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DIVISION OF AIR RESOURCE MANAGEMENT



# AIR CONSTRUCTION PERMIT APPLICATION

Wheelabrator South Broward, Inc.

**Prepared For:** Wheelabrator South Broward, Inc.

4400 South State Road 7 Ft. Lauderdale, FL 33314 USA

Submitted By: Golder Associates Inc.

6026 NW 1st Place

Gainesville, FL 32607 USA

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Wheelabrator South Broward, Inc.

2 copies Golder Associates Inc.

July 2013

133-87604A

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APPLICATION FOR AIR PERMIT

LONG FORM

4400 South State Road 7 Ft. Lauderdale, FL 33314

A Waste Management Company

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AUG 13 2013

August 5, 2013

DIVISION OF AIR RESOURCE MANAGEMENT

CERTIFIED MAIL: 7011 3500 0001 7589 2951

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

RE:

Wheelabrator South Broward, Inc. Title V Permit # 0112119-015-AV Minor Source Air Construction Permit Project Nos. : 012/19-01

Non-MSW Fuels

Dear Mr. Koerner:

Wheelabrator South Broward, Inc. (Wheelabrator) is seeking authorization from the Florida Department of Environmental Protection for an increase in the total quantity of nonmunicipal solid waste (MSW) material received as segregated loads from 5% to 20% at the South Broward Waste-to-Energy facility. The segregated loads would be non-hazardous solid or liquid waste. This request is being sought based on legislative changes in Chapter 707 Florida Statutes that allows the Department to allow waste-to-energy facilities to maximize acceptance and processing of non-hazardous solid and liquid wastes [Section 403.707(1)]. This request is also consistent with recent approval by the Department for a similar waste-to-energy facility.

If there are any further questions concerning this request please contact me at (954) 581-6606, extension 255 or our environmental consultant Mr. Kennard Kosky at (352) 336-5600. The Department's expeditious review of this request is appreciated.

Sincerely.

Scott McIlvaine Plant Manager

**Enclosures** 

CC: Cindy Mulkey, Siting Coordination Office

Nicole Turnbull



# Department of Environmental Protection

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AUG 1 3 2013

# Division of Air Resource Management

APPLICATION FOR AIR PERMIT - LONG FORMRESOURCE MANAGEMENT

#### I. APPLICATION INFORMATION

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

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

Air Operation Permit – Use this form to apply for:

• An initial federally enforceable state air operation permit (FESOP); or

1. Facility Owner/Company Name: Wheelabrator South Broward, Inc.

• An initial, revised, or renewal Title V air operation permit.

## To ensure accuracy, please see form instructions.

## **Identification of Facility**

2.	Site Name: Wheelabrator South Broward				
3.	Facility Identification Number: 0112119				
4.	Facility Location Street Address or Other Locator: 4400 South State Road 7				
	City: Ft. Lauderdale County: Broward Zip Code: 33314				
5.	Relocatable Facility? 6. Existing Title V Permitted Facility?   ☐ Yes ☒ No   ☒ Yes ☐ No				
<u>Ap</u>	oplication Contact				
1.	Application Contact Name: Nicole Turnbull, Environmental Manager				
2.	Application Contact Mailing Address  Organization/Firm: Wheelabrator South Broward, Inc.				
	Street Address: 4400 South State Road 7				
	City: Ft. Lauderdale State: FL Zip Code: 33314				
3.	Application Contact Telephone Numbers				
	Telephone: (954) 581-6606 ext. 255 Fax: (954) 581-6705				
4.	Application Contact E-mail Address: nturnbul@wm.com				
<u>Ap</u>	plication Processing Information (DEP Use)				
1.	Date of Receipt of Application: [3-20] 3. PSD Number (if applicable):				
2.	Project Number(s): 0 9 9 4. Siting Number (if applicable):				
	0112119-018-101				

1

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

#### **Purpose of Application**

This application for air permit is being submitted to obtain: (Check one)
Air Construction Permit
☐ Air construction permit.
☐ Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).
Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.
Air Operation Permit
☐ Initial Title V air operation permit.
☐ Title V air operation permit revision.
☐ Title V air operation permit renewal.
☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.
☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.
Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)
Air construction permit and Title V permit revision, incorporating the proposed project.
☐ Air construction permit and Title V permit renewal, incorporating the proposed project.
Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:
☑ I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.

#### **Application Comment**

This application requests an increase in the total quantity of non-MSW material received as segregated loads from 5% to 20%. The segregated loads would be non-hazardous solid or liquid waste. The request is consistent with Section 403.707(1) Florida Statutes that allows the Department to allow waste-to-energy facilities to maximize acceptance and processing of non-hazardous solid and liquid wastes.

In addition, this application seeks removal of beryllium as a regulated pollutant.

# **Scope of Application**

	Air	Air Permit
Description of Emissions Unit	Permit	Processing
1		Fee
863 TPD MSW Combustor & Auxiliary Burners - Unit 1	AF2A	
863 TPD MSW Combustor & Auxiliary Burners - Unit 2	AF2A	
863 TPD MSW Combustor & Auxiliary Burners - Unit 3	AF2A	
_		
	Unit 1  863 TPD MSW Combustor & Auxiliary Burners - Unit 2  863 TPD MSW Combustor & Auxiliary Burners -	Description of Emissions Unit Type  863 TPD MSW Combustor & Auxiliary Burners - Unit 1  863 TPD MSW Combustor & Auxiliary Burners - Unit 2  863 TPD MSW Combustor & Auxiliary Burners - AF2A  AF2A

<b>Application Processing Fee</b>	
Check one: Attached - Amount: \$	Not Applicable

# Owner/Authorized Representative Statement

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

1.	Owner/Authorized Representa	ative Name:		
2.	Owner/Authorized Representation/Firm:	ative Mailing Add	ess	
	Street Address:			
	City:	State:		Zip Code:
3.	Owner/Authorized Representa	ative Telephone N	ımbers	
	Telephone: ( )	ext.	Fax: (	)
4.	Owner/Authorized Representa	ative E-mail Addre	ess:	
5.	Owner/Authorized Representa	ative Statement:	_	_
	I, the undersigned, am the owner other legal entity submitting this statements made in this applicate emissions reported in this applicate emissions. I understand that a pauthorization from the department	air permit application are true, accurated are true, accurated are based upo bermit, if granted by	on. To the be te and comple n reasonable	est of my knowledge, the te, and any estimates of
	Signature		Date	<del></del> ;

