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DIVISION OF AIR
RESOURCE MANAGEMENT

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Permit Application

**APPLICATION FOR AIR CONSTRUCTION
PERMIT FOR INSTALLATION OF
ACTIVATED CARBON INJECTION
SYSTEM**

Wheelabrator North Broward Waste-to-Energy Facility

Prepared For: Wheelabrator North Broward, Inc.
2600 NW 48th Street
Pompano Beach, FL 33073

Submitted By: Golder Associates Inc.
6026 NW 1st Place
Gainesville, FL 32607 USA

Distribution: 4 copies – Florida Department of Environmental Protection
2 copies – Wheelabrator North Broward, Inc.
1 copy – Golder Associates Inc.

November 2012

123-87713

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**APPLICATION FOR AIR PERMIT
LONG FORM**



Department of Environmental Protection

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

Edo
Modules
AB134-012-AC
AB135-013-AV

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).

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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.

NOV 20 2012

DIVISION OF AIR RESOURCE MANAGEMENT

To ensure accuracy, please see form instructions.

Identification of Facility

1. Facility Owner/Company Name: Wheelabrator North Broward, Inc.	
2. Site Name: Wheelabrator North Broward Waste-to-Energy Facility	
3. Facility Identification Number: 0112120	
4. Facility Location... Street Address or Other Locator: 2600 Wiles Road City: Pompano Beach County: Broward Zip Code: 33073	
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: Chuck Faller, Environmental Manager	
2. Application Contact Mailing Address... Organization/Firm: Wheelabrator North Broward, Inc. Street Address: 2600 Wiles Road City: Pompano Beach State: FL Zip Code: 33073	
3. Application Contact Telephone Numbers... Telephone: (954) 971-8701 ext. Fax: (954) 971-8703	
4. Application Contact E-mail Address: cfaller@wm.com	

Application Processing Information (DEP Use)

1. Date of Receipt of Application: 11-20-12	3. PSD Number (if applicable):
2. Project Number(s): 0112120-012-AC	4. Siting Number (if applicable):

0112120013-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

The application is to request the ability to install an activated carbon injection system on municipal solid waste combustor units 1, 2, and 3 (EU IDs 001, 002, and 003) to enhance mercury control and minimize mercury emissions. Carbon injection system includes installation of a bulk storage silo with bin vent filter for onsite storage of activated carbon.

This application also requests changing the testing frequency of mercury from semi-annually to annually upon operation of carbon injection system as the facility will no longer be subject to the Emission Standards for Facilities Using Waste Separation Under Rule 29-296.416(b).

APPLICATION INFORMATION

Owner/Authorized Representative Statement

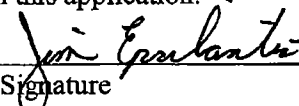
Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name :
2. Owner/Authorized Representative Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
3. Owner/Authorized Representative Telephone Numbers... Telephone: () ext. Fax: ()
4. Owner/Authorized Representative E-mail Address:
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

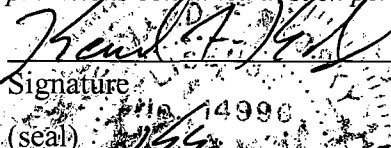
Application Responsible Official Certification

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: Jim Epsilantis, Plant Manager
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input checked="" 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 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: Wheelabrator North Broward, Inc. Street Address: 2600 Wiles Road City: Pompano Beach State: Florida Zip Code: 33073
4. Application Responsible Official Telephone Numbers... Telephone: (954) 971-8701 ext. Fax: (954) 971-8703
5. Application Responsible Official E-mail Address: jepsilantis@wm.com
6. Application Responsible Official Certification: I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.  Signature 11/19/12 Date

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: Kennard F. Kosky Registration Number: 14996
2. Professional Engineer Mailing Address... Organization/Firm: Golder Associates Inc.** Street Address: 6026 NW 1st Place City: Gainesville State: FL Zip Code: 32607
3. Professional Engineer Telephone Numbers... Telephone: (352) 336-5600 ext. 21156 Fax: (352) 336-6603
4. Professional Engineer E-mail Address: kkosky@golder.com
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> <p>(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</p> <p>(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.</p> <p>(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.</p> <p>(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.</p> <p>(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.</p> <p><i>Kennard F. Kosky</i> Signature _____ Date <u>11/14/12</u> (seal) </p>

* Attach any exception to certification statement.

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

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates... Zone 17 East (km) 583.541 North (km) 2907.498		2. Facility Latitude/Longitude... Latitude (DD/MM/SS) 26/17/12 Longitude (DD/MM/SS) 80/09/48	
3. Governmental Facility Code: 0	4. Facility Status Code: A	5. Facility Major Group SIC Code: 49	6. Facility SIC(s): 4953
7. Facility Comment :			

Facility Contact

1. Facility Contact Name: Chuck Faller, Environmental Manager
2. Facility Contact Mailing Address... Organization/Firm: Wheelabrator North Broward, Inc. Street Address: 2600 Wiles Road City: Pompano Beach State: FL Zip Code: 33073
3. Facility Contact Telephone Numbers: Telephone: (954) 971-8701 ext. Fax: (954) 971-8703
4. Facility Contact E-mail Address: cfaller@wm.com

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:
2. Facility Primary Responsible Official Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
3. Facility Primary Responsible Official Telephone Numbers... Telephone: () ext. Fax: ()
4. Facility Primary Responsible Official E-mail Address:

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 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: MSW Units 1, 2, and 3 are subject to NSPS - 40 CFR 60, Subparts Cb and Eb.	

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
Particulate Matter Total – PM	A	N
Particulate Matter – PM10	A	N
Sulfur Dioxide – SO2	A	N
Nitrogen Oxides – NOx	A	N
Carbon Monoxide – CO	A	N
Fluoride – FL	A	N
Lead – Pb	B	N
Beryllium – H021	B	N
Cadmium – H027	B	N
Hydrogen Chloride – H106	A	N
Mercury – H114	B	N
Dioxin/Furan – DIOX	B	N

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 checked="" type="checkbox"/> Attached, Document ID: <u>WNB-FI-C1</u> <input type="checkbox"/> Previously Submitted, Date: _____
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 checked="" type="checkbox"/> Attached, Document ID: <u>WNB-EU1-11</u> <input type="checkbox"/> Previously Submitted, Date: _____
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 type="checkbox"/> Previously Submitted, Date: _____

Additional Requirements for Air Construction Permit Applications

1. Area Map Showing Facility Location: <input checked="" 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 checked="" type="checkbox"/> Attached, Document ID: <u>Part II</u>
3. Rule Applicability Analysis: <input checked="" type="checkbox"/> Attached, Document ID: <u>Part II</u>
4. List of Exempt Emissions Units: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (no exempt units at facility)
5. Fugitive Emissions Identification: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
6. Air Quality Analysis (Rule 62-212.400(7), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
7. Source Impact Analysis (Rule 62-212.400(5), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" 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 checked="" 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 checked="" type="checkbox"/> Not Applicable
10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

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: _____
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: _____ Not Applicable

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

ATTACHMENT WNB-FI-C1
FACILITY PLOT PLAN

EMISSIONS UNIT INFORMATION

Section [1]

MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

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]

MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

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:

Three (3) identical 807-ton per day (TPD) MSW Combustor & Auxiliary Burners.

