

September 14, 2011



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SEP 16 2011

DIVISION OF AIR
RESOURCE MANAGEMENT

Mr. Jeff Koerner P.E.
Program Administrator
Division of Air Resource Management
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399

Project No: 0990234 -021 - AC^{PSD} - FL - 108J
0990234 -022 - AV ✓

RE: North County Resource Recovery Facility – Unit 1 and Unit 2 Refurbishment Project
Original Project No. 0990234-015-AC (PSD-FL-108H)
Title V Air Operation Permit Revision Application (No. 0990234-20 AV)
Air Construction Permit Application to modify PSD-FL-108A

Dear Mr. Koerner:

The Solid Waste Authority of Palm Beach County (“SWA”) is the owner of the North County Resource Recovery Facility (“NCRRF”), a large Municipal Waste Combustor, that was originally constructed under air construction permit (No. PSD-FL-108) and operates under Florida Department of Environmental Protection (“FDEP”) Title V Air Operation Permit (No. 0990234-20AV).

On September 18, 2009, the FDEP issued an air construction permit #0990234-015 AC/PSD-FL-108H authorizing a refurbishment project of the NCRRF which included the installation of new air pollution control equipment. The AC permit requires that a Title V Revision application be submitted within 180 days of construction completeness to incorporate these refurbished boilers into the existing Title V permit. On March 24, 2011 the construction completion milestone was reached for the refurbishment project resulting in a permit revision application deadline of September 20, 2011. This permit revision application is submitted within this deadline.

Attached are the following documents for this Title V Air permit revision application:

- Attachment 1: Completed Title V Permit Revision Application Forms
- Attachment 2: Emission Calculations
- Attachment 3: Requested Changes to Title V Air Permit (narrative)
- Attachment 4: Requested Changes to PSD-FL-108A Air Permit (narrative)
- Attachment 5: Compliance Report

The Title V permit revision application includes the request to remove the exhaust gas temperature limit of 300 °F which will result in a temperature limitation of the exhaust gas which is consistent with the NSPS CFR 60 Subpart Cb. This change was authorized in the AC permit

#0990234-015 AC/PSD-FL-108H and it is our understanding that under Rule 62-213.412(2), F.A.C. this condition will become immediately effective once this application is submitted to EPA and FDEP. Also requested is the change in compliance test frequency for VOC from once during the Federal fiscal year to once prior to permit renewal based upon historical data which shows the measured VOC to be significantly below the permit limit. A narrative of these requested changes is provided in Attachment 3.

In addition, this permit package includes an Air Construction Permit Application to modify language in PSD-FI-108A. This application includes the request to change the testing frequency of VOC from annual to 'prior to permit renewal' to be consistent with the requested change to the Title V permit, supported by the historical data, and also to change the testing frequency (Specific Condition 4) of other pollutants to be consistent with the MACT language in current draft Title V permit. A narrative of these requested changes is provided in Attachment 4.

We look forward to working with the FDEP as this application for a Title V operation permit revision and Air Construction Permit application are reviewed. If you have any questions, please contact Mary Beth Morrison at (561) 640 4000 ext 4613.

Yours sincerely,



Mark Hammond
Executive Director
Solid Waste Authority of Palm Beach County

Enclosure

Carol Kemker (EPA Region 4, Atlanta, GA)
Greg DeAngelo (FDEP, Tallahassee)
Lennon Anderson (FDEP Southeast District Office w/o enclosure)
MaryBeth Morrison (SWA)
Leah Richter (Malcolm Pirnie)
Chris Tilman (Malcolm Pirnie)
Bill Arvan (PBRRC w/o enclosure)
Mark Davis (PBRRC w/o enclosure)
Bob Worobel (SWA w/o enclosure)

Original



Solid Waste Authority of Palm Beach County
North County Resource Recovery Facility – Unit 1 and Unit 2
Refurbishment Project (Original Project No. 0990234-015 AC
(PSD-FL-108H)

**Title V Air Operation Permit Revision
Application (No. 0990234-20 AV)**



SWA Title V Permit Revision Application

Attachment 1

**Completed Title V Permit Revision and Concurrent AC Permit
Application Forms**



Department of Environmental Protection

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Division of Air Resource Management APPLICATION FOR AIR PERMIT - LONG FORM

DIVISION OF AIR RESOURCE MANAGEMENT

I. APPLICATION INFORMATION

Air Construction Permit – Use this form to apply for an air construction permit:

- For any required purpose at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air operation permit;
- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment new source review, or maximum achievable control technology (MACT);
- To assume a restriction on the potential emissions of one or more pollutants to escape a requirement such as PSD review, nonattainment new source review, MACT, or Title V; or
- To establish, revise, or renew a plantwide applicability limit (PAL).

Air Operation Permit – Use this form to apply for:

- An initial federally enforceable state air operation permit (FESOP); or
- An initial, revised, or renewal Title V air operation permit.

To ensure accuracy, please see form instructions.

Identification of Facility

1. Facility Owner/Company Name: SOLID WASTE AUTHORITY OF PBC	
2. Site Name: SOLID WASTE AUTHORITY OF PBC / NCRRF	
3. Facility Identification Number: 0990234	
4. Facility Location... Street Address or Other Locator: 7501 N. JOG ROAD City: WEST PALM BEACH County: PALM BEACH Zip Code: 33412	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Title V Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Application Contact

1. Application Contact Name: Christopher Tilman, P.E.	
2. Application Contact Mailing Address... Organization/Firm: Malcolm Pirnie, Inc. the Water Division of ARCADIS Street Address: 5237 Summerlin Commons Blvd., City: Fort Myers State: FL Zip Code: 33907	
3. Application Contact Telephone Numbers... Telephone: (239) 275-2128 ext. Fax: (203) 275-2127	
4. Application Contact E-mail Address: CHRISTOPHER.TILMAN@ARCADIS-US.COM	

Application Processing Information (DEP Use)

1. Date of Receipt of Application: 9-16-11	3. PSD Number (if applicable):
2. Project Number(s): 0990234-021-AC	4. Siting Number (if applicable):

PSD-FL - 108J and

0990234-022-AV

APPLICATION INFORMATION

Purpose of Application

This application for air permit is being submitted to obtain: (Check one)

Air Construction Permit

- Air construction permit.
- 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.

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

This is a Title V Air Operation Permit revision as required by Rule 62-213 F.A.C to incorporate the refurbished boilers which are currently operating under permit 0990234-15AC/PD-FL-108H, into the facility Title V permit.

The refurbishment Project included the installation of several new air pollution control systems at the Facility, as well as maintenance, repair, and the in-kind replacement of other components of the Facility.

An AC permit applicant is being filed concurrently to modify PSD-FL 108A Specific Condition 4 to allow stack testing frequency for VOC to prior to permit renewal and to modify the testing frequency to calendar basis (no less than 9 and no more than 15 months from the previous test, 5 tests within 5 years) for other pollutants.

APPLICATION INFORMATION

Owner/Authorized Representative Statement

Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name : Mark Hammond, Executive Director
2. Owner/Authorized Representative Mailing Address... Organization/Firm: Solid Waste Authority of Palm Beach County Street Address: 7501 N. JOG ROAD City: WEST PALM BEACH State: FL Zip Code: 33412
3. Owner/Authorized Representative Telephone Numbers... Telephone: (561) 640 - 4000 ext. Fax: (561) 640 - 3400
4. Owner/Authorized Representative E-mail Address: mhammond@swa.org
5. Owner/Authorized Representative Statement: <i>I, the undersigned, am the owner or authorized representative of the corporation, partnership, or other legal entity submitting this air permit application. To the best of my knowledge, the statements made in this application are true, accurate and complete, and any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department.</i>  Signature  Date

APPLICATION INFORMATION

Application Responsible Official Certification

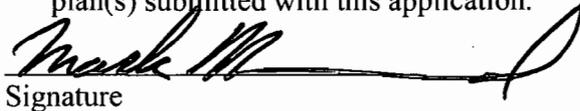
Complete if applying for an initial, revised, or renewal Title V air operation permit or concurrent processing of an air construction permit and revised or renewal Title V air operation permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary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

1. Application Responsible Official Name: Mark Hammond
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input type="checkbox"/> 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. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input checked="" type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source or CAIR source.
3. Application Responsible Official Mailing Address... Organization/Firm: Mark Hammond, Executive Director Street Address: Solid Waste Authority of Palm Beach County City: 7501 North Jog Road State: FL Zip Code: 33412
4. Application Responsible Official Telephone Numbers... Telephone: (561) 640 - 4000 ext. Fax: (561) 640 - 3400
5. Application Responsible Official E-mail Address: mhammond@swa.org

APPLICATION INFORMATION

6. Application Responsible Official Certification:

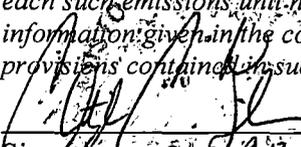
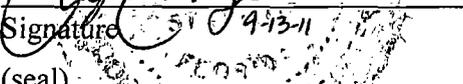
I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, 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.


Signature


Date

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: CHRISTOPHER TILMAN Registration Number: 61903
2. Professional Engineer Mailing Address... Organization/Firm: : Malcolm Pirnie, Inc. the Water Division of ARCADIS Street Address: 5237 Summerlin Commons Blvd., City: Fort Myers State: FL Zip Code: 33907
3. Professional Engineer Telephone Numbers... Telephone: (239) 275-2128 ext. Fax: (239) 275-2127
4. Professional Engineer E-mail Address: christopher.tilman@arcadis-us.com
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> <i>(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</i> <i>(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.</i> <i>(3) If the purpose of this application is to obtain a Title V air operation permit (check here <input type="checkbox"/>, 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.</i> <i>(4) If the purpose of this application is to obtain an air construction permit (check here <input type="checkbox"/>, 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 <input checked="" type="checkbox"/>, 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.</i> <i>(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 <input type="checkbox"/>, 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.</i> Signature  _____ Date <u>9-13-11</u> (seal) 

* Attach any exception to certification statement.

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates... Zone 17 East (km) 585.82 North (km) 2960.474		2. Facility Latitude/Longitude... Latitude (DD/MM/SS) 26° 45' 53" N Longitude (DD/MM/SS) 80° 08' 12" W	
3. Governmental Facility Code: (3) County	4. Facility Status Code: (A) Active	5. Facility Major Group SIC Code: (49) Electric, Gas and Sanitary Services	6. Facility SIC(s): Primary: 4953
7. Facility Comment :			

Facility Contact

1. Facility Contact Name: Mark Hammond, Executive Director
2. Facility Contact Mailing Address... Organization/Firm: Solid Waste Authority of Palm Beach County Street Address: 7501 North Jog Road <div style="display: flex; justify-content: space-between; margin-top: 5px;"> City: West Palm Beach State: FL Zip Code: 33412 </div>
3. Facility Contact Telephone Numbers: Telephone: (561) 640 - 4000 ext. Fax: (561) 640 - 3400
4. Facility Contact E-mail Address: mhammond@swa.org

Facility Primary Responsible Official

Complete if an "application responsible official" is identified in Section I that is not the facility "primary responsible official."

1. Facility Primary Responsible Official Name: Mark Hammond, Executive Director
2. Facility Primary Responsible Official Mailing Address... Organization/Firm: Solid Waste Authority of Palm Beach County Street Address: 7501 North Jog Road <div style="display: flex; justify-content: space-between; margin-top: 5px;"> City: West Palm Beach State: FL Zip Code: 33412 </div>
3. Facility Primary Responsible Official Telephone Numbers... Telephone: (561) 640 - 4000 ext. Fax: (561) 640 - 4000
4. Facility Primary Responsible Official E-mail Address: mhammond@swa.org

FACILITY INFORMATION

Facility Regulatory Classifications

Check all that would apply *following* completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions to distinguish between a “major source” and a “synthetic minor source.”

1. <input type="checkbox"/> Small Business Stationary Source	<input type="checkbox"/> Unknown
2. <input type="checkbox"/> Synthetic Non-Title V Source	
3. <input checked="" type="checkbox"/> Title V Source	
4. <input checked="" type="checkbox"/> Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)	
5. <input type="checkbox"/> Synthetic Minor Source of Air Pollutants, Other than HAPs	
6. <input checked="" type="checkbox"/> Major Source of Hazardous Air Pollutants (HAPs)	
7. <input type="checkbox"/> Synthetic Minor Source of HAPs	
8. <input checked="" type="checkbox"/> One or More Emissions Units Subject to NSPS (40 CFR Part 60)	
9. <input checked="" type="checkbox"/> One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)	
10. <input checked="" type="checkbox"/> One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)	
11. <input type="checkbox"/> Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))	
12. Facility Regulatory Classifications Comment: The selected classifications apply to the NCRRF municipal waste combustor units and the upgrade to the Facility's air pollution control systems. Emissions are limited by Permit PSD-FL-108A	

FACILITY INFORMATION

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
PM10	(A) Major Pollutant	N
NO _x	(A) Major Pollutant	N
CO	(A) Major Pollutant	N
PM	(A) Major Pollutant	N
SO ₂	(A) Major Pollutant	N
H114	(B) Facility-regulated pollutant, not major or synthetic minor	N
H027	(B) Facility-regulated pollutant, not major or synthetic minor	N
D/F	(B) Facility-regulated pollutant, not major or synthetic minor	N
H106	(A) Major Pollutant	N
PB	(B) Facility-regulated pollutant, not major or synthetic minor	N
VOC	(B) Facility-regulated pollutant, not major or synthetic minor	N
NH ₃	(B) Facility-regulated pollutant, not major or synthetic minor	N

FACILITY INFORMATION

B. EMISSIONS CAPS

Facility-Wide or Multi-Unit Emissions Caps

1. Pollutant Subject to Emissions Cap	2. Facility-Wide Cap [Y or N]? (all units)	3. Emissions Unit ID's Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap
7. Facility-Wide or Multi-Unit Emissions Cap Comment:					

FACILITY INFORMATION

C. FACILITY ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1.	Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>Nov 2010</u>
2.	Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>Nov 2010</u>
3.	Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>Nov 2010</u>

Additional Requirements for Air Construction Permit Applications

1.	Area Map Showing Facility Location: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable (existing permitted facility)
2.	Description of Proposed Construction, Modification, or Plantwide Applicability Limit (PAL): <input type="checkbox"/> Attached, Document ID: _____
3.	Rule Applicability Analysis: <input type="checkbox"/> Attached, Document ID: _____
4.	List of Exempt Emissions Units: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable (no exempt units at facility)
5.	Fugitive Emissions Identification: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
6.	Air Quality Analysis (Rule 62-212.400(7), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
7.	Source Impact Analysis (Rule 62-212.400(5), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
8.	Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
9.	Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
10.	Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

FACILITY INFORMATION

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for FESOP Applications

1. List of Exempt Emissions Units:
 Attached, Document ID: _____ Not Applicable (no exempt units at facility)

Additional Requirements for Title V Air Operation Permit Applications

1. List of Insignificant Activities: (Required for initial/renewal applications only)
 Attached, Document ID: _____ Not Applicable (revision application)
2. Identification of Applicable Requirements: (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought)
 Attached, Document ID: _____
 Not Applicable (revision application with no change in applicable requirements)
3. Compliance Report and Plan: (Required for all initial/revision/renewal applications)
 Attached, Document ID: Not Applicable
Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing.
4. List of Equipment/Activities Regulated under Title VI: (If applicable, required for initial/renewal applications only)
 Attached, Document ID: _____
 Equipment/Activities Onsite but Not Required to be Individually Listed
 Not Applicable
5. Verification of Risk Management Plan Submission to EPA: (If applicable, required for initial/renewal applications only)
 Attached, Document ID: _____ Not Applicable
6. Requested Changes to Current Title V Air Operation Permit:
 Attached, Document ID: Attachment 3 Not Applicable

FACILITY INFORMATION

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Facilities Subject to Acid Rain, CAIR, or Hg Budget Program

1. Acid Rain Program Forms:

Acid Rain Part Application (DEP Form No. 62-210.900(1)(a)):

Attached, Document ID: _____ Previously Submitted, Date: _____

Not Applicable (not an Acid Rain source)

Phase II NO_x Averaging Plan (DEP Form No. 62-210.900(1)(a)1.):

Attached, Document ID: _____ Previously Submitted, Date: _____

Not Applicable

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

Attached, Document ID: _____ Previously Submitted, Date: _____

Not Applicable

2. CAIR Part (DEP Form No. 62-210.900(1)(b)):

Attached, Document ID: _____ Previously Submitted, Date: _____

Not Applicable (not a CAIR source)

Additional Requirements Comment

EMISSIONS UNIT INFORMATION

Section [1] of [2]

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application - Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

EMISSIONS UNIT INFORMATION

Section [1] of [2]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

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).