### **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."

011	ilciai need not be the primary		1101411	
1.	Application Responsible Official Scott McIlvaine, Plant Manager	Name:		
2.	Application Responsible Official	Qualification	(Check on	e or more of the following
	options, as applicable):			
	For a corporation, the president,			
				who performs similar policy or
	decision-making functions for the person if the representative is re			
	manufacturing, production, or o	•		
	Chapter 62-213, F.A.C.			
	☐ For a partnership or sole proprie		-	
	☐ For a municipality, county, state		er public ag	gency, either a principal executive
	officer or ranking elected officia		0	A ID
	☐ The designated representative at			AIR source.
3.	Application Responsible Official	_		
	Organization/Firm: Wheelabrato		a, Inc.	
	Street Address: 4400 South S			
	City: Fort Lauderd	ale State:	FL	Zip Code: <b>33314</b>
4.	Application Responsible Official	Telephone Nu	mbers	
		-		
	Telephone: (954) 581-6606	ext. <b>212</b>	Fax:	(954) 581-6705
5.	<del>`</del>		Fax:	
5. 6.		E-mail Addres	Fax:	
6. I, t	Application Responsible Official Application Responsible Official the undersigned, am a responsible of	E-mail Address Certification: official of the	Fax: ss: smcilv  Title V sou	ai@wm.com  arce addressed in this air permit
6. I, t	Application Responsible Official Application Responsible Official the undersigned, am a responsible oplication. I hereby certify, based of	E-mail Address Certification: official of the light on information	Fax: ss: smcilv  Fitle V sou and belief	ai@wm.com  arce addressed in this air permit formed after reasonable inquiry,
6. I, t app	Application Responsible Official Application Responsible Official the undersigned, am a responsible of plication. I hereby certify, based of at the statements made in this appli	E-mail Address Certification: official of the Ton information cation are true.	Fax: ss: smcilv  Fitle V sou and belief accurate	ai@wm.com  arce addressed in this air permit formed after reasonable inquiry, and complete and that, to the best
6. I, t app that of	Application Responsible Official Application Responsible Official the undersigned, am a responsible oplication. I hereby certify, based out the statements made in this application my knowledge, any estimates of expressions.	E-mail Address Certification: official of the lon information cation are true missions repor	Fax: ss: smcilv  Title V sou and belief accurate ted in this	ai@wm.com  arce addressed in this air permit formed after reasonable inquiry, and complete and that, to the best application are based upon
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6. I, that of real points	Application Responsible Official Application Responsible Official the undersigned, am a responsible of plication. I hereby certify, based of at the statements made in this appli my knowledge, any estimates of en asonable techniques for calculating llution control equipment describe	E-mail Address Certification: official of the Ton information cation are true, missions report g emissions. The d in this applic	Fax: ss: smcilv  Fitle V sou and belief accurate ted in this ne air pollu ation will	ai@wm.com  arce addressed in this air permit formed after reasonable inquiry, and complete and that, to the best application are based upon utant emissions units and air be operated and maintained so as
6. I, the appropriate of the app	Application Responsible Official Application Responsible Official the undersigned, am a responsible oplication. I hereby certify, based of the statements made in this application my knowledge, any estimates of erasonable techniques for calculating llution control equipment describe comply with all applicable standar	E-mail Address Certification: official of the leader on information deation are true, missions report gemissions. The din this application of the leader of	Fax: ss: smcilv  Title V sou and belief accurate ted in this ne air pollu ation will of air pollu	ai@wm.com  arce addressed in this air permit formed after reasonable inquiry, and complete and that, to the best application are based upon utant emissions units and air be operated and maintained so as utant emissions found in the
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6. I, the appropriate of to start rev	Application Responsible Official Application Responsible Official the undersigned, am a responsible of plication. I hereby certify, based of at the statements made in this appli- my knowledge, any estimates of en asonable techniques for calculating llution control equipment describe comply with all applicable standar attutes of the State of Florida and ru	E-mail Address Certification: official of the Ton information cation are true, missions report g emissions. The d in this applic ds for control of les of the Deparable requireme	Fax: ss: smcilv  Fitle V sou and belief accurate ted in this ne air pollu ation will of air pollu artment of nts identif	ai@wm.com  arce addressed in this air permit formed after reasonable inquiry, and complete and that, to the best application are based upon utant emissions units and air be operated and maintained so as utant emissions found in the Environmental Protection and fied in this application to which
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DEP Form No. 62-210.900(1) – Form Effective: 03/11/2010

#### Professional Engineer Certification

=	Olessional 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
<u> </u>	Telephone: (352) 336-5600 ext. 21156 Fax: (352) 336-6603
4.	Professional Engineer E-mail Address: kkosky@golder.com
5.	Professional Engineer Statement:
	I, the undersigned, hereby certify, except as particularly noted herein*, that:
	(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and
	(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.
	(3) If the purpose of this application is to obtain a Title $V$ air operation permit (check here $\square$ , if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.
	(4) If the purpose of this application is to obtain an air construction permit (check here $\boxtimes$ , if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here $\square$ , if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.
	(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.
*	Attach any exception to certification statement.
**E	Board of Professional Engineers Certificate of Authorization #00001670.
	P Form No. 62-210 900 1 Form y:\projects\2013\133-87604a wheelabrator sb\final\wsb_sb_fi.dective: 03/11/2010 6

#### II. FACILITY INFORMATION

# A. GENERAL FACILITY INFORMATION

# **Facility Location and Type**

1.	1. Facility UTM Coordinates  Zone 17 East (km) 579.49  North (km) 2883.52		2. Facility Latitude/Longitude Latitude (DD/MM/SS) 26/04/07 Longitude (DD/MM/SS) 80/12/19			
3.	Governmental	4. Facility Status	5.	Facility Major	6. Facility SIC(s):	
	Facility Code: <b>0</b>	Code:		Group SIC Code: 49	4953	
7.	Facility Comment:					

### **Facility Contact**

1.	Facility Contact Name:			
	Nicole Turnbull, Environmental Ma	anager	•	
2.	Facility Contact Mailing Address			
	Organization/Firm: Wheelabraton	r South	Broward, Inc	<b>).</b>
	Street Address: 4400 South S	tate Ro	ad 7	
	City: Fort Lauderda	ale	State: FL	Zip Code: <b>33314</b>
3.	Facility Contact Telephone Numb	oers:		
	Telephone: (954) 581-6606	ext	. 216	Fax: (954) 581-6705
4.	Facility Contact E-mail Address:	nturni	bul@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 (Organization/Firm:	Official Mailing	Address			
	Street Address:					
	City:	State			Zip Code:	
3.	Facility Primary Responsible (	Official Telepho	ne Number	'S		
	Telephone: ( )	ext.	Fax:	(	)	
4.	Facility Primary Responsible (	Official E-mail A	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.  Small Business Stationary Source	☐ Unknown
2.  Synthetic Non-Title V Source	
3.   Title V Source	<del></del>
4. Major Source of Air Pollutants, Other	er than Hazardous Air Pollutants (HAPs)
5. Synthetic Minor Source of Air Pollu	tants, Other than HAPs
6. Major Source of Hazardous Air Poll	utants (HAPs)
7. Synthetic Minor Source of HAPs	
8.  One or More Emissions Units Subje	ct to NSPS (40 CFR Part 60)
9.  One or More Emissions Units Subje	ct to Emission Guidelines (40 CFR Part 60)
10. ☑ One or More Emissions Units Subje	ct to NESHAP (40 CFR Part 61 or Part 63)
11. Title V Source Solely by EPA Desig	nation (40 CFR 70.3(a)(5))
12. Facility Regulatory Classifications Com	ment:
	bject to NSPS - 40 CFR 60, Subparts Cb and Eb,

