MONTENAY POWER CORP.

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JUN 20 2005
BUREAU OF AIR REGULATION

June 17, 2005

Mr. A. A. Linero, P.E.
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dear Al:

In response to your letter dated April 20, 2005, to Hank Green at the Dade County Resources Recovery Facility (DCRRF) we are providing the following information for the Title V application:

- Compliance Plan – Enclosed please find a Compliance Plan that addresses deviations from the Title V permit conditions – Attachment #1. As certain of there matters are currently being discussed with FDEP's Southeast District office a copy of the plan has also been sent to them. As noted in the attachment FDEP's Southeast District office will also be addressing these items in a Consent Order(s).

- Warm-up period Data – Your letter requested 5 years of historical data related to warm-up period, if this data was available. During Tom Casio's visit to the site we explained that 5 years of data would be an undertaking beyond our present staffing levels and he suggested that a lesser amount of data be submitted for initial review. We began the review of data from the control room logs and found that the historical data did not provide sufficient information to create a probability distribution of warm-up periods. All of the notes related to start-up and shutting down the units during the weeks reviewed are shown in Attachment #2. As such we are not able to produce the probability distribution requested by FDEP. The limited data available shows a maximum time from gas fire to 70,000 lbs/hr steam load, when an online signal is sent to the continuous emissions monitoring system (CEMS) of 6 hours and 15 minutes, and we do not have operational notes to calculate the time from the start of refuse derived fuel (RDF) feed to the 70,000 lbs/hr when the online signal is sent to the CEMS. However, based on discussions with operations staff at the facility the duration of the period when RDF is fed to the units to the time when the unit is online at 70,000 lbs/hr is typically 30 minutes.

6990 n.w. 97th avenue - miami - fl 33178 - **Tel.: 305 593 7000** - **Fax: 305 593 7114**

FDEP questioned whether the change requested for Condition 45 would affect potential or actual emission of any pollutant. Since the change requested is merely a clarification of the manner in which the unit has always been operated – i.e. there will be no change in the operation of the unit, or the procedures for starting-up or shutting-down the units – there will be no change in the emission. The only purpose of this request is to clarify our operation for the benefit of compliance inspections etc.

CAM Exemption Justification -

Enclosed is a Table from the Engineer of Record, with additional information that demonstrates that CAM plans are not required for any pollutants at the facility – Attachment #3. As such, we have not included any CAM plans with this submittal.

- Testing & Reporting – We requested that certain testing conditions be modified to state that the test report will be submitted, "... 45 days after completion of the last sampling run of all pollutants tested under a common test protocol as approved by the Department". Your letter asked us to clarify that our intent or understanding of this request is that a "testing event" is each is each individual time that a tester comes on site, sets up, does testing and then departs. We concur with this explanation of a testing event, and we are not asking for a test period to be extended over a few weeks.

Please contact us if there are questions regarding this submittal or if additional data is needed.

Sincerely,

Hank Green
Facility Manager & Responsible Official,
DCRRF

CC: Lee Casey, Dade County Department of Solid Waste Management
J. Cascio
E. Pickard
O. Brazaitis, SED

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: **David A. Buff**
   Registration Number: **19011**
2. Professional Engineer Mailing Address...
   Organization/Firm: **Golder Associates Inc.****
   Street Address: **6241 NW 23rd Street, Suite 500**
   City: **Gainesville** State: **FL** Zip Code: **32653**
3. Professional Engineer Telephone Numbers...
   Telephone: **(352) 336-5600** ext.**545** Fax: **(352) 336-6603**
4. Professional Engineer Email Address: **dbuff@golder.com**
5. 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.

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

(4) If the purpose of this application is to obtain an air construction permit (check here ☐; if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here ☒, 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.

(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here ☐, 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.

David A. Buff
Signature

6/17/05
Date

(Seal)

* Attach any exception to certification statement.

