCI-EU1-J6</u> [ ] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan [ X ] Attached, Document ID: <u>MCI-EU1-J7</u> [ ] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [ ] Attached, Document ID: _____ [ X ] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID: _____ [ X ] Not Applicable
10. Supplemental Requirements Comment:

**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

## 11. Alternative Methods of Operation

☒ Attached, Document ID: MIC-FE-C10 ☐ Not Applicable

## 12. Alternative Modes of Operation (Emissions Trading)

☐ Attached, Document ID: \_\_\_\_\_ ☒ Not Applicable

## 13. Identification of Additional Applicable Requirements

☒ Attached, Document ID: MIC-FE-C12 ☐ Not Applicable

## 14. Compliance Assurance Monitoring Plan

☐ Attached, Document ID: \_\_\_\_\_ ☒ Not Applicable

## 15. Acid Rain Part Application (Hard-copy Required)

☐ Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))

Attached, Document ID: \_\_\_\_\_

☐ Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)

Attached, Document ID: \_\_\_\_\_

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

Attached, Document ID: \_\_\_\_\_

☐ Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

Attached, Document ID: \_\_\_\_\_

☐ Phase II NO<sub>x</sub> Compliance Plan (Form No. 62-210.900(1)(a)4.)

Attached, Document ID: \_\_\_\_\_

☐ Phase NO<sub>x</sub> Averaging Plan (Form No. 62-210.900(1)(a)5.)

Attached, Document ID: \_\_\_\_\_

☒ Not Applicable

**ATTACHMENT MIC-EU1-G8  
EMISSION CALCULATIONS**

## Attachment MIC-EU1-G8. Summary of Maximum Emission Rates of Regulated Pollutants for Units 1 through 4, Dade County Resource Recovery

Regulated Pollutant	Basis of Emission Factor	Emission Factor (at 7% O <sub>2</sub> )	Maximum Emission Rate per Unit		(TPY) <sup>c</sup>	Total Annual Emission Rate For All Four Units (TPY)
			Maximum 1-hr <sup>a</sup> (lb/hr)	Average <sup>b</sup> (lb/hr)		
Particulate Matter (TSP)	40 CFR 60, Subpart Cb	0.011 gr/dscf	8.32	8.25	29.0	116.0
Particulate Matter (PM <sub>10</sub> )	40 CFR 60, Subpart Cb	0.011 gr/dscf	8.32	8.25	29.0	116.0
Sulfur Dioxide	40 CFR 60, Subpart Cb	29 ppmvd <sup>d</sup>	25.50	23.19	214.2	856.8
Hydrogen Chloride	40 CFR 60, Subpart Cb	29 ppmvd <sup>e</sup>	14.34	13.04	57.1	228.5
Nitrogen Oxides	40 CFR 60, Subpart Cb	250 ppmvd	158.01	143.69	614.9	2,459.6
Carbon Monoxide	40 CFR 60, Subpart Cb	200 ppmvd	76.94	69.97	267.7	1,070.8
Volatile Organic Compounds	PSD-FL-006D	25 ppmvd <sup>h</sup>	5.50	5.00	19.1	76.4
Lead	40 CFR 60, Subpart Cb	380 µg/dscm	0.126	0.114	0.44	1.76
Mercury	F.A.C. Rule 62-296.416	70 µg/dscm <sup>f</sup>	0.023	0.021	0.080	0.32
Beryllium	PSD-FL-006D	0.46 µg/m <sup>3</sup>	0.00015	0.00014	0.0005	0.0020
Cadmium	40 CFR 60, Subpart Cb	15 µg/dscm	0.005	0.005	0.027	0.11
Arsenic	PSD-FL-006D	9.3 µg/dscm	0.0031	0.0028	0.011	0.044
Fluorides	PSD-FL-006D	840 µg/dscm	0.278	0.253	0.97	3.88
Sulfuric Acid Mist	PSD-FL-006D	2.1 ppmvd	2.83	2.57	9.80	39.2
Dioxin/Furan <sup>g</sup>	40 CFR 60, Subpart Cb	30 µg/dscm	9.92E-06	9.02E-06	0.000038	0.00015

See the Following Page for Notes, References, and Footnotes.

**Attachment MIC-EU1-G8. Summary of Maximum Emission Rates of Regulated Pollutants for Units 1 through 4, Dade County Resource Recovery (continued)**

**Notes:**

gr/dscf = grains per dry standard cubic foot.

lb/hr = pounds per hour.

lb/MMBtu = pounds per million British thermal units.

lb/ton = pounds per ton.

mg/dscf = milligrams per dry standard cubic meter.

µg/m<sup>3</sup> = micrograms per actual cubic meter.

MMBtu = million British thermal units.

PM10 = particulate matter with an aerodynamic diameter less than 10 microns.

ppmvd = parts per million by volume dry.

TPY = tons per year.

TSP = total suspended particulate.

**Footnotes:**

<sup>a</sup> Based on a maximum 1-hour average heat input rate of 345.6 MMBtu/hr and a steam rate of 198,000 lb/hr; assuming an average RDF heating value of 5,220 Btu/lb and 31.25 TPH RDF input. A flue gas flow rate of 88,250 dscfm at 7% oxygen (2,273 dscm/min) was used in the emission rate calculations.

<sup>b</sup> Based on a steam rate of 180,000 lb/hr. A flue gas flow rate of 80,250 dscfm at 7% oxygen (2,273 dscm/min) was used in the emission rate calculations.

<sup>c</sup> Annual emissions for all pollutants are limited by permit conditions (PSD-FL-006D).

<sup>d</sup> CFR 40 60.33b(b)(3)(i) allows an SO<sub>2</sub> concentration in the flue gas discharged to the atmosphere of 29 ppmvd or a 75% reduction in weight or volume (whichever is less stringent).

<sup>e</sup> CFR 40 60.33b(b)(3)(ii) allows an HCl concentration in the flue gas discharged to the atmosphere of 29 ppmvd or a 95% reduction in weight or volume (whichever is less stringent).

<sup>f</sup> F.A.C. Rule 62-296.416 allows a mercury concentration in the flue gas discharged to the atmosphere of 70 µg/dscm or an 80% reduction in weight or volume.

<sup>g</sup> As total tetra- through octa-dioxins/furans.

<sup>h</sup> Dade County Resource Recovery must furnish to FDEP evidence that the facility emits less than 100 TPY of hydrocarbons, or must obtain legally enforceable limits for the hydrocarbon emissions from the facility.

**Calculations:**

To calculate emissions with an emission factor (EF) in terms of gr/dscf:

$$\text{lb/hr} = \text{EF}(\text{gr/dscf}) \times \text{flow rate}(\text{dscfm}) \times 60 (\text{min/hr}) / 7000$$

$$\text{TPY} = \text{lb/hr} \times 8760 (\text{hr/yr}) / 2000 (\text{lb/ton})$$

To calculate emissions with an emission factor (EF) in terms of mg/dscm:

$$\text{lb/hr} = (\text{EF}(\text{mg/dscm}) \times \text{flow rate} (\text{dscf/min}) \times 2.832\text{E-}2(\text{m}^3/\text{ft}^3) \times 2.205\text{E-}3 (\text{lb/g}) \times 60(\text{min/hr})) / 1\text{E}3$$

$$\text{TPY} = \text{lb/hr} \times 8760 (\text{hr/yr}) / 2000 (\text{lb/ton})$$

To calculate emissions with an emission factor (EF) in terms of ug/dscm:

$$\text{lb/hr} = (\text{EF}(\text{ug/dscm}) \times \text{flow rate} (\text{dscf/min}) \times 2.832\text{E-}2(\text{m}^3/\text{ft}^3) \times 2.205\text{E-}3 (\text{lb/g}) \times 60(\text{min/hr})) / 1\text{E}6$$

$$\text{TPY} = \text{lb/hr} \times 8760 (\text{hr/yr}) / 2000 (\text{lb/ton})$$

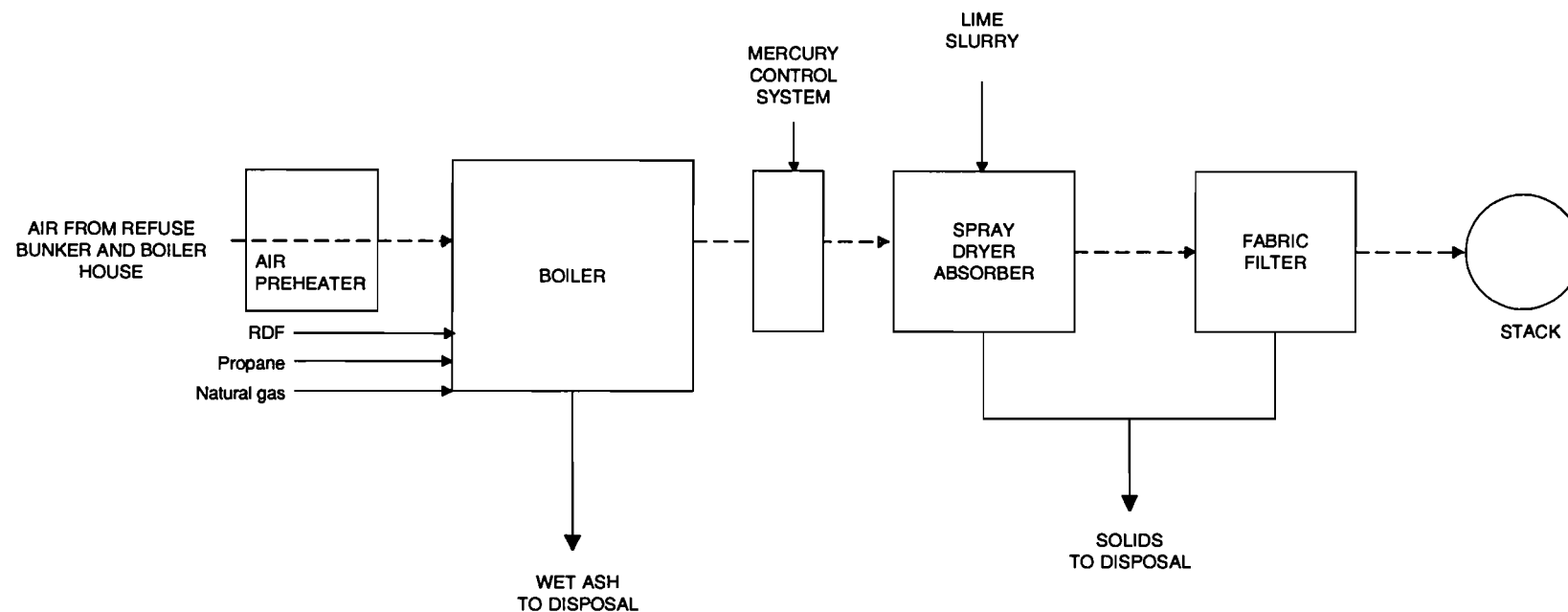
To calculate emissions with an emission factor (EF) in terms of ppmvd:

$$\text{lb/hr} = (\text{EF}(\text{ppmvd}) \times \text{MW} \times \text{flow rate}(\text{dscf/min}) \times 2,116.8 \text{ lb/ft}^2 \times 60(\text{min/hr})) / (1,545 \text{ ft-lb/lbm-R} \times 528\text{R} \times 1\text{E}6)$$

$$\text{TPY} = \text{lb/hr} \times 8760 (\text{hr/yr}) / 2000 (\text{lb/ton})$$



**ATTACHMENT MIC-EU1-J1  
PROCESS FLOW DIAGRAM**



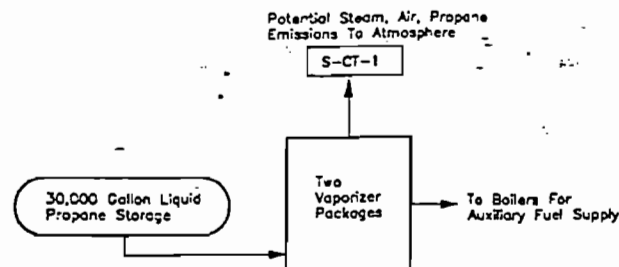
Attachment MIC-EU1-J1a  
Boiler Process Flow Diagram