# List of Pollutants Emitted by Facility

2. Pollutant Classification	3. Emissions Cap
A	[Y or N]?
A	N
A	N .
A	N
A	N
A	N
В	N
В	N
В	N
Α	N
В	N
В	N
-	
-	
	A A A A B B B B B B

#### **B. EMISSIONS CAPS**

#### Facility-Wide or Multi-Unit Emissions Caps

Facility-Wide	<u>or Multi-Unit Er</u>	nissions Caps			
1. Pollutant Subject to Emissions Cap	2. Facility- Wide Cap [Y or N]? (all units)	3. Emissions Unit ID's Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap
_					
_					
7. Facility-Wi	de or Multi-Unit l	Emissions Cap Com	ment:		
1					
	•				

# 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)  Attached, Document ID:   Previously Submitted, Date: 06/22/10
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)  Attached, Document ID: Previously Submitted, Date: 06/22/10
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)  Attached, Document ID:  Previously Submitted, Date: 06/22/10
Ad	Iditional Requirements for Air Construction Permit Applications
1.	Area Map Showing Facility Location:  ☐ Attached, Document ID: ☐ Not Applicable (existing permitted facility)
2.	Description of Proposed Construction, Modification, or Plantwide Applicability Limit (PAL):  ☑ Attached, Document ID: Part II
3.	Rule Applicability Analysis:
4.	List of Exempt Emissions Units:  ☐ Attached, Document ID: ☐ Not Applicable (no exempt units at facility)
5.	Fugitive Emissions Identification:  ☐ Attached, Document ID: ☐ Not Applicable
6.	Air Quality Analysis (Rule 62-212.400(7), F.A.C.):  ☐ Attached, Document ID: ☐ Not Applicable
7.	Source Impact Analysis (Rule 62-212.400(5), F.A.C.):  Attached, Document ID: Not Applicable
8.	Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.):  ☐ Attached, Document ID: ☐ Not Applicable
9.	Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.):  Attached, Document ID: Not Applicable
10.	Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.):  ☐ Attached, Document ID:  ☐ Not Applicable

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

# 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)
Ad	Iditional 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:
	<ul> <li>□ Equipment/Activities Onsite but Not Required to be Individually Listed</li> <li>□ Not Applicable</li> </ul>
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

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

# C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

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

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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 <sub>X</sub> Averaging Plan (DEP Form No. 62-210.900(1)(a)1.):
	Attached, Document ID: Previously Submitted, Date:
	<ul> <li>✓ Not Applicable</li> </ul>
	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)
Ad	Iditional Requirements Comment

### **PART II**

DESCRIPTION OF PROPOSED MODIFICATION AND RULE APPLICABILITY ANALYSIS

#### **PART II**

Application for Minor Source Air Construction Permit for an Increase in Segregated Loads for Municipal Waste Combustor (MWC) Units 1, 2, and 3 (EU IDs 001, 002, and 003)

#### Introduction

Wheelabrator South Broward, Inc. (Wheelabrator) is seeking authorization from the Florida Department of Environmental Protection (FDEP) for an increase in the total quantity of non-municipal solid waste (MSW) material received as segregated loads from 5% to 20% at the South Broward Waste-to-Energy facility. The segregated loads would be non-hazardous solid or liquid waste. The request is consistent with Section 403.707(1) Florida Statutes that allows the Department to allow waste-to-energy facilities to maximize acceptance and processing of non-hazardous solid and liquid wastes. In addition, Wheelabrator is seeking removal of beryllium as a regulated pollutant. The facility is located at 4400 South State Road 7, Fort Lauderdale, Broward County, Florida and currently operating under Title V Permit No. 0112119-015-AV.

The South Broward facility operates three MWC units (Unit Nos. 1, 2, and 3). MWC Unit Nos. 1, 2, and 3 each have a nominal design capacity of 750 tons per day (TPD) of MSW, and 281 million British thermal units per hour (MMBtu/hr) heat input, 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 863 TPD of MSW, and 323.6 MMBtu/hr heat input. The maximum permitted steam production rate for each combustor is 192,000 pounds per hour (lb/hr) when firing MSW (see Permit No. 0112119-015-AV).

Particulate matter (PM), sulfur dioxide (SO<sub>2</sub>), MWC metals and MWC 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 separation and an activated carbon system. Carbon monoxide (CO) and nitrogen oxides (NO<sub>x</sub>) emissions are controlled by good combustion controls. The three MSW combustors have been retrofitted with Selective Non-Catalytic Reduction (SNCR) NO<sub>x</sub> 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.

Golder Associates Inc. (Golder) was contracted to prepare the necessary air permit application seeking authorization to increase the utilization of non-hazardous solid and liquid waste. 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.



#### Proposed Project - Increase in the Amount of Segregated Loads

The current Title V Permit for the Wheelabrator South Broward Waste-to-Energy facility limits the total quantity of non-MSW material received as segregated loads to 5 percent (Condition A4.f of Final Permit 0112119-015-AV). In 2012, the Florida Legislature provided additional direction to the Department to allow waste-to-energy facilities to maximize acceptance and processing of non-hazardous solid and liquid waste. The specific provisions are contained in Section 403.707(1) Florida Statutes (F.S.) that is presented below:

Resource Recovery and Management 403.707 Permits.

(1) A solid waste management facility may not be operated, maintained, constructed, expanded, modified, or closed without an appropriate and currently valid permit issued by the department. The department may by rule exempt specified types of facilities from the requirement for a permit under this part if it determines that construction or operation of the facility is not expected to create any significant threat to the environment or public health. For purposes of this part, and only when specified by department rule, a permit may include registrations as well as other forms of licenses as defined in s. 120.52. Solid waste construction permits issued under this section may include any permit conditions necessary to achieve compliance with the recycling requirements of this act. The department shall pursue reasonable timeframes for closure and construction requirements, considering pending federal requirements and implementation costs to the permittee. The department shall adopt a rule establishing performance standards for construction and closure of solid waste management facilities. The standards shall allow flexibility in design and consideration for site-specific characteristics. For the purpose of permitting under this chapter, the department shall allow waste-to-energy facilities to maximize acceptance and processing of nonhazardous solid and liquid waste.

Wheelabrator is seeking an increase from 5 percent to 20 percent based on following reasons. First, the increase of non-MSW as segregated loads is consistent to the Florida Legislature's direction to maximize the use on non-hazardous solid and liquid wastes in a waste-to-energy facility. Second, with the increase from 5 percent to 20 percent of non-MSW material would not change any performance or emission limiting standards and no significant increase in emissions of regulated pollutants are expected. Third, the project would demonstrate that no significant emission increase will occur by using the *Baseline Actual-to-Projected Actual Test for Modification at Existing Emission Units* in FDEP Rule 62-212.400(2)(a)1 F.A.C. Finally, the Department has issued authorization to the Lake County Resource Recovery Facility to increase non-MSW material as segregated loads from 5 percent to 20 percent based on a detailed review of applicable requirements and emission information for a waste-to-energy facility (Final Permit No. 0690046-014-AC/PSD-FL-113I).