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.

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. Description of Emissions Unit Addressed in this Section:

Municipal Waste Combustor (Boiler) #1

3. Emissions Unit Identification Number: 001

4. Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date: 15-NOV 89	7. Emissions Unit Major Group SIC Code: 49
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8. Federal Program Applicability: (Check all that apply)

Acid Rain Unit

CAIR Unit

9. Package Unit: **BABCOCK AND WILCOX**

Manufacturer:

Model Number:

10. Generator Nameplate Rating: 62 MW

11. Emissions Unit Comment: The Refurbishment project authorized the installation of a new SNCR system, activated carbon injection system, fabric filter (replacing the ESP), spray dryer absorber system (replacing existing), overfire air and combustion control system .

EMISSIONS UNIT INFORMATION

Section [1] of [2]

Emissions Unit Control Equipment/Method: Control 1 of 5

1. Control Equipment/Method Description:

Gas Scrubber, General – Spray Dryer Absorbers

A new spray dryer Absorber replaces the existing and has multiple lime injectors and baffles to increase residence time.

2. Control Device or Method Code: **013**

Emissions Unit Control Equipment/Method: Control 2 of 5

1. Control Equipment/Method Description:

Fabric Filter (Baghouse)

A new fabric filter which will be a six (6)-compartment pulse-jet fabric filter system (baghouse). Each compartment will have a pyramid shaped hopper to improve ash removal.

2. Control Device or Method Code: **016**

Emissions Unit Control Equipment/Method: Control 3 of 5

1. Control Equipment/Method Description:

Activated Carbon Injection System – Activated Carbon Adsorption

Inject powdered activated carbon (PAC).

2. Control Device or Method Code: **048**

Emissions Unit Control Equipment/Method: Control 4 of 5

1. Control Equipment/Method Description:

Selective Non-catalytic Reduction for NO_x

Will have up to 3 levels of injectors with up to 10 injectors/level.

2. Control Device or Method Code: **107**

Emissions Unit Control Equipment/Method: Control 5 of 5

1. Control Equipment/Method Description:

Staged overfire air combustion system to enhance complete combustion while reducing thermal NO_x

2. Control Device or Method Code: **204**

EMISSIONS UNIT INFORMATION

Section [1] of [2]

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram:		2. Emission Point Type Code: 1 – A single emission point serving a single emissions unit.	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: (V) A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A VERTICAL/NEARLY VERTICAL DIRECTION		6. Stack Height: 250 feet	
		7. Exit Diameter: 8 feet	
8. Exit Temperature: 300°F		9. Actual Volumetric Flow Rate: 277055 acfm	
		10. Water Vapor: 29 %	
11. Maximum Dry Standard Flow Rate: 118174 dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: 17 East (km): 585.3 North (km): 2961.7		14. Emission Point Latitude/Longitude... Latitude: 26° 46'; 25.11" N Longitude: 80° 8'; 30.98" W	
15. Emission Point Comment: 1 of 3 individual flues surrounded by a stack shell. DSCFM flow rate used is after-control device and corrected to 7% oxygen. Refer to Attachment 2. Water vapor is average for the 2 boilers for 2010.			

EMISSIONS UNIT INFORMATION

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D. SEGMENT (PROCESS/FUEL) INFORMATION**Segment Description and Rate:** Segment 1 of 2

1. Segment Description (Process/Fuel Type): Natural gas used during startup/shutdown of unit and during combustion of low Btu waste to maintain combustor temperature. The SCC corresponds to combustion of NG in a boiler for electric generation.		
2. Source Classification Code (SCC): 10100601	3. SCC Units: Million Cubic Feet Natural Gas Burned	
4. Maximum Hourly Rate: 0.21	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 1050
10. Segment Comment: Auxiliary burner firing NG during startup/shutdown		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type): Primary fuel – RDF from mixed municipal solid waste		
2. Source Classification Code (SCC): 10101202	3. SCC Units: Tons Refuse Derived Fuel Burned	
4. Maximum Hourly Rate: 37.5	5. Maximum Annual Rate: 312000	6. Estimated Annual Activity Factor: 0.95
7. Maximum % Sulfur: 0.2	8. Maximum % Ash: 9.9	9. Million Btu per SCC Unit: 11
10. Segment Comment: Facility is designed to process 2,000 TPD of mixed MSW. Each combustor is designed to handle 900 TPD of RDF, for a facility annual total of 624,000 tons. % sulfur & ash is avg for 2 boilers for 2010.		

EMISSIONS UNIT INFORMATION

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E. EMISSIONS UNIT POLLUTANTS**List of Pollutants Emitted by Emissions Unit**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
CO	204- Overfire Air		EL
D/F			EL
H027			EL
H106	013- Gas Scrubber, General		EL
H114	048 – Activated Carbon Injection		EL
NH3			EL
NOX	107- SNCR	204 Overfire Air	EL
PB			EL
PM	016 – Fabric Filter (High Temp >250F)		EL
PM10	016 – Fabric Filter (High Temp >250F)		EL
SO2	013- Gas Scrubber, General		EL
VOC			EL

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
 POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**
 (Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: CO – Carbon Monoxide		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 206.0 lb/hour 451.1 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 200 PPMVD @ 7% O2 (24 hr block avg) 400 PPMVD @ 7% O2 (4 hr block avg)		7. Emissions Method Code:	
Reference: PSD-FL-108A LIMIT/ Subpart Cb			
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Refer to Attachment 2			
11. Potential, Fugitive, and Actual Emissions Comment: EF is for a 24-hr block averaging time, 400 ppmvd for 4-hr block averaging time.			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 200 PARTS PER MILLION DRY GAS VOLUME @ 7% O2	4. Equivalent Allowable Emissions: 103.0 lb/hour 451.1 tons/year
5. Method of Compliance: CEM: 24-hr block average	
6. Allowable Emissions Comment (Description of Operating Method): Based on 40 CFR 60 Subpart Cb.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 400 PARTS PER MILLION DRY GAS VOLUME @ 7% O2	4. Equivalent Allowable Emissions: 206.0 lb/hour 902.3 tons/year
5. Method of Compliance: CEM - 4-hr block average	
6. Allowable Emissions Comment (Description of Operating Method): 400 ppmvd (4-hr block avg.) based on PSD-FL-108 A permit limit.	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**
(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: D/F – Dioxin/Furan		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 1.33E-5 lb/hour 5.83E-5 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 30 NANOGRAMS/DSCM @7% O2 Reference: 40 CFR 60 SUBPART Cb		7. Emissions Method Code:	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Refer to Attachment 2			
11. Potential, Fugitive, and Actual Emissions Comment: 40 CFR 60 Subpart Cb			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 60 NANOGRAMS PER DRY STANDARD CUBIC METER @ 7% O2	4. Equivalent Allowable Emissions: 2.6E-5 lb/hour 1.17E-4 tons/year
5. Method of Compliance: Initial and subsequent performance tests using Method 23 on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period).	
6. Allowable Emissions Comment (Description of Operating Method): PSD-FL-108 A limit	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 30 NANOGRAMS PER DRY STANDARD CUBIC METER @ 7% O2	4. Equivalent Allowable Emissions: 1.33E-5 lb/hour 5.83E-5 tons/year
5. Method of Compliance: Initial and subsequent performance tests using Method 23 on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period).	
6. Allowable Emissions Comment (Description of Operating Method): Basis: 40 CFR 60 Subpart Cb	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
 POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: H027 – Cadmium Compounds		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.02 lb/hour 0.09 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable):			
6. Emission Factor: 0.035 MILLIGRAMS/DSCM @ 7% O2 Reference: 40 CFR 60 SUBPART Cb		7. Emissions Method Code:	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Refer to Attachment 2.			
11. Potential, Fugitive, and Actual Emissions Comment: 40 CFR 60 Subpart Cb.			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.035 MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O2	4. Equivalent Allowable Emissions: 0.02 lb/hour 0.09 tons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period).	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: 40 CFR 60 Subpart Cb.	

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POLLUTANT DETAIL INFORMATION

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**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: H106 – Hydrogen chloride (Hydrochloric acid)		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 16.8 lb/hour 73.6 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 25 PPMVD @ 7% O2 or 95% removal Reference: PSD-FL-108A, Subpart Cb		7. Emissions Method Code:	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Refer to Attachment 2.			
11. Potential, Fugitive, and Actual Emissions Comment:			

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**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS****Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.****Allowable Emissions** Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 29 PARTS PER MILLION DRY GAS VOLUME @ 7% O2	4. Equivalent Allowable Emissions: 19.4 lb/hour 85.0 tons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period)	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: 40 CFR 60 Subpart Cb. 29 PPMVD @ 7% O2 or 95% removal	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 25 PARTS PER MILLION DRY GAS VOLUME @ 7% O2	4. Equivalent Allowable Emissions: 16.8 lb/hour 73.6 mtons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period)	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: PSD -FL-108A. 25 ppmvd @ 7% O2 or 90% removal	

EMISSIONS UNIT INFORMATION

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POLLUTANT DETAIL INFORMATION

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**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS****Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.****Allowable Emissions** Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 50 MICROGRAMS PER DRY STANDARD CUBIC METER @ 7% O2 or 85% removal	4. Equivalent Allowable Emissions: 0.02 lb/hour 0.09 tons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period).	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: 40 CFR 60 Subpart Cb.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 2.4E-4 POUNDS PER MILLION BTU HEAT INPUT	4. Equivalent Allowable Emissions: 0.1 lb/hour 0.44 tons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period).	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: PSD-FL-108A	

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**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS****Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.****Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 15 ppmvd @ 15% O2	4. Equivalent Allowable Emissions: 11.0 lb/hour 48.2 tons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period).	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: : PSD-FL-108H Ammonia slip for the SNCR system	

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 250 PARTS PER MILLION DRY GAS VOLUME @ 7% O ₂	4. Equivalent Allowable Emissions 211.5 lb/hour 926.4 tons/year
5. Method of Compliance: CEM: 24 HOUR BLOCK AVERAGE	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: 40 CFR 60 Subpart Cb.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.48 POUNDS PER MILLION BTU HEAT INPUT	4. Equivalent Allowable Emissions 205.2 lb/hour 898.8 tons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: PSD-FL-108A.	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: PB – Lead – Total (Elemental and lead Compounds)	2. Total Percent Efficiency of Control:
3. Potential Emissions: 0.17 lb/hour 0.74 tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable):	
6. Emission Factor: 4.0E-4 LB/MMTBU Reference: PSD-FL-108A	7. Emissions Method Code:
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years
10. Calculation of Emissions: Refer to Attachment 2.	
11. Potential, Fugitive, and Actual Emissions Comment:	

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.4 MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O2	4. Equivalent Allowable Emissions: 0.18 lb/hour 0.79 tons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period).	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: 40 CFR 60 Subpart Cb.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 4.0E-4 LBS PER MILLION BTU HEAT INPUT	4. Equivalent Allowable Emissions: 0.17 lb/hour 0.74 tons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period).	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: PSD-FL-108A	

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 25 MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O2	4. Equivalent Allowable Emissions: 11.1 lb/hour 48.6 tons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period).	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: 40 CFR 60 Subpart Cb.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.015 GRAINS PER DRY STANDARD CUBIC FOOT @ 7% O2	4. Equivalent Allowable Emissions: 15.2 lb/hour 66.6 tons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period).	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: PSD-FL-108A	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: PM10 – Particulate Matter, PM-10		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 11.1 lb/hour 48.6 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable):			
6. Emission Factor: 25 MILLIGRAMS/DSCM @ 7% O2 Reference: 40 CFR 60 SUBPART Cb		7. Emissions Method Code:	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Refer to Attachment 2.			
11. Potential, Fugitive, and Actual Emissions Comment: 40 CFR 60 Subpart Cb.			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 25 MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O2	4. Equivalent Allowable Emissions: 11.1 lb/hour 48.6 tons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period).	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: 40 CFR 60 Subpart Cb.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.015 GRAINS PER DRY STANDARD CUBIC FOOT @ 7% O2	4. Equivalent Allowable Emissions: 15.2 lb/hour 66.6 tons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period).	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: PSD-FL-108A	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: SO ₂ – SULFUR DIOXIDE		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 34.1 lb/hour 149.4 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable):			
6. Emission Factor: 29 PPMVD@ 7% O ₂ Or 75% removal		7. Emissions Method Code:	
Reference: 40 CFR 60 SUBPART Cb			
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Refer to Attachment 2.			
11. Potential, Fugitive, and Actual Emissions Comment: 40 CFR 60 Subpart Cb.			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 29 PARTS PER MILLION DRY GAS VOLUME @ 7% O2	4. Equivalent Allowable Emissions: 34.1 lb/hour 149.4 tons/year
5. Method of Compliance: CEMS: 24 DAILY GEOMETRIC MEAN	
6. Allowable Emissions Comment (Description of Operating Method): 75% REMOVAL OR 29 PPMVD Basis for allowable emissions: 40 CFR 60 Subpart Cb.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 30 PARTS PER MILLION DRY GAS VOLUME @ 7% O2	4. Equivalent Allowable Emissions: 35.3 lb/hour 154.6 tons/year
5. Method of Compliance: CEMS: 24 DAILY GEOMETRIC MEAN	
6. Allowable Emissions Comment (Description of Operating Method): 70% REMOVAL OR 30 PPMVD Basis for allowable emissions: PSD-FL-108A	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: VOC – Volatile- Organic Compounds		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 6.84 lb/hour 30.0 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable):			
6. Emission Factor: 1.6E-2 LB/MMBTU Reference: PSD-FL-108A		7. Emissions Method Code:	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Refer to Attachment 2.			
11. Potential, Fugitive, and Actual Emissions Comment: PSD-FL-108A			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 1.6E-2 POUNDS PER MILLION BTU HEAT INPUT	4. Equivalent Allowable Emissions: 6.84 lb/hour 30.0 tons/year
5. Method of Compliance: Emission test prior to permit renewal	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: PSD-FL-108A	

EMISSIONS UNIT INFORMATION

Section [1] of [2]

G. VISIBLE EMISSIONS INFORMATION**Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.****Visible Emissions Limitation:** Visible Emissions Limitation 1 of 2

1. Visible Emissions Subtype: VE05 –Visible Emissions -5% Normal Opacity	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 5 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: EPA Method 22	
5. Visible Emissions Comment: No visible emissions of combustion ash from an ash conveying system in excess of 5% of the observation period.	