Miami-Dade County  
Resources Recovery Facility

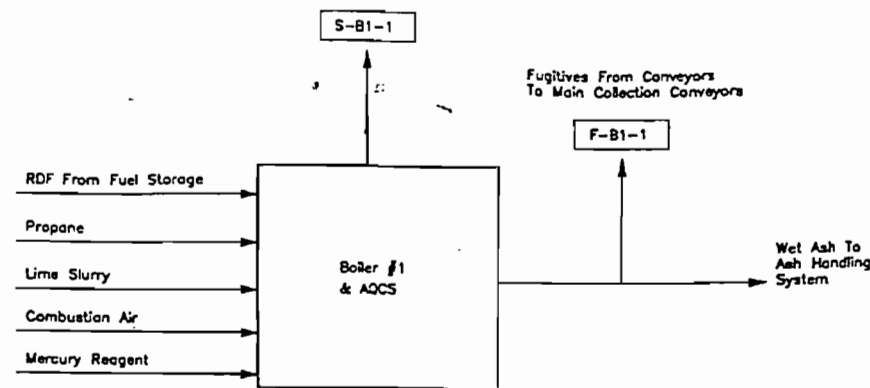
**Process Flow Legend**  
Solid/Liquid —————>  
Gas - - - - ->

Filename: 0037532Y\F1\WPMIC-EU1-J1A.VSD  
Date: 09/18/00

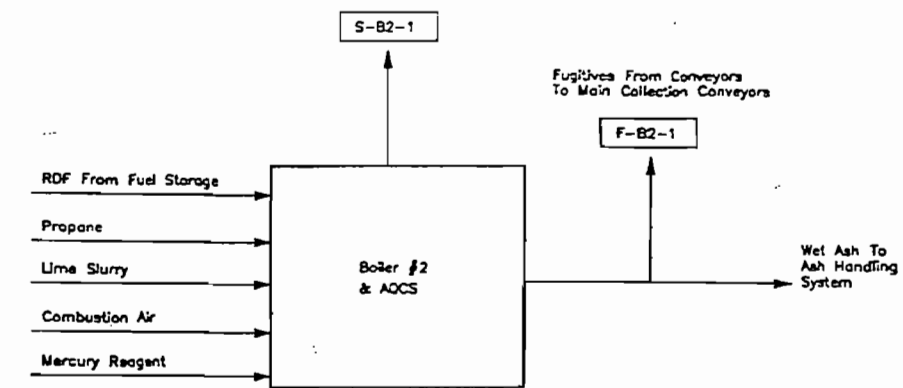




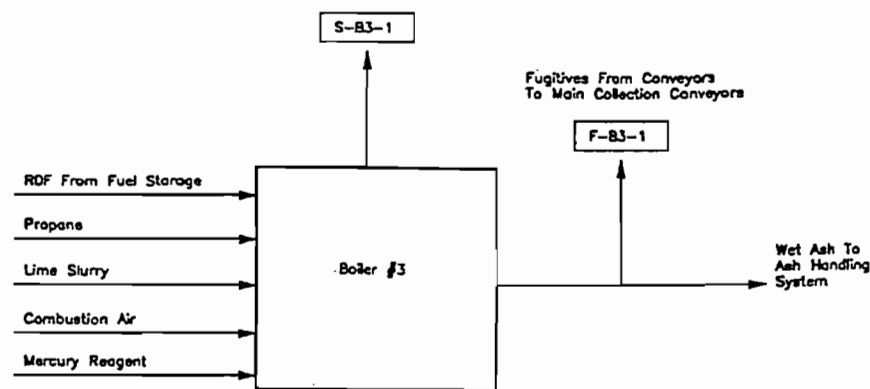
PROPANE SYSTEM  
DETAIL 8  
CI



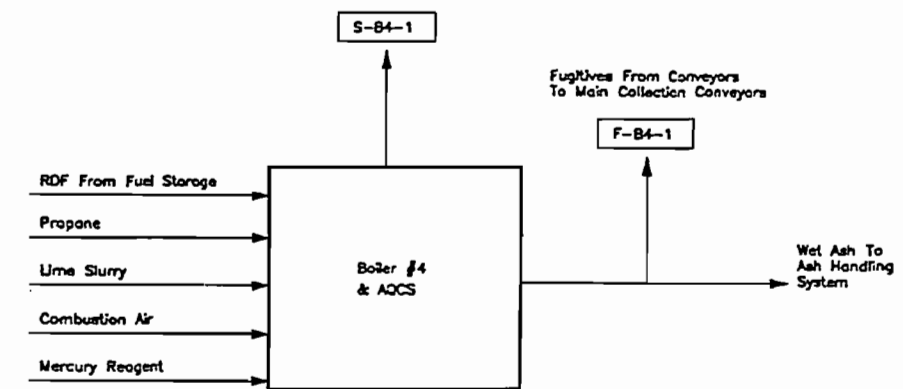
Boiler #1 System  
DETAIL 10  
CI



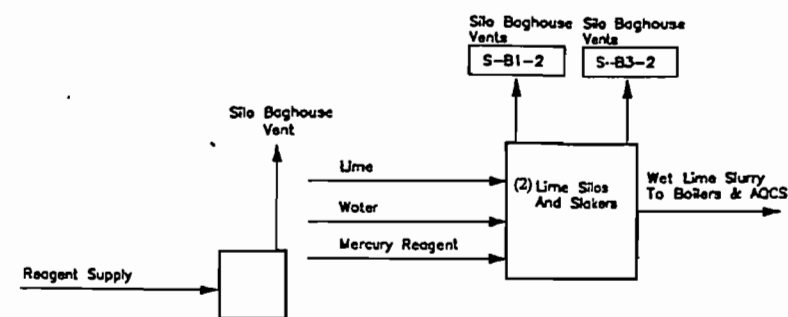
Boiler #2 System  
DETAIL 11  
CI



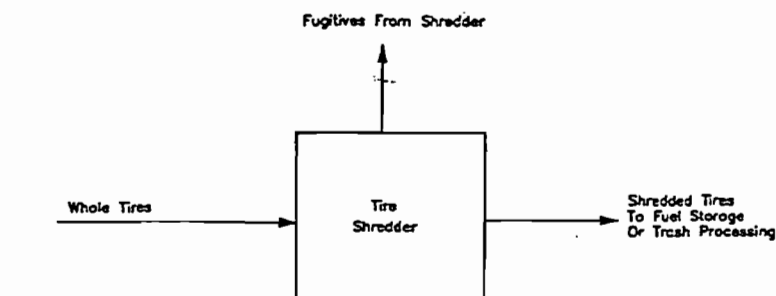
Boiler #3 System  
DETAIL 12  
CI



Boiler #4 System  
DETAIL 13  
CI



LIME SLURRY SYSTEM  
DETAIL 9  
CI



TIRE PROCESSING  
DETAIL 14  
CI

Source Designations:

Emission Point:	Sequential Number
S-Stack	
F-Fugitive	
Emission Unit:	
RDF-Refuse Derived Fuel System	
B1-Boiler 1	
B2-Boiler 2	
B3-Boiler 3	
B4-Boiler 4	
CT-Cooling Towers	
AH-Ash Handling System	

**BROWN AND CALDWELL**

SUBMITTED: \_\_\_\_\_ DATE: \_\_\_\_\_  
APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

LINE IS 2 INCHES  
AT FULL SIZE  
(IF NOT 2" SCALE ACCORDINGLY)

FILE \_\_\_\_\_  
DRAWN \_\_\_\_\_  
DESIGNED \_\_\_\_\_  
CHECKED \_\_\_\_\_  
CHECKED \_\_\_\_\_

REVISIONS					
ZONE	REV.	DESCRIPTION	BY	DATE	APP.

DADE CO RESOURCES RECOVERY FACILITY

ATTACHMENT MIC-EU1-J1b  
PROCESS FLOW DIAGRAM DETAILS

SCALE \_\_\_\_\_  
DRAWING NUMBER  
**P2**  
SHEET NUMBER  
2 OF 2

**ATTACHMENT MIC-EU1-J2**  
**FUEL ANALYSIS**

## ATTACHMENT MIC-EU1-J2

## HEATING VALUE AND ULTIMATE ANALYSIS OF RDF

AVERAGE	
<u>AS RECEIVED</u>	
Moisture %	38.0
Ash %	7.32
Sulfur %	0.23
Btu/lb	5,220
<u>DRY BASIS</u>	
Ash %	11.79
Sulfur %	0.36
Btu/lb	8,419
<u>ULTIMATE ANALYSIS</u>	
Carbon %	27.18
Hydrogen % *	8.00
Nitrogen %	0.32
Oxygen %	56.76
Chlorine %	0.20
Hydrogen % **	3.75
Oxygen % **	23.08

\* including water

\*\* excluding water

**ATTACHMENT MIC-EU1-J3**  
**DETAILED DESCRIPTION OF CONTROL EQUIPMENT**

## DETAILED DESCRIPTION OF CONTROL EQUIPMENT

This plant is a waste-to-energy facility consisting of four refuse derived fuel (RDF) fired boilers. Each of the four boilers has been designated a separate emissions unit. The RDF will be burned in each boiler in suspension and on a grate with a primary and secondary air system designed to provide air in varying proportions to promote the proper combustion of the RDF. The gases from the combustion process will pass through the furnace and convection sections of the boiler and then through the spray dryer scrubber and fabric filter baghouse. An induced draft fan with related ductwork is installed downstream of each baghouse and exhausts the flue gases into individual flues of two multi flue stacks. Continuous emissions monitoring systems are installed to monitor stack gases. Propane or natural gas will be burned as an auxiliary fuel, primarily during start-up.