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

ATTACHMENT #1

ATTACHMENT MIC-FI-CV3a

REVISED COMPLIANCE REPORT AND PLAN FOR MIAMI-DADE COUNTY RESOURCES RECOVERY FACILITY

A Compliance Report and Plan ("Plan") for the Miami-Dade County Resources Recovery Facility ("Facility") was included in the Title V permit modification request submitted to the Florida Department of Environmental Protection ("FDEP") in April 2005. The Plan now is being revised and updated with this submittal. As revised, the Plan contains the current information about the Facility's carbon monoxide ("CO") emissions, the 2004 stack tests for dioxin/furans, and other compliance issues that have not yet been resolved with the FDEP. This Plan does not address any deviations at the Facility that previously were reported to the FDEP and resolved.

1. Carbon Monoxide Emissions (Emission Units 001, 002, 003, and 004)

Deviations from Applicable Requirements

On January 10, 2005, the FDEP issued a Warning Letter (WL05-0001AS13SED) concerning the Facility's CO emissions in 2002, 2003 and 2004. In the letter and during subsequent meetings, the FDEP alleged that Facility may not be in compliance with the requirements contained in 40 CFR 60.11(d) and the Facility's Title V air operation permit (Specific Condition B.43).

Compliance Plan

The County has spent more than $63,000,000 for air pollution control systems and other improvements that were designed to enable the Facility to comply with the emissions limitations contained in 40 CFR 60, Subpart Cb. Nonetheless, the Facility's emissions sometimes exceed the 24-hour emission limit for CO in Subpart Cb. These exceedances are caused by the Facility's unique design. It is not feasible for the Facility to eliminate these exceedances.

For these reasons, the County and Montenay have requested EPA to revise Subpart Cb and thereby increase the daily CO emissions limit for the Facility to 244 ppmvd (7% 0_2), based on a 24-hour geometric average. This request is currently being considered by EPA. The EPA is expected to announce its decision later this year, as part of EPA's periodic review of Subpart Cb pursuant to Section 129(a)(5) of the Clean Air Act.

The County and Montenay will continue to work diligently with the EPA to establish a new CO emissions limit for the Facility. If EPA grants the request for relief, the Facility will comply with EPA's new emissions limit when it becomes final and effective.

If EPA does not grant the request for relief, the County and Montenay will prepare a plan that describes the corrective actions that will be taken to reduce the Facility's CO emissions. The corrective actions plan will be submitted to the FDEP within 90 days after EPA's decision to deny relief becomes final. The County and Montenay shall begin to implement the corrective actions plan within 30 days after it is approved by the FDEP.

This Compliance Plan is based on the following milestones:

Milestone 1 – EPA publishes notice of its proposed action concerning the CO emission limit for the Facility, as part of EPA's 5-year review of Subpart Cb pursuant to Section 129(a)(5) of the Clean Air Act;

Milestone 2 – EPA publishes notice of its final agency action concerning the CO emission limit for Facility;

Milestone 3(a) - If EPA grants the request to increase the CO limit for the Facility, the Facility will comply with the new limit when EPA's final decision is published in the Federal Register;

Milestone 3(b) - If EPA does not grant the request to increase the CO limit for the Facility, a corrective actions plan will be submitted to the FDEP within 90 days after EPA's decision becomes final; and

Milestone 4 - If EPA does not grant the request to increase the CO limit for the Facility, the Facility will begin to implement the corrective actions plan within 30 days after the plan is approved by the FDEP.

The County and Montenay also will address these compliance issues in a consent order with the FDEP.

2. Dioxin-Furan Emissions (Emission Unit 001)

Deviations from Applicable Requirements

In Specific Condition B.34, the Facility's Title V air operation permit (No. 0250348-005-AV) requires annual testing for dioxins and furans to demonstrate that the Facility's emissions are equal to or less than 30 ng/dscm. Stack tests were conducted in April 2005, but they did not demonstrate compliance with the emissions limit.

Compliance Plan

Unit 1 will be retested to demonstrate compliance with the applicable emission limits for dioxin and furans. The new tests will be conducted within 45 days of the last test – i.e., testing will commence no later than June 1, 2005. The test results will be submitted to FDEP promptly after the tests are completed.