Visible Emissions Limitation: Visible Emissions Limitation of

1. Visible Emissions Subtype: VE10 –Visible Emissions -10% Normal Opacity	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: 10 % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment: Basis for opacity limit: PSD-FL-108A The opacity shall not exceed 10%, 6 min average	

EMISSIONS UNIT INFORMATION

Section [1] of [2]

H. CONTINUOUS MONITOR INFORMATION**Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.****Continuous Monitoring System: Continuous Monitor 1 of 12**

1. Parameter Code: TEMP – Flue gas temperature	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: September 2010	6. Performance Specification Test Date:
7. Continuous Monitor Comment: To record the temperature of the flue gas of the PM control device per 40 CFR 60.53b(c). Status: Active	

Continuous Monitoring System: Continuous Monitor 2 of 12

1. Parameter Code: OTHER – Explain in comment field	2. Pollutant(s):
3. CMS Requirement:	<input checked="" 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: Status: Inactive	

EMISSIONS UNIT INFORMATION

Section [1] of [2]

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)**Continuous Monitoring System: Continuous Monitor 3 of 12**

1. Parameter Code: VE – Visible emissions (opacity)	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: DURAG Model Number: DR-290 Serial Number: 1204288	
5. Installation Date: 09-NOV-08	6. Performance Specification Test Date: 26-NOV-08
7. Continuous Monitor Comment: Status: Active	

Continuous Monitoring System: Continuous Monitor 4 of 12

1. Parameter Code: OTHER – Explain in comment field	2. Pollutant(s):
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date: September 2010	6. Performance Specification Test Date:
7. Continuous Monitor Comment: To continuously monitor and record the powdered activated carbon injection rate of the ACI system. Status: Active	

EMISSIONS UNIT INFORMATION

Section [1] of [2]

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)**Continuous Monitoring System: Continuous Monitor 5 of 12**

1. Parameter Code: OTHER – Explain in comment field	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: September 2010	6. Performance Specification Test Date:
7. Continuous Monitor Comment: To continuously monitor and record the urea injection rate of the SNCR system. Status: Active	

Continuous Monitoring System: Continuous Monitor 6 of 12

1. Parameter Code: OTHER – Explain in comment field	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: To continuously monitor and record the steam output of the MSWC. Status: Active	

EMISSIONS UNIT INFORMATION

Section [1] of [2]

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)**Continuous Monitoring System:** Continuous Monitor 7 of 12

1. Parameter Code: CO2 – carbon dioxide	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: THERMO SCIENTIFIC Model Number: 410I Serial Number: 0050929938310	
5. Installation Date: 10-NOV-09	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Unit monitoring inlet. Installed during two week outage 11/09. Spare serial #0050929938309. Status: Active	

Continuous Monitoring System: Continuous Monitor 8 of 12

1. Parameter Code: EM- Emission	2. Pollutant(s): CO
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: THERMO SCIENTIFIC Model Number: 48I Serial Number: 0929938301	
5. Installation Date: 09-NOV-09	6. Performance Specification Test Date:
7. Continuous Monitor Comment: CO inlet monitor installed Nov. 09. CO spare model 48i, serial #0929938302. Status: Active	

EMISSIONS UNIT INFORMATION

Section [1] of [2]

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)**Continuous Monitoring System: Continuous Monitor 9 of 12**

1. Parameter Code: EM – Emission	2. Pollutant(s): SO2
3. CMS Requirement: <input type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information... Manufacturer: THERMO SCIENTIFIC Model Number: 43I Serial Number: 0929938305	
5. Installation Date: 09-NOV-09	6. Performance Specification Test Date: 11/30/09
7. Continuous Monitor Comment: SO2 inlet monitor. Installed 11/09. SO2 spare model 43i serial #0929938306 Status: Active	

Continuous Monitoring System: Continuous Monitor 10 of 12

1. Parameter Code: CO2 – Carbon dioxide	2. Pollutant(s):
3. CMS Requirement: <input type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information... Manufacturer: THERMO SCIENTIFIC Model Number: 410I Serial Number: 0929938313	
5. Installation Date: 10-NOV-09	6. Performance Specification Test Date: 11/30/09
7. Continuous Monitor Comment: CO2 outlet monitor installed during Nov. 09. CO2 spare model 410i serial #0929938309. Status: Active	

EMISSIONS UNIT INFORMATION

Section [1] of [2]

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)**Continuous Monitoring System: Continuous Monitor 11 of 12**

1. Parameter Code: EM- Emission	2. Pollutant(s): NOX
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: THERMO SCIENTIFIC Model Number: 42I Serial Number: 0929938299	
5. Installation Date: 10-NOV-09	6. Performance Specification Test Date: 11/30/09
7. Continuous Monitor Comment: NOx outlet monitor installed Nov. 09. NOx spare model 42i, serial #0929938298. Status: Active	

Continuous Monitoring System: Continuous Monitor 12 of 12

1. Parameter Code: EM – Emission	2. Pollutant(s): SO2
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: THERMO SCIENTIFIC Model Number: 43I Serial Number: 0929938304	
5. Installation Date: 10-NOV-09	6. Performance Specification Test Date: 11/30/09
7. Continuous Monitor Comment: SO2 outlet monitor installed Nov. 09. SO2 spare model 43i serial #0929938306. Status: Active	

EMISSIONS UNIT INFORMATION

Section [1] of [2]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records: <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment 5</u> Test Date(s)/Pollutant(s) Tested: <u>Compliance Demonstration Test, December 2010, April 2011. All listed pollutants.</u> <input type="checkbox"/> Applicable / Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

EMISSIONS UNIT INFORMATION

Section [1] of [2]

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements: <input type="checkbox"/> Attached, Document ID: _____
2. Compliance Assurance Monitoring: <input type="checkbox"/> Applicable <input type="checkbox"/> Attached, Document ID _____ <input checked="" type="checkbox"/> Not Applicable (update to existing)
3. Alternative Methods of Operation: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements Comment

OTHER Emissions Unit Information <input checked="" type="checkbox"/> Applicable <input checked="" type="checkbox"/> Attachment
<u>Emission Unit Attachments</u> Attachment 2 – Emission Calculations

EMISSIONS UNIT INFORMATION

Section [2] of [2]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

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).

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.

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. Description of Emissions Unit Addressed in this Section:

Municipal Waste Combustor (Boiler) #2

3. Emissions Unit Identification Number: 002

4. Emissions Unit Status Code:
A

5. Commence Construction Date:

6. Initial Startup Date:
15-NOV 89

7. Emissions Unit Major Group SIC Code:
49

8. Federal Program Applicability: (Check all that apply)

Acid Rain Unit

CAIR Unit

9. Package Unit: **BABCOCK AND WILCOX**

Manufacturer:

Model Number:

10. Generator Nameplate Rating: 62 MW

11. Emissions Unit Comment: The Refurbishment project authorized the installation of a new SNCR system, activated carbon injection system, fabric filter (replacing the ESP), spray dryer absorber system (replacing existing), overfire air and combustion control system

EMISSIONS UNIT INFORMATION

Section [2] of [2]

Emissions Unit Control Equipment/Method: Control 1 of 5

- | |
|--|
| 1. Control Equipment/Method Description:
Gas Scrubber, General – Spray Dryer Absorbers
A new spray dryer Absorber replaces the existing and has multiple lime injectors and baffles to increase residence time. |
| 2. Control Device or Method Code: 013 |

Emissions Unit Control Equipment/Method: Control 2 of 5

- | |
|--|
| 1. Control Equipment/Method Description:
Fabric Filter (Baghouse)
A new fabric filter which will be a six (6)-compartment pulse-jet fabric filter system (baghouse). Each compartment will have a pyramid shaped hopper to improve ash removal. |
| 2. Control Device or Method Code: 016 |

Emissions Unit Control Equipment/Method: Control 3 of 5

- | |
|---|
| 1. Control Equipment/Method Description:
Activated Carbon Injection System – Activated Carbon Adsorption
Inject powdered activated carbon (PAC). |
| 2. Control Device or Method Code: 048 |

Emissions Unit Control Equipment/Method: Control 4 of 5

- | |
|---|
| 1. Control Equipment/Method Description:
Selective Non-catalytic Reduction for NO_x
Will have up to 3 levels of injectors with up to 10 injectors/level. |
| 2. Control Device or Method Code: 107 |

Emissions Unit Control Equipment/Method: Control 5 of 5

- | |
|---|
| 1. Control Equipment/Method Description:
Staged overfire air combustion system to enhance complete combustion while reducing thermal NO_x |
| 2. Control Device or Method Code: 025 |

EMISSIONS UNIT INFORMATION

Section [2] of [2]

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram:		2. Emission Point Type Code: 1 – A single emission point serving a single emissions unit.	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: (V) A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A VERTICAL/NEARLY VERTICAL DIRECTION		6. Stack Height: 250 feet	7. Exit Diameter: 8 feet
8. Exit Temperature: 300°F	9. Actual Volumetric Flow Rate: 277,055 acfm	10. Water Vapor: 29 %	
11. Maximum Dry Standard Flow Rate: 118174 dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: 17 East (km): 585.3 North (km): 2961.7		14. Emission Point Latitude/Longitude... Latitude: 26° 46'; 25.11" N Longitude: 80° 8'; 30.98" W	
15. Emission Point Comment: 1 of 3 individual flues surrounded by a stack shell. DSCFM flow rate used is after control device and corrected to 7% oxygen. Refer to Attachment 2. Water vapor is average for the 2 boilers for 2010.			

EMISSIONS UNIT INFORMATION

Section [2] of [2]

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type): Natural gas used during startup/shutdown of unit and during combustion of low Btu waste to maintain combustor temperature. The SCC corresponds to combustion of NG in a boiler for electric generation.		
2. Source Classification Code (SCC): 10100601	3. SCC Units: Million Cubic Feet Natural Gas Burned	
4. Maximum Hourly Rate: 0.21	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 1050
10. Segment Comment: Auxiliary burner firing NG during startup/shutdown		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type): Primary fuel – RDF from mixed municipal solid waste		
2. Source Classification Code (SCC): 10101202	3. SCC Units: Tons Refuse Derived Fuel Burned	
4. Maximum Hourly Rate: 37.5	5. Maximum Annual Rate: 312000	6. Estimated Annual Activity Factor: 0.95
7. Maximum % Sulfur: 0.2	8. Maximum % Ash: 9.9	9. Million Btu per SCC Unit: 11
10. Segment Comment: Facility is designed to process 2,000 TPD of mixed MSW. Each combustor is designed to handle 900 TPD of RDF, for a facility annual total of 624,000 tons. % sulfur & ash is avg for 2 boilers for 2010.		

EMISSIONS UNIT INFORMATION

Section [2] of [2]

E. EMISSIONS UNIT POLLUTANTS**List of Pollutants Emitted by Emissions Unit**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
CO	204- Overfire Air		EL
D/F			EL
H027			EL
H106	013- Gas Scrubber, General		EL
H114	048 – Activated Carbon Injection		EL
NH3			EL
NOX	107- SNCR	204 Overfire Air	EL
PB			EL
PM	016 – Fabric Filter (High Temp >250F)		EL
PM10	016 – Fabric Filter (High Temp >250F)		EL
SO2	013- Gas Scrubber, General		EL
VOC			EL

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
 POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**
 (Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: CO – Carbon Monoxide		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 206.0 lb/hour 451.1 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 200 PPMVD @ 7% O2 (24 hr block avg) 400 PPMVD @ 7% O2 (4 hr block avg)		7. Emissions Method Code:	
Reference: PSD-FL-108A LIMIT/ Subpart Cb			
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Refer to Attachment 2			
11. Potential, Fugitive, and Actual Emissions Comment: EF is for a 24-hr block averaging time, 400 ppmvd for 4-hr block averaging time.			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 200 PARTS PER MILLION DRY GAS VOLUME @ 7% O ₂	4. Equivalent Allowable Emissions: 103.0 lb/hour 451.1 tons/year
5. Method of Compliance: CEM: 24-hr block average	
6. Allowable Emissions Comment (Description of Operating Method): Based on 40 CFR 60 Subpart Cb.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 400 PARTS PER MILLION DRY GAS VOLUME @ 7% O ₂	4. Equivalent Allowable Emissions: 206.0 lb/hour 902.3 tons/year
5. Method of Compliance: CEM - 4-hr block average	
6. Allowable Emissions Comment (Description of Operating Method): 400 ppmvd (4-hr block avg.) based on PSD-FL-108 A permit limit.	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
 POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: D/F – Dioxin/Furan		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 1.33E-5 lb/hour 5.83E-5 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 30 NANOGRAMS/DSCM @7% O2 Reference: 40 CFR 60 SUBPART Cb		7. Emissions Method Code:	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Refer to Attachment 2			
11. Potential, Fugitive, and Actual Emissions Comment: 40 CFR 60 Subpart Cb			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 60 NANOGRAMS PER DRY STANDARD CUBIC METER @ 7% O2	4. Equivalent Allowable Emissions: 2.6E-5 lb/hour 1.17E-4 tons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period).	
6. Allowable Emissions Comment (Description of Operating Method): PSD-FL-108 A limit	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 30 NANOGRAMS PER DRY STANDARD CUBIC METER @ 7% O2	4. Equivalent Allowable Emissions: 1.33E-5 lb/hour 5.83E-5 tons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period).	
6. Allowable Emissions Comment (Description of Operating Method): Basis: 40 CFR 60 Subpart Cb	

EMISSIONS UNIT INFORMATION

Section [2] of [2]

POLLUTANT DETAIL INFORMATION

Page [] of []

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: H027 – Cadmium Compounds		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.02 lb/hour 0.09 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable):			
6. Emission Factor: 0.035 MILLIGRAMS/DSCM @ 7% O2 Reference: 40 CFR 60 SUBPART Cb		7. Emissions Method Code:	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Refer to Attachment 2.			
11. Potential, Fugitive, and Actual Emissions Comment: 40 CFR 60 Subpart Cb.			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.035 MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O2	4. Equivalent Allowable Emissions: 0.02 lb/hour 0.09 tons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period).	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: 40 CFR 60 Subpart Cb.	