Pebble lime is delivered in tank trucks and pneumatically off-loaded into lime storage silos. Pebble lime is fed to a slaker where water is added to slake the lime. Insoluble grit is removed from the slaker by a degritting device and collected in portable containers for ultimate disposal. One lime slurry preparation system is provided for each pair of boiler units.

On top of each lime silo, a fabric filter is installed for lime delivery and recovery. The dust collecting bag filter section consists of stainless steel wire mesh inserted into filter envelopes. A hinged, clamped and gasketed door is provided for bag filter access. The exhaust section is fitted with a removable bird and insect screen. The filter section is of sufficient size to allow a 20 ton truck to unload in a maximum time of one hour. Emissions are less than 5 percent opacity (six-minute average as measured by EPA Method 9).

Lime slurry flows from the slaker to an agitated lime tank serving two boilers. A monitoring and control system based on spray dryer exit temperature is provided to control lime slurry and/or dilution water feed flow. The acid flue gas reacts with the slaked lime droplets, converting  $\text{SO}_2$  gas to calcium sulfite ( $\text{CaSO}_3$ ) and calcium sulfate ( $\text{CaSO}_4$ );  $\text{HCl}$  to calcium chloride ( $\text{CaCl}_2$ ); and  $\text{HF}$  to calcium fluoride ( $\text{CaF}_2$ ). Dry solids separated in the spray dryer

are removed from the bottom of the spray dryer and conveyed to an ash silo. A mercury reagent is mixed with the lime slurry for injection into the spray dryer scrubber.

Flue gas and residual particulates leaving the spray dryer pass through a baghouse to remove remaining particulates. Induced draft fans discharge the clean flue gas to a common stack with separate flues (i.e., one dual-flue stack for each pair of boilers).

Recently to comply with Subpart Cb emission limits for carbon monoxide (CO), the four boilers were modified. The modifications consisted of changes to the overfire air system, fuel feed system and associated fuel distribution systems and relocation of steam tubes to accommodate the new fuel feed system. The boiler control system was also modified.

Dade County plans to voluntarily install selective non-catalytic reduction (SNCR) system for NO<sub>x</sub> control on the four boilers. Once available, design specifications for the SNCR system will be submitted to the Florida Department of Environmental Protection for approval.

Listed on the next page are the design parameters for the AQCS.



Parameters	Design
<u>Spray Dryers</u>	
Flue Gas Inlet Temperature	482 F
Quench Reactors	30 ft diameter x 83 ft high
Type	Downflow
Reagents	Lime or equivalent
Reagent Consumption	774 lb/hr (maximum)
<u>Fabric Filters</u>	
Cleaning Mechanism	Reverse Air
Number of Modules	10
Number of Bags per Module	121
Effective Bag Area	
Per Module	99.5 ft <sup>2</sup>
Total Baghouse	120,342 ft <sup>2</sup>
Air/Cloth Ratio	3.0:1
Material	Fiberglass
Weight	16 oz/yd <sup>2</sup>
Guaranteed Bag Life	24 months
Outlet Grain Loading (@ 7% O <sub>2</sub> )	0.011 gr/dscf
Flue Gas Outlet Temperature	270 F
<u>Mercury Control System</u>	
Reactant	Activated carbon or equivalent
<u>NO<sub>x</sub> Control System</u>	
Reactant	To be determined
Injection Point	To be determined
<u>Overall System</u>	
Pressure Drop	13.1 inches w.c.
Power Consumption	340 kW
Water Consumption	100 gpm

Note: all data are per unit. Actual selected control equipment will be equivalent in performance to stated design but may vary from data shown.

F = degrees Fahrenheit	oz/yd <sup>2</sup> = ounces per square yard
ft <sup>2</sup> = square feet	RDF = refuse-derived fuel
gpm = gallons per minute	TPH = tons per hour
gr/dscf = grains per dry standard cubic feet	w.c. = water column
kW = kilowatts	
lb/hr = pounds per hour	

**ATTACHMENT MIC-EU1-J4**  
**DESCRIPTION OF STACK SAMPLING FACILITIES**

## DESCRIPTION OF STACK SAMPLING FACILITIES

Only the four boiler emissions units require stack sampling. Sample ports will be provided into each unit's independent flue, inside the two concrete stack shells.

The stack sampling facilities will comply with 62-297. 310.6, F.A.C. as noted below.

### 62-297.310.6

Stack Sampling Facilities Provided by the Owner of an Emissions Unit.

Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E.

(a) Permanent Test Facilities. The owner or operator of an emissions unit for which a compliance test, other than a visible emission test, is required on at least an annual basis, will install and maintain permanent stack sampling facilities.

(b) Temporary Test Facilities. The owner or operator of an emissions unit that is not required to conduct a compliance test on at least an annual basis may use permanent or temporary sampling facilities. If the owner chooses to use temporary sampling facilities on an emissions unit, such temporary facilities will be installed on the emissions unit within 5 days of a request by the Department and remain on the emissions unit until the test is completed.

#### (c) Sampling Ports.

1. All sampling ports will have a minimum inside diameter of 3 inches.
2. The ports will be capable of being sealed when not in use.
3. The sampling ports will be located in the stack at least 2 stack diameters or equivalent diameters downstream and at least 0.5 stack diameter or equivalent diameter upstream from any fan, bend, constriction or other flow disturbances.
4. For emissions units for which a complete application to construct has been filed prior to December 1, 1980, at least two sampling ports, 90 degrees apart, will be installed at each sampling location on all circular stacks that have an outside diameter of 15 feet or less. For stacks with a larger diameter, four sampling ports, each 90 degrees apart, will be installed. For emissions units for which a complete application to construct is filed on or after December 1, 1980, at least two sampling ports, 90 degrees apart, will be installed at each sampling location on all circular stacks that have an outside diameter of 10 feet or less. For stacks with larger diameters, four sampling ports, each 90 degrees apart, will be installed. On horizontal circular ducts, the ports will be located so that the probe can enter the stack vertically, horizontally or at a 45 degree angle.

5. On rectangular ducts, the cross sectional area will be divided into the number of equal areas in accordance with EPA Method 1. Sampling ports will be provided which allow access to each sampling point. The ports will be located so that the probe can be inserted perpendicular to the gas flow.

#### (d) Work Platforms.

1. Minimum size of the working platform will be 24 square feet in area. Platforms will be at least 3 feet wide.

2. On circular stacks with 2 sampling ports, the platform will extend at least 110 degrees around the stack.

3. On circular stacks with more than two sampling ports, the work platform will extend 360 degrees around the stack.

4. All platforms will be equipped with an adequate safety rail (ropes are not acceptable), toeboard, and hinged floor-opening cover if ladder access is used to reach the platform. The safety rail directly in line with the sampling ports will be removable so that no obstruction exists in an area 14 inches below each sample port and 6 inches on either side of the sampling port.

(e) Access.

1. Ladders to the work platform exceeding 15 feet in length will have safety cages or fall arresters with a minimum of 3 compatible safety belts available for use by sampling personnel.

2. Walkways over free fall areas will be equipped with safety rails and toeboards.

(f) Electrical Power.

1. A minimum of two 120 volts AC, 20 amps outlets will be provided at the sampling platform within 20 feet of each sampling port.

2. If extension cords are used to provide the electrical power, they will be kept on the plant's property and be available immediately upon request by sampling personnel.

(g) Sampling Equipment Support.

1. A three-quarter inch eyebolt and an angle bracket will be attached directly above each port on vertical stacks and above each row of sampling ports on the sides of horizontal ducts.

a. The bracket will be a standard 3 inch x 3 inch x one-quarter inch equal-legs bracket which is 1 and one-half inches wide. A hole that is one-half inch in diameter will be drilled through the exact center of the horizontal portion of the bracket. The horizontal portion of the bracket will be located 14 inches above the centerline of the sampling port.

b. A three-eighth inch bolt which protrudes 2 inches from the stack may be substituted for the required bracket. The bolt will be located 15 and one-half inches above the centerline of the sampling port.

c. The three-quarter inch eyebolt will be capable of supporting a 500 pound working load. For stacks that are less than 12 feet in diameter, the eyebolt will be located 48 inches above the horizontal portion of angle bracket. For stacks that are greater than or equal to 12 feet in diameter, the eyebolt will be located 60 inches above the horizontal portion of the angle bracket. If the eyebolt is more than 120 inches above the platform, a length of chain will be attached to it to bring the free end of the chain to within safe reach from the platform.

2. A complete monorail or dualrail arrangement may be substituted for the eyebolt and bracket.

3. When the sample ports are located in the top of a horizontal duct, a frame will be provided above the port to allow the sample probe to be secured during the test.

Specific Authority: 403.061, F.S.

Law Implemented: 403.021, 403.031, 403.061, 403.087, F.S.

History: Formerly 17-2.700(4), Formerly 17-297.345, Amended 11-23-94, 1-1-96.

**ATTACHMENT MIC-EU1-J6**  
**PROCEDURES FOR STARTUP AND SHUTDOWN**

**ATTACHMENT MIC-EU1-J6****PROCEDURES FOR STARTUP AND SHUTDOWN**

The Zurn boilers have the potential to cause excess emissions during startup and shutdown. Dade County implements a detailed startup and shutdown procedure to minimize the duration and such emissions. Procedures which minimize such emissions include, but are not limited to, the following:

- Prior to boiler startup, the ESP is set at the necessary power level to maintain opacity levels.
- As the boiler startups, ESP power levels are adjusted to maintain opacity levels below 10 percent.
- Ash conveyors are to remain closed and fully sealed. If a conveyor needs to be opened, only one conveyor per boiler at a time on an operating unit can be opened.
- Water spray is used to minimize ash dust.
- The boilers blow soot 2 hours prior to a scheduled shutdown.
- During shutdown, ESP's are not turned off until I.D. fan is stopped.

**ATTACHMENT MIC-EU1-J7**  
**OPERATION AND MAINTENANCE PLAN**

**ATTACHMENT MIC-EU1-J7**  
**ALTERNATIVE METHODS OF OPERATION**

The operations and maintenance plan submitted in the Site Certification Application is attached. The plan will be updated following completion of the biomass processing and air pollution control system upgrade.



