



November 30, 2011

RECEIVE 113-87556

DIVISION OF AIR RESOURCE MANAGEMENT

Mr. Yousry Attalla Florida Department of Environmental Protection Division of Air Resource Management 2600 Blair Stone Road, MS 5500 Tallahassee, Florida 32399-2400

TITLE V RENEWAL APPLICATION FOR MIAMI-DADE COUNTY RESOURCES RECOVERY FACILITY (FACILITY ID 0250348) project NO! G250348-OIL-AC

Dear Mr. Attalla:

On October 13, 2011, Golder Associates Inc. (Golder) submitted an application to renew the Title V air operating permit for the Miami-Dade County Resources Recovery Facility (MDCRRF) located in Miami, Miami-Dade County, Florida. This application contained a list of requested changes to the Title V permit. some of which will require an air construction permit in order to implement. Attached to this letter is the amended application page identifying the application as a concurrent Title V / air construction permit application. Revised Responsible Official and Professional Engineer certification pages are also attached.

Additionally, you requested that a comparison be performed of the historical air emissions of the four refuse derived combustors at the MDCRRF to the current Title V maximum annual emission limits. The attached table shows the annual emissions for metals, dioxins/furans, fluorides, hydrogen chloride (HCI). and sulfuric acid mist reported in the Annual Operating Reports (AORs) for the period 2000 to 2010. The annual emissions are also presented as a percentage of the permit allowable emissions limits. As shown. during the most recent 5-year period (2006 to 2010), the maximum actual annual emissions for all emissions except HCl are less than 30 percent of the annual emissions limits. The maximum actual annual HCl emissions are less than 50 percent of the annual emission limit. The table also shows that the average actual annual emissions for many pollutants for the most recent 5-year period are below 10 percent of the maximum permitted emission rates.

Please call us at (352) 336-5600 with any questions that you may have. We appreciate your understanding in this matter.

Sincerely,

GOLDER ASSOCIATES INC.

David A. Buff, P.E., Q.E.P. Principal Engineer

Charles Schultz, MDCRRF Al Linero, FDEP

**Enclosures** 

PC/tz

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Golder Associates Inc. 6026 NW 1st Place Gainesville FL 32607 USA

Senior Project Engineer

Tel: (352) 336-5600 Fax: (352) 336-6603 www.golder.com

Golder Associates: Operations in Africa, Asia, Australasia, Europe, North America and South America

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# APPLICATION INFORMATION

# Purpose of Application

This application for air permit is being submitted to obtain: (Check one)	
Air Construction Permit  Air construction permit.	*
<ul> <li>☐ Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.</li> </ul>	
Air Operation Permit	
☐ Initial Title V air operation permit.	
☐ Title V air operation permit revision.	
☐ Title V air operation permit renewal.	
☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.	
☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.	
Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)	
☐ Air construction permit and Title V permit revision, incorporating the proposed project.	
Air construction permit and Title V permit renewal, incorporating the proposed project.	
Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:	
☑ I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the	
processing time frames of the Title V air operation permit.	
Application Comment	
The purpose of this application is to renew the facility's Title V Air Operating Permit No. 0250348-009-AV and concurrently apply for an air construction permit in order to make the requested changes to the current Title V permit.	

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DEP Form No. 62-210.900(1) – Form Effective: 03/11/2010

#### APPLICATION INFORMATION

#### **Application Responsible Official Certification**

Complete if applying for an initial, revised, or renewal Title V air operation permit or concurrent processing of an air construction permit and revised or renewal Title V air operation permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

Application Responsible Official Name:     Thomas C. Eriksen, Facility Manager
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable):
For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.
<ul> <li>□ For a partnership or sole proprietorship, a general partner or the proprietor, respectively.</li> <li>□ For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.</li> </ul>
☐ The designated representative at an Acid Rain source or CAIR source.
Application Contact Mailing Address     Organization/Firm: Covanta Dade Renewable Energy Ltd.
Street Address: 6990 N.W. 97th Avenue
City: Miami State: FL Zip Code: 33178
4. Application Contact Telephone Numbers
Telephone: (305) 593-7000 ext. Fax: (305) 593-7274
5. Application Responsible Official E-mail Address: teriksen@covantaenergy.com
6. Application Responsible Official Certification:
I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. 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 and all other applicable requirements identified in this application to which the Title V source is subject. 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 the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.
1. Tue 11/17/11