3. Emissions Unit Identification Number: **001, 002, and 003**

4. Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date: 6/13, 6/23, and 7/31/1991	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:
Manufacturer: **Babcock and Wilcox** Model Number:

10. Generator Nameplate Rating: **67.6 MW**

11. Emissions Unit Comment:

Generator nameplate rating of 67.6 MW is the facility total. All three units share a common stack containing one flue for each unit.

EMISSIONS UNIT INFORMATION

Section [1]

MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

Emissions Unit Control Equipment/Method: Control 1 of 5

1. Control Equipment/Method Description:

Spray Dryer Absorber

2. Control Device or Method Code: **202**

Emissions Unit Control Equipment/Method: Control 2 of 5

1. Control Equipment/Method Description:

Fabric Filter High-Temperature [T > 250 degrees Fahrenheit (°F)]

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

Emissions Unit Control Equipment/Method: Control 3 of 5

1. Control Equipment/Method Description:

Selective Non-Catalytic Reduction for NO_x control

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

Emissions Unit Control Equipment/Method: Control 4 of 5

1. Control Equipment/Method Description:

Control of Percent Oxygen (O₂) in Combustion Air (Off-Stoichiometric Firing) for CO control (Good Combustion Control)

2. Control Device or Method Code: **033**

Emissions Unit Control Equipment/Method: Control 5 of 5

1. Control Equipment/Method Description:

Activated carbon injection for Hg control

2. Control Device or Method Code: **207**

EMISSIONS UNIT INFORMATION

Section [1]

MSW Combustor & Auxiliary Burners: Units 1, 2, and 3**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: 1 – Stack		2. Emission Point Type Code: 1	
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:	6. Stack Height: 195 feet	7. Exit Diameter: 7.5 Feet	
8. Exit Temperature: 300°F	9. Actual Volumetric Flow Rate: 169,000 acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: 80,000 dscfm		12. Nonstack Emission Point Height: Feet	
13. Emission Point UTM Coordinates... Zone: 17 East (km): 583.891 North (km): 2907.777		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) 26/17/14 Longitude (DD/MM/SS) 80/09/35	
15. Emission Point Comment: There is one common stack containing one flue for each of the three MSW combustors. Stack parameters are average values for each flue. Stack parameters based on Title V permit application dated June 2010.			

EMISSIONS UNIT INFORMATION

Section [1]

MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 5

1. Segment Description (Process/Fuel Type): External Combustion Boilers; Electrical Generation; Natural Gas; Boilers > 100 Million Btu/hr except Tangential		
2. Source Classification Code (SCC): 1-01-006-01		3. SCC Units: Million Cubic Feet Natural Gas Burned
4. Maximum Hourly Rate: 0.89	5. Maximum Annual Rate: 779.38	6. Estimated Annual Activity Factor: 10%
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 1,020
10. Segment Comment: Fuel used for auxiliary burners. Used as fuel during warm-up, startup, shutdown, and malfunctions, as well as other times when necessary and consistent with good combustion practice. Maximum hourly firing rate based on 907.5 MMBtu/hr heat input per the three units. Maximum annual firing rate based on annual activity factor of 10% operation during the year (876 hr/yr).		

Segment Description and Rate: Segment 2 of 5

1. Segment Description (Process/Fuel Type): External Combustion Boilers; Electrical Generation; Solid Waste; Municipal Solid Waste		
2. Source Classification Code (SCC): 1-01-012-01		3. SCC Units: Tons Solid Waste Burned
4. Maximum Hourly Rate: 100.83	5. Maximum Annual Rate: 883,300	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.2	8. Maximum % Ash: 30	9. Million Btu per SCC Unit: 9
10. Segment Comment: MSW throughput limited to 807 TPD per unit (2,420 TPD total), and 907.5 MMBtu/hr for all three units as determined on a monthly average. Maximum annual rate based on the three units operating for 365 days/yr.		

EMISSIONS UNIT INFORMATION

Section [1]

MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 3 of 5

1. Segment Description (Process/Fuel Type): External Combustion Boilers; Electrical Generation; Distillate Oil; Grades 1 and 2 Oil		
2. Source Classification Code (SCC): 1-01-005-01	3. SCC Units: 1,000 Gallons	
4. Maximum Hourly Rate: 6.48	5. Maximum Annual Rate: 5,676.5	6. Estimated Annual Activity Factor: 10%
7. Maximum % Sulfur: 0.3	8. Maximum % Ash:	9. Million Btu per SCC Unit: 140
10. Segment Comment: Alternative fuel for startup burners. Maximum hourly firing rate based on 907.5 MMBtu/hr heat input per the three units. Maximum annual firing rate based on annual activity factor of 10% operation during the year (876 hr/yr).		

Segment Description and Rate: Segment 4 of 5

1. Segment Description (Process/Fuel Type): External Combustion Boilers; Electrical Generation; Solid Waste; Tires		
2. Source Classification Code (SCC): 1-01-012-01	3. SCC Units:	
4. Maximum Hourly Rate: 3.03	5. Maximum Annual Rate: 26,499	6. Estimated Annual Activity Factor: Tons of tires burned
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: The total quantity of waste tires received as segregated loads and burned at the facility limited to 3%, by weight, of the facility's total fuel. Maximum hourly rate: 0.03 x 2,420 TPD x (day/24 hr) = 3.025 tons/hr Maximum annual rate: 0.03 x 2,420 TPD x (365/yr) = 26,499 TPY		

EMISSIONS UNIT INFORMATION

Section [1]

MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment **5** of **5**

1. Segment Description (Process/Fuel Type): External Combustion Boilers; Electrical Generation; Solid Waste; non-MSW material		
2. Source Classification Code (SCC): 1-01-012-01	3. SCC Units: Tons of non-MSW	
4. Maximum Hourly Rate: 5.04	5. Maximum Annual Rate: 44,165	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: The total quantity of the non-MSW material received as segregated loads and burned at the facility is limited to 5%, by weight, of the facility's total fuel. See Condition B.16(a)(6) for a list of non-MSW that may be used as fuel at the facility. Maximum hourly rate: $0.05 \times 2,420 \text{ TPD} \times (\text{day}/24 \text{ hr}) = 5.04 \text{ tons/hr}$ Maximum annual rate: $0.05 \times 2,420 \text{ TPD} \times (365/\text{yr}) = 44,165 \text{ TPY}$		

Segment Description and Rate: Segment ____ of ____

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

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MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