3. Other Deviations

Deviations from Applicable Requirements

There have been deviations at the Facility that will be addressed in a consent order with the FDEP, including the deviations discussed in Sections 1 and 2, above. The following deviations have been corrected already or they will be resolved in the near future in a consent order:

1. The Statement of Compliance for 2003 neglected to identify all of the prior items of non-compliance. This issue was described in an FDEP Warning Letter (WL04-003AS13SED) dated December 30, 2004. The Statement of Compliance for 2004 also did not identify all of the prior items of non-compliance.
2. The CO emissions from Unit 2 exceeded the applicable 24-hour emission limit (200 ppmdv @ 7% O2) on April 13, 2005. The incident was reported to the FDEP. The CO emissions subsequently

were reduced to the permitted limit, as demonstrated by the Facility's continuous monitoring data.

3. Between August 23, 2004 and October 19, 2004, the emissions from Unit 2 exceeded the 10% limit for opacity on several occasions. Repairs were made to the air pollution control device on Unit 2 to reduce the opacity emissions and restore compliance.

4. The 2003 stack tests indicated that the emissions from Unit 1 exceeded the applicable limits for hydrogen chloride and dioxin/furan, as described in the FDEP's Warning Letter (WL04-0018AS13SED) dated October 19, 2004. Since these test results were adversely affected by a malfunction of the lime slurry system for Unit 1, the lime slurry system for Unit 1was repaired and Unit 1 was retested. The new tests demonstrated compliance with the applicable emission limits.

5. During an inspection of the Facility on November 21, 2003, the FDEP observed a hole above a viewport and a recently repaired breach in the waterwall of Unit 3. These issues were described in FDEP's Warning Letter (WL04-0007AS13SED) dated February, 24, 2004. In its letter, the FDEP alleged that the emissions from Unit 3 had circumvented the Facility's air pollution control devices. The hole subsequently was repaired and, as noted in the Warning Letter, the breach was repaired before the FDEP inspection.

6. During the 2004 stack tests for Unit 1, four test runs were conducted for dioxin. One test sample was broken during shipping and a malfunction adversely affected another sample. Consequently, the Facility did not complete three valid test runs within a consecutive 5-day period, as required by Specific Condition B.69, and did not complete its 2004 tests on time. Since the tests were not completed in a timely manner, stack tests for dioxin were conducted in 2005.

7. During the 2004 stack tests for Unit 4, the results from the first run for dioxin were adversely affected by a malfunction, but the FDEP was not given timely notice of the malfunction. Notice subsequently was provided, but it was not timely.

Compliance Plan

The Facility and the FDEP will address all of these issues in a consent order. The Facility already has completed its corrective actions concerning these deviations, with one exception. The Facility will prepare a plan that identifies the preventative measures the Facility will undertake to minimize the potential for opacity exceedances in the future. The plan shall concisely describe the operating procedures that will be implemented when the Facility's opacity levels begin to increase above normal levels. This plan will be submitted to the FDEP in compliance with the requirements in the consent order.