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Signature

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Date

# APPLICATION INFORMATION

### **Professional Engineer Certification**

1	D.C.: 1E.: N
1.	Professional Engineer Name: Philip D. Cobb
	Registration Number: 72386
2.	Professional Engineer Mailing Address
	Organization/Firm: Golder Associates Inc.**
	Street Address: 6026 NW 1st Place
	City: Gainesville State: FL Zip Code: 32607
3.	Professional Engineer Telephone Numbers
	Telephone: (352) 336-5600 ext. Fax: (352) 336-6603
4.	Professional Engineer E-mail Address: pcobb@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 $\square$ , 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 $\square$ , 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 $\square$ , 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.
	Phys Coll 11/30/2011
)	Signature Date
	(seal)

DEP Form No. 62-210.900(1) - Form Y:\Projects\2011\113-87556 MDCRRF (Covanta) TVRen\Corres\113011\MIC-FI.docx Effective: 03/11/2010 6

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<sup>\*</sup> Attach any exception to certification statement.

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

Table 1. Annual Emissions (2000 - 2010) from Annual Operating Reports Compared to Maximum Permitted Annual Emission Rates for RDF Combustors, Miami-Dade Resources Recovery Facilit

	Dioxins / Furans Fluorides			rides	Arsenic Beryllium				Cadn	nium	н	CI	Merc	curv	Le	ad		ΔM
1	Emissions	% of	Emissions					Emissions	% of	Emissions	% of	Emissions	% of	Emissions	% of	SAM Emissions % of		
Year / Unit	(TPY)	Limit	(TPY)	Limit	(TPY)	Limit	(TPY)	Limit	(TPY)	Limit	(TPY)	Limit	(TPY)	Limit	(TPY)	Limit	(TPY)	Limit
mission Limits - Each Unit	3.80E-05	TPY	9.70E-01	TPV	1 10E.02	DE-02 TPY 5.00E-0		5.00E-04 TPY		2.70E-02 TPY		57.1 TPY		0.005.00.751/			0.00.7704	
	0.002.00		3.700-01		1.102-02	(F)	3.00E-04	111	2.70E-02	IPT	57.1	IPY	8.00E-02 TPY		4.40E-01	IPY	9.80 TPY	
000 Calendar Year Unit 1	3.27E-07	0.86%	3.69E-01	38.04%	1 105 03	0.000/	2055.04	F7 000/	7.007.04	0.000/					1		1	
Unit 2	4.22E-07	1.11%	1.50E-01	15.43%	1.10E-03 1.20E-03	9.96% 10.89%	2.85E-04 2.93E-04	57.00%	7.63E-04	2.83%	1.44	2.52%	2.13E-03	2.67%	2.02E-02	4.60%	1.23	12.55
Unit 3	6.79E-08	0.18%	1.94E-01	20.01%	1.10E-03	9.98%	2.18E-04	58.60% 43.60%	2.28E-03	8.43%	4.42	7.74%	2.27E-03	2.84%	2.27E-03	0.52%	5.92	60.37
- Unit 4	3.37E-07	0.89%	8.74E-02	9.01%	1.23E-03	11.15%	2.62E-04	52.40%	6.26E-04 6.46E-04	2.32% 2.39%	1.17	2.05%	8.67E-04	1.08%	1.51E-03	0.34%	3.65	37.22
Total	1.15E-06	0.76%	8.00E-01	20.62%	4.62E-03	10.50%	1.06E-03	52.90%	4.31E-03	3.99%	4.00 11.03	7.00% 4.83%	1.45E-03	1.81%	7.90E-03	1.79%	3.66	37.39