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	033		EL
DIOX	016		EL
FL	202, 016		EL
H021 – Beryllium	202, 016		EL
H027 – Cadmium	202, 016		EL
H106 – Hydrogen Chloride	202		EL
H114 – Mercury	202, 016, 207		EL
NOx	107		EL
Pb	202, 016		EL
PM	016	202	EL
PM10	016	202	NS
SO2	202	016	EL

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Carbon Monoxide - CO

**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		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 101.7 lb/hour 445.5 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: 100 ppmvd @ 7-percent O₂ (per MSW combustor unit) Reference: 40 CFR 60.34b(a) and PSD-FL-112(B)		7. Emissions Method Code: 0	
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: Equivalent emissions rates are 33.9 lb/hr/unit or 148.5 tons/yr/unit (Table 1, Permit No. 0112120-010-AV) Potential Emissions for 3 units Hourly = 33.9 lb/hr x 3 = 101.7 lb/hr Annual = 148.5 TPY x 3 = 445.5 TPY			
11. Potential, Fugitive, and Actual Emissions Comment: Emissions represent total for the three combustor units. This application does not change the potential emissions or allowable emissions from this emissions unit.			

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MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

Carbon Monoxide – CO

**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	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 100 ppmvd @ 7% O₂	4. Equivalent Allowable Emissions: 101.7 lb/hour 445.5 tons/year
5. Method of Compliance: CEMS – 4-hour Block Average	
6. Allowable Emissions Comment (Description of Operating Method): 40 CFR 60.34b(a) and PSD-FL-112(B). Emissions represent total for the three combustor units.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

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MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

Dioxins/Furans – DIOX

**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: DIOX		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 2.61x10⁻⁵ lb/hour 1.14x10⁻⁴ 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 ng/dscm @ 7-percent O₂ (per MSW combustor unit) Reference: 40 CFR 60.33b(c)(1)(iii) and PSD-FL-112(B)		7. Emissions Method Code: 0	
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: Equivalent emissions rates are 8.7x10 ⁻⁶ lb/hr/unit or 3.8x10 ⁻⁵ tons/yr/unit (Table 1, Permit No. 0112120-010-AV). <u>Potential Emissions for 3 units</u> Hourly = 8.7x10 ⁻⁶ lb/hr x 3 = 2.61x10 ⁻⁵ lb/hr Annual = 3.8x10 ⁻⁵ TPY x 3 = 1.14x10 ⁻⁴ TPY			
11. Potential, Fugitive, and Actual Emissions Comment: Emissions represent total for the three combustor units. This application does not change the potential emissions or allowable emissions from this emissions unit.			

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MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

Dioxins/Furans – DIOX

**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	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 30 ng/dscm @ 7-percent O₂	4. Equivalent Allowable Emissions: 2.61x10⁻⁵ lb/hour 1.14x10⁻⁴tons/year
5. Method of Compliance: EPA Method 23. Annual testing of each unit, or once every 3 years if test results ≤ 15 ng/dscm for all units over 2-year period.	
6. Allowable Emissions Comment (Description of Operating Method): 40 CFR 60.33b(c)(1)(iii) and PSD-FL-112(B). Emissions represent total for the three combustor units.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

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MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

Fluorides – FL

**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: FL		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 3.87 lb/hour 16.98 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: 0.0040 lb/MMBtu (per MSW combustor unit) Reference: PSD-FL-112(B)		7. Emissions Method Code: 0	
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: Equivalent emissions rates are 0.0040 lb/MMBtu/unit, 1.29 lb/hr/unit or 5.66 tons/yr/unit (Table 1, Permit No. 0112120-010-AV). Potential Emissions for 3 units Hourly = 1.29 lb/hr x 3 = 3.87 lb/hr Annual = 5.66 TPY x 3 = 16.98 TPY			
11. Potential, Fugitive, and Actual Emissions Comment: Emissions represent total for the three combustor units. This application does not change the potential emissions or allowable emissions from this emissions unit.			

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MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

Fluorides – FL

**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: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.0040 lb/MMBtu	4. Equivalent Allowable Emissions: 3.87 lb/hour 16.98 tons/year
5. Method of Compliance: EPA Method 13A, 13B, or modified Method 5 for fluorides. Every 5 years.	
6. Allowable Emissions Comment (Description of Operating Method): PSD-FL-112(B). Emissions represent total for the three combustor units.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

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MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

Beryllium - H021

**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: Beryllium – H021		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.0009 lb/hour 0.0036 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: 0.001 mg/dscm @ 7-percent O₂ (per MSW combustor unit) Reference: PSD-FL-112(B)		7. Emissions Method Code: 0	
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: Equivalent emissions rates are 0.0003 lb/hr/unit or 0.0012 tons/yr/unit (Table 1, Permit No. 0112120-010-AV). Potential Emissions for 3 units Hourly = 0.0003 lb/hr x 3 = 0.0009 lb/hr Annual = 0.0012 TPY x 3 = 0.0036 TPY			
11. Potential, Fugitive, and Actual Emissions Comment: Emissions represent total for the three combustor units. This application does not change the potential emissions or allowable emissions from this emissions unit.			

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MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

Beryllium – H021

**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: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.001 mg/dscm @ 7-percent O₂	4. Equivalent Allowable Emissions: 0.0009 lb/hour 0.0036 tons/year
5. Method of Compliance: EPA Method 29, annually	
6. Allowable Emissions Comment (Description of Operating Method): PSD-FL-112(B). Emissions represent total for the three combustor units.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

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Cadmium – H027

**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: Cadmium – H027		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.033 lb/hour 0.138 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: 0.035 mg/dscm @ 7-percent O₂ (per MSW combustor unit) Reference: 40 CFR 60.33b(a)(2)(i) and PSD-FL-112(B)		7. Emissions Method Code: 0	
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: Equivalent emissions rates are 0.011 lb/hr/unit or 0.046 tons/yr/unit (Table 1, Permit No. 0112120-010-AV). Potential Emissions for 3 units Hourly = 0.011 lb/hr x 3 = 0.033 lb/hr Annual = 0.046 TPY x 3 = 0.138 TPY			
11. Potential, Fugitive, and Actual Emissions Comment: Emissions represent total for the three combustor units. Emissions shown for the more stringent allowable emission limit. This application does not change the potential emissions or allowable emissions from this emissions unit.			