ATTACHMENT #2

Unit #1

Duration of start-up & shutdown periods

		Time period	Date	Time	T,online - T, gas
Warm up	gas fire to boiler	t(n)			
	fuel feed to boiler	t(n+1)			
	steam flow at 70,000 lbs/hr	t(n+2)			
Shutdown	fuel feed to boiler discontinued	t(n)	2/22/2005	9:25	
	steam flow below 70,000	t(n+1)			
	steam flow at 0 lbs/hr	t(n+2)			
Warm up	gas fire to boiler	t(n)	2/22/2005	9:28	
	fuel feed to boiler	t(n+1)			
	steam flow at 70,000 lbs/hr	t(n+2)	2/22/2005	9:30	0:02
Shutdown	fuel feed to boiler discontinued	t(n)			
	steam flow below 70,000	t(n+1)	2/22/2005	11:10	
	steam flow at 0 lbs/hr	t(n+2)			
Warm up	gas fire to boiler	t(n)	2/27/2005	9:44	
	fuel feed to boiler	t(n+1)			
	steam flow at 70,000 lbs/hr	t(n+2)	2/27/2005	13:49	4:05
Shutdown	fuel feed to boiler discontinued	t(n)			
	steam flow below 70,000	t(n+1)	2/27/2005	17:42	
	steam flow at 0 lbs/hr	t(n+2)			
Warm up	gas fire to boiler	t(n)	2/27/2005	23:25	
	fuel feed to boiler	t(n+1)	2/27/2005	4:00	
	steam flow at 70,000 lbs/hr	t(n+2)	2/27/2005	4:48	5:23
Shutdown	fuel feed to boiler discontinued	t(n)			
	steam flow below 70,000	t(n+1)	2/28/2005	13:43	
	steam flow at 0 lbs/hr	t(n+2)			
Warm up	gas fire to boiler	t(n)			
	fuel feed to boiler	t(n+1)			
	steam flow at 70,000 lbs/hr	t(n+2)	2/28/2005	13:48	
Shutdown	fuel feed to boiler discontinued	t(n)			
	steam flow below 70,000	t(n+1)	3/1/2005	15:18	
	steam flow at 0 lbs/hr	t(n+2)			
Warm up	gas fire to boiler	t(n)			
	fuel feed to boiler	t(n+1)			
	steam flow at 70,000 lbs/hr	t(n+2)	3/1/2005	15:44	
Shutdown	fuel feed to boiler discontinued	t(n)			
	steam flow below 70,000	t(n+1)	3/1/2005	16:57	
	steam flow at 0 lbs/hr	t(n+2)			
Warm up	gas fire to boiler	t(n)			
	fuel feed to boiler	t(n+1)			
	steam flow at 70,000 lbs/hr	t(n+2)	3/1/2005	17:00	
Shutdown	fuel feed to boiler discontinued	t(n)			
	steam flow below 70,000	t(n+1)	3/3/2005	3:30	
	steam flow at 0 lbs/hr	t(n+2)			
Warm up	gas fire to boiler	t(n)			
	fuel feed to boiler	t(n+1)			
	steam flow at 70,000 lbs/hr	t(n+2)	3/3/2005	4:15	
Shutdown	fuel feed to boiler discontinued	t(n)			

Unit #1

Duration of start-up & shutdown periods

		Time period	Date	Time	T,online - T, gas
	steam flow below 70,000	t(n+1)	3/3/2005	8:13	
	steam flow at 0 lbs/hr	t(n+2)			
Warm up	gas fire to boiler	t(n)			
	fuel feed to boiler	t(n+1)			
	steam flow at 70,000 lbs/hr	t(n+2)	3/3/2005	8:22	
Shutdown	fuel feed to boiler discontinued	t(n)			
	steam flow below 70,000	t(n+1)	3/3/2005	8:43	
	steam flow at 0 lbs/hr	t(n+2)			
Warm up	gas fire to boiler	t(n)	3/6/2005	0:50	
	fuel feed to boiler	t(n+1)			
	steam flow at 70,000 lbs/hr	t(n+2)	3/6/2005	4:50	4:00
Shutdown	fuel feed to boiler discontinued	t(n)			
	steam flow below 70,000	t(n+1)	3/6/2005	10:10	
	steam flow at 0 lbs/hr	t(n+2)			
Warm up	gas fire to boiler	t(n)	3/6/2005	10:30	
	fuel feed to boiler	t(n+1)			
	steam flow at 70,000 lbs/hr	t(n+2)	3/6/2005	10:38	0:08
Shutdown	fuel feed to boiler discontinued	t(n)			
	steam flow below 70,000	t(n+1)	3/6/2005	10:42	
	steam flow at 0 lbs/hr	t(n+2)			
Warm up	gas fire to boiler	t(n)			
	fuel feed to boiler	t(n+1)			
	steam flow at 70,000 lbs/hr	t(n+2)	3/6/2005	10:46	
Shutdown	fuel feed to boiler discontinued	t(n)			
	steam flow below 70,000	t(n+1)	3/6/2005	14:37	
	steam flow at 0 lbs/hr	t(n+2)			
Warm up	gas fire to boiler	t(n)	3/6/2005	16:46	
	fuel feed to boiler	t(n+1)			
	steam flow at 70,000 lbs/hr	t(n+2)	3/6/2005	16:52	0:06
Shutdown	fuel feed to boiler discontinued	t(n)			
	steam flow below 70,000	t(n+1)	3/6/2005	18:29	
	steam flow at 0 lbs/hr	t(n+2)			
Warm up	gas fire to boiler	t(n)	3/6/2005	23:46	
	fuel feed to boiler	t(n+1)			
	steam flow at 70,000 lbs/hr	t(n+2)	3/6/2005	23:57	0:11
Shutdown	fuel feed to boiler discontinued	t(n)			
	steam flow below 70,000	t(n+1)	3/7/2005	3:51	
	steam flow at 0 lbs/hr	t(n+2)			
Warm up	gas fire to boiler	t(n)	3/7/2005	4:10	
	fuel feed to boiler	t(n+1)			
	steam flow at 70,000 lbs/hr	t(n+2)	3/7/2005	4:11	0:01
Shutdown	fuel feed to boiler discontinued	t(n)			
	steam flow below 70,000	t(n+1)	3/9/2005	0:03	
	steam flow at 0 lbs/hr	t(n+2)			
Warm up	gas fire to boiler	t(n)			
	fuel feed to boiler	t(n+1)			