EMISSIONS UNIT INFORMATION

Section [2] of [2]

POLLUTANT DETAIL INFORMATION

Page [] of []

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: H106 – Hydrogen chloride (Hydrochloric acid)		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 16.8 lb/hour 73.6 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 25 PPMVD @ 7% O2 Or 95% reduction Reference: PSD-FL-108A		7. Emissions Method Code:	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Refer to Attachment 2.			
11. Potential, Fugitive, and Actual Emissions Comment:			

EMISSIONS UNIT INFORMATION

Section [2] of [2]

POLLUTANT DETAIL INFORMATION

Page [] of []

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -

ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 29 PARTS PER MILLION DRY GAS VOLUME @ 7% O2	4. Equivalent Allowable Emissions: 19.4 lb/hour 85.0 tons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: 40 CFR 60 Subpart Cb. 29 PPMVD @ 7% O2 or 95% removal	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 25 PARTS PER MILLION DRY GAS VOLUME @ 7% O2	4. Equivalent Allowable Emissions: 16.8 lb/hour 73.6 mtons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: PSD -FL-108A. 25 ppmvd @ 7% O2 or 90% removal	

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 50 MICROGRAMS PER DRY STANDARD CUBIC METER @ 7% O2	4. Equivalent Allowable Emissions: 0.02 lb/hour 0.09 tons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period).	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: 40 CFR 60 Subpart Cb. Or 85% removal	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 2.4E-4 POUNDS PER MILLION BTU HEAT INPUT	4. Equivalent Allowable Emissions: 0.1 lb/hour 0.44 tons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period).	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: PSD-FL-108A	

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 15 ppmvd @ 15% O2	4. Equivalent Allowable Emissions: 11.0 lb/hour 48.2 tons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period).	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: : PSD-FL-108H Ammonia slip for the SNCR system	

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 250 PARTS PER MILLION DRY GAS VOLUME @ 7% O2	4. Equivalent Allowable Emissions 211.5 lb/hour 926.4 tons/year
5. Method of Compliance: CEM: 24 HOUR BLOCK AVERAGE	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: 40 CFR 60 Subpart Cb.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.48 POUNDS PER MILLION BTU HEAT INPUT	4. Equivalent Allowable Emissions 205.2 lb/hour 898.8 tons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: PSD-FL-108A.	

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.4 MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O ₂	4. Equivalent Allowable Emissions: 0.18 lb/hour 0.79 tons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period).	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: 40 CFR 60 Subpart Cb.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 4.0e-4 LBS PER MILLION BTU HEAT INPUT	4. Equivalent Allowable Emissions: 0.17 lb/hour 0.74 tons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period).	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: PSD-FL-108A	

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 25 MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O2	4. Equivalent Allowable Emissions: 11.1 lb/hour 48.6 tons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period).	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: 40 CFR 60 Subpart Cb.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.015 GRAINS PER DRY STANDARD CUBIC FOOT @ 7% O2	4. Equivalent Allowable Emissions: 15.2 lb/hour 66.6 tons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period).	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: PSD-FL-108A	

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 25 MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O2	4. Equivalent Allowable Emissions: 11.1 lb/hour 48.6 tons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period).	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: 40 CFR 60 Subpart Cb.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.015 GRAINS PER DRY STANDARD CUBIC FOOT @ 7% O2	4. Equivalent Allowable Emissions: 15.2 lb/hour 66.6 tons/year
5. Method of Compliance: Initial and subsequent performance tests on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period).	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: PSD-FL-108A	

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 29 PARTS PER MILLION DRY GAS VOLUME @ 7% O2	4. Equivalent Allowable Emissions: 34.1 lb/hour 149.4 tons/year
5. Method of Compliance: CEMS: 24 DAILY GEOMETRIC MEAN	
6. Allowable Emissions Comment (Description of Operating Method): 75% REMOVAL OR 29 PPMVD Basis for allowable emissions: 40 CFR 60 Subpart Cb.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 30 PARTS PER MILLION DRY GAS VOLUME @ 7% O2	4. Equivalent Allowable Emissions: 35.3 lb/hour 154.6 tons/year
5. Method of Compliance: CEMS: 24 DAILY GEOMETRIC MEAN	
6. Allowable Emissions Comment (Description of Operating Method): 70% REMOVAL OR 30 PPMVD Basis for allowable emissions: PSD-FL-108A	

EMISSIONS UNIT INFORMATION

Section [2] of [2]

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: VOC – Volatile- Organic Compounds		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 6.84 lb/hour 30.0 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable):			
6. Emission Factor: 1.6E-2 LB/MMBTU Reference: PSD-FL-108A		7. Emissions Method Code:	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Refer to Attachment 2.			
11. Potential, Fugitive, and Actual Emissions Comment: PSD-FL-108A			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 1.6E-2 POUNDS PER MILLION BTU HEAT INPUT	4. Equivalent Allowable Emissions: 6.84 lb/hour 30.0 tons/year
5. Method of Compliance: Emission test prior to permit renewal	
6. Allowable Emissions Comment (Description of Operating Method): Basis for allowable emissions: PSD-FL-108A	

EMISSIONS UNIT INFORMATION

Section [2] of [2]

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 2

1. Visible Emissions Subtype: VE05 –Visible Emissions -5% Normal Opacity	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 5 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: EPA Method 22	
5. Visible Emissions Comment: No visible emissions of combustion ash from an ash conveying system in excess of 5% of the observation period.	

Visible Emissions Limitation: Visible Emissions Limitation 2 of 2

1. Visible Emissions Subtype: VE10 –Visible Emissions -10% Normal Opacity	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: 10 % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment: Basis for opacity limit: PSD-FL-108A The opacity shall not exceed 10%, 6 min average	

EMISSIONS UNIT INFORMATION

Section [2] of [2]

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 14

1. Parameter Code: CO2 – Carbon Dioxide	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: Status: Inactive	

Continuous Monitoring System: Continuous Monitor 2 of 14

1. Parameter Code: EM - Emission	2. Pollutant(s): SO2
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: THERMO SCIENTIFIC Model Number: 43I Serial Number: 0929938307	
5. Installation Date: 10-NOV-09	6. Performance Specification Test Date: 11/30/09
7. Continuous Monitor Comment: New SO2 outlet monitor installed Nov. 09. Spare model 43i serial #0929938306 Status: Active	

EMISSIONS UNIT INFORMATION

Section [2] of [2]

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)**Continuous Monitoring System: Continuous Monitor 3 of 14**

1. Parameter Code: TEMP – Flue gas temperature	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: To record the temperature of the flue gas of the PM control device per 40 CFR 60.53b(c). Status: Active	

Continuous Monitoring System: Continuous Monitor 4 of 14

1. Parameter Code: OTHER – Explain in comment field	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: Status: Inactive	

EMISSIONS UNIT INFORMATION

Section [2] of [2]

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)**Continuous Monitoring System: Continuous Monitor 5 of 14**

1. Parameter Code: VE – Visible emissions (opacity)	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: DURAG Model Number: DR-290 Serial Number: 1204283	
5. Installation Date: 08-NOV-08	6. Performance Specification Test Date: 26-NOV-08
7. Continuous Monitor Comment: RN: In the 1 st qtr, 2009 rprt. rcvd on 4/28/09 Status: Active	

Continuous Monitoring System: Continuous Monitor 6 of 14

1. Parameter Code: OTHER – Explain in comment field	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: December 2010	6. Performance Specification Test Date:
7. Continuous Monitor Comment: To continuously monitor and record the urea injection rate of the SNCR system. Status: Active	

EMISSIONS UNIT INFORMATION

Section [2] of [2]

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)**Continuous Monitoring System: Continuous Monitor 7 of 14**

1. Parameter Code: OTHER – Explain in comment field	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: December 2010	6. Performance Specification Test Date:
7. Continuous Monitor Comment: To continuously monitor and record the powdered activated carbon injection rate of the ACI system. Status: Active	

Continuous Monitoring System: Continuous Monitor 8 of 14

1. Parameter Code: OTHER – Explain in comment field	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: To continuously monitor and record the steam output of the MSWC. Status: Active	

EMISSIONS UNIT INFORMATION

Section [2] of [2]

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)**Continuous Monitoring System:** Continuous Monitor 9 of 14

1. Parameter Code: EM – Emission	2. Pollutant(s): CO
3. CMS Requirement: <input type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information... Manufacturer: THERMO SCIENTIFIC Model Number: 48I Serial Number: 0929938303	
5. Installation Date: 10-NOV-09	6. Performance Specification Test Date: 11/30/09
7. Continuous Monitor Comment: New CO monitor installed Nov 09. Status: Active	

Continuous Monitoring System: Continuous Monitor 10 of 14

1. Parameter Code: CO2 – Carbon dioxide	2. Pollutant(s):
3. CMS Requirement: <input type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information... Manufacturer: THERMO SCIENTIFIC Model Number: 410I Serial Number: 0929938312	
5. Installation Date: 10-NOV-09	6. Performance Specification Test Date: 11/30/09
7. Continuous Monitor Comment: New CO2 inlet monitor installed Nov. 09. Spare model 410i serial #0929938309. Status: Active	

EMISSIONS UNIT INFORMATION

Section [2] of [2]

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)**Continuous Monitoring System: Continuous Monitor 11 of 14**

1. Parameter Code: EM- Emission	2. Pollutant(s): NOX
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: THERMO SCIENTIFIC Model Number: 42I Serial Number: 0929938300	
5. Installation Date: 10-NOV-09	6. Performance Specification Test Date: 11/30/09
7. Continuous Monitor Comment: New NOx outlet monitor installed Nov. 09. Spare model 42i, serial #0929938298. Status: Active	

Continuous Monitoring System: Continuous Monitor 12 of 14

1. Parameter Code: EM - Emission	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: Status: Inactive	

EMISSIONS UNIT INFORMATION

Section [2] of [2]

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)**Continuous Monitoring System: Continuous Monitor 13 of 14**

1. Parameter Code: CO2 – Carbon dioxide	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: THERMO SCIENTIFIC Model Number: 410I Serial Number: 0929938311	
5. Installation Date: 10-NOV-09	6. Performance Specification Test Date: 11/30/09
7. Continuous Monitor Comment: New CO2 outlet monitor installed Nov. 09. Spare model #410i serial #0929938309 Status: Active	

Continuous Monitoring System: Continuous Monitor 14 of 14

1. Parameter Code: EM – Emission	2. Pollutant(s): SO2
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: THERMO SCIENTIFIC Model Number: 43I Serial Number: 0929938308	
5. Installation Date: 10-NOV-09	6. Performance Specification Test Date: 11/30/09
7. Continuous Monitor Comment: New SO2 inlet monitor installed Nov. 09. Spare model 43i serial #0929938306. Status: Active	

EMISSIONS UNIT INFORMATION

Section [2] of [2]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records: <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment 5</u> Test Date(s)/Pollutant(s) Tested: <u>Compliance Demonstration Test, December 2010, April 2011. All listed pollutants.</u> <input type="checkbox"/> Applicable / Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

EMISSIONS UNIT INFORMATION

Section [2] of [2]

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements: <input type="checkbox"/> Attached, Document ID: _____
2. Compliance Assurance Monitoring: <input type="checkbox"/> Applicable <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (update to existing)
3. Alternative Methods of Operation: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements Comment

OTHER Emissions Unit Information <input checked="" type="checkbox"/> Applicable <input checked="" type="checkbox"/> Attachment
<u>Emission Unit Attachments</u> Attachment 2 – Emission Calculations

SWA Title V Permit Revision Application

Attachment 2

Emission Calculations

Potential To Emit using Permit PSD FL-108A Emission Limits

Heat Input Emission Factor Based

$$\begin{aligned}
 &\text{Heat Input using 5700 Btu/lb} \quad 900 \frac{\text{ton}}{\text{day}} \times 5700 \frac{\text{Btu}}{\text{lb}} \times 2000 \frac{\text{lbs}}{\text{ton}} \times \frac{1 \text{ day}}{24 \text{ hours}} \times \frac{1 \text{ MMBtu}}{1000000 \text{ Btu}} = \boxed{427.5 \frac{\text{MMBtu}}{\text{hr}}} \\
 &427.5 \frac{\text{MMBtu}}{\text{hr}} \times 8760 \frac{\text{hr}}{\text{year}} = \boxed{3,744,900 \frac{\text{MMBtu}}{\text{year}}}
 \end{aligned}$$

Potential To Emit - Volatile Organic Compounds, VOC

Emission Factor = 1.60E-02 lbs/MMBtu

$$\text{Hourly Boiler PTE} = 1.60\text{E-}02 \frac{\text{lbs}}{\text{MMBtu}} \times 427.5 \frac{\text{MMBtu}}{\text{hr}} = \boxed{6.84 \frac{\text{lb}}{\text{hr}}}$$

$$\text{Annual Boiler PTE} = 6.84 \frac{\text{lb}}{\text{hr}} \times 8760 \frac{\text{hr}}{\text{year}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} = \boxed{30.0 \frac{\text{tons}}{\text{year}}}$$