Appendix A presents the Wheelabrator North and South Broward Supplemental Waste Approval Procedure to assure that waste from segregated loads burned in the MWC units is non-hazardous solid and liquid waste.

#### RULE APPLICABILITY

#### **PSD/New Source Review (NSR)**

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 South Broward Waste-to-Energy facility is a major facility under FDEP rules. For an existing major facility for which a project is proposed, the project is subject to PSD review if the net increase in emissions due to the project is greater than the PSD significant emission rates for any applicable pollutant. A "modification" is defined in FDEP Rule 62-210.200(205), F.A.C., as "any physical



change in, change in the method of operation of, or addition to a facility which would result in an increase in the actual emissions of any pollutant subject to regulation under the [Clean Air] Act, including any not previously emitted, from any emission unit or facility." Because there is an operational change and the hourly mass emission rates will potentially increase, the project is a potential modification as defined in Rules 62-210.200 and 62-212.400 (PSD), F.A.C.

To demonstrate that the proposed project is not a major modification under the Department's PSD rules, an emissions comparison between baseline actual emissions and projected actual emissions was conducted pursuant to FDEP Rule 62-212.400(2)(1), F.A.C., for Wheelabrator South MWC Units 1, 2 and 3. The baseline, or current, actual emissions are the emissions over a consecutive 24-month period within the five years immediately preceding the date that a complete application is submitted. The use of different consecutive 24-month periods for each pollutant is allowed. Projected actual emissions are the maximum annual rate, in TPY, at which the existing emission unit is projected to emit a PSD pollutant in any of the five years following the date the unit resumes regular operation.

Table 1 presents the actual annual heat inputs from different fuels reported in the Annual Operating Reports (AORs) for the period 2008 through 2012. This table also presents the total actual heat input from all fuels, as well as the actual operating hours for each unit.

Table 2 summarizes the annual emissions reported in the AORs for each calendar year in the period 2008 through 2012. The carbon dioxide (CO<sub>2</sub>) emission rates in Table 2 were obtained using the heat input and emission factors from Title 40, Part 98 of the Code of Federal Regulations (40 CFR 98), Table C-1.

In Table 3, the actual emissions are presented as a function of heat input.

Emissions of nitrous oxide (N<sub>2</sub>O) and methane (CH<sub>4</sub>) were also calculated based on the actual annual heat input and emission factors from 40 CFR 98, Subpart C, Table C-2. These emissions are summarized in Table 4, which also shows the CO<sub>2</sub> equivalent (CO<sub>2</sub>e) rates for these pollutants.

Table 5 presents the average emissions for each consecutive two-year period based on the calendar year emissions in Tables 2, 3 and 4. The annual average emissions for each consecutive two-year period are consistent with the definition of baseline actual emissions.

The baseline actual emissions and project actual emissions are summarized in Table 6. Projected actual emissions were estimated to be just under the PSD significant emission rates for each pollutant. As a result, PSD is not applicable for the project. However, it is unlikely that increasing the amount of non-hazardous solid and liquid waste as segregated loads from 5 to 20 percent would actually increase emission rates. In addition, pursuant to Rule 62-210.200(249)(c), F.A.C., any emissions associated with the demand growth are excluded from the definition of projected actual emissions.



As provided by Rule 62-212.300(1)(e) F.A.C., Wheelabrator will monitor emissions for a period of 5-years following increasing the amount of non-MSW as segregated loads and provide information according to Rule 62-212.300(1)(e)2.a through d within 60 days after the end of each year.

#### Regulatory Restrictions on Non-Hazardous Solid and Liquid Waste Use

A review was conducted of 40 CFR 60, Subparts Cb and Eb, 40 CFR Part 129 and 403 F.S. regarding restrictions that would preclude increase the amount of non-hazardous solid and liquid wastes in the South Broward waste-to-energy facility. While there a specific requirements and definitions for municipal waste combustors, municipal solid waste, waste-to-energy facility, recovered materials, etc., there are no specific restrictions on non-hazardous solid and liquid waste so long as the applicable requirements of these federal regulations and Florida statutes and rules are met. This observation is confirmed by the analysis conducted by the Department in the Technical Evaluation and Preliminary Determination for the Lake County Resource Recovery Facility draft permit package (Draft Permit No. 0690046-014-AC/PSD-FL-113I, January 2013). In the TEPD, the Department concluded:

"After reviewing the cited federal (U.S. EPA) regulations, the law & rules of the State of Florida, nothing specifically precludes the applicant's request to burn higher quantities of 'non-hazardous solid and liquid waste' (segregated loads)." Convanta Lake II, Inc. TEPD Page 10 of 14.

Therefore, there are no apparent restrictions on increasing the amount of non-MSW being burned as segregated loads.

#### PROPOSED CHANGES TO EXISTING PERMIT CONDITIONS

Wheelabrator offers the following suggested changes and conditions to be included in the air construction permit. The existing conditions provided are those in the current Final Title V permit 0112119-015-AV. Strikethrough denotes deletion of text and <u>underline</u> denotes additions. (Note: Only those conditions where a condition changes or an addition is needed is shown below.)

#### Condition A.4. Methods of Operation -- Fuels.

a. Allowable Fuels. The primary fuel for this facility is municipal solid waste (MSW), including the items and materials that fit within the definition of MSW contained in either 40 CFR 60.51b or Section 403.706(5), F.S. Subject to the limitations contained in this permit, the authorized fuels for the facility also include the other solid wastes that are not MSW which are described in Specific Condition A.4.d., below. The primary fuel for the facility is MSW, including the items and materials that fit within the definition of MSW contained in either 40 CFR 60.51b or Section 403.706(5), Florida Statutes (2010). Other fuels or wastes, not specifically listed herein, shall not be burned without written prior approval from the Department. Fuels or wastes specifically authorized herein do not require prior Department approval before combustion.



f. Non-MSW Material. Subject to the conditions and limitations contained in this permit, the following other solid waste materials may be used as fuel at the facility (i.e., the following are authorized fuels that are non-MSW material). The total quantity of the following non-MSW material received as segregated loads and burned at the facility shall not exceed 20 5%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined by using a rolling 30 day average.

Wheelabrator South Broward is also requesting that the Department remove beryllium as a regulated pollutant. Condition A.20 of the current Title V permit (Permit No. 0112119-015-AV) specifies an emission limit for beryllium of 0.001 mg/dscm, corrected to 7% oxygen that is an artifact of the original PSD permitting of the project [PSD-FL-105(B)]. Beryllium is no longer regulated under the PSD program and Condition A.4(k) specifically lists beryllium as an unauthorized fuel that cannot be burned. The beryllium emission limit was removed from the Wheelabrator North Broward facility during the renewal of its last Title V permit (0112120-013-AV; February 6, 2013). These facilities are nearly identical MWC units with the same permit conditions and the removal of beryllium as a regulated pollutant for the South Broward facility would make both permits consistent in this regard.