Unit #1

Duration of start-up & shutdown periods

		Time period	Date	Time	T,online - T, gas
	steam flow at 70,000 lbs/hr	t(n+2)	3/9/2005	0:05	0:05
Shutdown	fuel feed to boiler discontinued	t(n)			
	steam flow below 70,000	t(n+1)	3/9/2005	23:33	
	steam flow at 0 lbs/hr	t(n+2)			
Warm up	gas fire to boiler	t(n)			
	fuel feed to boiler	t(n+1)			
	steam flow at 70,000 lbs/hr	t(n+2)	3/9/2005	23:49	
Shutdown	fuel feed to boiler discontinued	t(n)			
	steam flow below 70,000	t(n+1)	3/10/2005	7:00	
	steam flow at 0 lbs/hr	t(n+2)			
Warm up	gas fire to boiler	t(n)	3/12/2005	10:50	
	fuel feed to boiler	t(n+1)			
	steam flow at 70,000 lbs/hr	t(n+2)	3/12/2005	17:05	6:15
Shutdown	fuel feed to boiler discontinued	t(n)			
	steam flow below 70,000	t(n+1)	3/12/2005	18:58	
	steam flow at 0 lbs/hr	t(n+2)			
Warm up	gas fire to boiler	t(n)			
	fuel feed to boiler	t(n+1)			
	steam flow at 70,000 lbs/hr	t(n+2)	3/12/2005	19:01	
Shutdown	fuel feed to boiler discontinued	t(n)			
	steam flow below 70,000	t(n+1)	3/13/2005	16:50	
	steam flow at 0 lbs/hr	t(n+2)			
Warm up	gas fire to boiler	t(n)			
	fuel feed to boiler	t(n+1)			
	steam flow at 70,000 lbs/hr	t(n+2)	3/13/2005	17:16	
Shutdown	fuel feed to boiler discontinued	t(n)			
	steam flow below 70,000	t(n+1)	3/13/2005	17:30	
	steam flow at 0 lbs/hr	t(n+2)			

ATTACHMENT #3

MIC-EU1-IV2

Table 1 - CAM Applicability Determination for Miami-Dade County Resource Recovery Facility (revised 6-17-2005)