Potential To Emit - Lead, Pb

Emission Factor = 4.00E-04 lbs/MMBtu

$$\text{Hourly Boiler PTE} = 4.00\text{E-}04 \frac{\text{lbs}}{\text{MMBtu}} \times 427.5 \frac{\text{MMBtu}}{\text{hr}} = \boxed{0.17 \frac{\text{lb}}{\text{hr}}}$$

$$\text{Annual Boiler PTE} = 0.17 \frac{\text{lb}}{\text{hr}} \times 8760 \frac{\text{hr}}{\text{year}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} = \boxed{0.74 \frac{\text{tons}}{\text{year}}}$$

Potential To Emit - Mercury, Hg

Emission Factor = 2.40E-04 lbs/MMBtu

$$\text{Hourly Boiler PTE} = 2.40\text{E-}04 \frac{\text{lbs}}{\text{MMBtu}} \times 427.5 \frac{\text{MMBtu}}{\text{hr}} = \boxed{0.10 \frac{\text{lb}}{\text{hr}}}$$

$$\text{Annual Boiler PTE} = 0.10 \frac{\text{lb}}{\text{hr}} \times 8760 \frac{\text{hr}}{\text{year}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} = \boxed{0.44 \frac{\text{tons}}{\text{year}}}$$

Potential To Emit - Nitrogen Oxides, NOx

Emission Factor = 0.48 lbs/MMBtu

$$\text{Hourly Boiler PTE} = 0.48 \frac{\text{lbs}}{\text{MMBtu}} \times 427.5 \frac{\text{MMBtu}}{\text{hr}} = \boxed{205.2 \frac{\text{lb}}{\text{hr}}}$$

$$\text{Annual Boiler PTE} = 205.2 \frac{\text{lb}}{\text{hr}} \times 8760 \frac{\text{hr}}{\text{year}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} = \boxed{898.8 \frac{\text{tons}}{\text{year}}}$$

Potential To Emit using Permit PSD FL-108A Emission Limits

Concentration Emission Factor Based

Using Flowrate of 118174 dscf/min @ 7% O₂

Potential to Emit - HCl

Emission Factor = 25.0 ppmvd @ 7% O₂

$$\text{Hourly Boiler PTE} = 25.0 \frac{\text{ppmvd}}{} \times \frac{1 \text{ part}}{1000000 \text{ million}} \times \frac{R - \text{lbmol}}{0.7302 \text{ ft}^3 - \text{atm}} \times \frac{1 \text{ atm}}{} \times 36.46 \frac{\text{lb}}{\text{lbmol}} \times 118174 \frac{\text{dscf}}{\text{min}} \times \frac{60 \text{ min}}{\text{hour}} \times 528 \text{ R} = \boxed{16.8 \frac{\text{lb}}{\text{hr}}}$$

$$\text{Annual Boiler PTE} = 16.8 \frac{\text{lb}}{\text{hr}} \times \frac{8760 \text{ hours}}{\text{year}} \times \frac{\text{tons}}{2000 \text{ lbs}} = \boxed{73.6 \frac{\text{tons}}{\text{year}}}$$

Potential to Emit - CO

Emission Factor = 400.0 ppmvd @ 7% O₂

$$\text{Hourly Boiler PTE} = 400.0 \frac{\text{ppmvd}}{} \times \frac{1 \text{ part}}{1000000 \text{ million}} \times \frac{R - \text{lbmol}}{0.7302 \text{ ft}^3 - \text{atm}} \times \frac{1 \text{ atm}}{} \times 28 \frac{\text{lb}}{\text{lbmol}} \times 118174 \frac{\text{dscf}}{\text{min}} \times \frac{60 \text{ min}}{\text{hour}} \times 528 \text{ R} = \boxed{206.0 \frac{\text{lb}}{\text{hr}}}$$

$$\text{Annual Boiler PTE} = 206.0 \frac{\text{lb}}{\text{hr}} \times \frac{8760 \text{ hours}}{\text{year}} \times \frac{\text{tons}}{2000 \text{ lbs}} = \boxed{902.3 \frac{\text{tons}}{\text{year}}}$$

Potential To Emit using Permit PSD FL-108A Emission Limits

Potential to Emit - SO2

Emission Factor = 30.0 ppmvd @ 7% O₂

$$\text{Hourly Boiler PTE} = 30.0 \frac{\text{ppmvd}}{\text{dscf}} \times \frac{1 \text{ part}}{1000000 \text{ million}} \times \frac{\text{R - lbmol}}{0.7302 \text{ ft}^3 \text{ - atm}} \times \frac{1 \text{ atm}}{\text{atm}} \times \frac{64 \text{ lb}}{\text{lbmol}} \times 118174 \frac{\text{dscf}}{\text{min}} \times \frac{60 \text{ min}}{\text{hour}} \times \frac{1}{528 \text{ R}} = \boxed{35.3 \frac{\text{lb}}{\text{hr}}}$$

$$\text{Annual Boiler PTE} = 35.3 \frac{\text{lb}}{\text{hr}} \times \frac{8760 \text{ hours}}{\text{year}} \times \frac{\text{tons}}{2000 \text{ lbs}} = \boxed{154.6 \frac{\text{tons}}{\text{year}}}$$

Potential to Emit - PM

Emission Factor = 0.015 grains/dscf

$$\text{Hourly Boiler PTE} = 0.015 \frac{\text{grains}}{\text{dscf}} \times \frac{\text{lb}}{7000 \text{ grains}} \times 118174 \frac{\text{dscf}}{\text{min}} \times \frac{60 \text{ min}}{\text{hour}} = \boxed{15.2 \frac{\text{lb}}{\text{hr}}}$$

$$\text{Annual Boiler PTE} = 15.2 \frac{\text{lb}}{\text{hr}} \times \frac{8760 \text{ hours}}{\text{year}} \times \frac{\text{tons}}{2000 \text{ lbs}} = \boxed{66.6 \frac{\text{tons}}{\text{year}}}$$

Potential to Emit - Ammonia - NH3

Correct flowrate to 15% O₂

$$\text{Flowrate @ 15\%O}_2 = 118174 \frac{\text{dscf}}{\text{min}} \times \frac{(20.9\% \text{ O}_2 - 7\% \text{ O}_2)}{(20.9\% \text{ O}_2 - 15\% \text{ O}_2)} = 278,410 \text{ dscf/min @ 15\% O}_2$$

Emission Factor = 15 ppmvd @ 15% O₂

$$\text{Hourly Boiler PTE} = 15 \frac{\text{ppmvd}}{\text{dscf}} \times \frac{1 \text{ part}}{1000000 \text{ million}} \times \frac{\text{R - lbmol}}{0.7302 \text{ ft}^3 \text{ - atm}} \times \frac{1 \text{ atm}}{\text{atm}} \times \frac{17 \text{ lb}}{\text{lbmol}} \times 278410 \frac{\text{dscf}}{\text{min}} \times \frac{60 \text{ min}}{\text{hour}} \times \frac{1}{528 \text{ R}} = \boxed{11.0 \frac{\text{lb}}{\text{hr}}}$$

$$\text{Annual Boiler PTE} = 11.0 \frac{\text{lb}}{\text{hr}} \times \frac{8760 \text{ hours}}{\text{year}} \times \frac{\text{tons}}{2000 \text{ lbs}} = \boxed{48.2 \frac{\text{tons}}{\text{year}}}$$

Potential To Emit - Dioxin Furan (MWC Organics)

Using Flowrate of 118174 dscf/min @ 7% O₂

$$\text{Convert flowrate to dscm} = 118174 \frac{\text{dscf}}{\text{min}} \times \frac{\text{meter}}{35.315 \text{ cubic foot}} = 3346.3 \text{ dscm/min @ 7\% O}_2$$

Emission Factor = 60 ng/dscm

$$\text{Hourly Boiler PTE} = 60 \frac{\text{ng}}{\text{dscm}} \times 3,346.3 \frac{\text{dscm}}{\text{min}} \times \frac{60 \text{ min}}{\text{hr}} \times \frac{\text{g}}{1.00\text{E}+09 \text{ ng}} \times \frac{\text{lb}}{453.6 \text{ g}} = \boxed{2.66\text{E-}05 \frac{\text{lb}}{\text{hour}}}$$

$$\text{Annual Boiler PTE} = 2.66\text{E-}05 \frac{\text{lb}}{\text{hour}} \times \frac{8760 \text{ hours}}{\text{year}} \times \frac{\text{ton}}{2000 \text{ lb}} = \boxed{1.17\text{E-}04 \frac{\text{tons}}{\text{year}}}$$

Potential To Emit using NSPS Subpart Cb Emission Limits

Concentration Emission Factor Based

118174 dscf/min @ 7% O₂

Convert flowrate to dscm 118174 dscf/min x $\frac{\text{meter}}{35.315 \text{ cubic foot}}$ = 3346.3 dscm/min@ 7% O₂

Potential To Emit - Particulates, PM

Emission Factor = 25 mg/dscm

$$\text{Hourly Boiler PTE} = \frac{25 \text{ mg}}{\text{dscm}} \times 3,346.3 \frac{\text{dscm}}{\text{min}} \times \frac{60 \text{ min}}{\text{hr}} \times \frac{1000 \text{ g}}{\text{mg}} \times \frac{\text{lb}}{453.6 \text{ g}} = \boxed{11.1 \frac{\text{lb}}{\text{hour}}}$$

$$\text{Annual Boiler PTE} = \frac{11.10 \text{ lb}}{\text{hour}} \times 8760 \frac{\text{hours}}{\text{year}} \times \frac{\text{ton}}{2000 \text{ lb}} = \boxed{48.6 \frac{\text{tons}}{\text{year}}}$$

Potential To Emit - Lead, Pb

Emission Factor = 0.40 mg/dscm

$$\text{Hourly Boiler PTE} = \frac{0.40 \text{ mg}}{\text{dscm}} \times 3,346.3 \frac{\text{dscm}}{\text{min}} \times \frac{60 \text{ min}}{\text{hr}} \times \frac{1000 \text{ g}}{\text{mg}} \times \frac{\text{lb}}{453.6 \text{ g}} = \boxed{0.18 \frac{\text{lb}}{\text{hour}}}$$

$$\text{Annual Boiler PTE} = \frac{0.18 \text{ lb}}{\text{hour}} \times 8760 \frac{\text{hours}}{\text{year}} \times \frac{\text{ton}}{2000 \text{ lb}} = \boxed{0.79 \frac{\text{tons}}{\text{year}}}$$

Potential To Emit - Cadmium, Cd

Emission Factor = 0.035 mg/dscm

$$\text{Hourly Boiler PTE} = \frac{0.035 \text{ mg}}{\text{dscm}} \times 3,346.3 \frac{\text{dscm}}{\text{min}} \times \frac{60 \text{ min}}{\text{hr}} \times \frac{1000 \text{ g}}{\text{mg}} \times \frac{\text{lb}}{453.6 \text{ g}} = \boxed{0.02 \frac{\text{lb}}{\text{hour}}}$$

$$\text{Annual Boiler PTE} = \frac{0.02 \text{ lb}}{\text{hour}} \times 8760 \frac{\text{hours}}{\text{year}} \times \frac{\text{ton}}{2000 \text{ lb}} = \boxed{0.09 \frac{\text{tons}}{\text{year}}}$$

Potential To Emit - Mercury, Hg

Emission Factor = 50 µg/dscm

$$\text{Hourly Boiler PTE} = \frac{50 \text{ µg}}{\text{dscm}} \times 3,346.3 \frac{\text{dscm}}{\text{min}} \times \frac{60 \text{ min}}{\text{hr}} \times \frac{1000000 \text{ g}}{\text{µg}} \times \frac{\text{lb}}{453.6 \text{ g}} = \boxed{0.02 \frac{\text{lb}}{\text{hour}}}$$

$$\text{Annual Boiler PTE} = \frac{0.02 \text{ lb}}{\text{hour}} \times 8760 \frac{\text{hours}}{\text{year}} \times \frac{\text{ton}}{2000 \text{ lb}} = \boxed{0.09 \frac{\text{tons}}{\text{year}}}$$

Potential To Emit using NSPS Subpart Cb Emission Limits

Potential To Emit - Dioxin Furan (MWC Organics)

Emission Factor = 30 ng/dscm

$$\text{Hourly Boiler PTE} = \frac{30 \text{ ng}}{\text{dscm}} \times 3,346.3 \frac{\text{dscm}}{\text{min}} \times \frac{60 \text{ min}}{\text{hr}} \times 1.00\text{E}+09 \frac{\text{g}}{\text{ng}} \times \frac{\text{lb}}{453.6 \text{ g}} = \boxed{1.33\text{E}-05 \frac{\text{lb}}{\text{hour}}}$$

$$\text{Annual Boiler PTE} = \frac{1.33\text{E}-05 \text{ lb}}{\text{hour}} \times 8760 \frac{\text{hours}}{\text{year}} \times \frac{\text{ton}}{2000 \text{ lb}} = \boxed{5.83\text{E}-05 \frac{\text{tons}}{\text{year}}}$$

Potential to Emit - NOx

Emission Factor = 250 ppmvd @ 7% O₂

$$\text{Hourly Boiler PTE} = \frac{250 \text{ ppmvd}}{\text{million}} \times \frac{1 \text{ part}}{1000000} \times \frac{\text{R - lbmol}}{0.7302 \text{ ft}^3 \text{ - atm}} \times \frac{1 \text{ atm}}{\text{atm}} \times \frac{46 \text{ lb}}{\text{lbmol}} \times \frac{118174 \text{ dscf}}{\text{min}} \times \frac{60 \text{ min}}{\text{hour}} \times \frac{1}{528 \text{ R}} = \boxed{211.5 \frac{\text{lb}}{\text{hr}}}$$

$$\text{Annual Boiler PTE} = \frac{211.5 \text{ lb}}{\text{hr}} \times \frac{8760 \text{ hours}}{\text{year}} \times \frac{\text{tons}}{2000 \text{ lbs}} = \boxed{926.4 \frac{\text{tons}}{\text{year}}}$$

Potential to Emit - CO

Emission Factor = 200 ppmvd @ 7% O₂

$$\text{Hourly Boiler PTE} = \frac{200.0 \text{ ppmvd}}{\text{million}} \times \frac{1.000 \text{ part}}{1000000} \times \frac{\text{R - lbmol}}{0.7302 \text{ ft}^3 \text{ - atm}} \times \frac{1 \text{ atm}}{\text{atm}} \times \frac{28 \text{ lb}}{\text{lbmol}} \times \frac{118174 \text{ dscf}}{\text{min}} \times \frac{60 \text{ min}}{\text{hour}} \times \frac{1}{528 \text{ R}} = \boxed{103.0 \frac{\text{lb}}{\text{hr}}}$$

$$\text{Annual Boiler PTE} = \frac{103.0 \text{ lb}}{\text{hr}} \times \frac{8760 \text{ hours}}{\text{year}} \times \frac{\text{tons}}{2000 \text{ lbs}} = \boxed{451.1 \frac{\text{tons}}{\text{year}}}$$