EXHIBIT "H"

Facility General Operating and  
Maintenance Description

A	CONSTRUCTION VERIFICATION	YES	NO	UNK	N/A
1.	Subgrade or foundation adequately prepared				
2.	Liner construction/installation according to plans				
3.	Leachate control system installation to plans				
4.	Surface water system/construction to plans				
5.	Gas control system installation per plans				
6.	Groundwater monitoring system constructed per plans				
	Comments				
B	OPERATIONS				
7.	Copy of approved drawings/plans/permit onsite				
8.	All permit conditions complied with				
9.	Only permitted waste types disposed of				
10.	Waste quantity records kept/forwarded as required				
11.	Weighing of incoming waste				
12.	Method and sequence of filling waste per plans				
13.	Waste compaction as required				
14.	Working face/grades - slope $\leq$ 30 degree				
15.	Attendant present				
16.	Sufficient operating equipment				
17.	Sufficient reserve equipment or other arrangements				
18.	Adequate communication facilities				
19.	Salvaging/res. recovery under operating authority				
	Comments				
C	MAINTENANCE				
20.	Effective barrier preventing unauthorized entry				
21.	Disposal area easily accessible				
22.	Retention/detention pond/ditch/culvert maintained				
23.	Adequate approved dust control methods				
24.	Adequate vector control by approved methods				
25.	Litter control maintained				
26.	Fire protection/fighting facilities operational				

		YES	NO	UNK	N/A
F	CLOSURE (Cont.)				
	Comments				
G	RDF PLANT/STRUCTURES-WASTE RECEIVING AREAS 40T/41T				
43.	Building Damages and Tipping Floors (Accessibility/Repair/Cleanliness-O & M Manual)				
44.	Vector control (Bait Traps/Fogging-O & M Manual)				
45.	Dust control (Contained within building)				
46.	Fire protection systems evident (Eq. fire hose/fire cannon/overhead sprinklers)				
47.	Operating Equipment while receiving (rolling stock/overhead cranes)				
48.	Hazardous waste staging area designated				
	Comments				
H	WASTE PROCESSING PLANT AREAS 40 & 41				
49.	Drain and sump pump/operational in trash Alley				
50.	Fire protection systems evident (Eq. fire hose/fire cannon/overhead sprinklers)				
51.	Dust collectors (baghouses-fugitive dust emissions observed)				
52.	Vector control (Bait traps/Fogging-O & M Manual)				
53.	RDF/Spillage control inside building-O & M Manual)				
54.	Operational Equipment (trommel/shredder/conveyor/ cherry pickers-O & M Manual)				
55.	Damage that allows fugitive emissions/leachate/ litter to building exterior				
	Comments				

		YES	NO	UNK	N/A
L	AIR EMISSION CONTROL UNITS/ASH - AREAS 64 & 64S Pending Clean Air Act Amendments (Cont.)				
59.	Lime slaker residue				
70.	Fire protection system (Eq. portable extinguishers)				
71.	Stacks sealed				
	CONTINUOUS EMISSION MONITORS				
72.	Opacity				
73.	Sulphur dioxide				
74.	Nitrogen oxides				
75.	Carbon monoxide				
76.	Other				
	Comments				
	ASH HANDLING AREA				
77.	Ash containment in ash building				
	Comments				
M	PERIMETER COMMONS & PLANT COMMONS - AREAS 20 & 68				
78.	Litter control evident - O & M Manual				
79.	Perimeter fence maintained inside contract area as designated				
80.	Signage (hours of operation, owner/operation, tipping fees)				
	Comments				

		YES	NO	UNK	N/A
Q	WATER TREATMENT - AREA 62				
91.	Chemical storage - Sulphuric Acid & Caustic tank above ground - storage & removal - O & M Manual				
92.	Lime slakers slurry contained within structure				
93.	Lime silo dust control (filter bag) visible emissions during truck loading operation				
94.	Wastewater neutralization (applicable until new storm water/wastewater treatment plant/surge pond area on line				
95.	Fire protection (Eq. fire extinguisher)				
	Comments				
	Signed: _____ Date _____				
	Site Representative				
cc:					

Exhibit "H"  
Page 8 of 36

EXHIBIT "H"

Inspection Reference Manual to be used  
as a reference manual for the Inspection  
Report Form

INSPECTION REFERENCE MANUAL

-----

G-RDF Plant/Structures-Waste Receiving Areas 40T/41T

- \* tipping floors accessible for waste delivery
- \* floors smooth and easily cleanable
- \* floors cleaned per O & M Manual
- \* building damage that allows solid waste to spill outside of building onto tarmac or grass
- \* hazardous waste(s) temporarily stored in designated area

H-Waste Processing Plant Areas 40 & 41

- \* leachate flows into the sump/drain area
- \* RDF spillage controlled inside of building

I-RDF Storage Building - Area 61

- \* Doors closed when receiving RDF

J-Unders Storage Building - Area 41U

- \* Unders contained inside of building
- \* bait traps evident
- \* fogging per O & M Manual

K-Power Plant - Areas 63, 66 & 67

- \* RDF/litter mixing with rain water which is discharging into surface waters/ground water or into surface water management system

Exhibit "H"  
Page 11 of 36

DADE COUNTY RESOURCES RECOVERY FACILITY  
GENERAL OPERATING AND MAINTENANCE DESCRIPTION

INTRODUCTION

Operation and Maintenance of the facility is briefly described in this document for the purpose of identifying the general practices at the facility with regards to the control of environmental cleanliness. All areas of the plant are operated in a manner that prevents environmental problems from fugitive air emissions, leachate, and other contamination.

Exhibit "H"  
Page 13 of 36



DUST CONTROL #45, 51,54,57,58

When dusty conditions occur within the garbage or trash tipping floor areas, due to incoming waste all man doors and overhead doors are closed to prevent dust from leaving the areas.

If possible light fraction material or the material that is causing the dust problem is mixed in the receiving pit with the more dense material and the natural moisture content of the denser material is used to control the dust problem.

Processing equipment in both areas 40 and 41 are equipped with baghouses to control dust emissions. Pick-up points for the dust collectors are at conveyor transition points and at the shredders as well. This will keep operationable equipment in these areas controlled within the buildings.

Each processing line is fitted with water spray systems at each infeed conveyor to add additional moisture to help control dust at the shredder.

Conveyor covers are kept in the closed position during operational hours and conveyor side skirting is inspected daily, repairs if necessary.

RDF will be contained in the fuel storage building and both east and west doors will be kept closed unless maintenance is being done in the building.

There is a pressurized air system which removes the air from the garbage pit and the fuel storage building and ducts it to the boilers for makeup air. This is primarily designed for odor control but also gives some dust control.

FIRE PROTECTION #46,50,56,61,70,88,89,95

Fire extinguishers are inventoried and located for each area of the plant. They are checked weekly by designated inspectors and serviced as necessary. Also see attached inspection form for fire system and hose designations by area.

Fire extinguishers are placed at strategic locations around the operating areas and in the offices. There are thirty two units placed to cover the offices, garbage receiving, garbage processing, stores, heavy equipment maintenance, and receiving. In addition there are twenty one extinguishers distributed throughout the trash receiving and processing areas. These numbers may increase as a need is identified.

In the powerhouse there are extinguishers located on all levels around the boilers and the fuel feed system. Thirty four of the eighty eight extinguishers are located on the J conveyor, H conveyor, and control levels of the powerhouse. The rest are located to adequately cover the remaining powerhouse levels, water treatment, cooling tower, and the ash building.

# TRASH FIRE HOSE REPORT

LOCATION:		: # : 50' : 100' :	NOTES:
"TF4":	EAST	: 1 :	:
	WEST	: 2 :	:
MILL DECK:	SW SIDE #2 MILL	: 3 :	:
	SW SIDE #1 MILL	: 4 :	:
	NW SIDE #3 MILL	: 5 :	:
"ST" CONVEYORS:	HEAD SECTION	: 6 :	:
	TAIL SECTION	: 7 :	:
INFEED DECK:	#1 INFEED E. SIDE	: 8 :	:
	#2 INFEED W. SIDE	: 9 :	:
	#3 INFEED E. SIDE	: 10 :	:
	E. SIDE BY MCC ROOM	: 11 :	:
	NW BY EXIT DOOR	: 12 :	:
	NEXT TO PULPIT LADDER	: 13 :	:
NORTH SIDE MOTOR ROOM		: 14 :	:
TOWARD INFEED DECK		: :	:
TIPPING FLOOR NORTH WALL	EAST	: 15 :	:
	WEST	: 16 :	:
"FR1" BASEMENT LEVEL	EAST	: 17 :	:
	WEST	: 18 :	:
N.W. COLUMN N. EXIT OF BASEMENT		: 19 :	:
BETWEEN MAGS		: 20 :	:
OVER NON-FERROUS TRANSFER CONV.		: :	:
S.E. SIDE OF #3 MILL BASEMENT LEVEL		: 21 :	:

REMARKS:

NUMBER OF SCOTT PACKS  
SPARE BOTTLES

DATE:

: SIGNATURE:

Exhibit "A"  
Page 19 of 36

# HEIL FIRE HOSE REPORT

LOCATION	#	50'	100'	NOTES:
TIPPING FLOOR EAST WALL	1			
	2			
"S.P." DECK NE BY DOOR	3			
"PI" NORTH WALL BY OPENING	4			
"S" CONVEYOR NEXT TO STEPS	5			
EAST WALL PROCESS BUILDING	6			
	7			
	8			
	9			
EAST OF RECEIVING DOOR	10			
PICKER STATIONS N.	11			
S.	12			
S.W. EXIT DOOR	13			
HEIL TIPPING FLOOR				
N.W. LEVEL BY CRANE LADDER	14			
N. WALL FERROUS BUNKER	15			

1. NUMBER OF SCOTT PACKS
2. SPARE BOTTLES
3. CRANE EMERGENCY BREATHING APPARATUS

DATE:

SIGNATURE:

Exhibit "H"  
Page 21 of 36



montenay power corp.  
6990 n.w. 97th avenue • miami, florida 33178  
telephone (305) 593-7000

HEIL EXTINGUISHER LOCATION LIST

1. Office entrance to Visitors Center
2. East front office hallway
3. Receiving area (west wall)
4. Pit entrance ramp (south wall)
5. Machine shop (north wall)
6. Machine shop (west wall)
7. Heil process system, south entrance way (concrete pillar)
8. Magnet house
9. Magnet house
10. Picker hydraulic pumps (concrete pillar)
11. Picker control level
12. Compressor area (west wall)
13. Heavy Equipment shop (east wall)
14. H.E Shop (south wall)
15. H.E. Shop (west wall) by bay door
16. H.E. Shop (west wall) by door way
17. H.E. Shop (north east) corner
18. Bag house deck
19. Heil control room (north wall) by air conditioning unit
20. Heil control (north exit door exterior)
21. Fan level (north steel column)
22. M.C.C. room (south wall from exit door)
23. M.C.C. room (west wall by exit door)
24. Exterior of electric shop entrance door
25. Interior of electric shop (north wall partition)
26. "GP" level (west wall)
27. "GP" deck (north wall)
28. N.A.
29. Mill deck (exterior "105")
30. Mill deck (exterior "205")
31. Instrumentation deck (below pulsort)
32. Instrumentation deck (below pulsort)

Exhibit "H"  
Page 23 of 36

RDF/LITTER CONTROL #53,62

Dust suppression is kept to a minimum by ensuring that all conveyors are covered, transition inspection doors are kept closed and the conveyor skirting is maintained to minimize leakage. It becomes necessary on occasion to remove dust and grit build up from the areas of the conveyor rollers and pans to minimize damage and inspect the proper operation of the rollers through use of compressed air. This operation is performed within the confines of the building and on the outside conveyors only over paved areas. The paved areas are then cleaned up immediately following the blowdown. Water usage is restricted in cleaning due to the inherent electrical problems that could be encountered.