01 Calendar Year			0.002.01	20.0270	4.022-00	10.0070	7.002-03	32.3076	4.37E-03	3.3376	11.03	4.03%	6.73E-03	2.10%	3.19E-02	1.81%	14.46	36.8
Unit 1	9.00E-06	23.68%	6.15E-02	6.34%	8.47E-04	7.70%	1.23E-04	24.60%	2.40E-04	0.89%	2.79	4.88%	1.29E-03	1.61%	1.38E-03	0.31%	2.64	26.9
Unit 2	1.60E-05	42.11%	8.09E-02	8.34%	1.38E-03	12.51%	1.39E-04	27.80%	2.69E-04	1.00%	12.39	21.69%	2.89E-03	3.61%	9.71E-04	0.22%	1.62	16.5
Unit 3	1.00E-05	26.32%	6.30E-02	6.50%	1.26E-03	11.43%	1.26E-04	25.20%	3.32E-04	1.23%	4.38	7.66%	8.05E-04	1.01%	1.88E-03	0.43%	1.34	13.6
Unit 4	4.00E-06	10.53%	3.80E-02	3.92%	8.50E-04	7.73%	1.21E-04	24.20%	8.67E-04	3.21%	4.22	7.38%	2.13E-03	2.66%	7.15E-03	1.63%	1.24	12.7
- Total	3.90E-05	25.66%	2.44E-01	6.28%	4.33E-03	9.84%	5.09E-04	25.45%	1.71E-03	1.58%	23.76	10.40%	7.10E-03	2.22%	1.14E-02	0.65%	6.84	17.48
002 Calendar Year																		59
- Unit 1	2.00E-06	5.26%	6.04E-02	6.22%	1.23E-03	11.16%	1.24E-04	24.80%	3.87E-04	1.43%	10.40	18.22%	1.78E-03	2.22%	2.54E-03	0.58%	2.59	26.44
- Unit 2	2.00E-06	5.26%	7.79E-02	8.03%	1.19E-03	10.84%	1.20E-04	24.00%	5.79E-04	2.14%	22.32	39.09%	1.23E-03	1.53%	8.64E-04	0.20%	1.56	15.90
- Unit 3	1.00E-06	2.63%	6.15E-02	6.34%	1.34E-03	12.16%	1.35E-04	27.00%	4.38E-04	1.62%	9.29	16.28%	1.95E-03	2.43%	1.22E-03	0.28%	1.30	13.28
- Unit 4	2.00E-06	5.26%	4.16E-02	4.28%	1.30E-03	11.85%	1.31E-04	26.20%	3.69E-04	1.37%	13.30	23.29%	1.36E-03	1.71%	1.39E-03	0.32%	1.36	13,88
- Total	7.00E-06	4.61%	2.41E-01	6.22%	5.06E-03	11.50%	5.10E-04	25.50%	1.77E-03	1.64%	55.32	24.22%	6.31E-03	1.97%	6.01E-03	0.34%	6.81	17.38
2003 Calendar Year	2 405 05	90 4704	0.005.00	0.0524	44455	10.0==:				u genn	,	\$1.000000 - 0.00FFFF-40000	000000000000000000000000000000000000000	20 10324600 10				
- Unit 1 - Unit 2	3.40E-05 6.00E-06	89.47%	6.06E-02	6.25%	1.11E-03	10.07%	2.44E-04	48.80%	4.03E-04	1.49%	41.87	73.33%	4.06E-07	0.00%	6.91E-03	1:57%	2.60	26.54
- Unit 3	1.10E-05	15.79% 28.95%	7.07E-02 5.87E-02	7.29% 6.06%	1.04E-03	9.48%	2.09E-04	41.80%	6.30E-04	2.33%	18.21	31.89%	2.05E-03	2.56%	3.32E-03	0.76%	1.41	14.44
- Unit 4	1.40E-05	36.84%	3.78E-02		1.18E-03	10.75%	2.37E-04	47.40%	3.06E-04	1.13%	19.87	34.80%	2.54E-03	3.18%	3.91E-03	0.89%	1.24	12.69
- Total	6.50E-05	42.76%	2.28E-01	3,90% 5.87%	1.08E-03	9.85%	2.43E-04	48.60%	7.53E-04	2.79%	27.28	47.77%	3.20E-03	4.00%	2.90E-02	6.60%	1.24	12.64
004 Calendar Year	0.002-00	42.7070	2.202-07	3.0776	4.42E-03	10.04%	9.33E-04	46.65%	2.09E-03	1.94%	107.23	46.95%	7.79E-03	2.44%	4.32E-02	2.45%	6.50	16.58
- Unit 1	2.60E-05	68.42%	6.59E-02	6.79%	1.08E-03	9.80%	1.22E-04	24.40%	5.55E-04	2.06%	10.05	20.070/	0.005.00	2.200/	7 705 00	4 7504	0.50	05.00
- Unit 2	8.00E-06	21.05%	7.79E-02	8.03%	1.06E-03	9.60%	1.32E-04	26.40%	1.54E-03	2.06% 5.70%	18.65	32.67%	2.66E-03	3.32%	7.70E-03	1.75%	2.53	25.83