Table 1. Wheelabrator South Broward MWC Units Nos. 1, 2 & 3 Annual Heat Inputs, 2008 - 2012

	Heat	Input from Soli	d Waste (MMBt	u/yr)	Heat I	nput from Natu	ral Gas (MMBtu	/yr)		Total Actual _(MMBt	•		•	rating Hours /yr)	
Year	MWC Unit 1	MWC Unit 2	MWC Unit 3	Total	MWC Unit 1	MWC Unit 2	MWC Unit 3	Total	MWC Unit 1	MWC Unit 2	MWC Unit 3	Total	MWC Unit 1	MWC Unit 2	MWC Unit 3
2008	2,440,098	2,431,395	2,462,913	7,334,406	4,280	5,752	4,813	14,846	2,444,378	2,437,147	2,467,726	7,349,252	8,294	8,198	8,322
2009	2,371,734	2,337,021	2,383,290	7,092,045	20,692	13,624	16,652	50,968	2,392,426	2,350,645	2,399,942	7,143,013	8,215	8,042	8,185
2010	2,333,529	2,339,595	2,368,134	7,041,258	19,627	26,016	15,566	61,210	2,353,156	2,365,611	2,383,700	7,102,468	8,153	8,148	8,243
2011	2,362,644	2,422,719	2,375,766	7,161,129	15,086	16,620	9,782	41,489	2,377,730	2,439,339	2,385,548	7,202,618	8,122	8,265	8,186
2012	2,302,479	2,399,490	2,404,584	7,106,553	25,912	18,155	6,368	50,436	2,328,391	2,417,645	2,410,952	7,156,989	8,103	8,262	8,162

Individual Fuel Heat Input as a Percent of Total Heat Input

	Heat	Input from Soli	d Waste (MMBtu	/yr)	Heat I	nput from Natu	ral Gas (MMBtul	yr)
Year	MWC Unit 1	MWC Unit 2	MWC Unit 3	Total	MWC Unit 1	MWC Unit 2	MWC Unit 3	Total
2008	33.2%	33.1%	33.5%	99.8%	0.1%	0.1%	0.1%	0.2%
2009	33.2%	32.7%	33.4%	99.3%	0.3%	0.2%	0.2%	0.7%
2010	32.9%	32.9%	33.3%	99.1%	0.3%	0.4%	0.2%	0.9%
2011	32.8%	33.6%	33.0%	99.4%	0.2%	0.2%	0.1%	0.6%
2012	32.2%	33.5%	33.6%	99.3%	0.4%	0.3%	0.1%	0.7%

Note: All values are based on annual operating reports for the period 2008 - 2012.

July 2013

Table 2. Wheelabrator South Broward Annual Emissions Reported in 2008-2012 Annual Operating Reports

Year	Pollutant	MWC Unit No. 1 (tons)	MWC Unit No. 2 (tons)	MWC Unit No. 3 (tons)	Total (tons)
2008	NO <sub>x</sub>	456.9	455.3	461.2	1,373.3
	CO	16.7	16.7	16.9	50.3
	SO <sub>2</sub>	44.6	44.4	45.0	134.1
	VOC	3.3	3.3	3.3	9.9
	РМ	3.1	3.1	3.2	9.4
	PM <sub>10</sub>	3.1	3.1	3.2	9.4
	SAM <sup>a</sup>	0.0	0.0	0.0	0.0
	D/F	7.00E-06	7.00E-06	7.00E-06	2.10E-05
	HCI	11.4	11.3	11.5	34.2
	Fluorides	0.32	0.31	0.32	0.95
	Lead	7.86E-03	7.84E-03 2.35E-02	7.94E-03 2.38E-02	2.36 <b>E</b> -02 7.09 <b>E</b> -02
	Mercury CO₂	2.36E-02 244,141	243,357	246,453	733,952
2009	NO <sub>x</sub>	448.3	441.3	450.2	1,340
2009	CO	19.1	18.6	19.1	57
	SO <sub>2</sub>	35.5	34.9	35.6	106
	_				
	VOC	3.3	3.2	3.3	10
	PM	3.4	3.3	3.4	10
	PM <sub>10</sub>	3.4	3.3	3.4	10
	SAM <sup>a</sup>	0.0 7.00E.06	0.0 7.00E-06	0.0 7.00E.06	0 2.10E-05
	D/F HCI	7.00E-06 17.1	7.00E-06 16.9	7.00E-06 17.2	2.10E-05 51.2
	Fluorides	0.23	0.22	0.23	0.68
	Lead	7.52E-03	7.40E-03	7.55E-03	2.25E-02
	Mercury	2.25E-02	2.22E-02	2.26E-02	6.74E-02
	CO <sub>2</sub>	238,267	234,385	239,186	711,838
2010	$NO_x$	443.5	445.1	449.8	1,338
	CO	22.8	23.1	23.0	69
	SO <sub>2</sub>	47.8	48.0	48.6	144
	VOC	3.1	3.1	3.1	9
	PM	3.1	3.1	3.1	9
	PM <sub>10</sub>	3.1	3.1	3.1	9
	SAM <sup>a</sup>	0.0	0.0	0.0	0
	D/F	5.00E-06	5.00E-06	5.00E-06	1.50E-05
	HCI	18.0	18.1	18.3	54.4
	Fluorides Lead	0.20 5.97E-03	0.20 5.99E-03	0.20 6.06E-03	0.59 1.80E-02
	Mercury	1.48E-02	1.48E-02	1.50E-02	4.46E-02
	CO <sub>2</sub>	234,386	235,366	237,608	707,360
2011	$NO_x$	429.7	440.7	431.7	1,302
	СО	20.2	20.7	20.1	61
	SO <sub>2</sub>	29.3	30.0	29.4	89
	VOC	3.0	3.1	3.0	9
	PM	2.2	2.2	2.1	7
	PM <sub>10</sub>	2.2	2.2	2.1	7
	SAM <sup>a</sup>	0.0	0.0	0.0	0
	D/F	3.00E-06	3.00E-06	3.00E-06	9.00E-06
	HCI	17.9	18.3	18.0	54.1
	Fluorides	0.18	0.18	0.18	0.55
	Lead	2.24E-03	2.29E-03	2.25E-03	6.77E-03 2.79E-02
	Mercury CO₂	9.19E-03 237,031	9.42E-03 243,125	9.24E-03 238,033	718,189
2042		•			
2012	NO <sub>x</sub>	434.5	452.2	452.4	1,339
	CO SO₂	19.7 25.2	20.2 26.3	19.8 26.3	60 78
				26.3	
	VOC	3.0	3.1	3.1	9
	PM	2.8	2.9	2.8	8
	PM <sub>10</sub>	2.8	2.9	2.8	8
	SAM <sup>a</sup>	0.0 5.005.06	0.0	0.0	0 1 505 05
	D/F HCI	5.00E-06 19.3	5.00E-06 20.1	5.00E-06 20.2	1.50E-05 59.6
	Fluorides	0.03	0.03	0.03	0.08
	Lead	3.20E-03	3.34E-03	3.34E-03	9.88E-03
	Mercury	6.02E-03	6.27E-03	6.28E-03	1.86E-02
	CO <sub>2</sub>	231,650	240,893	240,714	713,257



 $<sup>\</sup>cdot$  Source: Annual Operating Report (AOR) for Wheelabrator South Broward, Inc., 2008 - 2012.