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Cadmium - H027

**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	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.035 mg/dscm @ 7-percent O₂	4. Equivalent Allowable Emissions: 0.033 lb/hour 0.138 tons/year
5. Method of Compliance: EPA Method 29, annually	
6. Allowable Emissions Comment (Description of Operating Method): 40 CFR 60.33b(a)(2)(i). Emissions represent total for the three combustor units.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

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MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

Hydrogen Chloride – H106

**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: Hydrogen Chloride – H106		2. Total Percent Efficiency of Control: 95	
3. Potential Emissions: 37.8 lb/hour 165.0 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: 29 ppmvd @ 7-percent O₂ (per MSW combustor unit) Reference: 40 CFR 60.33b(b)(3)(ii) and PSD-FL-112(B)		7. Emissions Method Code: 0	
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: Equivalent emissions rates are 12.6 lb/hr/unit or 55 tons/yr/unit (Table 1, Permit No. 0112120-010-AV). <u>Potential Emissions for 3 units</u> Hourly = 12.6 lb/hr x 3 = 37.8 lb/hr Annual = 55 TPY x 3 = 165.0 TPY			
11. Potential, Fugitive, and Actual Emissions Comment: Emissions represent total for the three combustor units. This application does not change the potential emissions or allowable emissions from this emissions unit.			

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MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

Hydrogen Chloride – H106

**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	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 29 ppmvd @ 7-percent O₂	4. Equivalent Allowable Emissions: 37.8 lb/hour 165.0 tons/year
5. Method of Compliance: EPA Method 26, 26A; annually	
6. Allowable Emissions Comment (Description of Operating Method): 29 ppmvd @ 7-percent O₂ or 95-percent reduction by weight or volume, whichever is less stringent. 40 CFR 60.33b(3)(ii) and PSD-FL-112(B). Emissions represent total for the three combustor units.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

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MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

Mercury – H114

**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: Mercury – H114		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.045 lb/hour 0.198 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: 0.050 mg/dscm @ 7-percent O₂ (per MSW combustor unit) Reference: 40 CFR 60.33b(a)(3) and PSD-FL-112(B)		7. Emissions Method Code: 0	
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: Equivalent emissions rates are 0.015 lb/hr/unit or 0.066 tons/yr/unit (Table 1, Permit No. 0112120-010-AV). <u>Potential Emissions for 3 units</u> Hourly = 0.015 lb/hr x 3 = 0.045 lb/hr Annual = 0.066 TPY x 3 = 0.198 TPY			
11. Potential, Fugitive, and Actual Emissions Comment: Emissions represent total for the three combustor units. Emissions shown for the more stringent allowable emission limit. There is no change in potential or allowable emissions as a result of this application. The carbon injection system is being added to ensure compliance with the allowable emission limits.			

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MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

Mercury – H114

**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	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.050 mg/dscm @ 7-percent O₂	4. Equivalent Allowable Emissions: 0.045 lb/hour 0.198 tons/year
5. Method of Compliance: EPA Method 29, annually	
6. Allowable Emissions Comment (Description of Operating Method): 0.050 mg/dscm @ 7-percent O₂ or 85-percent reduction by weight, whichever is less stringent. 40 CFR 60.33b(a)(3) and PSD-FL-112(B). Emissions represent total for the three combustor units. Annual testing proposed.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

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MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

Nitrogen Oxides – NOx

**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: NOx		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 342.0 lb/hour 1,497 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: 205 ppmvd @ 7-percent O₂ (per MSW combustor unit) Reference: 40 CFR 60.33b(d) and PSD-FL-112(B)		7. Emissions Method Code: 0	
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: Equivalent emissions rates are 114.0 lb/hr/unit or 499.0 tons/yr/unit (Table 1, Permit No. 0112120-010-AV) . Potential Emissions for 3 units Hourly = 114.0 lb/hr x 3 = 342.0 lb/hr Annual = 499.0 TPY x 3 = 1,497 TPY			
11. Potential, Fugitive, and Actual Emissions Comment: Emissions represent total for the three combustor units. This application does not change the potential emissions or allowable emissions from this emissions unit.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

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MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

Nitrogen Oxides – NOx

**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	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 205 ppmvd @ 7-percent O₂	4. Equivalent Allowable Emissions: 342.0 lb/hour 1,497 tons/year
5. Method of Compliance: CEMS 24-hour daily arithmetic average.	
6. Allowable Emissions Comment (Description of Operating Method): 40 CFR 60.33b(d) and PSD-FL-112(B). Emissions represent total for the three combustor units.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

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MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

Lead - Pb

**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		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.36 lb/hour 1.59 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: 0.40 mg/dscm @ 7-percent O₂ (per MSW combustor unit) Reference: 40 CFR 60.33b(a)(4) and PSD-FL-112(B)		7. Emissions Method Code: 0	
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: Equivalent emissions rates are 0.12 lb/hr/unit or 0.53 tons/yr/unit (Table 1, Permit No. 0112120-010-AV). <u>Potential Emissions for 3 units</u> Hourly = 0.12 lb/hr x 3 = 0.36 lb/hr Annual = 0.53 TPY x 3 = 1.59 TPY			
11. Potential, Fugitive, and Actual Emissions Comment: Emissions represent total for the three combustor units. Emissions for the more stringent emission limit provided. This application does not change the potential emissions or allowable emissions from this emissions unit.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

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MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

Lead - Pb

**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	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.40 mg/dscm @ 7-percent O₂	4. Equivalent Allowable Emissions: 0.36 lb/hour 1.59 tons/year
5. Method of Compliance: EPA Method 29, annually	
6. Allowable Emissions Comment (Description of Operating Method): 40 CFR 60.33b(a)(4). Emissions represent total for the three combustor units.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

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MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

Particulate Matter Total – PM

**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: PM		2. Total Percent Efficiency of Control: 99+	
3. Potential Emissions: 22.47 lb/hour 98.4 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 mg/dscm @ 7-percent O₂ (per MSW combustor unit) Reference: 40 CFR 60.33b(a)(1)(i) and PSD-FL-112(B)		7. Emissions Method Code: 0	
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: Equivalent emissions rates are 7.49 lb/hr/unit or 32.8 tons/yr/unit (Table 1, Permit No. 0112120-010-AV). Potential Emissions for 3 units Hourly = 7.49 lb/hr x 3 = 22.47 lb/hr Annual = 32.8 TPY x 3 = 98.4 TPY			
11. Potential, Fugitive, and Actual Emissions Comment: Emissions represent total for the three combustor units. Emissions for the more stringent emission limit provided. This application does not change the potential emissions or allowable emissions from this emissions unit.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

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MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

Particulate Matter Total - PM

**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	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 25 mg/dscm @ 7-percent O₂ for PM	4. Equivalent Allowable Emissions: 22.47 lb/hour 98.4 tons/year
5. Method of Compliance: EPA Method 5; annually	
6. Allowable Emissions Comment (Description of Operating Method): 40 CFR 60.33b(a)(1)(i). Emissions represent total for the three combustor units.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

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MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