- Unit 3	2.80E-05	73.68%	6.29E-02	6.48%	1.13E-03	10.29%	1.08E-04	21.60%	1.55E-03	5.75%	20.41 13.94	35.74%	4.80E-03	6.00%	3.68E-02	8.36%	1.43	14.62
- Unit 4	2.10E-05	55.26%	6.14E-02	6.33%	1.07E-03	9.76%	3.24E-04	64.83%	3.24E-03	12.00%	25.36	24.40% 44.41%	2.55E-03 2.30E-05	3.19% 0.03%	3.91E-02	8.88%	1.19	12.16
- Total	8.30E-05	54.61%	2.68E-01	6.91%	4.34E-03	9.86%	6.86E-04	34.31%	6.89E-03	6.38%	78.35	34.31%	1.00E-02	· 3.14%	1.07E-01	24.32% 10.83%	1.23 6.38	12.52
005 Calendar Year						0.0070	0.002-04	04.0770	0.052-05	0.3076	70.55	34.3176	1.00E-02	3.1470	1.91E-01	10.03%	0.36	16.28
- Unit 1	1.00E-05	26.32%	5.91E-02	6.09%	9.68E-04	8.80%	8.60E-05	17.20%	2.68E-04	0.99%	19.44	34.05%	9.77E-04	1.22%	4.54E-03	1.03%	2.27	23.17
- Unit 2	8.00E-06	21.05%	7.47E-02	7.70%	1.01E-03	9.20%	9.80E-05	19.60%	1.57E-04	0.58%	20.31	35.57%	1.67E-03	2.09%	1.54E-03	0.35%	1.37	14.02
- Unit 3	1.00E-05	26.32%	6.09E-02	6.27%	1.10E-03	9.95%	8.80E-05	17.60%	3.30E-07	0.00%	31.74	55.59%	1.28E-03	1.61%	2,49E-03	0.57%	1.15	11.77
- Unit 4	1.40E-05	36.84%	6.01E-02	6.20%	1.05E-03	9.56%	1.00E-04	20.00%	6.91E-04	2.56%	29.32	51.35%	4.11E-03	5.14%	2,41E-02	5.47%	1.20	12.27
- Total	4.20E-05	27.63%	2.55E-01	6.57%	4.13E-03	9.38%	3.72E-04	18.60%	1.12E-03	1.03%	100.81	44.14%	8.04E-03	2.51%	3.26E-02	1.85%	6.00	15.31
2006 Calendar Year			ı															
- Unit 1	2.00E-06	5.26%	6.96E-02	7.18%	1.14E-03	10.36%	1.28E-04	25.60%	5.46E-04	2.02%	10.48	18.36%	2.60E-03	3.25%	1.12E-02	2.54%	2.68	27.30
- Unit 2	4.00E-06	10.53%	8.85E-02	9.12%	1.20E-03	10.90%	1.19E-04	23.80%	2.41E-04	0.89%	12.91	22.62%	2.52E-03	3.15%	5.59E-03	1.27%	1.63	16.61
- Unit 3	6,00E-06	15.79%	7.12E-02	7.34%	1.28E-03	11.65%	1.32E-04	26.40%	2.03E-04	0.75%	28.59	50.06%	2.15E-03	2.69%	1.86E-02	4.23%	1.35	13.76
- Unit 4	4.00E-06	10.53%	6.56E-02	6.77%	1.15E-03	10.45%	1.29E-04	25.80%	2.59E-04	0.96%	24.80	43.43%	3.47E-03	4.34%	3.03E-03	0.69%	1.31	13.40
- Total	1.60E-05	10.53%	2.95E-01	7.60%	4.77E-03	10.84%	5.08E-04	25.40%	1.25E-03	1.16%	76.78	33.62%	1.07E-02	3.36%	3.84E-02	2.18%	6.96	17.77
007 Calendar Year	0.005.00	04.0504																
- Unit 1 - Unit 2	8.00E-06	21.05%	7.24E-02	7.47%	1.19E-03	10.78%	1.33E-04	26.60%	4.50E-04	1.67%	10.90	19.09%	2.12E-03	2.65%	5.53E-03	1.26%	2.78	28.40
- Unit 2 - Unit 3	6.00E-06 1.10E-05	15.79%	9.23E-02	9.51%	1.25E-03	11.37%	1.24E-04	24.80%	3.30E-04	1.22%	20,30	35.56%	1.89E-03	2.36%	6.28E-03	1.43%	1.70	17.33
- Unit 4	1.10E-05 1.20E-05	28.95%	6.78E-02	6.99%	1.22E-03	11.09%	1.26E-04	25.20%	1.06E-03	3.94%	24.87	43.55%	1.94E-03	2.42%	3.57E-02	8.11%	1.28	13.11
- Onii 4 - Total	3.70E-05	31.58% <b>24.34%</b>	6.68E-02	6.88%	1.17E-03	10.62%	1.31E-04	26.20%	8.46E-04	3.13%	8.72	15.27%	1.74E-03	2.18%	1.62E-02	3.69%	1.34	13.63