Exhibit "H"  
Page 25 of 36

#### BUILDING DAMAGE #55

When damage to the building occurs, an incident report is written, describing what sort of damage transpired, the location where the incident happened, the time the damage occurred, and who was responsible.

A work order is also prepared for the repair of the damage, and depending on the nature of the damage, the correct priority is assigned to the work order.

In the case of a damaged entrance or exit door on the tipping floors, every effort is made to repair them immediately, even if the repair is temporary so the door can be closed. This same procedure would be followed for the fuel storage area doors.

If damage occurs in an area where repairs do not have to be handled on an emergency basis, a work order is prepared and turned over to the Resources Recovery engineering department for scheduling.

Any material that has the potential to generate leachate, is removed to a controlled area as soon as possible. An ash loading ramp is located on the west side of the power house for containing ash or RDF will be promptly disposed of or relocated so as not to generate a leachate problem.

## OIL AND CHEMICALS STORAGE #63,65,82,90,91

There is a central fuel depot and oil storage area west of the vehicle maintenance shop where full and empty drums are kept plus storage tanks. The area is equipped with an oil/water separator. Used oil and empty drums are disposed of by approved methods through licensed vendors. Covered storage for oil also exists at the powerhouse and in the Trash processing area. This is for current drum supplies for the operating areas.

Chemicals for water treatment are stored in approved tank storage at the water treatment area as well as at the cooling tower. These materials are handled in a safe manner and in accordance with manufacturers suggested procedures.



POWERHOUSE DRAINS AND SUMPS #68,69

On the north side of the powerhouse there are two sumps, east for module #1 and west for module #2. The drains underneath the boiler drain into these two sumps. The east sump is larger than the west one and has a solid separator. Both sumps have pumps to the sanitary sewer system for eventual treatment.

The solids separator is cleaned out every 2-3 weeks or on an as needed basis. The sumps are checked on a daily basis.

In case of emergency failure of the sump pumps Montenay will provide portable pumps that pump into the sewer system and prevent any overflow onto the ground.

Lime slacker residue is collected in a surfaced sump in the middle of the water treatment area and is pumped to the sanitary sewer system.

EQUIPMENT MAINTENANCE AREA #81,83

The drain and sumps in the fuel depot and the vehicle wash down areas all drain through an oil/water separator and into the sanitary sewer. The oil shall continue to be disposed of on a scheduled regular basis by a licensed used oil dealer. The washdown area is roofed and shall be cleaned regularly with a surfaced floor and walls for containment.

Exhibit "H"  
Page 33 of 36

WATER TREATMENT #92,93,94

Lime slacker slurry is contained within the building and handled according to accepted procedures. The lime silo filter bag is checked periodically to maintain dust control of visible emissions. The neutralization system for demineralizer backwash water is controlled to pump the resultant liquids to the wastewater sanitary sewer system for treatment.

Exhibit "H"  
Page 35 of 36

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION**  
(All Emissions Units)

**Emissions Unit Description and Status**

1. Type of Emissions Unit Addressed in This Section: (Check one)			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).			
<input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.			
2. Regulated or Unregulated Emissions Unit? (Check one)			
<input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.			
<input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.			
3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):			
Refuse Derived Fuel (RDF) Processing and Biomass Production			
4. Emissions Unit Identification Number:		<input type="checkbox"/> No ID <input checked="" type="checkbox"/> ID Unknown	
5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A		49	<input type="checkbox"/>
9. Emissions Unit Comment: (Limit to 500 Characters)			
This emission unit consists of trash and garbage receiving, processing and storage. Biomass processing and production is also included. Includes garbage dust collectors and trash and biomass dust collectors. This emission unit also includes fugitive emissions.			

**Emissions Unit Control Equipment****1. Control Equipment/Method Description (Limit to 200 characters per device or method):**

**Fabric Filter - Existing - Clarke Equipment Serial No. PAFX5720XX88337 (baghouse) filter. This filter connects primarily with the #3 trash processing shredder and also services covered conveyor belts.**

**Fabric Filter - Existing - Clarke Equipment Serial No. PAFX5720XX88338 (baghouse) filter. This filter connects primarily with the #1 trash processing shredder and also services covered conveyor belts.**

**Fabric Filter - Existing - Clarke Equipment Serial No. PAFX5720XX88338 (baghouse) filter. This filter connects primarily with the #2 trash processing shredder and also services covered conveyor belts.**

**Fabric Filter - Existing - Clarke Equipment Serial No. PAFX9520XX88340 (baghouse) filter. This filter connects with the #1 & #2 trash processing magnets and also services covered conveyor belts.**

**Fabric Filters (2) - Existing - MAC Equipment 144MWP212-160 garbage shredder line (baghouse) filters. These filters connect with the garbage shredder and also services covered conveyor belts.**

**Fabric Filters (2) - Existing - MAC Equipment 120MWP312-256 garbage process line (baghouse) filters. These filters connect to an unders magnet and to various conveyors and trommels.**

**2. Control Device or Method Code(s): 017****Emissions Unit Details**

<b>1. Package Unit:</b>	
<b>Manufacturer:</b>	<b>Model Number:</b>
<b>2. Generator Nameplate Rating:</b> MW	
<b>3. Incinerator Information:</b>	
<b>Dwell Temperature:</b>	<b>°F</b>
<b>Dwell Time:</b>	<b>seconds</b>
<b>Incinerator Afterburner Temperature:</b>	<b>°F</b>

**B. EMISSIONS UNIT CAPACITY INFORMATION**  
(Regulated Emissions Units Only)**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:	mmBtu/hr
2. Maximum Incineration Rate:	lb/hr tons/day
3. Maximum Process or Throughput Rate:	1,336,000 TPY
4. Maximum Production Rate:	
5. Requested Maximum Operating Schedule:	
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):	
Maximum throughput is the total of the RDF unit throughput and biomass processing rate. Per PSD-FL-006D the unit capacity is determined by an average steam flow of 180,000 lbs/hr per unit @ 625 psig, 730°F.	

**C. EMISSIONS UNIT REGULATIONS**  
(Regulated Emissions Units Only)**List of Applicable Regulations**

62-296.320(2), F.A.C.
62-296.320(4), F.A.C.
62-297.310, F.A.C.
62-297.401, F.A.C.
62-297.620, F.A.C.

**D. EMISSION POINT (STACK/VENT) INFORMATION**  
**(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? <b>SRDF1,2,3,4,5,6,7&amp;8</b>		2. Emission Point Type Code: <b>3</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):  <b>SRDF1 is a 5 ft dia. vent above the 17 ft dia. trash baghouse with 21,500 dscfm from shredders &amp; process.</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:  <b>Not Applicable</b>			
5. Discharge Type Code: <b>W</b>	6. Stack Height:  feet	7. Exit Diameter:  feet	
8. Exit Temperature: <b>77 °F</b>	9. Actual Volumetric Flow Rate:  acfm	10. Water Vapor:  %	
11. Maximum Dry Standard Flow Rate:  dscfm		12. Nonstack Emission Point Height:  <b>55</b> feet	
13. Emission Point UTM Coordinates:  Zone: East (km): North (km):			
14. Emission Point Comment (limit to 200 characters):  <b>The combined flow rates for points 1-4 and 5-8 after biomass are 113,000 dscfm &amp; 106,000 dscfm, respectively.</b>			



**D. EMISSION POINT (STACK/VENT) INFORMATION**  
(Regulated Emissions Units Only)

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? <b>SRDF1,2,3,4,5,6,7&amp;8</b>		2. Emission Point Type Code: <b>3</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):  <b>SRDF2 is a 5 ft dia. vent above the 17 ft dia. trash baghouse with 21,500 dscfm from shredders &amp; process.</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:  <b>Not Applicable</b>			
5. Discharge Type Code: <b>W</b>	6. Stack Height:  feet	7. Exit Diameter:  feet	
8. Exit Temperature: <b>77 °F</b>	9. Actual Volumetric Flow Rate:  acfm	10. Water Vapor:  %	
11. Maximum Dry Standard Flow Rate:  dscfm		12. Nonstack Emission Point Height:  <b>55</b> feet	
13. Emission Point UTM Coordinates:  Zone: East (km): North (km):			
14. Emission Point Comment (limit to 200 characters):  <b>The combined flow rates for points 1-4 and 5-8 after biomass are 113,000 dscfm &amp; 106,000 dscfm, respectively.</b>			

**D. EMISSION POINT (STACK/VENT) INFORMATION**  
(Regulated Emissions Units Only)**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? <b>SRDF1,2,3,4,5,6,7&amp;8</b>		2. Emission Point Type Code: <b>3</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):  <b>SRDF3 is a 5 ft dia. vent above the 17 ft dia. trash baghouse with 28,000 dscfm from biomass trommels.</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:  <b>Not Applicable</b>			
5. Discharge Type Code: <b>W</b>		6. Stack Height:  feet	
		7. Exit Diameter:  feet	
8. Exit Temperature: <b>77 °F</b>		9. Actual Volumetric Flow Rate:  acfm	
		10. Water Vapor:  %	
11. Maximum Dry Standard Flow Rate:  dscfm		12. Nonstack Emission Point Height:  <b>55</b> feet	
13. Emission Point UTM Coordinates:  Zone: East (km): North (km):			
14. Emission Point Comment (limit to 200 characters):  <b>The combined flow rates for points 1-4 and 5-8 after biomass are 113,000 dscfm &amp; 106,000 dscfm, respectively.</b>			