Sulfur Dioxide – SO2

**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: SO2		2. Total Percent Efficiency of Control: 75	
3. Potential Emissions: 105.3 lb/hour 461.1 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: 29 ppmvd @ 7-percent O₂ (per MSW combustor unit) Reference: 40 CFR 60.33b(b)(3)(i) and PSD-FL-112(B)		7. Emissions Method Code: 0	
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: Equivalent emissions rates are 35.1 lb/hr/unit or 153.7 tons/yr/unit (Table 1, Permit No. 0112120-010-AV). <u>Potential Emissions for 3 units</u> Hourly = 35.1 lb/hr x 3 = 105.3 lb/hr Annual = 153.7 TPY x 3 = 461.1 TPY			
11. Potential, Fugitive, and Actual Emissions Comment: Emissions represent total for the three combustor units. This application does not change the potential emissions or allowable emissions from this emissions unit.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

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MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

Sulfur Dioxide – SO₂

**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	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 29 ppmvd @ 7-percent O₂	4. Equivalent Allowable Emissions: 105.3 lb/hour 461.1 tons/year
5. Method of Compliance: CEMS 24-hour block daily geometric mean.	
6. Allowable Emissions Comment (Description of Operating Method): 29 ppmvd @ 7-percent O₂ or 75-percent reduction by weight or volume, whichever is less stringent. [40 CFR 60.33b(b)(3)(i) and PSD-FL-112(B).] Emissions represent total for the three combustor units.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

Section [1]

MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

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 7

1. Parameter Code: O2 - Oxygen	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: SICK MAIHAK Model Number: MCS-100E Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Used with SO₂, NO_x, and CO monitors.	

Continuous Monitoring System: Continuous Monitor 2 of 7

1. Parameter Code: EM - Emission	2. Pollutant(s): SO2
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: SICK MAIHAK Model Number: MCS-100E Serial Number: 280, 281, and 271	
5. Installation Date: 02/01/2001	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Boiler No. 1 - Serial Number: 280 Boiler No. 2 - Serial Number: 281 Boiler No. 3 - Serial Number: 271	

EMISSIONS UNIT INFORMATION

Section [1]

MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)**Continuous Monitoring System:** Continuous Monitor 3 of 7

1. Parameter Code: EM – Emission	2. Pollutant(s): NOx
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: SICK MAIHAK Model Number: MCS-100E Serial Number: 280, 281, and 271	
5. Installation Date: 02/01/2001	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Boiler No. 1 - Serial Number: 280 Boiler No. 2 - Serial Number: 281 Boiler No. 3 - Serial Number: 271	

Continuous Monitoring System: Continuous Monitor 4 of 7

1. Parameter Code: EM – Emission	2. Pollutant(s): CO
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: SICK MAIHAK Model Number: MCS-100E Serial Number: 280, 281, and 271	
5. Installation Date: 02/01/2001	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Boiler No. 1 - Serial Number: 280 Boiler No. 2 - Serial Number: 281 Boiler No. 3 - Serial Number: 271	

EMISSIONS UNIT INFORMATION

Section [1]

MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

Continuous Monitoring System: Continuous Monitor 5 of 7

1. Parameter Code: VE – Visible Emissions (opacity)	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: LAND INSTRUMENTAL INC. Model Number: 4500 MKII Serial Number: See Comment	
5. Installation Date: 07/21/2003	6. Performance Specification Test Date:
7. Continuous Monitor Comment: MSW Combustor Unit 1 – Serial Number 0295820 MSW Combustor Unit 2 – Serial Number 0295848 MSW Combustor Unit 3 – Serial Number 0295828	

Continuous Monitoring System: Continuous Monitor 6 of 7

1. Parameter Code: TEMP	2. Pollutant(s):
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: See Comment Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: 40 CFR 60, Subpart Cb. Monitor manufacturer and model number may vary for maintenance purposes.	

EMISSIONS UNIT INFORMATION

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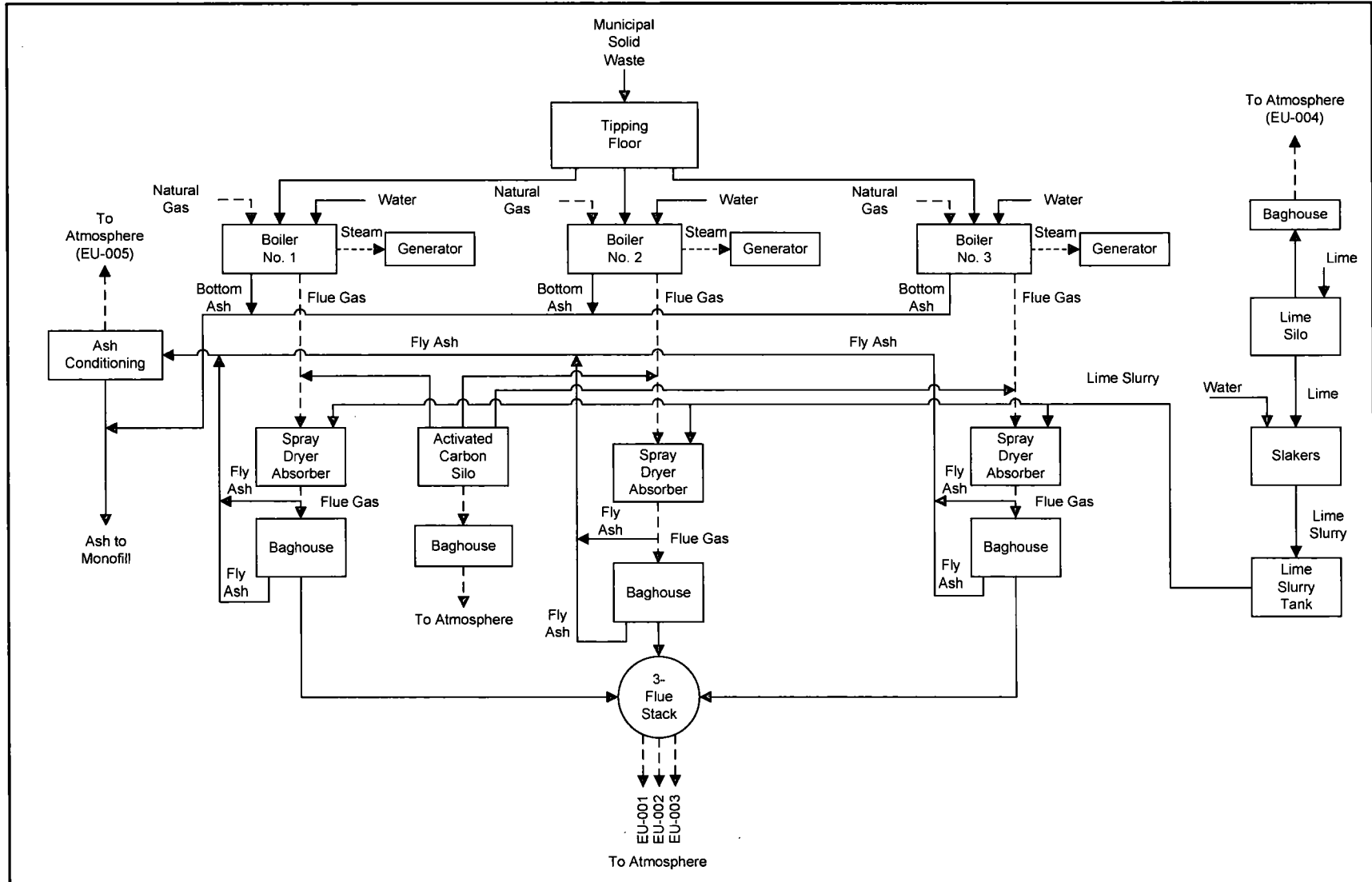
MSW Combustor & Auxiliary Burners: Units 1, 2, and 3