008 Calendar Year	3.702-03	47.34/0	2.99E-01	7.71%	4.83E-03	10.97%	5.14E-04	25.70%	2.69E-03	2.49%	64.79	28.37%	7.69E-03	2.40%	6.37E-02	3.62%	7.10	18.11
- Unit 1	9.00E-06	23.68%	7.28E-02	7.51%	1.19E-03	10 949/	1 225 04	26 60%	4.505.04	4.0704	40.00	40.0004	0.457.55	0.0001		4.00**	p 22	
- Unit 2	6.00E-06	15.79%	9.29E-02	7.51% 9.58%	1.19E-03 1.26E-03	10.84% 11.45%	1.33E-04	26.60%	4.52E-04	1.67%	10.96	19.20%	2.13E-03	2.66%	5.56E-03	1.26%	2.80	28.56
· Unit 3	1.20E-05	31.58%	7.12E-02	7.34%	1.28E-03	11.65%	1.25E-04 1.32E-04	25.00%	3.32E-04	1.23%	20.44	35,79%	1.90E-03	2.37%	6.32E-03	1.44%	1.71	17.44
- Unit 4	1.20E-05	31.58%	6.49E-02	6.69%	1.14E-03	10.33%	1.32E-04 1.28E-04	26.40% 25.60%	1.12E-03 8.22E-04	4.13%	26.11	45.72%	2.03E-03	2.54%	3.75E-02	8.51%	1.35	13.76
Total	3.90E-05	25.66%	3.02E-01	7.78%	4.87E-03	11.07%	5.18E-04	25.60% 25.90%	8.22E-04 2.72E-03	3.04% 2.52%	8.48	14.84%	1.70E-03	2.12%	1.58E-02	3.59%	1.30	13.25
009 Calendar Year			5.022		4.07 L-03	11.07/0	J. 10E-04	20.3070	2.72E-03	2.0276	65.98	28.89%	7.76E-03	2.42%	6.51E-02	3.70%	7.15	18.25
Unit 1	5.00E-06	13.16%	6.84E-02	7.05%	1.12E-03	10.18%	1.25E-04	25.00%	2.20E-04	0.81%	22.02	38,58%	2 425 02	2 0 4 9 7	E 705 00	4.2004	0.00	00.00
Unit 2	3.00E-06	7.89%	8.92E-02	9.19%	1.21E-03	10.19%	1.20E-04	24.00%	2.20E-04 2.17E-04	0.81%	22.03 29.50		2.43E-03	3.04%	5.72E-03	1.30%	2.63	26.82
Unit 3	2.00E-06	5.26%	6.65E-02	6.85%	1.20E-03	10.88%	1.23E-04	24.60%	6.10E-05	0.80%	29.50	51.65%	2.17E-03	2.71%	1.68E-03	0.38%	1.64	16.74
Unit 4	6.00E-06	15.79%	6.33E-02	6.53%	1.11E-03	10.07%	1.25E-04 1.25E-04	25.00%	6.10E-05 6.20E-05	0.23%	30.77	50.06%	2.54E-03	3.18%	1.95E-03	0.44%	1.26	12.85
Total	1.60E-05	10.53%	2.87E-01	7.41%	4.63E-03	10.53%	4.93E-04	24.65%	5.60E-04	0.52%	110.89	53.89% <b>48.55</b> %	2.52E-03	3.15%	1.21E-03	0.27%	1.27	12.92
010 Calendar Year						. 0.3070	7.50L-U4	AT.0070	0.002-04	0.3270	110.89	40.33%	9.66E-03	3.02%	1.06E-02	0.60%	6.79	17.33
- Unit 1	1.00E-06	2.63%	6.83E-02	7.05%	1.12E-03	10.17%	1.25E-04	25.00%	2.10E-04	0.78%	5.29	9.26%	2.12E-03	2 6 4 9 4	4 ESE 03	1.030/	2.62	06.70
Unit 2	3.00E-06	7.89%	8.52E-02	8.78%	1.16E-03	10.50%	1.14E-04	22.80%	8.79E-04	3.26%	9.88	17.31%		2.64%	4.53E-03	1.03%	2.63	26.79
Unit 3	9.00E-06	23.68%	7.19E-02	7.41%	1.29E-03	11.76%	1.33E-04	26.60%	2.29E-04	0.85%	11.99	21.00%	2.84E-03	3.55%	1.82E-03	0.41%	1.57	15.99
Unit 4	9.00E-06	23.68%	6.52E-02	6.72%	1.14E-03	10.37%	1.28E-04	25.60%	7.28E-04	2.70%	8.77	15.35%	1.71E-03	2.14%	5.68E-03	1.29%	1.36	13.90
- Total	2.20E-05	14.47%	2.91E-01	7.49%	4.71E-03	10.70%	5.00E-04	25.00%	2.05E-03	1.89%	35.93	15.35%	2.39E-03 9.06E-03	2.99% 2.83%	4.60E-03 1.66E-02	1.05% 0.94%	1.30 6.86	13.31