Potential to Emit - SO2

Emission Factor = 29.0 ppmvd @ 7% O₂

$$\text{Hourly Boiler PTE} = \frac{29.0 \text{ ppmvd}}{\text{million}} \times \frac{1 \text{ part}}{1000000} \times \frac{\text{R - lbmol}}{0.7302 \text{ ft}^3 \text{ - atm}} \times \frac{1 \text{ atm}}{\text{atm}} \times \frac{64 \text{ lb}}{\text{lbmol}} \times \frac{118174 \text{ dscf}}{\text{min}} \times \frac{60 \text{ min}}{\text{hour}} \times \frac{1}{528 \text{ R}} = \boxed{34.1 \frac{\text{lb}}{\text{hr}}}$$

$$\text{Annual Boiler PTE} = \frac{34.1 \text{ lb}}{\text{hr}} \times \frac{8760 \text{ hours}}{\text{year}} \times \frac{\text{tons}}{2000 \text{ lbs}} = \boxed{149.4 \frac{\text{tons}}{\text{year}}}$$

Potential to Emit - HCl

Emission Factor = 29.0 ppmvd @ 7% O₂

$$\text{Hourly Boiler PTE} = \frac{29.0 \text{ ppmvd}}{\text{million}} \times \frac{1 \text{ part}}{1000000} \times \frac{\text{R - lbmol}}{0.7302 \text{ ft}^3 \text{ - atm}} \times \frac{1 \text{ atm}}{\text{atm}} \times \frac{36.46 \text{ lb}}{\text{lbmol}} \times \frac{118174 \text{ dscf}}{\text{min}} \times \frac{60 \text{ min}}{\text{hour}} \times \frac{1}{528 \text{ R}} = \boxed{19.4 \frac{\text{lb}}{\text{hr}}}$$

$$\text{Annual Boiler PTE} = \frac{19.4 \text{ lb}}{\text{hr}} \times \frac{8760 \text{ hours}}{\text{year}} \times \frac{\text{tons}}{2000 \text{ lbs}} = \boxed{85.0 \frac{\text{tons}}{\text{year}}}$$

SWA Title V Permit Revision Application

Attachment 3

Requested Changes to Title V Air Permit (narrative)

SWA Title V Permit Revision Application

Attachment 3

Requested Changes to Title V Air Permit

1. Remove the absolute temperature limit of 300F at the exit of the dry scrubber

Introduction

The existing Title V Permit 09900234-020-V includes a maximum exhaust gas temperature limitation of 300°F. This temperature limitation is in addition to the general temperature restriction that is included in the permit which is consistent with the NSPS Subpart Cb language. The Subpart Cb regulation (40 CFR 60.34b(b) and 40 CFR 60.51b), limits the stack gas exhaust temperature measured at the particulate matter control device inlet to 17°C above the measured temperature during the most recent stack test that demonstrated compliance with the dioxin/furans (MWC Organics) emission limit.

The Permit to Construct for the Refurbishment of the boilers granted the request to delete this specific condition.

Current Status

The issued Air Permit to Construct 0990234-015AC/PSD-FL-108H granted the request to remove this absolute temperature limit and included, as condition 19, in the section “**REVISED CONDITIONS TO PREVIOUS PERMITS** (shown below) the revised language.

19. Revised Permit Conditions: The following revise specific conditions in Permit No. PSD-FL-108 (as modified). All other permit conditions remain unchanged.

Specific Condition 6.

~~The temperature at the exit of the dry scrubber shall not exceed 300 oF (4 hour block average). Appropriate instrumentation shall be installed, if not already installed, within 180 days of issuance of this permit, at a proper location to continuously monitor and record these operating temperatures. In accordance with the provisions of §60.53b(c), the owner or operator shall operate each unit in compliance with the specified particulate matter control device temperatures. In accordance with the provisions of §60.58b(i)(7), the owner or operator shall install, calibrate, maintain and operate equipment to continuously monitor and record the particulate matter control device temperature of each unit. The existing monitoring equipment shall comply with these requirements or the owner or operator shall install new monitoring equipment to comply with the federal regulations. [PSD-FL-108A; Project No. 0990234-015-AC/PSD-FL-108H; and 40CFR 60.58b(i)(7)]~~

SWA Title V Permit Revision Application

Attachment 3

Requested Change

The compliance test results for Boiler 1 and Boiler 2 following the refurbishment, (Attachment 4- Compliance Report) demonstrated that the permitted emission limits are met while operating at a temperature above 300 deg F. therefore, the Authority requests that the 300 deg F be removed from the Title V permit and be replaced with the language from PSD-FL-108H or default to the CFR subpart.

2. Update the Air Pollution Equipment Descriptions for Boiler 1 and Boiler 2

The refurbishment project included the upgrade of existing air pollution control equipment and the installation of additional air pollution control equipment. The control equipment descriptions will therefore change in the permit application forms.

The following is a summary of the equipment changes for your reference.

Pollutant	Code	Equipment		Description
SO2	13	GAS SCRUBBER, GENERAL	UPGRADED	Sprayer Dryer Absorber (SDA) system was replaced with a new SDA system which is slightly larger and fitted with baffles, to provide increased residence time, and has multiple lime injection nozzles.
PM	10	ELECTROSTATIC PRECIPITATOR HIGH EFFICIENCY (95.0-99.9%)	REMOVED	B&W/BSH Krefield 4-field ESP
PM	16	FABRIC FILTER HIGH TEMPERATURE (T>250F)	NEW	A six-compartment pulse-jet fabric filter system (baghouse). Each compartment has a pyramid shaped hopper to improve ash removal.
Hg	48	ACTIVATED CARBON ADSORPTION SYSTEM	NEW	A new Activated Carbon Injection system will inject activated carbon (PAC) to control Mercury
NOx	107	SELECTIVE NONCATALYTIC REDUCTION FOR NOX	NEW	A new selective non catalytic reduction system for NOx reduction has two levels of injectors and 9 injectors per level.
NOx CO	025	OVERFIRE AIR	NEW	Staged overfire air "OFA" combustion system to enhance complete combustion of RDF while reducing thermal NOx.

SWA Title V Permit Revision Application

Attachment 3

3. Change the Permit Emission Factor for Dioxin Furans (MWC Organics).

The two boilers are subject to 40 CFR 60 New Source Performance Standards (NSPS) Subpart Cb, Emission Guidelines and Compliance Times for Large Municipal Waste Combustors that are constructed on or before September 20, 1994.

The allowable emission rates for several of the pollutants were modified effective April 2009, including those for Dioxins/Furans (MWC Organics). The Dioxins/Furans emission rate changed from 60 ng/dscm to 35 ng/dscm for units controlled with an Electrostatic Precipitator (ESP) and 30 ng/dscm for those units controlled with other technologies, such as fabric filters.

Requested Change

As the Refurbishment project removed the ESP and replaced it with a fabric filter system, the 40 CFR 60 Subpart Cb applicable allowable Dioxins/Furans (MWC Organics) emission rate for the boilers is 30 ng/dscm.

4. Change the VOC emission testing frequency from once during the Federal fiscal year to once before permit renewal.

The current title V permit specifies the frequency of emissions testing as once during the Federal Fiscal year (October 1- September 30).

Historical VOC emission rate stack test data has been collected for the years 2005 to 2010 for Boiler 1 and 2005 to 2011 for Boiler 2, together with the annual average CO concentrations from the certified CEMS monitor. This data, presented in the following table, demonstrates that the emission rate of VOC has been consistently measured to be well below the permit limit and at no time has exceeded 30% of the permitted emission level. This request is for a change to the required frequency of emission testing for VOC from once each Federal Fiscal year to once before permit renewal. An AC permit application is being filed concurrently to request this same change for PSD-FL-108A.

Requested Change

Reduce the frequency of testing for VOC from once during the Federal fiscal year to once before permit renewal.

SWA Requested Changes to Title V Permit and PSD Permit PSD-FL-108A
 Historical VOC and CO Emission Data for Boiler 1 and Boiler 2

		Unit 1			Unit 2		
		CO ppm vd	VOC lb/MMBtu	VOC % permit limit	CO ppm vd	VOC lb/MMBtu	VOC % permit limit
Pre Refurbishment	2005	81.5	5.00E-04	3.13%	54.2	4.00E-04	2.50%
	2006	65.8	1.10E-03	6.88%	65.1	6.00E-04	3.75%
	2007	71.1	4.00E-04	2.50%	90.7	3.00E-04	1.88%
	2008	99.3	1.27E-05	0.08%	90.7	1.00E-03	6.25%
	2009	100.1	1.00E-04	0.63%	93.2	2.00E-04	1.25%
	2010	144.0	3.40E-03	21.25%	90.1	4.80E-03	30.00%
Post Refurbishment	2010	112.3	4.09E-05	0.26%	-	-	-
	2011	-	-	-	-	1.00E-03	6.25%
<i>Average</i>		<i>96.3</i>	<i>7.93E-04</i>	<i>4.96%</i>	<i>80.7</i>	<i>1.19E-03</i>	<i>7.41%</i>

Notes:

1. Average of three stack test runs in units of lb/MMBTU was taken.
2. Permit VOC emission limit is 1.6E-2 lb/MMBtu
3. CO Concentration (ppmvd) are obtained from the certified CEMS monitor and corrected for 7% O₂
 Concentrations are the average annual concentrations.
 Permit CO limits are: 4-hr limit is 400 ppm and 24 hour limit is 200 ppm
4. Annual VOC data were obtained from the annual compliance reports.
5. Annual CO concentration data for 2011 is not yet available.

SWA Title V Permit Revision Application

Attachment 4

Requested Changes to PSD-FL-108A Air Permit (narrative)

SWA Title V Permit Revision Application

Attachment 4

Requested Changes to PSD Permit PSD-FL-108A

1. Change the frequency of VOC testing from annual to prior to permit renewal for EU001 and EU002

Permit PSD-FL-108A Condition 4 specifies that each unit will be tested within 180 days of the permit issuance and annually thereafter, to demonstrate compliance with the emission limits listed in condition 3; condition 3h specifies a VOC emission limit of 0.016 lbs/MMBtu.

Historical VOC emission rate stack test data has been collected for the years 2005 to 2010 for Boiler 1 and 2005 to 2011 for Boiler 2, together with the annual average CO concentrations from the certified CEMS monitor. This data, presented in the following table, demonstrates that the emission rate of VOC has been consistently measured to be well below the permit limit and at no time has exceeded 30% of the permitted emission level. This request is for a change to the required frequency of emission testing for VOC from once annually to once before permit renewal.

2. Modify the language of the frequency of testing for Specific Condition 4, from annual to calendar year basis, to match the testing frequency language in the Title V permit.

Permit PSD-FL-108A specifies that each unit will be tested within 180 days of the permit issuance and annually thereafter, to demonstrate compliance with the emission limits listed in condition 3, including PM, NO_x, opacity, CO, Hg, Pb, SO₂, HCl, and Dioxin/Furans.

The current draft renewal Title V Permit No. 0990234-20 AV contains the language for the testing frequency of these pollutants on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period). This request is for a change to the language of condition 4 of the PSD-FL-108A to be consistent with the Title V language.

Requested change:

PSD-FL-108A, Specific Condition 4.

4. *Each unit shall be tested within 180 day of issuance of this permit, and ~~annually~~ thereafter on a calendar year basis, (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; must complete 5 performance tests in each 5-year calendar period) to demonstrate compliance with the emission standards mention in specific condition No.3, using the following EPA test methods contained in 40CFR 60, Appendix A and in accordance with F.A.C Section 17-2.700:*

SWA Requested Changes to Title V Permit and PSD Permit PSD-FL-108A
Historical VOC and CO Emission Data for Boiler 1 and Boiler 2

		Unit 1			Unit 2		
		CO	VOC	VOC	CO	VOC	VOC
		ppm vd	lb/MMBtu	% permit limit	ppm vd	lb/MMBtu	% permit limit
Pre Refurbishment	2005	81.5	5.00E-04	3.13%	54.2	4.00E-04	2.50%
	2006	65.8	1.10E-03	6.88%	65.1	6.00E-04	3.75%
	2007	71.1	4.00E-04	2.50%	90.7	3.00E-04	1.88%
	2008	99.3	1.27E-05	0.08%	90.7	1.00E-03	6.25%
	2009	100.1	1.00E-04	0.63%	93.2	2.00E-04	1.25%
	2010	144.0	3.40E-03	21.25%	90.1	4.80E-03	30.00%
Post Refurbishment	2010	112.3	4.09E-05	0.26%	-	-	-
	2011	-	-	-	-	1.00E-03	6.25%
<i>Average</i>		<i>96.3</i>	<i>7.93E-04</i>	<i>4.96%</i>	<i>80.7</i>	<i>1.19E-03</i>	<i>7.41%</i>

Notes:

1. Average of three stack test runs in units of lb/MMBTU was taken.
2. Permit VOC emission limit is 1.6E-2 lb/MMBtu
3. CO Concentration (ppmvd) are obtained from the certified CEMS monitor and corrected for 7% O2
Concentrations are the average annual concentrations.
Permit CO limits are: 4-hr limit is 400 ppm and 24 hour limit is 200 ppm
4. Annual VOC data were obtained from the annual compliance reports.
5. Annual CO concentration data for 2011 is not yet available.

SWA Title V Permit Revision Application

Attachment 5

Compliance Report

Attachment 5A

Statement of Compliance



RECEIVED

FEB 09 2011

FL DEP
WEST PALM BEACH

FILE COPY

February 11, 2011

Environmental Protection Agency, Region 4
Air, Pesticides & Toxics Management Division
Air Enforcement Section
61 Forsyth Street
Atlanta, GA 30303-8960

RE: **Annual Statement of Compliance – YEAR 2010
North County Resource Recovery Facility
Title V Permit #0990234-016-AV**

Dear Air Specialist:

Please find enclosed a completed Annual Statement of Compliance 2010 for North County Resource Recovery Facility (ID # 0990234) as required in Title V Permit # 0990234-016-AV.

If there are any questions or comments regarding the Annual Statement of Compliance please contact Mary Beth Morrison at (561) 640-4000 ext. 4613.