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 checked="" type="checkbox"/> Attached, Document ID: <u>WNB-EU1-11</u> <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 checked="" type="checkbox"/> Previously Submitted, Date <u>June 2010</u>
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 checked="" type="checkbox"/> Attached, Document ID: <u>Part II</u> <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 checked="" 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 checked="" type="checkbox"/> Previously Submitted, Date <u>June 2010</u> <input type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records: <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>April 27, 2010</u> Test Date(s)/Pollutant(s) Tested: <u>PM, VE, F, PCCD/PCDF, HCl, Be, Cd, Pb, Hg</u> <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 checked="" type="checkbox"/> Not Applicable

ATTACHMENT WNB-EU1-I1
PROCESS FLOW DIAGRAM



Attachment WNB-EU1-11
 Process Flow Diagram, Wheelabrator North Broward
 Ft. Lauderdale, Florida

Process Flow Legend

Solid/Liquid	—————▶
Gas	- - - - -▶
Steam	- · - · -▶



EMISSIONS UNIT INFORMATION

Section [2]

Activated Carbon Storage Silo

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 [2]

Activated Carbon Storage Silo

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.) <input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit. <input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.
--

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one) <input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent). <input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions. <input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.
--

2. Description of Emissions Unit Addressed in this Section: Activated Carbon Storage Silo

3. Emissions Unit Identification Number:
--

4. Emissions Unit Status Code: C	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 49
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8. Federal Program Applicability: (Check all that apply) <input type="checkbox"/> Acid Rain Unit <input type="checkbox"/> CAIR Unit

9. Package Unit: Manufacturer:	Model Number:
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10. Generator Nameplate Rating: MW

11. Emissions Unit Comment: Activated carbon storage silo with a baghouse to control PM emissions.
--

EMISSIONS UNIT INFORMATION

Section [2]

Activated Carbon Storage Silo

Emissions Unit Control Equipment/Method: Control 1 of 1

1. Control Equipment/Method Description:

Fabric Filter Low Temperature [T < 180 degrees Fahrenheit (°F)]

2. Control Device or Method Code: 127

Emissions Unit Control Equipment/Method: Control of

1. Control Equipment/Method Description:

2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control of

1. Control Equipment/Method Description:

2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control of

1. Control Equipment/Method Description:

2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control of

1. Control Equipment/Method Description:

2. Control Device or Method Code:

EMISSIONS UNIT INFORMATION

Section [2]

Activated Carbon Storage Silo

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate:	24,000 lb/hr activated carbon	
2. Maximum Production Rate:		
3. Maximum Heat Input Rate:	million Btu/hr	
4. Maximum Incineration Rate:	pounds/hr tons/day	
5. Requested Maximum Operating Schedule:	24 hours/day 52 weeks/year	7 days/week 8,760 hours/year
6. Operating Capacity/Schedule Comment:	Maximum process or throughput rate based on maximum loading rate of 400 lb/min.	

EMISSIONS UNIT INFORMATION

Section [2]

Activated Carbon Storage Silo

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: Activated carbon silo		2. Emission Point Type Code: 1	
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:	6. Stack Height: feet	7. Exit Diameter: Feet	
8. Exit Temperature: °F	9. Actual Volumetric Flow Rate: 80 acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: Dscfm		12. Nonstack Emission Point Height: Feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: <p>Activated carbon silo will be installed as part of the carbon injection system. The silo will have a maximum storage capacity of 3,200 ft³ (48 tons @ 30 lb/ft³). The stack height, exit diameter, and discharge type are unknown at this time.</p> <p>Volumetric flow rate based on maximum loading rate of 400 lb/min. Displaced air = 400 lb/min x 1 ft³/30 lb = 13.3 ft³/min</p> <p>Exhaust air = Displaced air + Conveying air = 13.3 ft³/min + 5 times Displaced air (assumed) = 13.3 ft³/min + 66.5 ft³/min = 79.8 ft³/min.</p>			

EMISSIONS UNIT INFORMATION

Section [2]

Activated Carbon Storage Silo

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): Industrial Processes; Mineral Products; Bulk Materials Loading Operation: Activated Carbon		
2. Source Classification Code (SCC): 3-01-830-01		3. SCC Units: Tons material processed
4. Maximum Hourly Rate: 12	5. Maximum Annual Rate: 262.8	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: The maximum hourly rate is based on the maximum activated carbon truck unloading rate of 400 lb/min. The maximum annual rate is based on the maximum hourly capacity of 20 lb/hr to each boiler (60 lb/hr total) and 8,760 hr/yr operation.		

Segment Description and Rate: Segment of

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

EMISSIONS UNIT INFORMATION

Section [2]

Activated Carbon Storage Silo

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
PM	127		NS
PM10	127		NS
PM2.5	127		NS

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [2]
Activated Carbon Storage Silo

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PM/PM10/PM2.5

**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: PM/PM10/PM2.5		2. Total Percent Efficiency of Control: 99	
3. Potential Emissions: 0.21 lb/hour 0.92tons/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 gr/ft³ and 99% removal efficiency Reference: Baghouse manufacturer		7. Emissions Method Code: 5	
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: Exhaust Air Flow = 80 ft³/min Hourly: 30 gr/ft³ x 80 ft³/min x 1 lb/7,000 gr x 60 min/hr x (1-0.99) = 0.21 lb/hr Annual: 0.21 lb/hr x 8,760 hr/yr x 1 ton/2,000 lb = 0.92 TPY			
11. Potential, Fugitive, and Actual Emissions Comment:			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [2]
 Activated Carbon Storage Silo

Page [1] of [1]
 PM/PM10/PM2.5

**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 ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

Section [2]

Activated Carbon Storage Silo

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor ___ of ___

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

Continuous Monitoring System: Continuous Monitor ___ of ___

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

EMISSIONS UNIT INFORMATION

Section [2]