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Table 1. Annual Emissions (2000 - 2010) from Annual Operating Reports Compared to Maximum Permitted Annual Emission Rates for RDF Combustors, Miami-Dade Resources Recovery Facility

	Dioxins	Dioxins / Furans		Fluorides		Arsenic		Beryllium		ium	н	CI	Mercury		Lead		S	AM
	Emissions	% of	Emissions	% of	Emissions	% of	Emissions	% of	Emissions	% of	Emissions	% of	Emissions	% of	Emissions	% of	Emissions	% of
Year / Unit	(TPY)	Limit	(TPY)	Limit	(TPY)	Limit	(TPY)	Limit	(TPY)	Limit	(TPY)	Limit	(TPY)	Limit	(TPY)	Limit	(TPY)	Limit
Emission Limits								10 00 00 00 00 00 00 00 00 00 00 00 00 0						- 10 Mar - 00				
- Each Unit	3.80E-05	TPY	9.70E-01	TPY	1.10E-02	TPY	5.00E-04 TPY		2.70E-02 TPY		57.1 TPY		8.00E-02 TPY		4.40E-01 TPY		9.80 TPY	
Maximum Annual Emi	ssions (2000 - 2010)			2000 Million 1924 200												201100		
- Unit 1	3.40E-05	89.47%	3.69E-01	38.04%	1.23E-03	11.16%	2.85E-04	57.00%	7.63E-04	2.83%	41.87	73.33%	2.66E-03	3.32%	2.02E-02	4.60%	2.80	28.56%
- Unit 2	1.60E-05	42.11%	1.50E-01	15.43%	1.38E-03	12.51%	2.93E-04	58.60%	2.28E-03	8.43%	29.50	51.65%	4.80E-03	6.00%	3.68E-02	8.36%	5.92	60.37%
- Unit 3	2.80E-05	73.68%	1.94E-01	20.01%	1.34E-03	12.16%	2.37E-04	47.40%	1.55E-03	5.75%	31.74	55.59%	2.55E-03	3.19%	3.91E-02	8.88%	3.65	37.22%
- Unit 4	2.10E-05	55.26%	8.74E-02	9.01%	1.30E-03	11.85%	3.24E-04	64.83%	3.24E-03	12.00%	30.77	53.89%	4.11E-03	5.14%	1.07E-01	24.32%	3.66	37.39%
- Total	8.30E-05	54.61%	8.00E-01	20.62%	5.06E-03	11.50%	1.06E-03	52.90%	6.89E-03	6.38%	110.89	48.55%	1.07E-02	3.36%	1.91E-01	10.83%	14.46	36.88%
Average Annual Emiss	sions (2000 - 2010)														1			
- Unit 1	9.67E-06	25.44%	9.35E-02	9.64%	1.10E-03	9.99%	1.48E-04	29.60%	4.09E-04	1.51%	14.02	24.56%	1.84E-03	2.30%	6.89E-03	1.57%	2.49	25.40%
- Unit 2	5.67E-06	14.93%	8.91E-02	9.18%	1.18E-03	10.70%	1.45E-04	28.96%	6.77E-04	2.51%	17.37	30.42%	2.38E-03	2.98%	6.13E-03	1.39%	1.96	20.00%