Table 3. Wheelabrator South Broward Actual Emissions as a Function of Heat Input, 2008 - 2012

MWC	: Unit 1

	Actual Annual Heat Input					ı	MWC Uni	t 1 Actı	ıal Emissior	ns (TPY)	) b										s per Unit (lb/MMBt	Heat Input	c				
Year	(MMBtu/yr) <sup>a</sup>	NO <sub>x</sub>	со	voc	SO <sub>2</sub>	PM	PM <sub>10</sub>	SAM	D/F	HCI	Fluorides	s Lead	Mercury	CO2	NO <sub>x</sub>	со	voc	SO <sub>2</sub>	PM	PM <sub>10</sub>	SAM	D/F	нсі	Fluorides	Lead	Mercury	CO2
2008 2009 2010 2011 2012	2,444,378 2,392,426 2,353,156 2,377,730 2,328,391	456.9 448.3 443.5 429.7 434.5	16.7 19.1 22.8 20.2 19.7	3.3 3.3 3.1 3.0 3.0	44.6 35.5 47.8 29.3 25.2	3.1 3.4 3.1 2.2 2.8	3.1 3.4 3.1 2.2 2.8	6.8 5.4 7.3 4.5 3.9	7.00E-06 7.00E-06 5.00E-06 3.00E-06 5.00E-06	11.4 17.1 18.0 17.9 19.3	0.32 0.23 0.20 0.18 0.03	7.86E-03 7.52E-03 5.97E-03 2.24E-03 3.20E-03	0.02 0.01 0.01	244,141.3 238,267.1 234,386.3 237,031.0 231,650.0 <b>Maximum</b> =	0.3738 0.3748 0.3770 0.3614 0.3732 0.3770	0.0137 0.0160 0.0194 0.0170 0.0169 0.0194	0.0027 0.0028 0.0026 0.0025 0.0026	0.0365 0.0296 0.0407 0.0246 0.0217	0.0026 0.0028 0.0026 0.0018 0.0024 0.0028	0.0026 0.0028 0.0026 0.0018 0.0024	0.0045 0.0062 0.0038 0.0033	5.73E-09 5.85E-09 4.25E-09 2.52E-09 4.29E-09 5.85E-09	0.0093 0.0143 0.0153 0.0150 0.0166	0.0000	5.07E-06 1.88E-06 2.75E-06	1.88E-05 1.26E-05 7.73E-06 5.17E-06	199.8 199.2 199.2 199.4 199.0

#### MWC Unit 2

	Actual Annual Heat Input						MWC Uni	t 2 Actu	ıal Emissi <u>o</u> ı	ns (TPY	) b										s per Unit (lb/MMBt	Heat Input u)	c				
Year	(MMBtu/yr) <sup>a</sup>	NO <sub>x</sub>	со	voc	SO <sub>2</sub>	PM	PM <sub>10</sub>	SAM	D/F	нсі	Fluorides	Lead	Mercury	CO2	NO <sub>x</sub>	со	voc	SO <sub>2</sub>	PM	PM <sub>10</sub>	SAM	D/F	нсі	Fluorides	Lead	Mercury	CO2
2008 2009	2,437,147 2,350,645	455.3 441.3	16.7 18.6	3.3 3.2	44.4 34.9	3.1 3.3	3.1 3.3	6.8 5.3	7.00E-06 7.00E-06	11.3 16.9	0.31 0.22	7.84E-03 7.40E-03	-	243,357.4 234,384.6	0.3737 0.3755	0.0137 0.0158	0.0027 0.0027	0.0365 0.0297	0.0026 0.0028	0.0026 0.0028	0.0056 0.0046	5.74E-09 5.96E-09	0.0093 0.0144	0.0003 0.0002		1.93E-05 1.89E-05	199.7 199.4
2010 2011	2,365,611 2,439,339	445.1 440.7	23.1	3.1 3.1	48.0 30.0	3.1 2.2	3.1 2.2	7.3 4.6	5.00E-06 3.00E-06	18.3	0.20 0.18	5.99E-03 2.29E-03	0.01	235,365.9 243,125.3	0.3763 0.3613	0.0196 0.0170	0.0027 0.0025	0.0406 0.0246	0.0026 0.0018	0.0026 0.0018	0.0062 0.0038	4.23E-09 2.46E-09	0.0150	0.0002	1.88E-06	1.25E-05 7.73E-06	
2012	2,417,645	452.2	20.2	3.1	26.3	2.9	2.9	4.0	5.00E-06	20.1	0.03	3.34E-03	0.01	240,893.2 <b>Maximum</b> =	0.3741	0.0167 0.0196	0.0026	0.0217 0.0406	0.0024	0.0024 0.0028	0.0033	4.14E-09 5.96E-09		0.0000		5.18E-06 1.93E-05	199.3 199.7

#### MWC Unit 3

	Actual Annual Heat Input					ı	MWC Un	it 3 Actu	ıal Emissio	ns (TPY	) b										s per Unit (lb/MMBt	Heat Input u)	c				
Year	(MMBtu/yr) <sup>a</sup>	NO <sub>x</sub>	со	voc	SO <sub>2</sub>	PM	PM <sub>10</sub>	SAM	D/F	HCI	Fluorides	Lead	Mercury	CO2	NOx	со	voc	SO <sub>2</sub>	PM	PM <sub>10</sub>	SAM	D/F	HCI	Fluorides	Lead	Mercury	CO2
2008 2009	2,467,726 2,399,942	461.2 450.2	16.9 19.1	3.3 3.3	45.0 35.6	3.2 3.4	3.2 3.4	6.9 5.5	7.00E-06 7.00E-06	11.5 17.2	0.32 0.23	7.94E-03 7.55E-03		246,452.8 239,186.1	0.3738 0.3752	0.0137 0.0159	0.0027 0.0028	0.0365 0.0297	0.0026 0.0028	0.0026 0.0028	0.0056 0.0045	5.67E-09 5.83E-09	0.0093 0.0143	0.0003 0.0002	•	1.93E-05 1.89E-05	199.7 199.3
2010 2011 2012	2,383,700 2,385,548 2,410,952	449.8 431.7 452.4	23.0 20.1 19.8	3.1 3.0 3.1	48.6 29.4 26.3	3.1 2.1 2.8	3.1 2.1 2.8	7.4 4.5 4.0	5.00E-06 3.00E-06 5.00E-06	18.3 18.0 20.2	0.20 0.18 0.03	6.06E-03 2.25E-03 3.34E-03	0.01	237,607.8 238,032.7 240,713.6	0.3774 0.3620 0.3753	0.0193 0.0168 0.0164	0.0026 0.0025 0.0026	0.0407 0.0247 0.0218	0.0026 0.0018 0.0023	0.0026 0.0018 0.0023	0.0062 0.0038 0.0033	4.20E-09 2.52E-09 4.15E-09	0.0153 0.0150 0.0167	0.0002 0.0002 0.0000	1.88E-06	1.26E-05 7.75E-06 5.21E-06	199.4 199.6 199.7
														Maximum =	0.3774	0.0193	0.0028	0.0407	0.0028	0.0028	0.0062	5.83E-09	0.0167	0.0003	6.43E-06	1.93E-05	19