Emission Source	Title V EU ID	Add-On Control Equipment	Pollutants with Emission Limits	Uncontrolled Emission Rate[b] (TPY)	CAM Plan Required?	Comments
RDF Unit 1, 2, 3 and 4 (each)[a]	001-004	Spray Dryer Absorber	FL	2.1	No	Uncontrolled emissions <100 TPY
		Spray Dryer Absorber	SAM	24.9	No	Uncontrolled emissions <100 TPY
		Spray Dryer Absorber	SO_2	N/A	No	Subject to post-1990 NSPS emission limit (40 CFR 60, Subpart Cb)
		Spray Dryer Absorber	HCL	N/A	No	Subject to post-1990 NSPS emission limit (40 CFR 60, Subpart Cb)
		Activated Carbon	Hg	0.65	No	Uncontrolled emissions <100 TPY
		Activated Carbon	Dioxins/Furans	N/A	No	Subject to post-1990 NSPS emission limit (40 CFR 60, Subpart Cb)
		Fabric Filter Baghouse	PM	N/A	No	Subject to post-1990 NSPS emission limit (40 CFR 60, Subpart Cb)
		Fabric Filter Baghouse	PM_{10}	N/A	No	Subject to post-1990 NSPS emission limit (40 CFR 60, Subpart Cb)
		Fabric Filter Baghouse	Be	56.8	No	Uncontrolled emissions <100 TPY
		Fabric Filter Baghouse	As	0.70	No	Uncontrolled emissions <100 TPY
		Fabric Filter Baghouse	Cd	1.03	No	Uncontrolled emissions <100 TPY
		Fabric Filter Baghouse	Pb	23.77	No	Uncontrolled emissions <100 TPY
		SNCR	NO_x	N/A	No	Subject to post-1990 NSPS emission limit (40 CFR 60, Subpart Cb)
		Modified Burner Design	CO	N/A	No	Subject to post-1990 NSPS emission limit (40 CFR 60, Subpart Cb)
		No Control	VOC	N/A	No	No pollution control equipment.
Biomass Processing	-sss (EU007)	Baghouse	PM	1.5	No	Uncontrolled emissions <100 TPY
Ash Storage Silo	-ttt (EU008)	Baghouse	PM	N/A	No	No Emission Limit[c]
Activated Carbon Storage Silos (2	-vvv (EU010)	Baghouse (2)	PM	N/A	No	No Emission Limit[c]

Notes:

[a] Emission rates presented per unit.

[b] Refer to Emission Rate Tables 2, 3, 4, 5, and 6 for uncontrolled emission rate calculations.

[c] Permit presents option of PM limit or VE limit. Facility demonstrates compliance with VE limit.

MIC-EU1-IV2

Table 2 - Summary of Uncontrolled Fluoride Emission Rates for Sources Potentially Applicable to the CAM Plan Requirements.

			Uncontrolled Fluoride Emissions		
Emission Source	Title V EU ID	Production/ Process Rate[a]	Uncontrolled Emission Factor (lb/ton)	Ref.	Emission Rate[b] (TPY)
RDF Unit 1	001	648 ton/day	0.018	1	2.1
RDF Unit 2	002	648 ton/day	0.018	1	2.1
RDF Unit 3	003	648 ton/day	0.018	1	2.1
RDF Unit 4	004	648 ton/day	0.018	1	2.1

1. Locating and Estimating Air Toxics Emissions from MSW Combustors, April 1989. EPA-450/2-89-006, Table 4-4, English units, Mass Burn Waterwall MSW Combustors. Emission factor presented for HF, assumed Total Fluorides are predominantly HF.

Notes:

[a] Based on Title V permit limit of operation

[b] Based on 365 days of operation

MIC-EU1-IV2

Table 3 - Summary of Uncontrolled SAM Emission Rates for Sources Potentially Applicable to the CAM Plan Requirements.

			Uncontrolled SAM Emissions				
Emission Source	Title V EU ID	Production/ Process Rate[a]	SO2 Emission Factor	Ref.	SAM Emission Factor	Ref.	Emission Rate (TPY)
RDF Unit 1	001	648 ton/day	3.90 lb/ton RDF	1	0.21 lb/ton RDF	2	24.86
RDF Unit 2	002	648 ton/day	3.90 lb/ton RDF	1	0.21 lb/ton RDF	2	24.86
RDF Unit 3	003	648 ton/day	3.90 lb/ton RDF	1	0.21 lb/ton RDF	2	24.86
RDF Unit 4	004	648 ton/day	3.90 lb/ton RDF	1	0.21 lb/ton RDF	2	24.86

1. Based on AP-42 Table 2.1-8, Uncontrolled Emission Factor for Refuse Combustion for SO2 (10/96).
2. Converted SO2 emission factor to SAM: 4.4% x EF SO2 x 98/80
4.4%SO2=SO3 Mol Wt. SO3=80 Mol Wt. H2SO4=98

Notes:
RDF-Refuse Derived Fuel
[a] Based on Title V permit limit of operation

MIC-EU1-IV2

Table 4 - Summary of Uncontrolled Be Emission Rates for Sources Potentially Applicable to the CAM Plan Requirements.