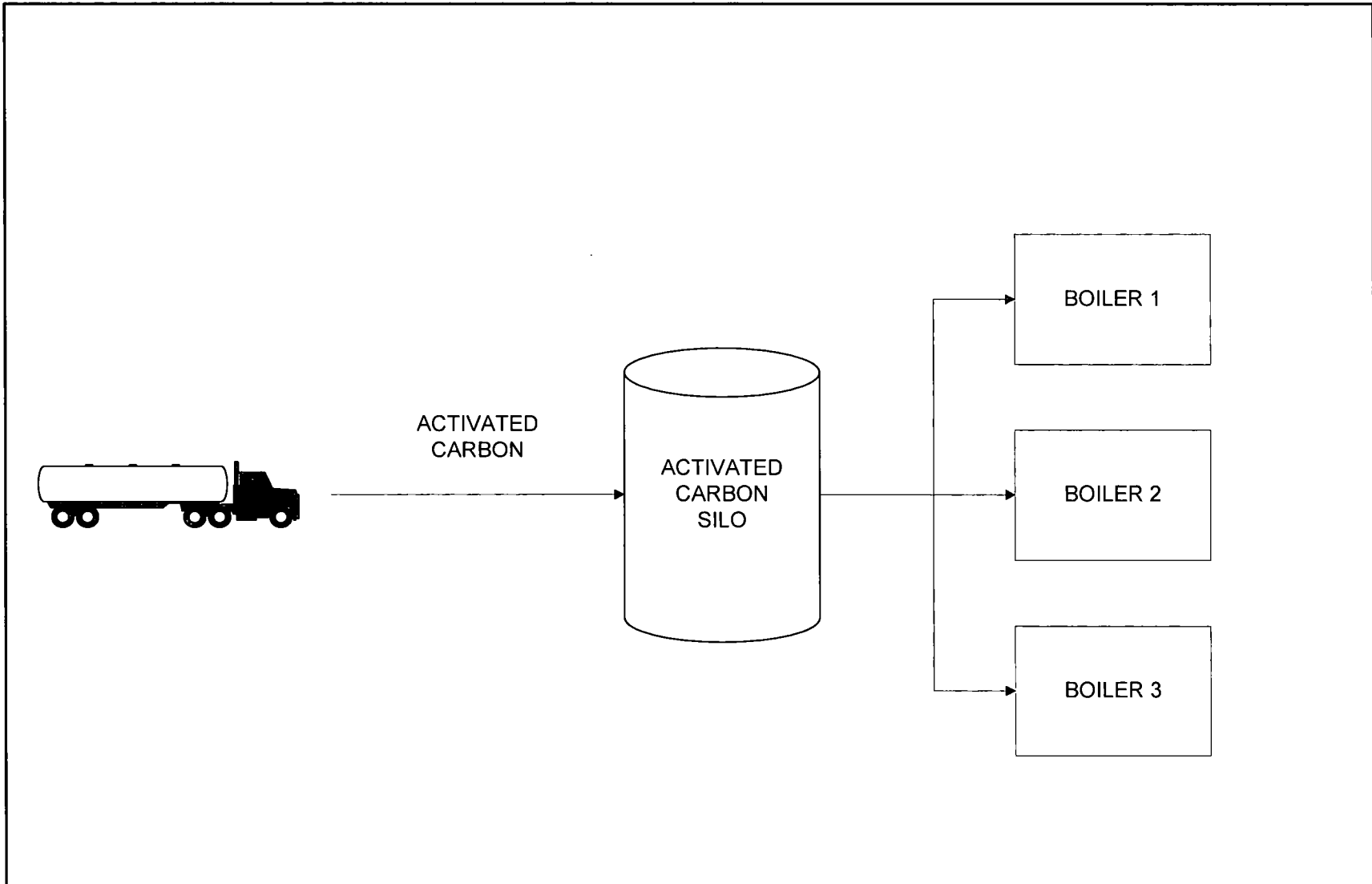
Activated Carbon Storage Silo

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

<p>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)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>WNB-EU2-11</u> <input type="checkbox"/> Previously Submitted, Date _____</p>
<p>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)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p>
<p>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)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>WNB-EU2-13</u> <input type="checkbox"/> Previously Submitted, Date _____</p>
<p>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)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable (construction application)</p>
<p>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)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>
<p>6. Compliance Demonstration Reports/Records:</p> <p><input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____</p> <p><input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____</p> <p><input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p> <p>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.</p>
<p>7. Other Information Required by Rule or Statute:</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p>

ATTACHMENT WNB-EU2-11
PROCESS FLOW DIAGRAM



Attachment WNB-EU2-11
Process Flow Diagram
Wheelabrator North Broward, Ft. Lauderdale, Florida



ATTACHMENT WNB-EU2-13
DETAILED DESCRIPTION OF CONTROL EQUIPMENT

**ATTACHMENT WNB-EU2-13
CONTROL EQUIPMENT PARAMETERS FOR THE
ACTIVATED CARBON SILO BAGHOUSE AT THE
WHEELABRATOR NORTH BROWARD RESOURCE RECOVERY FACILITY
(Based on South Broward Facility; design for North Broward to be equivalent)**

Outlet Gas Temp (°F)	75
Outlet Gas Flow Rate (acfm)	80
Bag Material	Polyester
Total Area of Filter Media (sq. ft)	300
Air to Cloth Ratio	0.267
Dust Loading (grains/acf)	30
Control Efficiency	99%
Pollutants	Outlet Loading
Particulate Matter (PM) (lb/hr)	0.21
PM ₁₀ *	0.21
PM _{2.5} *	0.21

Sample calculations:

$$\text{Outlet loading rate (lb/hr)} = \text{gas flow rate (acfm)} \times \text{dust loading rate (grains/acf)} \\ \div 7000 \text{ grains/lb} \times 60 \text{ min/hr} \times [1 - \text{Control Efficiency (\%)} / 100]$$

* PM₁₀ and PM_{2.5} emissions assumed equal to PM emissions.

PART II

PART II

Application for Minor Source Air Construction Permit for Installation of Activated Carbon Injection System for MSW Combustor Units 1, 2, and 3 (EU IDs 001, 002, and 003)

Introduction

Wheelabrator North Broward, Inc. (Wheelabrator) is seeking authorization from the Florida Department of Environmental Protection (FDEP) to install new activated carbon injection mercury control systems for the municipal solid waste (MSW) combustors at the North Broward Waste-to-Energy facility. The facility is located at 2600 NW 48th Street, Pompano Beach, Broward County, Florida and currently operating under Title V Permit No. 0112120-010-AV.

The North Broward facility operates three MSW combustors (Unit Nos. 1, 2, and 3). MSW Combustor Unit Nos. 1, 2, and 3 each have a nominal design capacity of 747 tons per day (TPD) of MSW, and 280 million British thermal units per hour (MMBtu/hr), where the MSW has a heating value of 4,500 British thermal units per pound (Btu/lb). The combustors have a maximum short-term permitted capacity of 807 TPD of MSW, and 302.5 MMBtu/hr. The maximum permitted steam production rate for each combustor is 186,000 pounds per hour (lb/hr) when firing MSW (see Permit No. 0112120-010-AV).