#### MWC Units 1, 2 & 3

	Actual Annual Heat Input					Uni	its 1, 2 & :	3 Total A	Actual Emis:	sions (T	·PY) <sup>b</sup>										s per Unit (lb/MMBt)	Heat Input u)	c				
Year	(MMBtu/yr) <sup>a</sup>	NO <sub>x</sub>	со	voc	SO <sub>2</sub>	PM	PM <sub>10</sub>	SAM	D/F	HCI	Fluorides	Lead	Mercury	CO <sub>2</sub>	NO <sub>x</sub>	со	voc	SO <sub>2</sub>	ΡM	PM <sub>10</sub>	SAM	D/F	HCI	Fluorides	Lead	Mercury	CO2
2008 2009 2010 2011 2012	7,349,252 7,143,013 7,102,468 7,202,618 7,156,989	1,373.3 1,339.9 1,338.4 1,302.1 1,339.0	50.3 56.8 69.0 60.9 59.7	9.9 9.8 9.4 9.1 9.2	134.1 106.0 144.4 88.7 77.8	9.4 10.0 9.2 6.5 8.5	9.4 10.0 9.2 6.5 8.5	20.5 16.2 22.1 13.6 11.9	2.10E-05 2.10E-05 1.50E-05 9.00E-06 1.50E-05	54.4	0.59 0.55	2.36E-02 2.25E-02 1.80E-02 6.77E-03 9.88E-03	0.07 0.04 0.03	733,951.6 711,837.8 707,360.0 718,189.0 713,256.8	0.3737 0.3752 0.3769 0.3616 0.3742	0.0137 0.0159 0.0194 0.0169 0.0167	0.0027 0.0028 0.0026 0.0025 0.0026	0.0365 0.0297 0.0407 0.0246 0.0217	0.0026 0.0028 0.0026 0.0018 0.0024	0.0026 0.0028 0.0026 0.0018 0.0024	0.0056 0.0045 0.0062 0.0038 0.0033	2.50E-09	0.0093 0.0143 0.0153 0.0150 0.0167	0.0003 0.0002 0.0002 0.0002 0.0000	6.29E-06	1.26E-05 7.73E-06	199.7 199.3 199.2 199.4 199.3
	1,120,000	1,200.0		<b>-</b>		2.0	2.0			23.0	2.00			Maximum =		0.0194	0.0028	0.0407	0.0028	0.0028	0.0062	5.88E-09	0.0167	0.0003			199.7

<sup>&</sup>lt;sup>a</sup> Based on AOR data; see Table 1.



<sup>&</sup>lt;sup>b</sup> Based on AOR data; see Table 2.

<sup>&</sup>lt;sup>c</sup> Total actual emissions divided by total heat input.

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Table 4. Wheelabrator South Broward Estimated Actual Annual Emissions of N₂O and CH₄ for the Period 2008 - 2012 MWC Units Nos. 1, 2 & 3

	Actual		N₂O Emissions			CH₄ Emissions			
	Annual	Emission	_		CO₂e <sup>c</sup>	Emission			CO₂e °
	Heat Input <sup>a</sup>	Factor <sup>b</sup>	Annual Emissions		Rate	Factor <sup>b</sup>	Annual E	missions	Rate
Unit	(MMBtu/yr)	<u> </u>	(lb/yr)	(TPY)	(TPY)	(lb/MMBtu)	(lb/yr)	(TPY)	(TPY)
olid Waste									
2008	7,334,406	3.53E-03	25,864.0	12.9	4,008.9	2.4E-02	177,815.3	88.9	1,867.1
2009	7,092,045	3.53E-03	25,009.4	12.5	3,876.5	2.4E-02	171,939.5	86.0	1,805.4
2010	7,041,258	3.53E-03	24,830.3	12.4	3,848.7	2.4E-02	170,708.3	85.4	1,792.4
2011	7,161,129	3.53E-03	25,253.0	12.6	3,914.2	2.4E-02	173,614.4	86.8	1,823.0
2012	7,106,553	3.53E-03	25,060.5	12.5	3,884.4	2.4E-02	172,291.3	86.1	1,809.1
atural Gas-l	- 								
2008	14,846	2.20E-04	3.3	0.002	0.5	2.2E-03	32.7	0.016	0.3
2009	50,968	2.20E-04	11.2	0.006	1.7	2.2E-03	112.3	0.056	1.2
2010	61,210	2.20E-04	13.5	0.007	2.1	2.2E-03	134.9	0.067	1.4
2011	41,489	2.20E-04	9.1	0.005	1.4	2.2E-03	91.4	0.046	1.0
2012	50,436	2.20E-04	11.1	0.006	1.7	2.2E-03	111.2	0.056	1.2
otal									
2008				12.93	4,009.4			88.9	1,867.4
2009				12.51	3,878.2			86.0	1,806.5
2010				12.42	3,850.8			85.4	1,793.9
2011				12.63	3,915.6			86.9	1,823.9
2012				12.54	3,886.1			86.2	1,810.2

<sup>&</sup>lt;sup>a</sup> Based on AOR data; see Table 1.



<sup>&</sup>lt;sup>b</sup> Table C-2, Subpart C, 40 CFR 98. Emission factors in kg/MMBtu were converted to lb/MMBtu by multiplying by 2.204.

<sup>&</sup>lt;sup>c</sup> N₂O and CH₄ are multiplied by a factor of 310 and 21, respectively, to determine CO₂ equivalence.