**D. EMISSION POINT (STACK/VENT) INFORMATION**  
**(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? <b>SRDF1,2,3,4,5,6,7&amp;8</b>		2. Emission Point Type Code: <b>3</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):  <b>SRDF4 is a 5 ft dia. vent above the 19 ft dia. trash baghouse w/42,000 dscfm from biomass trommels.</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:  <b>Not Applicable</b>			
5. Discharge Type Code: <b>W</b>	6. Stack Height:  feet	7. Exit Diameter:  feet	
8. Exit Temperature: <b>77 °F</b>	9. Actual Volumetric Flow Rate:  acfm	10. Water Vapor:  %	
11. Maximum Dry Standard Flow Rate:  dscfm		12. Nonstack Emission Point Height:  <b>55</b> feet	
13. Emission Point UTM Coordinates:  Zone: East (km): North (km):			
14. Emission Point Comment (limit to 200 characters):  <b>The combined flow rates for points 1-4 and 5-8 after biomass are 113,000 dscfm &amp; 106,000 dscfm, respectively.</b>			

**D. EMISSION POINT (STACK/VENT) INFORMATION**  
(Regulated Emissions Units Only)**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? <b>SRDF1,2,3,4,5,6,7&amp;8</b>		2. Emission Point Type Code: <b>3</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):  <b>SRDF5 is a 2 ft dia. vent above the 11.5 ft dia. trash baghouse with 20,000 dscfm from shredders &amp; process.</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:  <b>Not Applicable</b>			
5. Discharge Type Code: <b>W</b>		6. Stack Height:  feet	
		7. Exit Diameter:  feet	
8. Exit Temperature: <b>77 °F</b>		9. Actual Volumetric Flow Rate:  acfm	
		10. Water Vapor:  %	
11. Maximum Dry Standard Flow Rate:  dscfm		12. Nonstack Emission Point Height:  <b>55</b> feet	
13. Emission Point UTM Coordinates:  Zone: East (km): North (km):			
14. Emission Point Comment (limit to 200 characters):  <b>The combined flow rates for points 1-4 and 5-8 after biomass are 113,000 dscfm &amp; 106,000 dscfm, respectively.</b>			

**D. EMISSION POINT (STACK/VENT) INFORMATION**  
(Regulated Emissions Units Only)**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? <b>SRDF1,2,3,4,5,6,7&amp;8</b>		2. Emission Point Type Code: <b>3</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):  <b>SRDF6 is a 2 ft dia. vent above the 11.5 ft dia. trash baghouse with 20,000 dscfm from shredders &amp; process.</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:  <b>Not Applicable</b>			
5. Discharge Type Code: <b>W</b>	6. Stack Height:  feet	7. Exit Diameter:  feet	
8. Exit Temperature:  <b>77 °F</b>	9. Actual Volumetric Flow Rate:  acfm	10. Water Vapor:  %	
11. Maximum Dry Standard Flow Rate:  dscfm		12. Nonstack Emission Point Height:  <b>55</b> feet	
13. Emission Point UTM Coordinates:  Zone: East (km): North (km):			
14. Emission Point Comment (limit to 200 characters):  <b>The combined flow rates for points 1-4 and 5-8 after biomass are 113,000 dscfm &amp; 106,000 dscfm, respectively.</b>			

**D. EMISSION POINT (STACK/VENT) INFORMATION**  
**(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? <b>SRDF1,2,3,4,5,6,7&amp;8</b>		2. Emission Point Type Code: <b>3</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):  <b>SRDF7 is a 2 ft dia. vent above the 13.7 ft dia. trash baghouse with 33,000 dscfm from process points.</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:  <b>Not Applicable</b>			
5. Discharge Type Code: <b>W</b>	6. Stack Height:  <b>feet</b>		7. Exit Diameter:  <b>feet</b>
8. Exit Temperature: <b>77 °F</b>	9. Actual Volumetric Flow Rate:  <b>acfm</b>		10. Water Vapor:  <b>%</b>
11. Maximum Dry Standard Flow Rate:  <b>dscfm</b>		12. Nonstack Emission Point Height:  <b>55 feet</b>	
13. Emission Point UTM Coordinates:  Zone: East (km): North (km):			
14. Emission Point Comment (limit to 200 characters):  <b>The combined flow rates for points 1-4 and 5-8 after biomass are 113,000 dscfm &amp; 106,000 dscfm, respectively.</b>			

**D. EMISSION POINT (STACK/VENT) INFORMATION**  
**(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? <b>SRDF1,2,3,4,5,6,7&amp;8</b>		2. Emission Point Type Code: <b>3</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):  <b>SRDF8 is a 2 ft dia. vent above the 13.7 ft dia. trash baghouse with 33,000 dscfm from process points.</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:  <b>Not Applicable</b>			
5. Discharge Type Code: <b>W</b>	6. Stack Height:  feet	7. Exit Diameter:  feet	
8. Exit Temperature: <b>77 °F</b>	9. Actual Volumetric Flow Rate:  acfm	10. Water Vapor:  %	
11. Maximum Dry Standard Flow Rate:  dscfm		12. Nonstack Emission Point Height:  <b>55</b> feet	
13. Emission Point UTM Coordinates:  Zone: East (km): North (km):			
14. Emission Point Comment (limit to 200 characters):  <b>The combined flow rates for points 1-4 and 5-8 after biomass are 113,000 dscfm &amp; 106,000 dscfm, respectively.</b>			

**E. SEGMENT (PROCESS/FUEL) INFORMATION**  
(All Emissions Units)**Segment Description and Rate:** Segment 1 of 1

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>Bulk materials &amp; conveyors - others not classified. RDF and biomass processing</b>		
2. Source Classification Code (SCC): <b>3-05-101-99</b>		3. SCC Units: <b>Tons Processed</b>
4. Maximum Hourly Rate: <b>152.5</b>	5. Maximum Annual Rate: <b>1,336,000</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):  <b>Based on the maximum RDF processing rate of 936,000 TPY and the maximum biomass processing rate of 400,000 TPY.</b>		

**Segment Description and Rate:** Segment \_\_\_\_ of \_\_\_\_

1. Segment Description (Process/Fuel Type ) (limit to 500 characters):  .		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
9. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):  		



**F. EMISSIONS UNIT POLLUTANTS**  
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	017		EL
PM <sub>10</sub>	017		EL

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>PM</b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: <b>18.77 lb/hour      82.22 tons/year</b>	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1    [X] 2    [ ] 3 <u>5.00</u> to <u>25.00</u> tons/year	
6. Emission Factor: <b>0.01 gr/dscf</b> Reference: <b>PSD-FL-006D</b>	7. Emissions Method Code: <b>5</b>
8. Calculation of Emissions (limit to 600 characters):  $\{[(106,000 \text{ dscfm} \cdot 0.01 \text{ gr/dscf}) + (113,000 \text{ dscfm} \cdot 0.01 \text{ gr/dscf})] \cdot (60 \text{ min/hr}) \cdot (1 \text{ lb}/7,000 \text{ grains})\} = 18.77 \text{ lb/hr.}$ $18.77 \text{ lb/hr} \cdot 8,760 \text{ hr/yr} / 2,000 \text{ lb/ton} = 82.22 \text{ TPY}$ Emission limit of 0.01 grains/dscf per PSD-FL-006D. Does not include fugitive emissions. Calculations based on normal operating conditions and maximum may vary.	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  There are two sets of four baghouses in the RDF facility. At normal operation, one set emits 106,000 dscfm (9.08 lb/hr) and the other 113,000 dscfm (9.69 lb/hr) for a total emission rate of 18.77 lb/hr.	

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>RULE</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>0.01 gr/dscf</b>	4. Equivalent Allowable Emissions: <b>18.77 lb/hour      82.22 tons/year</b>
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 9 or 5</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  Per PSD-FL-006D, emissions shall not exceed particulate matter limit of 0.01 grains/dscf or visible emissions of 5% opacity. Item 4 based on normal operating conditions and maximum may vary.	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>PM<sub>10</sub></b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: <b>18.77 lb/hour      82.22 tons/year</b>	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1    [X] 2    [ ] 3 <b>5.00 to 25.00 tons/year</b>	
6. Emission Factor: <b>0.01 gr/dscf</b> Reference: <b>PSD-FL-006D</b>	7. Emissions Method Code: <b>5</b>
8. Calculation of Emissions (limit to 600 characters):  $\{[(106,000 \text{ dscfm} \cdot 0.01 \text{ gr/dscf}) + (113,000 \text{ dscfm} \cdot 0.01 \text{ gr/dscf})] \cdot (60 \text{ min/hr}) \cdot (1 \text{ lb}/7,000 \text{ grains})\} = 18.77 \text{ lb/hr.}$ $18.77 \text{ lb/hr} \cdot 8,760 \text{ hr/yr} / 2,000 \text{ lb/ton} = 82.22 \text{ TPY}$ Emission limit of 0.01 grains/dscf per PSD-FL-006D. Does not include fugitive emissions. Calculations based on normal operating conditions and maximum may vary.	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  There are two sets of four baghouses in the RDF facility. At normal operation, one set emits 106,000 dscfm (9.08 lb/hr) and the other 113,000 dscfm (9.69 lb/hr) for a total emission rate of 18.77 lb/hr.	

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>RULE</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>0.01 gr/dscf</b>	4. Equivalent Allowable Emissions: <b>18.77 lb/hour      82.22 tons/year</b>
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 9 or 5</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  Per PSD-FL-006D, emissions shall not exceed particulate matter limit of 0.01 grains/dscf or visible emissions of 5% opacity. Item 4 based on normal operating conditions and maximum may vary.	