			Uncontrolled Be Emissions		
Emission Source	Title V EU ID	Production/ Process Rate[a]	Uncontrolled Emission Factor (lb/ton)	Ref.	Emission Rate[b] (TPY)
RDF Unit 1	001	648 ton/day	0.48	1	56.8
RDF Unit 2	002	648 ton/day	0.48	1	56.8
RDF Unit 3	003	648 ton/day	0.48	1	56.8
RDF Unit 4	004	648 ton/day	0.48	1	56.8

1. Locating and Estimating Air Toxics Emissions from MSW Combustors, April 1989. EPA-450/2-89-006, Table 4-4, English units, Mass Burn Waterwall MSW Combustors.

Notes:

[a] Based on Title V permit limit of operation

[b] Based on 365 days of operation

Table 5 - Summary of Uncontrolled As Emission Rates for Sources Potentially Applicable to the CAM Plan Requirements.

			Uncontrolled As Emissions		
Emission Source	Title V EU ID	Production/ Process Rate[a]	Emission Factor	Ref.	Emission Rate (TPY)
RDF Unit 1	001	648 ton/day	0.00594 lb/ton RDF	1	0.70
RDF Unit 2	002	648 ton/day	0.00594 lb/ton RDF	1	0.70
RDF Unit 3	003	648 ton/day	0.00594 lb/ton RDF	1	0.70
RDF Unit 4	004	648 ton/day	0.00594 lb/ton RDF	1	0.70

1. Based on AP-42 Table 2.1-8, Uncontrolled Emission Factor for Refuse Combustion (10/96).

Notes:
RDF-Refuse Derived Fuel

[a] Based on Title V permit limit of operation

MIC-EU1-IV2

Table 7 - Summary of Uncontrolled Pb Emission Rates for Sources Potentially Applicable to the CAM Plan Requirements.

			Uncontrolled Pb Emissions		
Emission Source	Title V EU ID	Production/ Process Rate[a]	Emission Factor	Ref.	Emission Rate (TPY)
RDF Unit 1	001	648 ton/day	0.201 lb/ton RDF	1	23.77
RDF Unit 2	002	648 ton/day	0.201 lb/ton RDF	1	23.77
RDF Unit 3	003	648 ton/day	0.201 lb/ton RDF	1	23.77
RDF Unit 4	004	648 ton/day	0.201 lb/ton RDF	1	23.77

1. Based on AP-42 Table 2.1-8, Uncontrolled Emission Factors for Refuse Combustion (10/96).

Notes:
RDF-Refuse Derived Fuel

MIC-EU1-IV2

Table 8 - Summary of Uncontrolled Hg Emission Rates for Sources Potentially Applicable to the CAM Plan Requirements.

			Uncontrolled Hg Emissions		
Emission Source	Title V EU ID	Production/ Process Rate[a]	Emission Factor	Ref.	Emission Rate (TPY)
RDF Unit 1	001	648 ton/day	0.0055 lb/ton RDF	1	0.65
RDF Unit 2	002	648 ton/day	0.0055 lb/ton RDF	1	0.65
RDF Unit 3	003	648 ton/day	0.0055 lb/ton RDF	1	0.65
RDF Unit 4	004	648 ton/day	0.0055 lb/ton RDF	1	0.65

1. Based on AP-42 Table 2.1-8, Uncontrolled Emission Factors for Refuse Combustion (10/96).

Notes:
RDF-Refuse Derived Fuel
[a] Based on Title V permit limit of operation

MIC-EU1-IV2

Table 9. Summary of Uncontrolled Cd Emission Rates for Sources Potentially Applicable to the CAM Plan Requirements.