Sincerely,

Mark Hammond
Executive Director

Enclosure

cc: Lennon Anderson, SE District-FDEP
Marc Bruner, SWA (w/o enclosure)
Mark McLean, SWA (w/o enclosure)



Department of Environmental Protection

Division of Air Resource Management

STATEMENT OF COMPLIANCE - TITLE V SOURCE

REASON FOR SUBMISSION (Check one to indicate why this statement of compliance is being submitted)

Annual Requirement Transfer of Permit Permanent Facility Shutdown

REPORTING PERIOD*	REPORT DEADLINE**
January 1 through December 31 of 2010 (year)	March 1, 2011

*The statement of compliance must cover all conditions that were in effect during the indicated reporting period, including any conditions that were added, deleted, or changed through permit revision.

**See Rule 62-213.440(3)(a)2., F.A.C.

Facility Owner/Company Name: Solid Waste Authority of Palm Beach County

Site Name: NCRRF Facility ID No. 0990234 County: Palm Beach

COMPLIANCE STATEMENT (Check only one of the following three options)

A. This facility was in compliance with all terms and conditions of the Title V Air Operation Permit and, if applicable, the Acid Rain Part, and there were no reportable incidents of deviations from applicable requirements associated with any malfunction or breakdown of process, fuel burning or emission control equipment, or monitoring systems during the reporting period identified above.

B. This facility was in compliance with all terms and conditions of the Title V Air Operation Permit and, if applicable, the Acid Rain Part; however, there were one or more reportable incidents of deviations from applicable requirements associated with malfunctions or breakdowns of process, fuel burning or emission control equipment, or monitoring systems during the reporting period identified above, which were reported to the Department. For each incident of deviation, the following information is included:

1. Date of report previously submitted identifying the incident of deviation.
2. Description of the incident.

C. This facility was in compliance with all terms and conditions of the Title V Air Operation Permit and, if applicable, the Acid Rain Part, EXCEPT those identified in the pages attached to this report and any reportable incidents of deviations from applicable requirements associated with malfunctions or breakdowns of process, fuel burning or emission control equipment, or monitoring systems during the reporting period identified above, which were reported to the Department. For each item of noncompliance, the following information is included:

1. Emissions unit identification number.
2. Specific permit condition number (note whether the permit condition has been added, deleted, or changed during certification period).
3. Description of the requirement of the permit condition.
4. Basis for the determination of noncompliance (for monitored parameters, indicate whether monitoring was continuous, i.e., recorded at least every 15 minutes, or intermittent).
5. Beginning and ending dates of periods of noncompliance.
6. Identification of the probable cause of noncompliance and description of corrective action or preventative measures implemented.
7. Dates of any reports previously submitted identifying this incident of noncompliance.

For each incident of deviation, as described in paragraph B. above, the following information is included:

1. Date of report previously submitted identifying the incident of deviation.
2. Description of the incident.

STATEMENT OF COMPLIANCE - TITLE V SOURCE

RESPONSIBLE OFFICIAL CERTIFICATION

I, the undersigned, am a responsible official (Title V air permit application or responsible official notification form on file with the Department) of the Title V source for which this document is being submitted. With respect to all matters other than Acid Rain program requirements, I hereby certify, based on the information and belief formed after reasonable inquiry, that the statements made and data contained in this document are true, accurate, and complete.

Mark M. Hammond 2/7/11
(Signature of Title V Source Responsible Official) (Date)

Name: Mark Hammond

Title: Executive Director

DESIGNATED REPRESENTATIVE CERTIFICATION (only applicable to Acid Rain source)

I, the undersigned, am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

(Signature of Acid Rain Source Designated Representative) (Date)

Name: _____

Title: _____

{Note: Attachments, if required, are created by a responsible official or designated representative, as appropriate, and should consist of the information specified and any supporting records. Additional information may also be attached by a responsible official or designated representative when elaboration is required for clarity. This report is to be submitted to both the compliance authority (DEP district or local air program) and the U.S. Environmental Protection Agency (EPA) (U.S. EPA Region 4, Air and EPCRA Enforcement Branch, 61 Forsyth Street, Atlanta GA 30303).}

2010
Annual Statement of Compliance
for
North County Resource Recovery Facility
Title V Air Operating Permit: 0990234-016-AV
Facility ID No: 0990234

FDEP Form No. 62-213.900 (7)

C. This facility was in compliance with all terms and conditions of the Title V Air Operation Permit and, if applicable, the Acid Rain Part, EXCEPT those identified in the pages attached to this report. For each item of noncompliance, the following information is included:

(1). SWA discovered that exceedances of "other structures" (i.e., drip leg, horizontal collector, remote well, trench well, and header condensate drain) of the NCRRF Class I & III landfill gas systems were not properly monitored and reported in the semi-annual reports.

1. Emission Unit Identification number: 008 Class I Landfill/Flare & 004 Class III Landfill/Flare

2. Specific permit condition number: Title V Air Operating Permit: 0990234-016-AV Permit condition B.6, B.7, B.20, B.25, B.36 & Appendix TV -5, Title V Cond. 43.

3. Description of the requirement of the permit condition:

B.6 & B.7 – requires that the gas collection systems operate within specific parameters for pressure, temperature, oxygen, and nitrogen.

B.20 – requires that the pressure, temperature, and oxygen of active wells be monitored and appropriate action be taken of the levels exceed operating parameters.

B.25 – requires that the facility monitor the temperature, pressure, and oxygen on a monthly basis.

B.36 – requires that the owner or operator submit reports showing the value and length of time of exceedances of applicable parameters monitored under 40CFR60.756.

Appendix TV -5, Title V Condition 43, states that the permittee shall submit reports of any required monitoring at least every six months. Any deviations from permit requirements must be clearly identified in such reports.

4. Basis for the determination of noncompliance (for monitored parameters, indicate whether monitoring was continuous, i.e., recorded at least every 15 minutes, or intermittent): **Recordkeeping review.**

5. Beginning and ending dates of periods of noncompliance:

January 2005 – December 2009 (detailed list provided to the Department on April 29, 2010 correspondence)

6. Identification of the probable cause of noncompliance and description of corrective action or preventative measure implemented:

Verbal approval of FDEP air regulator and interpretation of definition of a well as defined under subpart WWW.

7. Dates of any reports previously submitted identifying this incident of noncompliance:

An email was sent to FDEP on February 8, 2010, informing the Department that some exceedances for other well structures may have not been properly reported in the semi-annual landfill gas report. The incident was also reported in February 22, 2010 in the Annual Statement of Compliance. A meeting was held with Department staff on March 18, 2010 to discuss the matter. A follow-up letter was submitted to the Department on April 29, 2010, which detailed a summary of the structures and dates of non-compliance. On August 2, 2010, a warning letter was issued from the Department and the enforcement matter is still being evaluated.

Annual Statement of Compliance 2010

North County Resource Recovery Facility

Title V Air Operations Permit: 0990234-016-AV

Facility ID Number: 0990234

For each incident of deviation as described in Paragraph B. above, the following information is included:

1. Date of report previously submitted identifying the incident of deviation.
2. Description of the incident

Date of Report Submitted	Description of Incident of Deviation
4/27/2010	1st Quarterly 2010 Excess Emissions Report for Unit 1 & Unit 2 Boilers identifying excess emissions for startup, shutdown, & malfunction and CEMDAS monitor downtime.
7/26/2010	2nd Quarterly 2010 Excess Emissions Report for Unit 1 & Unit 2 Boilers identifying excess emissions for startup, shutdown, & malfunction and CEMDAS monitor downtime.
10/29/2010	3rd Quarterly 2010 Excess Emissions Report for Unit 1 & Unit 2 Boilers identifying excess emissions for startup, shutdown, & malfunction and CEMDAS monitor downtime.
1/27/2011	4th Quarterly 2010 Excess Emissions Report for Unit 1 & Unit 2 Boilers identifying excess emissions for startup, shutdown, & malfunction and CEMDAS monitor downtime.
8/6/2010	Semi-Annual Operating Report (Jan-Jun 2010) Class I & III Landfills identifying wellhead exceedances, flare downtime more than 1 hour, collection system not in operation > 5 days, surface monitoring exceedances, report forms required by SSM plan.
2/3/2011	Semi-Annual Operating Report (Jul-Dec 2010) Class I & III Landfills identifying wellhead exceedances, flare downtime more than 1 hour, collection system not in operation > 5 days, surface monitoring exceedances, report forms required by SSM plan.

See Attachments

Attachment 5B

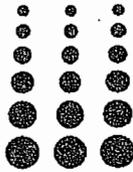
Post Refurbishment Stack Test Report Summary

Boiler 1 –

- December 2010,
- April 2011 Supplemental

Boiler 2 –

- April 2011



SOUTH FLORIDA ENVIRONMENTAL SERVICES
Air Quality Specialists

2010 EMISSION COMPLIANCE TEST REPORT

PALM BEACH RESOURCE RECOVERY CORPORATION

FACILITY ID 0990234

PREPARED FOR: Palm Beach Resource Recovery Corporation
6501 North Jog Road
West Palm Beach, FL 33412

CONCERNING: 2010 Emission Compliance Test
Boiler 1, Municipal Waste Combustor
November 29 – December 3, 2010

PREPARED BY: South Florida Environmental Services, LLC
West Palm Beach, FL 33411

PROJECT #: 10-545

SOLID WASTE AUTHORITY OF PALM BEACH COUNTY

NORTH COUNTY RESOURCE RECOVERY FACILITY
&
CLASS I & III LANDFILLS

Title V Air Operation Permit No. 0990234-015-AC

Owner/Responsible Official Certification

I, the undersigned, am the Responsible Official as defined in Chapter 62-210.200 F.A.C. I hereby certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.





Mark Hammond
Executive Director
Solid Waste Authority of Palm Beach County

Date



SOUTH FLORIDA ENVIRONMENTAL SERVICES
Air Quality Specialists

2010 EMISSION COMPLIANCE TEST REPORT

FACILITY ID 0990234

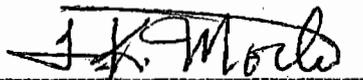
PALM BEACH RESOURCE RECOVERY CORPORATION

PREPARED FOR: Palm Beach Resource Recovery Corp.
6501 North Jog Road
West Palm Beach, FL 33412

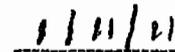
CONCERNING: 2010 Emission Compliance Test
Boiler 1, Municipal Waste Combustor

PREPARED BY: South Florida Environmental Services, LLC
2257 Vista Parkway Unit 25
West Palm Beach, FL 33411

I certify that all of the information contained in this report is true and correct to the best of my knowledge.



Francis K Morlu
Vice President / Technical Services / SFES



Date

1.0 COMPENDIUM (cont'd)

TABLE 1-4
SUMMARY OF VISIBLE EMISSIONS - METHOD 9
OPACITY RESULTS-BOILER 1

Unit	Highest 3 Minute Average	One Hour Average	Permit Limit
Unit 1	2.1	0.6	<10%

TABLE 1-5
SUMMARY OF FUGITIVE EMISSIONS - METHOD 22
OPACITY RESULTS - ASH HOUSE

Location	Time of Visible Emissions Present (min)	Permit Limit
South/East Side of Ash House	0.0	< 5% of observed time
North/West Side of Ash House	0.0	< 5% of observed time

TABLE 1-6
SUMMARY OF RESULTS FOR BOILER 1 – SDA INLET

Pollutant Measured	Run 1	Run 2	Run 3	Average	Permit Limit
Concentration (ppmvd @ 7% O₂)					
Hydrogen Chloride	595.24	548.51	481.21	541.32	N/A
Carbon Monoxide ¹	N/A	N/A	N/A	105.9	400 (4 Hr Block)
Carbon Monoxide ²	N/A	N/A	N/A	85.6	200 (24 Hr Block)
Concentration (mg/DSCM @ 7% O₂)					
Mercury	0.0403	0.0307	0.0342	0.0351	N/A
Emission Rate (lb/MMBtu)					
Mercury	3.40E-05	2.60E-05	2.89E-05	2.96E-05	N/A

¹ – In reporting the 4-hr block average, the highest 4-hr block was taken.

² – In reporting the 24-hr block average, the average CO emissions for the 24 hour period were taken.



1.0 COMPENDIUM (cont'd)

TABLE 1-7
SUMMARY OF RESULTS FOR BOILER 1 – ID FAN INLET

Pollutant Measured	Run 1	Run 2	Run 3	Average	Permit Limit
Concentration (ppmvd @ 7% O₂)					
Hydrogen Chloride	16.93	24.96	21.36	21.08	25
Sulfur Dioxide ¹	N/A	N/A	N/A	22.7	29
Nitrogen Oxides ¹	N/A	N/A	N/A	126.3	250
Concentration (ppmvd @ 15% O₂)					
Ammonia	2.31	2.37	2.11	2.26	15
Concentration (ng/DSCM @ 7% O₂)					
Total 4-8 PCDD/PCDF*	0.29	0.26	0.22	0.26	30
Concentration (mg/DSCM @ 7% O₂)					
Particulate	0.86	0.86	0.64	0.79	25
Mercury	0.0004	0.0004	0.0004	0.0004	0.050
Lead	0.0106	0.0062	0.0067	0.0078	0.400
Cadmium	0.0004	0.0001	0.0002	0.0003	0.035
Concentrations (gr/DSCF @ 7% O₂)					
Particulate	0.0004	0.0004	0.0003	0.0003	0.015
Emission Rate (lb/MMBtu)					
Hydrogen Fluoride	8.65E-05	8.81E-05	8.56E-05	8.67E-05	3.2E-03
Lead	8.93E-06	5.26E-06	5.63E-06	6.6E-06	4.0E-04
Mercury	3.68E-07	3.39E-07	3.15E-07	3.41E-07	2.4E-04
Cadmium	3.63E-07	1.03E-07	1.84E-07	2.17E-07	n/a
Beryllium	1.04E-07	1.03E-07	1.02E-07	1.03E-07	7.3E-07
Nitrogen Oxides ¹	N/A	N/A	N/A	0.186	0.48
Total Hydrocarbons (as CH ₄)	0.000	0.000	0.000	0.000	0.016
Percent Removal Efficiency (ppmvd @ 7% O₂)					
Hydrogen Chloride	97.2	95.5	96.1	96.3	95
Mercury	98.9	98.7	98.9	98.8	85
Visible Emissions (%)					
Opacity ²	1.1	1.4	1.2	1.2	≤10%

¹ – In reporting NO_x and SO₂ emissions, the average emissions for that specific pollutant 24 hour geometric average for SO₂ and 24 hour block average for NO_x.

² – Opacity readings were the average readings taken from COMS during PM runs; maximum values are presented in the Appendix.