- Unit 3	9.10E-06	23.94%	7.72E-02	7.96%	1.22E-03	11.05%	1.42E-04	28.33%	5.39E-04	2.00%	18.23	31.93%	1.85E-03	2.31%	1.36E-02	3.09%	1.50	15.28%
- Unit 4	8.94E-06	23.53%	5.93E-02	6.11%	1.12E-03	10.16%	1.66E-04	33.13%	8.44E-04	3.13%	16.82	29.45%	2.19E-03	2.74%	1.98E-02	4.49%	1.50	15.26%
- Total	3.34E-05	21.96%	3.19E-01	8.22%	4.61E-03	10.48%	6.00E-04	30.01%	2.47E-03	2.29%	66.44	29.09%	8.26E-03	2.58%	4.64E-02	2.64%	7.44	18.99%
5-Year Maximum Annu	ual Emissions (2006	- 2010)																
- Unit 1	9.00E-06	23.68%	7.28E-02	7.51%	1.19E-03	10.84%	1.33E-04	26.60%	5.46E-04	2.02%	22.03	38.58%	2.60E-03	3.25%	1.12E-02	2.54%	2.80	28.56%
- Unit 2	6.00E-06	15.79%	9.29E-02	9.58%	1.26E-03	11.45%	1.25E-04	25.00%	8.79E-04	3.26%	29.50	51.65%	2.84E-03	3.55%	6.32E-03	1.44%	1.71	17.44%
- Unit 3	1.20E-05	31.58%	7.19E-02	7.41%	1.29E-03	11.76%	1.33E-04	26.60%	1.12E-03	4.13%	28.59	50.06%	2.54E-03	3.18%	3.75E-02	8.51%	1.36	13.90%
- Unit 4	1.20E-05	31.58%	6.68E-02	6.88%	1.17E-03	10.62%	1.31E-04	26.20%	8.46E-04	3.13%	30.77	53.89%	3.47E-03	4.34%	1.62E-02	3.69%	1.34	13.63%
- Total	3.90E-05	25.66%	3.02E-01	7.78%	4.87E-03	11.07%	5.18E-04	25.90%	2.72E-03	2.52%	110.89	48.55%	1.07E-02	3.36%	6.51E-02	3.70%	7.15	18.25%
5-Year Average Annua	l Emissions (2006 -	2010)									[5]							
- Unit 1	5.00E-06	13.16%	7.03E-02	7.25%	1.15E-03	10.47%	1.29E-04	25.76%	3.76E-04	1.39%	11.93	20.90%	2.28E-03	2.85%	6.50E-03	1.48%	2.70	27.57%
- Unit 2	4.40E-06	11,58%	8.96E-02	9.24%	1.21E-03	11.04%	1.20E-04	24.08%	4.00E-04	1.48%	18.61	32.59%	2.26E-03	2.83%	4.34E-03	0.99%	1.65	16,82%
- Unit 3	8.00E-06	21.05%	6.97E-02	7.19%	1.25E-03	11.41%	1.29E-04	25.84%	5.34E-04	1.98%	24.03	42.08%	2.08E-03	2.59%	1.99E-02	4.52%	1.32	13.48%
- Unit 4	8.60E-06	22.63%	6.52E-02	6.72%	1.14E-03	10.37%	1.28E-04	25.64%	5.43E-04	2.01%	16.31	28.56%	2.36E-03	2.95%	8.18E-03	1.86%	1.30	13.30%
- Total	2.60E-05	17.11%	2.95E-01	7.60%	4.76E-03	10.82%	5.07E-04	25.33%	1.85E-03	1.72%	70.87	31.03%	8.98E-03	2.81%	3.89E-02	2.21%	6.97	17.79%