			Uncontrolled Cd Emissions		
Emission Source	Title V EU ID	Production/ Process Rate[a]	Emission Factor	Ref.	Emission Rate (TPY)
RDF Unit 1	001	648 ton/day	0.00875 lb/ton RDF	1	1.03
RDF Unit 2	002	648 ton/day	0.00875 lb/ton RDF	1	1.03
RDF Unit 3	003	648 ton/day	0.00875 lb/ton RDF	1	1.03
RDF Unit 4	004	648 ton/day	0.00875 lb/ton RDF	1	1.03

1. Based on AP-42 Table 2.1-8, Uncontrolled Emission Factor for Refuse Combustion (10/96).

Notes:
RDF-Refuse Derived Fuel
[a] Based on Title V permit limit of operation

Table A. Compariosn of Permitted Emiission Limits vs. Subpart Cb Emission Limits, Miami-Dade County Resource Recovery

Regulated Pollutant	Basis of Permitted Emission Limit	Permitted Emission Limit (at 7% O_2)	40 CFR 60 Subpart Cb Emisison Limit (at 7% O_2)	Permit Limit Different Than Subpart Cb ?
Particulate Matter (TSP)	PSD-FL-006(D)	0.011 gr/dscf	0.0118 gr/dscf	Yes
Particulate Matter (PM_{10})	PSD-FL-006(D)	0.011 gr/dscf	N/A	Yes
Sulfur Dioxide	40 CFR 60, Subpart Cb	75 % reduction [a]	75 % reduction [a]	No
Hydrogen Chloride	40 CFR 60, Subpart Cb	29 ppmvd [b]	29 ppmvd [b]	No
Nitrogen Oxides	40 CFR 60, Subpart Cb	250 ppmvd	250 ppmvd	No
Carbon Monoxide	40 CFR 60, Subpart Cb	200 ppmvd	200 ppmvd	No
Volatile Organic Compounds	PSD-FL-006(D)	25 ppmvd (as CH_4)	N/A	Yes
Lead	PSD-FL-006(D)	380 ug/dscm	440 ug/dscm	Yes
Mercury	F.A.C. Rule 62-296.416	0.070 mg/dscm [c]	0.080 mg/dscm [c]	Yes
Beryllium	PSD-FL-006(D)	0.46 ug/m^3	N/A ug/m^3	Yes
Cadmium	PSD-FL-006(D)	15 ug/dscm	40 ug/dscm	Yes
Arsenic	PSD-FL-006(D)	9.3 ug/dscm	N/A ug/dscm	Yes
Fluorides	PSD-FL-006(D)	840 ug/dscm	N/A ug/dscm	Yes
Sulfuric Acid Mist	PSD-FL-006(D)	2.1 ppmvd	N/A ppmvd	Yes
Dioxin/Furan [d]	40 CFR 60, Subpart Cb	30 ng/dscm	30 ng/dscm	No

Notes:

gr/dscf = grains per dry standard cubic foot.

ppmvd = parts per million by volume dry.

mg/dscm = milligrams per dry standard cubic meter.

$\mu g/m^3$ = micrograms per actual cubic meter.

ng/dscm = nanograms per dry standard cubic meter

Footnotes:

[a] Permit no. PSD-FL-006(D) and CFR 40 60.33b(b)(3)(i) allows an SO_2 concentration in the flue gas discharged to the atmosphere of 29 ppmvd @ 7% O_2 or a 75% reduction in weight or volume (whichever is less stringent). The 75% reduction is less stringent.

[b] Permit no. PSD-FL-006(D) and CFR 40 60.33b(b)(3)(ii) allows an HCl concentration in the flue gas discharged to the atmosphere of 29 ppmvd @ 7% O_2 or a 95% reduction in weight or volume (whichever is less stringent). The 29 ppmvd is less stringent.

[c] Permit no. PSD-FL-006(D) allows a mercury concentration in the flue gas discharged to the atmosphere of 0.070 mg/dscm @ 7% O_2 or an 85% reduction by weight. CFR 40 60.33b(a)(3) allows an Hg concentration in the flue gas discharged to the atmosphere of 0.080 mg/dscm @ 7% O_2 or a 85% reduction in weight or volume (whichever is less stringent).

[d] As total tetra- through octa-dioxins/furans.