1.0 COMPENDIUM (cont'd)

TABLE 1-8
SUMMARY OF THE AVERAGE STEAM FLOW DURING THE TESTS

11/29/10	1	U1-M23-R1	1220	1625	305.5	300.6
11/30/10	1	U1-M23-R2	845	1249	302.7	300.9
11/30/10	1	U1-M23-R3	1320	1733	307.1	301.5
11/30/10	1	U1-M26-R1	1100	1200	299.8	298.0
11/30/10	1	U1-M26-R2	1220	1320	305.5	300.8
11/30/10	1	U1-M26-R3	1432	1532	297.1	301.6
11/30/10	1	CEMS	0000	2400	304.3	295.4
12/1/10	1	U1-M29-R1	935	1144	307.2	295.5
12/1/10	1	U1-M29-R2	1245	1452	303.5	295.1
12/1/10	1	U1-M29-R3	1530	1740	306.1	295.5
12/2/10	1	U1-13B-R1	915	1019	306.4	294.2
12/2/10	1	U1-13B-R2	1025	1128	301.4	294.1
12/2/10	1	U1-13B-R3	1135	1238	309.3	293.7
12/2/10	1	U1-M027-R1	1310	1413	305.9	294.3
12/2/10	1	U1-M027-R2	1425	1527	308.4	294.1
12/2/10	1	U1-M027-R3	1535	1637	307.0	294.4
12/3/10	1	U1-M5-R1	850	1052	307.1	293.7
12/3/10	1	U1-M5-R2	1110	1311	306.8	294.2
12/3/10	1	U1-M5-R3	1335	1538	298.1	294.0
12/3/10	1	U1-Opacity-R1	850	1052	307.1	293.7
12/3/10	1	U1-Opacity-R2	1110	1311	306.8	294.2
12/3/10	1	U1-Opacity-R3	1335	1538	298.1	294.0



SOUTH FLORIDA ENVIRONMENTAL SERVICES
Air Quality Specialists

2011 EMISSION COMPLIANCE TEST REPORT

PALM BEACH RESOURCE RECOVERY CORPORATION

FACILITY ID 0990234

PREPARED FOR: Palm Beach Resource Recovery Corporation
6501 North Jog Road
West Palm Beach, FL 33412

CONCERNING: 2011 Emission Compliance Test
Dioxins/Furans and Metals
April 19 – 20, 2011

PREPARED BY: South Florida Environmental Services, LLC
West Palm Beach, FL 33411

PROJECT #: 10-545

SOLID WASTE AUTHORITY OF PALM BEACH COUNTY

NORTH COUNTY RESOURCE RECOVERY FACILITY
&
CLASS I & III LANDFILLS

Title V Air Operation Permit No. 0990234-015-AC

Owner/Responsible Official Certification

I, the undersigned, am the Responsible Official as defined in Chapter 62-210.200 F.A.C. I hereby certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.



Mark Hammond
Executive Director
Solid Waste Authority of Palm Beach County



Date

2011 EMISSION COMPLIANCE TEST REPORT

FACILITY ID 0990234

PALM BEACH RESOURCE RECOVERY CORPORATION

PREPARED FOR:

Palm Beach Resource Recovery Corp.
6501 North Jog Road
West Palm Beach, FL 33412

CONCERNING:

2011 Emission Compliance Test
Boiler 1 Re-test, Municipal Waste Combustor

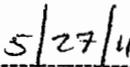
PREPARED BY:

South Florida Environmental Services, LLC
2257 Vista Parkway Unit 25
West Palm Beach, FL 33411

I certify that all of the information contained in this report is true and correct to the best of my knowledge.



Andrew R Seaha
Vice President / Environmental Chemistry Services



Date

1.0 COMPENDIUM (cont'd)

1.1 SUMMARY OF RESULTS

In accordance with the FDEP requirements, results are reported in lb/MMBtu, mg/DSCM @ 7% O₂ and/or ng/DSCM @ 7% O₂, where applicable.

Sections 5 and 6 of this report discuss the sampling and quality control procedures.

Tables 1-4 through **Table 1-6** present a summary of the results of the test, including the pollutants sampled, and the three run averages for each test. Where applicable, the results are compared to the FDEP emission limits.

In accordance with the new emission limits for large MWC that took effect July 10, 2006 which states that facilities have to comply with new limits by April 28, 2009, Boiler 1 (U1) is in full compliance with all the new limits.

1.0 COMPENDIUM (cont'd)

TABLE 1-4
SUMMARY OF RESULTS FOR BOILER 1 – SDA INLET

Pollutant Measured	Run 1	Run 2	Run 3	Average	Permit Limit
Concentration (mg/DSCM @ 7% O ₂)					
Mercury	0.0296	0.0461	0.0243	0.0333	N/A
Emission Rate (lb/MMBtu)					
Mercury	2.50E-05	3.88E-05	2.05E-05	2.81E-05	N/A

TABLE 1-5
SUMMARY OF RESULTS FOR BOILER 1 – ID FAN INLET

Pollutant Measured	Run 1	Run 2	Run 3	Average	Permit Limit
Concentration (ng/DSCM @ 7% O ₂)					
Total 4-8 PCDD/PCDF	0.25	0.54	0.54	0.45	30
Concentration (mg/DSCM @ 7% O ₂)					
Mercury	0.0005	0.0003	0.0004	0.0004	0.050
Lead	0.0202	0.0129	0.0150	0.0160	0.400
Cadmium	0.0006	0.0003	0.0004	0.0004	0.035
Emission Rate (lb/MMBtu)					
Lead	1.71E-05	1.09E-05	1.26E-05	1.35E-05	4.0E-04
Mercury	4.05E-07	2.47E-07	3.67E-07	3.40E-07	2.4E-04
Cadmium	4.88E-07	2.58E-07	3.04E-07	3.50E-07	n/a
Beryllium	1.01E-07	1.01E-07	9.72E-08	9.96E-08	7.3E-07
Percent Removal Efficiency (ppmvd @ 7% O ₂)					
Mercury	98.4	99.4	98.2	98.6	85

1.0 COMPENDIUM (cont'd)

TABLE 1-6
SUMMARY OF THE AVERAGE STEAM FLOW DURING THE TESTS

Date	Boiler No.	Run No.	Start Time	End Time	Average Steam Load Klbs/hour	Average Temp. deg. (F) (SDA Outlet)
4/19/11	1	U1-M29-R4	835	1035	315.6	305.1
4/19/11	1	U1-M29-R5	1128	1328	303.1	304.7
4/19/11	1	U1-M29-R6	1345	1545	307.6	305.2
4/19/11	1	U1-M23-R1	1600	2000	313.9	305.0
4/20/11	1	U1-M23-R2	803	1203	314.6	305.1
4/20/11	1	U1-M23-R3	1221	1621	314.6	304.9



SOUTH FLORIDA ENVIRONMENTAL SERVICES
Air Quality Specialists

2011 EMISSION COMPLIANCE TEST REPORT

PALM BEACH RESOURCE RECOVERY CORPORATION

FACILITY ID 0990234

PREPARED FOR: Palm Beach Resource Recovery Corporation
6501 North Jog Road
West Palm Beach, FL 33412

CONCERNING: 2011 Emission Compliance Test
Boiler 2, Municipal Waste Combustor
April 11 – 15, 2011

PREPARED BY: South Florida Environmental Services, LLC
West Palm Beach, FL 33411

PROJECT #: 10-545

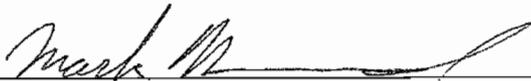
SOLID WASTE AUTHORITY OF PALM BEACH COUNTY

NORTH COUNTY RESOURCE RECOVERY FACILITY
&
CLASS I & III LANDFILLS

AC Construction Permit No. 0990234-015AC &
Title V Air Operation Permit No. 0990234-016-AC

Owner/Responsible Official Certification

I, the undersigned, am the Responsible Official as defined in Chapter 62-210.200 F.A.C. I hereby certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.



5/25/11

Mark Hammond
Executive Director
Solid Waste Authority of Palm Beach County

Date

2011 EMISSION COMPLIANCE TEST REPORT

FACILITY ID 0990234

PALM BEACH RESOURCE RECOVERY CORPORATION

PREPARED FOR: Palm Beach Resource Recovery Corp.
6501 North Jog Road
West Palm Beach, FL 33412

CONCERNING: 2010 Emission Compliance Test
Boiler 2, Municipal Waste Combustor

PREPARED BY: South Florida Environmental Services, LLC
2257 Vista Parkway Unit 25
West Palm Beach, FL 33411

I certify that all of the information contained in this report is true and correct to the best of my knowledge.



5/29/11

Francis K Morlu
Vice President / Technical Services / SFES

Date



1.0 COMPENDIUM (cont'd)

TABLE 1-4
SUMMARY OF VISIBLE EMISSIONS - METHOD 9
OPACITY RESULTS – BOILER 2

Unit #	Highest 6 Minute Average	One Hour Average	Permit Limit
Unit 2	0.0	0.0	<10%

TABLE 1-5
SUMMARY OF RESULTS FOR BOILER 2 – SDA INLET

Pollutant Measured	Run 1	Run 2	Run 3	Average	Permit Limit
Concentration (ppmvd @ 7% O₂)					
Hydrogen Chloride	552.01	198.97	544.41	431.80	N/A
Carbon Monoxide ¹	N/A	N/A	N/A	63.9	400 (4 Hr Block)
Carbon Monoxide ²	N/A	N/A	N/A	47.3	200 (24 Hr Block)
Concentration (mg/DSCM @ 7% O₂)					
Mercury	0.0240	0.0408	0.0257	0.0302	N/A
Emission Rate (lb/MMBtu)					
Mercury	1.92E-05	3.26E-05	2.06E-05	2.41E-05	N/A

¹ – In reporting the 4-hr block average, the highest 4-hr block was taken.

² – In reporting the 24-hr block average, the average CO emissions for the 24 hour period were taken.



1.0 COMPENDIUM (cont'd)

TABLE 1 – 6
SUMMARY OF RESULTS FOR BOILER 2 – ID FAN INLET

Pollutant Measured	Run 1	Run 2	Run 3	Average	Permit Limit
Concentration (ppmvd @ 7% O₂)					
Hydrogen Chloride	3.47	0.19	5.05	2.90	25
Sulfur Dioxide ¹	N/A	N/A	N/A	20.2	29
Nitrogen Oxides ¹	N/A	N/A	N/A	144.7	250
Concentration (ppmvd @ 15% O₂)					
Ammonia	1.19	3.16	1.70	2.02	15
Concentration (ng/DSCM @ 7% O₂)					
Total 4-8 PCDD/PCDF*	0.25	0.70	0.18	0.38	30
Concentration (mg/DSCM @ 7% O₂)					
Particulate	3.13	5.61	2.98	3.91	25
Mercury	0.0006	0.0006	0.0006	0.0006	0.050
Lead	0.0008	0.0007	0.0006	0.0007	0.400
Cadmium	0.0001	0.0001	0.0001	0.0001	0.035
Concentrations (gr/DSCF @ 7% O₂)					
Particulate	0.0014	0.0025	0.0013	0.0017	0.015
Emission Rate (lb/MMBtu)					
Hydrogen Fluoride	7.92E-05	8.29E-05	7.97E-05	8.06E-05	3.2E-03
Lead	6.64E-07	5.53E-07	4.62E-07	5.60E-07	4.0E-04
Mercury	4.79E-07	4.58E-07	4.47E-07	4.62E-07	2.4E-04
Cadmium	1.19E-07	1.18E-07	1.19E-07	1.19E-07	n/a
Beryllium	1.19E-07	1.18E-07	1.19E-07	1.19E-07	7.3E-07
Nitrogen Oxides ¹	N/A	N/A	N/A	0.204	0.48
Total Hydrocarbons (as CH ₄)	0.001	0.001	0.001	0.001	0.016
Percent Removal Efficiency (ppmvd @ 7% O₂)					
Hydrogen Chloride	99.4	99.9	99.1	99.3	95
Mercury	97.5	98.6	97.8	98.0	85
Visible Emissions (%)					
Opacity ²	NA	N/A	N/A	2.2	≤10%

¹ – In reporting NO_x and SO₂ emissions, the average emissions for that specific pollutant 24 hour geometric average for SO₂ and 24 hour block average for NO_x.

² – Opacity readings were readings taken from COMS during 24 hour test, maximum value is presented.



1.0 COMPENDIUM (cont'd)

TABLE 1 – 7

SUMMARY OF THE AVERAGE STEAM FLOW DURING THE TESTS

Date	Boiler No.	Run No.	Start Time	End Time	Average Steam Load Klbs/hour	Average Temp. deg. (F) (SDA Outlet)
4/11/11	2	U2-M23-R1	12:23	16:23	315.0	308.1
4/12/11	2	U2-M23-R2	8:38	12:38	314.2	307.0
4/12/11	2	U2-M23-R3	13:25	17:25	314.0	304.7
4/12/11	2	U2-M26-R1	10:16	11:16	315.4	308.0
4/12/11	2	U2-M26-R2	11:48	12:48	313.4	304.8
4/12/11	2	U2-M26-R3	14:15	15:15	313.3	304.6
4/13/11	2	U2-M027-R1	8:30	9:30	313.1	304.7
4/13/11	2	U2-M027-R2	9:45	10:45	314.8	304.9
4/13/11	2	U2-M027-R3	10:54	11:54	317.2	304.9
4/13/11	2	U2-13B-R1	13:00	14:00	313.4	305.0
4/13/11	2	U2-13B-R2	14:30	15:30	314.3	304.7
4/13/11	2	U2-13B-R3	15:57	16:57	315.2	304.7
4/13/11	2	CEMS	00:00	23:59	313.9	301.5
4/13/11	2	OPACITY	00:00	23:59	313.9	301.5
4/14/11	2	U2-M29-R1	8:28	10:28	314.6	304.8
4/14/11	2	U2-M29-R2	11:00	13:00	315.3	304.9
4/14/11	2	U2-M29-R3	13:28	15:28	314.9	304.8
4/14/11	2	U2-THC-1	11:00	12:00	315.6	304.9
4/14/11	2	U2-THC-2	12:00	13:00	315.0	304.9
4/14/11	2	U2-THC-3	13:28	14:28	314.9	304.8
4/15/11	2	U2-M5-R1	8:20	10:20	314.7	304.6
4/15/11	2	U2-M5-R2	10:33	12:33	314.0	304.8
4/15/11	2	U2-M5-R3	12:45	14:45	314.4	304.8