**H. VISIBLE EMISSIONS INFORMATION**  
(Only Regulated Emissions Units Subject to a VE Limitation)**Visible Emissions Limitation:** Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: <b>VE</b>	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Requested Allowable Opacity: Normal Conditions: <b>5</b> %      Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: <b>EPA Method 9</b>	
5. Visible Emissions Comment (limit to 200 characters):  <b>Visible Emissions Monitoring required by Permit No. PSD-FL006(D). FDEP allows 2 hours max. of excess emissions during start-up, shut down, or malfunction during any 24-hour period. Opacity limit for biomass baghouse is 5%, other baghouses are 10%.</b>	

**I. CONTINUOUS MONITOR INFORMATION**  
(Only Regulated Emissions Units Subject to Continuous Monitoring)**Continuous Monitoring System:** Continuous Monitor \_\_\_\_\_ of \_\_\_\_\_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information: Manufacturer: Model Number:      Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

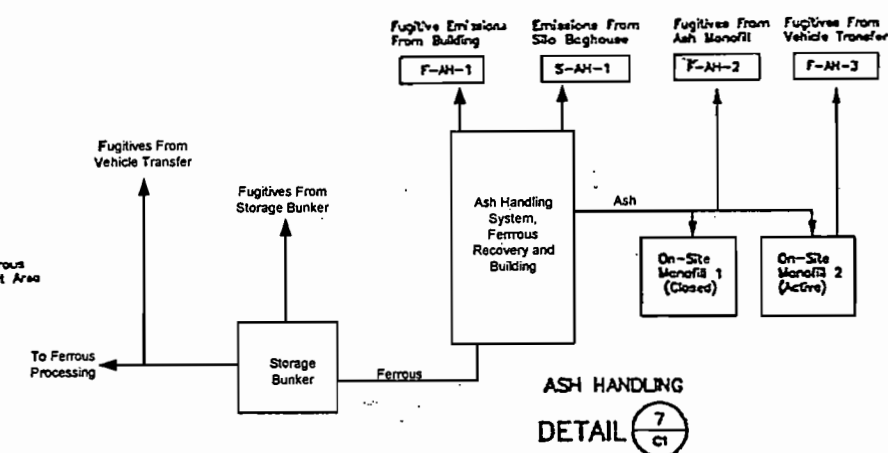
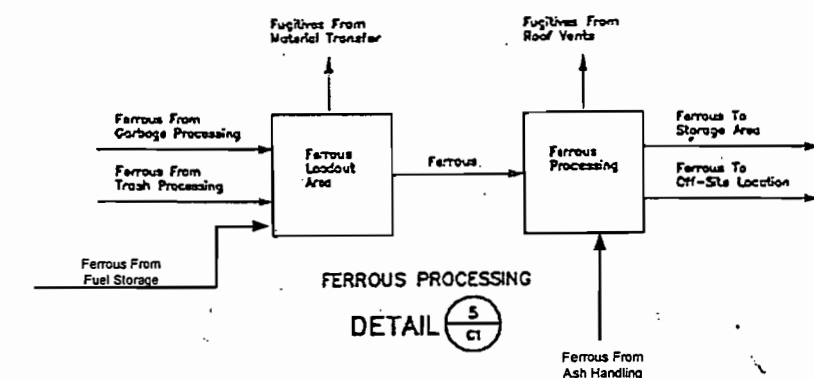
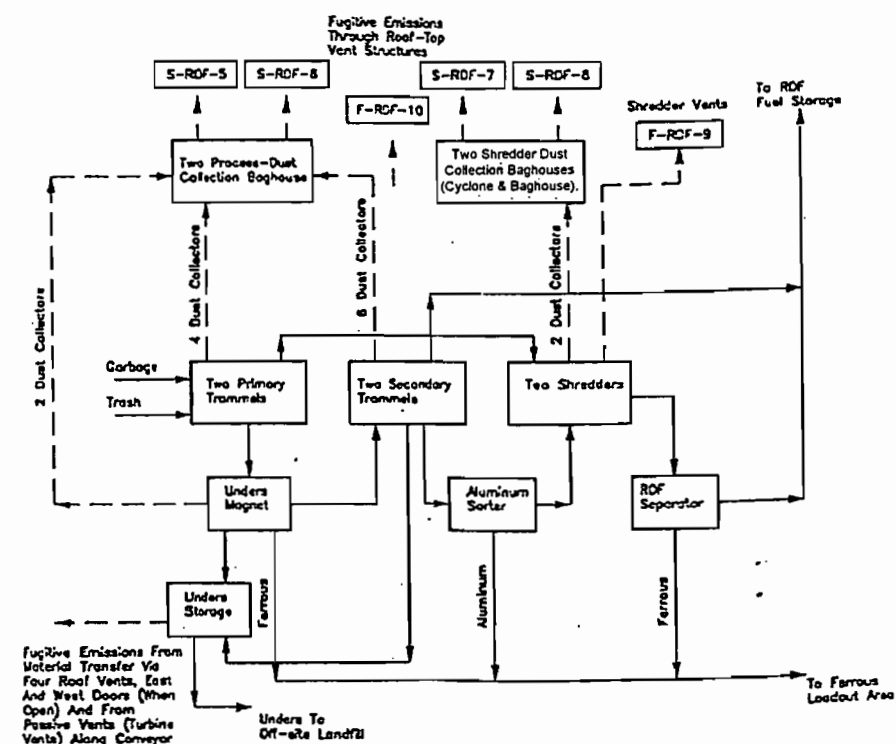
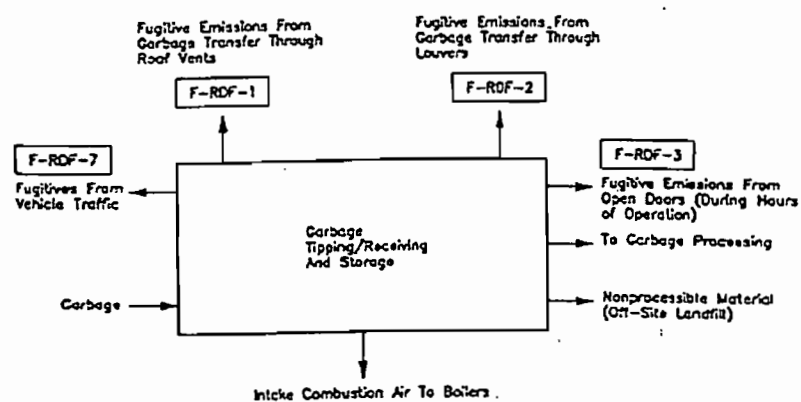
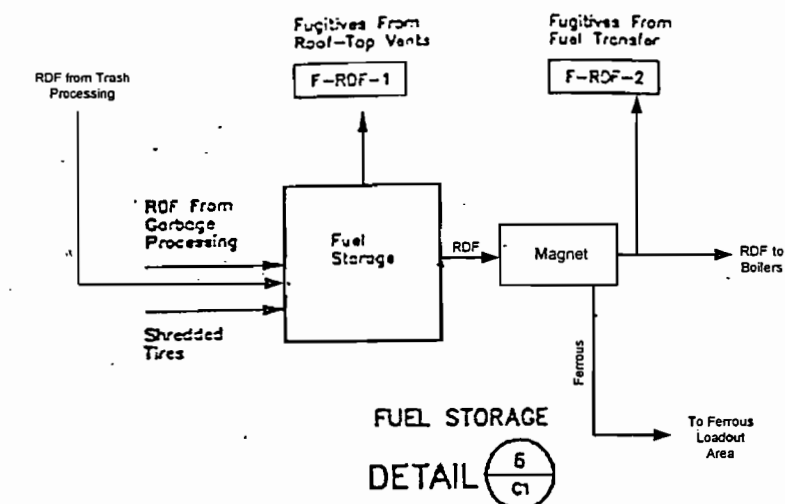
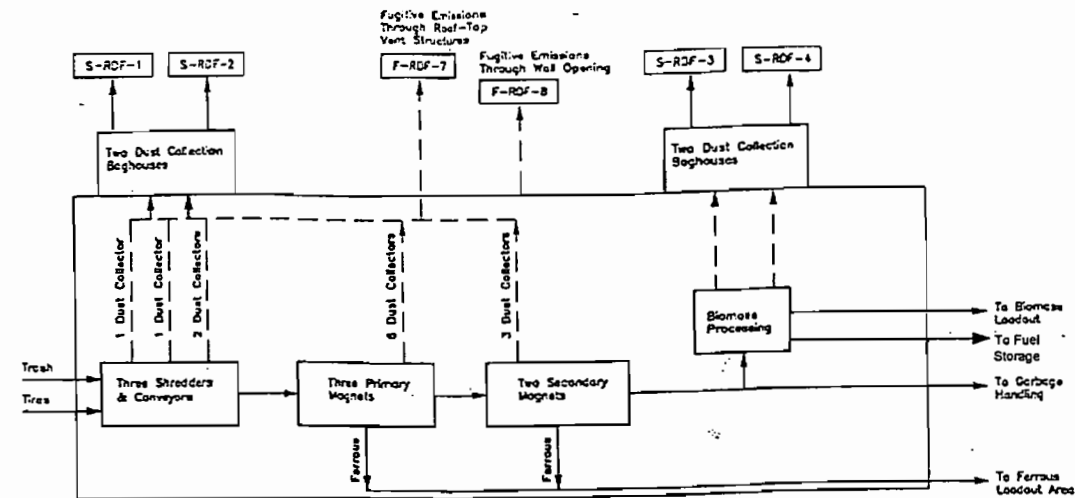
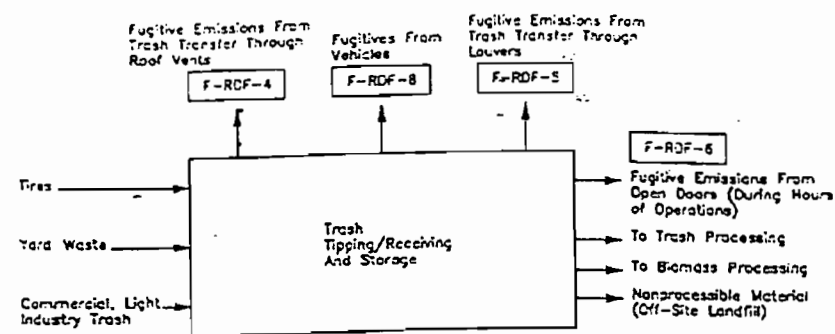
**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION**  
(Regulated Emissions Units Only)**Supplemental Requirements**

1. Process Flow Diagram [ <b>X</b> ] Attached, Document ID: <u>MIC-EU2-J1</u> [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [ ] Attached, Document ID: _____ [ <b>X</b> ] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ <b>X</b> ] Attached, Document ID: <u>MIC-EU2-J3</u> [ <b>X</b> ] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID: _____ [ <b>X</b> ] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID: _____ [ ] Previously submitted, Date: _____ [ <b>X</b> ] Not Applicable
6. Procedures for Startup and Shutdown [ <b>X</b> ] Attached, Document ID: <u>MIC-EU2-J6</u> [ ] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan [ <b>X</b> ] Attached, Document ID: <u>MIC-EU1-J7</u> [ ] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [ ] Attached, Document ID: _____ [ <b>X</b> ] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID: _____ [ <b>X</b> ] Not Applicable
10. Supplemental Requirements Comment:          

**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

11. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID:_____ <input checked="" type="checkbox"/> Not Applicable
12. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID:_____ <input checked="" type="checkbox"/> Not Applicable
13. Identification of Additional Applicable Requirements <input checked="" type="checkbox"/> Attached, Document ID: <u>MIC-FE-C12</u> <input type="checkbox"/> Not Applicable
14. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID:_____ <input checked="" type="checkbox"/> Not Applicable
15. Acid Rain Part Application (Hard-copy Required)  <input type="checkbox"/> Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID:_____  <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID:_____  <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID:_____  <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID:_____  <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID:_____  <input type="checkbox"/> Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID:_____  <input checked="" type="checkbox"/> Not Applicable

**ATTACHMENT MIC-EU2-J1**  
**PROCESS FLOW DIAGRAM**





**ATTACHMENT MIC-EU2-J3**  
**DETAILED DESCRIPTION OF CONTROL EQUIPMENT**

## DETAILED DESCRIPTION OF CONTROL EQUIPMENT

The control equipment for the refuse derived fuel and biomass processing system includes two sets of four dust collector baghouses. The dust control system for the garbage processing system is currently installed and will remain as is. The dust collection system for the trash and biomass processing systems are currently being upgraded. The data included in the application is as anticipated following these changes. All equipment numbers and data noted below and in the application is nominal data and may be replaced with similar equipment with comparable performance.