Particulate matter (PM), lead (Pb), mercury (Hg), beryllium (Be), sulfur dioxide (SO₂), and acid gas emissions from the three MSW combustors are controlled by separate fabric filter baghouses and lime spray dryer absorbers. Hg emissions are reduced by pre-combustion waste separation. Carbon monoxide (CO) and nitrogen oxides (NO_x) emissions are controlled by good combustion controls. The three MSW combustors have been retrofitted with Selective Non-Catalytic Reduction (SNCR) NO_x controls in order to comply with the requirements in Title 40, Part 60 of the Code of Federal Regulations (40 CFR 60), Subpart Cb, *Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors that are Constructed on or Before September 20, 1994*.

The activated carbon Hg control system will control Hg emissions and ensure future compliance with the 40 CFR 60 Subpart Cb mercury emissions limit of 50 micrograms per dry standard cubic meter corrected to 7-percent oxygen or 85-percent reduction by weight, whichever is less stringent. This emission limit became effective after April 28, 2009.

Wheelabrator also plans to build a storage silo as part of the activated carbon injection system. The storage silo will hold powdered activated carbon that will be purchased and brought onsite by trucks. There will be PM/PM less than 10 microns/PM less than 2.5 microns (PM/PM₁₀/PM_{2.5}) emissions from the activated carbon storage silo, 99 percent of which will be controlled by a baghouse, resulting in less than 1 ton per year (TPY) of PM/PM₁₀ emissions. There are no other changes to the facility as a result of this project.

Golder Associates Inc. (Golder) was contracted to prepare the necessary air permit application seeking authorization to install the Hg control system and activated carbon storage silo. The air permit application consists of the appropriate applications form [Part I; DEP Form 62-210.900(1)], a technical description of the project, and rule applicability for the project. This application is identical to the application submitted for the Wheelabrator South Broward facility (Facility ID 0112119) in July 2009. The air construction permit (Permit No. 0112119-013-AC) to install activated carbon injection systems for the South Broward MSW combustors was issued in October 2009. In Permit No. 0112119-013-AC, FDEP also authorized changing the Hg testing frequency for the South Broward MSW combustors from semi-annual to annual. In this application, Wheelabrator is also requesting changing the Hg testing frequency of Unit Nos. 1, 2, and 3, contained in Specific Condition No. A.35 of Permit No. 0112120-010-AV, from semi-annual to annual and elimination of Condition A.12 (Emission Standards for Facilities Using Waste Separation under Rule 29-296.416(b)). Please note that according to 40 CFR 60, Subparts Cb and Eb [40 CFR 60.58b(d)], mercury testing is required to be conducted on a calendar year basis.

Proposed Project

The proposed project will install an activated carbon injection system consisting of a bulk carbon storage silo with bin vent filter, silo fill station, weight loss carbon feeders, pneumatic conveying blowers, and feeder/blower control systems with requisite outputs and alarms..

Activated Carbon Injection System Carbon Storage Silo

The storage silo is expected to have a total storage capacity of 3,200 cubic feet (ft³), which will be sufficient to hold a maximum of 48 tons of activated carbon, which has a density of 30 pounds per cubic foot (lb/ft³).

Powdered activated carbon will be delivered by trucks. The trucks will be capable of holding 20,000 pounds (10 tons) of powdered activated carbon each. The trucks will pneumatically convey the activated carbon into the storage silo. PM emissions from the silo will be controlled by a bin vent filter baghouse. The trucks will unload the activated carbon at a nominal rate of 400 pounds per minute, which would require about 50 minutes to unload.

Activated Carbon Injection System Feeders

The activated carbon injection system feeder is expected to be comprised of the following equipment for each MWC unit:

- Carbon eductor with blower
- Screw feeder and hopper
- Feeder scale
- Control panel

The screw feeder and blower assembly will transport the activated carbon from the storage silo to the three boilers for injection at the inlet of the SDA of each MWC unit. The speed of the screw feeder will

depend on the minimum amount of carbon (lbs/hr) required as established during mercury emissions testing. The screw feeder and associated hopper sit on an electronic scale, which continuously monitors mass carbon feed (lbs/hr). Screw feeder speed is adjusted automatically by feedback from the scale to maintain the required minimum feed rate. Hourly carbon feed rate (lbs/hr) will be recorded by the existing CEM data system to provide permanent record of feed rate to each unit. Alarms are provided to alert operators of carbon feed interruption or operational problem.

Rule Applicability

Under Federal and State of Florida Prevention of Significant Deterioration (PSD) review requirements, all major new or modified sources of air pollutants regulated under the Clean Air Act (CAA) must be reviewed and a pre-construction permit issued. The U.S. Environmental Protection Agency (EPA) has approved Florida's State Implementation Plan (SIP), which contains PSD regulations. Therefore, PSD approval authority has been granted to FDEP. For projects approved under the Florida Power Plant Siting Act (PPSA), the PSD program is delegated.

A "major facility" is defined as any 1 of 28 named source categories that have the potential to emit 100 TPY or more, or any other stationary facility that has the potential to emit 250 TPY or more of any pollutant regulated under the CAA. "Potential to emit" means the capability, at maximum design capacity, to emit a pollutant after the application of control equipment. Once a new source is determined to be a "major facility" for a particular pollutant, any pollutant emitted in amounts greater than the PSD significant emission rates is subject to PSD review. For an existing source for which a modification is proposed, the modification is subject to PSD review if the net increase in emissions due to the modification is greater than the PSD significant emission rates.

PSD review is used to determine whether significant air quality deterioration will result from the new or modified facility. Federal PSD requirements are contained in 40 CFR 52.21, *Prevention of Significant Deterioration of Air Quality*. The State of Florida has adopted the federal PSD regulations by reference [Rule 62-212.400, Florida Administrative Code (F.A.C.)]. Major facilities and major modifications are required to undergo the following analysis related to PSD for each pollutant emitted in significant amounts:

- Control technology review
- Source impact analysis
- Air quality analysis (monitoring)
- Source information
- Additional impact analyses

The Wheelabrator North Broward Waste-to-Energy facility is a major facility under FDEP rules. Because there is a physical change to the facility, the project is a potential modification as defined in the FDEP Rules in 62-210.200 and under the PSD rules in 62-212.400, F.A.C. PSD review would be required for the project if there were a significant net increase in emissions.

There will be no change in currently permitted emissions limits for Units 1, 2, and 3 as a result of this project. The ability to control Hg emissions will increase with the addition of the Hg control system. There will be less than 1 TPY of PM/PM₁₀/PM_{2.5} emissions increase due to the baghouse on the proposed activated carbon storage silo. No increase in PM/PM₁₀/PM_{2.5} emissions is expected to occur with the injection of activated carbon into each MSW boiler. Therefore, PSD review will not apply.

At Golder Associates we strive to be the most respected global group of companies specializing in ground engineering and environmental services. Employee owned since our formation in 1960, we have created a unique culture with pride in ownership, resulting in long-term organizational stability. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees now operating from offices located throughout Africa, Asia, Australasia, Europe, North America and South America.

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