Each garbage processing line (Line Nos. 100 and 200) within the facility has two dust collection systems to control dust generated within the process line. These systems consist of a 33,000 cfm process line dust collection system and a 20,000 cfm shredder dust collection system.

The garbage processing system dust collection system for the trommels, magnets, and conveyors consists of the following major components:

1. Dust pickup hoods at the points where dust is to be controlled (seven locations).
2. Interconnecting ductwork with dampers at each pickup point.
3. MAC Model 120MWP312-256 Dust Filter
4. Chicago Blower Model 36 Fan with 100 Hp motor and outlet damper.
5. MAC 24 x 24 Airlock to remove the collected dust.
6. Common collection conveyor (Equipment No. 41-26-320) to transport the collected dust back to the process line.

The garbage shredder dust collection system consists of the following major components:

1. Dust pickup hood at the shredder discharge area on conveyors 41-26-106 and 206.
2. Interconnecting ductwork.
3. MAC Model 144MWP212-160 Dust Filter
4. Chicago Blower Model 33 Fan with 100 Hp motor and outlet damper.
5. MAC Model H96 Cyclone Collector.
6. MAC 24 x 24 Airlock (on filter) and 36 x 36 Airlock (on cyclone)

The trash and biomass processing system dust collection system is being upgraded. The proposed system includes reuse of existing filters 1 and 2 to pick up dust from three trash shredders, from all existing conveyor and magnetic separation transfer points. Filters 3 and 4 will pick up dust from the biomass process equipment and transfer points located within the trommel building. Simplex filter bags will be replaced with duplex bags to assure sufficient cloth area is available for the expected dust removal service.

Filters 1 and 2 combined will handle 43,000 cubic feet per minute and filters 3 and 4 combined will handle 70,000 cubic feet per minute.

**ATTACHMENT MIC-EU2-J6**  
**PROCEDURES FOR STARTUP AND SHUTDOWN**

## **ATTACHMENT MIC-EU2-J6**

### **PROCEDURES FOR STARTUP AND SHUTDOWN**

The refuse derived fuel processing and biomass production emission unit has the potential to cause excess emissions during startup and shutdown. Dade County implements a detailed startup and shutdown procedure to minimize the duration and such emissions. Procedures which minimize such emissions include, but are not limited to, the following:

- Prior to startup, all shredder and trommel access doors must be closed.
- During shutdown, there is at least one minute between stopping each piece of equipment to in order to allow the refuse on or in that piece of equipment to clear itself.

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION**  
(All Emissions Units)

**Emissions Unit Description and Status**

1. Type of Emissions Unit Addressed in This Section: (Check one)			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).			
<input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.			
2. Regulated or Unregulated Emissions Unit? (Check one)			
<input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.			
<input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.			
3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):			
<b>Ash Building and Handling System</b>			
4. Emissions Unit Identification Number:		<input type="checkbox"/> No ID <input checked="" type="checkbox"/> ID Unknown	
ID:			
5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
<b>A</b>		<b>49</b>	<input type="checkbox"/>
9. Emissions Unit Comment: (Limit to 500 Characters)			
<p><b>This emission unit includes the bottom and fly ash handling, fly ash silo, ash conditioning agent silo (if any), the Ash Handling Building (AHB), and related fugitive emissions. The AHB is designed to store about 3 days of bottom and fly ash with 4 roof fans and 7 east and 3 west louvers. Trucks enter through doors from the south, exit to the north and haul ash to a monofill. One 26.5 acre section of monofill is closed.</b></p>			

**Emissions Unit Control Equipment**

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

Ash Silo Baghouse

Ash Conditioner

2. Control Device or Method Code(s): 17, 61

**Emissions Unit Details**

1. Package Unit:	
Manufacturer:	Model Number:
2. Generator Nameplate Rating: MW	
3. Incinerator Information:	
Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F

**B. EMISSIONS UNIT CAPACITY INFORMATION  
(Regulated Emissions Units Only)****Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:	mmBtu/hr
2. Maximum Incineration Rate:	lb/hr tons/day
3. Maximum Process or Throughput Rate:	200,000 TPY
4. Maximum Production Rate:	
5. Requested Maximum Operating Schedule:	
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):	
Throughput rate in item No. 3 above is based upon nominal design data and is not a maximum limit. Per PSD-FL-006(D) the max capacity is determined by steam output of 180,000 lb/hr per unit @ 625 psig 730°F.	

**C. EMISSIONS UNIT REGULATIONS  
(Regulated Emissions Units Only)****List of Applicable Regulations**

62-296.320(4), F.A.C.
62-297.401, F.A.C.
62-297.620, F.A.C.
62-296.320(2), F.A.C.
62-702.570, F.A.C.



**D. EMISSION POINT (STACK/VENT) INFORMATION**  
(Regulated Emissions Units Only)**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? <b>S-AH-1</b>		2. Emission Point Type Code: <b>2</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):  <b>Ash silo baghouse and ash conditioning reagent baghouse</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: <b>P</b>	6. Stack Height:  feet	7. Exit Diameter:  feet	
8. Exit Temperature: <b>77 °F</b>	9. Actual Volumetric Flow Rate:  acfm	10. Water Vapor:  %	
11. Maximum Dry Standard Flow Rate: <b>2,000 dscfm</b>		12. Nonstack Emission Point Height: <b>85 feet</b>	
13. Emission Point UTM Coordinates: Zone: East (km): North (km):			
14. Emission Point Comment (limit to 200 characters):			

**E. SEGMENT (PROCESS/FUEL) INFORMATION**  
(All Emissions Units)**Segment Description and Rate:** Segment 1 of 1

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>Not Applicable</b>		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

**Segment Description and Rate:** Segment \_\_\_\_ of \_\_\_\_

1. Segment Description (Process/Fuel Type ) (limit to 500 characters):		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
10. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		



**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>PM</b>	2. Total Percent Efficiency of Control: <b>99.90 %</b>
3. Potential Emissions: <b>0.17 lb/hour      0.75 tons/year</b>	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ X ] 1      [ ] 2      [ ] 3 <b>1.00 to 5.00 tons/year</b>	
6. Emission Factor: <b>0.01 gr/dscfm</b> Reference: <b>PSD-FL-006D</b>	7. Emissions Method Code:
8. Calculation of Emissions (limit to 600 characters):  <b>2000 dscfm x 0.01 gr/dscf x .00858 = 0.1714 lb/hr</b> <b>(0.1714 lb/hr x 8,760 hr/yr) / 2000 lb/ton = 0.7507 TPY</b> <b>Per PSD-FL-006(D) limit of 0.01 grains/dscf. Does not include fugitive emissions.</b> <b>Calculations based on normal operating conditions and maximum may vary.</b>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Per PSD-FL-006D limit of 0.01 grains/dscf or visible emissions of 5% opacity. Item 3 based on normal operating conditions and excludes fugitive emissions. Maximum may vary.</b>	

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>RULE</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>0.01 grains/dscf</b>	4. Equivalent Allowable Emissions: <b>0.17 lb/hour      0.75 tons/year</b>
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 5 or 9</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Per PSD-FL-006D particulate matter limit of 0.01 grains/dscf or visible emission of 5% opacity. Item 4 is based on normal operating conditions and maximum may vary.</b>	

**Visible Emissions Limitation:** Visible Emissions Limitation 1 of 1

## I. CONTINUOUS MONITOR INFORMATION

**(Only Regulated Emissions Units Subject to Continuous Monitoring)**

**Continuous Monitoring System:** Continuous Monitor of

DEP Form No. 62-210.900(1) - Form  
Effective: 2/11/99

**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION**  
(Regulated Emissions Units Only)**Supplemental Requirements**

1. Process Flow Diagram [ X ] Attached, Document ID: <u>MCI-EU2-J1</u> [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [ ] Attached, Document ID: _____ [ X ] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ X ] Attached, Document ID: <u>MIC-EU3-J3</u> [ ] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID: _____ [ X ] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID: _____ [ ] Previously submitted, Date: _____ [ X ] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID: _____ [ X ] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan [ X ] Attached, Document ID: <u>MIC-EU1-J7</u> [ ] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [ ] Attached, Document ID: _____ [ X ] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID: _____ [ X ] Not Applicable
10. Supplemental Requirements Comment:          

**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

11. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Identification of Additional Applicable Requirements <input checked="" type="checkbox"/> Attached, Document ID: <u>MIC-FE-C12</u> <input type="checkbox"/> Not Applicable
14. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
15. Acid Rain Part Application (Hard-copy Required) <input type="checkbox"/> Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ <input type="checkbox"/> Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**ATTACHMENT MIC-EU3-J3**  
**DETAILED DESCRIPTION OF CONTROL EQUIPMENT**



**ATTACHMENT MIC-EU3-J3**  
**DETAILED DESCRIPTION OF CONTROL EQUIPMENT**

The fly ash from the air quality control system will be conveyed to a fly ash silo in enclosed conveyors. A small baghouse fabric filter is installed on the top of the silo to contain fly ash dust. The design parameters are as follows:

<u>Parameter</u>	<u>Range</u>
Connection to silo	2 - 5 square feet
Cloth Area	100 - 900 square feet
Air Volume	500 - 2,500 cfm
Air to Cloth Ratio	2.5 – 5.0:1