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Table 5. Wheelabrator South Broward Annual Average Emissions for MWC 1, 2 & 3 for Each Consecutive Two-Year Period, 2008-2012

-	Annı	Annual Emissions for MSW Units Nos. 1, 2 & 3				Two-Year Average Emissions			
Pollutant	2008 (tons)	2009 (tons)	2010 (tons)	2011 (tons)	2012 (tons)	2008-2009 (tons)	2009-2010 (tons)	2010-2011 (tons)	2011-2012 (tons)
NO <sub>x</sub>	1,373.3	1,339.9	1,338.4	1,302.1	1,339.0	1,356.6	1,339.1	1,320.3	1,320.6
co	50.3	56.8	69.0	60.9	59.7	53.6	62.9	65.0	60.3
SO₂	134.1	106.0	144.4	88.7	77.8	120.0	125.2	116.5	83.3
voc	9.9	9.8	9.4	9.1	9.2	9.9	9.6	9.3	9.2
PM	9.4	10.0	9.2	6.5	8.5	9.7	9.6	7.9	7.5
PM <sub>10</sub>	9.4	10.0	9.2	6.5	8.5	9.7	9.6	7.9	7.5
PM <sub>2.5</sub> a	9.4	10.0	9.2	6.5	8.5	9.7	9.6	7.9	7.5
SAM <sup>b</sup>	20.5	16.2	22.1	13.6	11.9	18.4	19.2	17.8	12.7
D/F	2.10E-05	2.10E-05	1.50E-05	9.00E-06	1.50E-05	2.10E-05	1.80E-05	1.20E-05	1.20E-05
HCI	34.2	51.2	54.4	54.1	59.6	42.7	52.8	54.2	56.9
Fluorides	0.95	0.68	0.59	0.55	0.08	0.82	0.64	0.57	0.31
Lead	2.36E-02	2.25E-02	1.80E-02	6.77E-03	9.88E-03	2.31E-02	2.02E-02	1.24E-02	8.33E-03
Mercury	0.07	0.07	0.04	0.03	0.02	6.91E-02	5.60E-02	3.62E-02	2.32E-02
CO₂	733,951.6	711,837.8	707,360.0	718,189.0	713,256.8	722,894.7	709,598.9	712,774.5	715,722.9
N₂O <sup>c</sup> (CO₂e)	4,009.4	3,878.2	3,850.8	3,915.6	3,886.1	3,943.8	3,864.5	3,883.2	3,900.9
CH <sub>4</sub> c (CO <sub>2</sub> e)	1,867.4	1,806.5	1,793.9	1,823.9	1,810.2	1,837.0	1,800.2	1,808.9	1,817.1

<sup>&</sup>lt;sup>a</sup> Assuming equal to PM<sub>10</sub> emissions.

Source: Annual Operating Report (AOR) for 2008 - 2012

<sup>&</sup>lt;sup>b</sup> Not reported in AORs - based on assuming 10% of SO<sub>2</sub> converts to SO<sub>3</sub>, all of which converts to SAM.

<sup>&</sup>lt;sup>c</sup> Calculated based on actual annual heat input - see Table 3.

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Table 6. Wheelabrator South Broward PSD Applicability for Increase in Segregated Loads

Pollutant	Baseline (Maximum 2-Year Average Actual) Emissions <sup>a</sup> (TPY)	Projected Actual Emissions <sup>b</sup> (TPY)	Increase/Decrease in Annual Emissions <sup>c</sup> (TPY)	PSD Significant Emission Rates (TPY)
NO <sub>x</sub>	1,356.61	1,395.61	39	40
CO	64.96	163.96	99	100
SO <sub>2</sub>	125.18	164.18	39	40
VOC	9.85	48.85	39	40
PM	9.73	33.73	24	25
PM <sub>10</sub>	9.73	23.73	14	15
PM <sub>2.5</sub>	9.73	18.73	9	10
SAM	19.17	25.17	6	7
MWC Organics	2.10E-05	2.40E-05	3.00E-06	3.50E-06
MWC Acid Gases	56.86	95.86	39	40
Fluorides	0.82	2.82	2	3
Lead	0.02	0.04	0.02	0.6
Mercury	0.07	0.16	0.09	0.1
<u>GHGs</u>				
CO <sub>2</sub>	722,894.67	796,894.67	74,000.0	
$N_2O$ ( $CO_2e$ )	3,943.82	4,347.61	403.8	
CH <sub>4</sub> (CO <sub>2</sub> e)	1,836.97	2,025.05	188.1	
Total GHGs (CO <sub>2</sub> e)	728,675.5	803,267.3	74,591.9	75,000

 $<sup>^{\</sup>rm a}$  Maximum 2-Year average emissions - see Table 5.



<sup>&</sup>lt;sup>b</sup> Projected actual annual emissions.

<sup>&</sup>lt;sup>c</sup> Projected actual emissions minus baseline actual emissions.

# APPENDIX A

WHEELABRATOR NORTH AND SOUTH BROWARD SUPPLEMENTAL WASTE APPROVAL PROCEDURE

Wheelabrator North and South Broward Supplemental Waste Approval Procedure

#### Wheelabrator North and South Broward Supplemental Waste Approval Procedure

#### Contents

1.0 Initial Acceptability Determination

2.0 Waste Delivery Scheduling

3.0 Acceptance and Processing

3.1 Waste Acceptance

3.2 Waste QA/QC

3.3 Non-Conforming Waste

3.4 Periodic recertification

4.0 Facility Support Structure/Contact Point

5.0 Recordkeeping

6.0 Employee Training

Attachment A: Waste Profile Form (as of 6/17/13)

Attachment B: Special Waste Pre-Shipment Notification Form (as of 6/17/13)

#### 1.0 Initial Acceptability Determination

The acceptability determination process begins with the waste generator or their agent completing a Waste Profile Form. A copy of the current Waste Profile form is attached but, in the event changes may have been made, the most recent version of this form can be found at WMSolutions.com. The Waste Profile Form contains the information needed to determine regulatory and permit acceptability and compatibility with the waste-to-energy process. Once completed, the Waste Profile Form, along with MSDS's, product inserts for pharmaceuticals and analytical information as applicable, is used by the Regional Waste Approval Manager to determine the acceptability or unacceptability of the waste based on the following criteria:

- Is the waste acceptable per the facility permit and applicable regulations?
- Is the facility able to manage the employee health and safety issues presented by managing this waste?
- Is the chemical composition of the waste compatible with the combustion process and air pollution control equipment operating requirements of the facility?
- Is the expected volume of the waste more than the facility can manage from a logistical handling standpoint?
- Are there any special handling requirements when the facility receives this waste?
- Are there any other operational issues that this waste could present to the facility?

During the review process the Waste Approval Manager may need additional information in order to make a determination on the acceptability of the waste. In this instance an information request would be sent back to the generator or agent. Once the Waste Approval Manager has reviewed all of the information provided and consulted with facility personnel on operational considerations, a decision will be made to accept or refuse the waste. For profiles which contain a number of different products submitted for approval, which is typical of pharmaceutical streams and some bulk loads, the facility may choose to accept some of the wastes and not accept other types of wastes.

Once the new waste has been reviewed by the Waste Approval Manager, a summary of the review will be provided to the appropriate facility manager for final approval. Any potential handling issues that need to be addressed will be identified to the facility manager. If the facility manager determines that the material cannot be safely managed by the facility then it will not receive final approval.

In all cases, once the waste is approved the generator or agent will be notified and issued an approval code. This code will be used by the generator for scheduling the load and for the facility to be able to identify the waste stream back to the original profile and ensure proper billing. Any specific special handling instructions will be maintained with the approval information. These will be referred to as needed when a load arrives at the facility.

#### 2.0 Waste Delivery Scheduling

All waste deliveries must be scheduled with the facility prior to actual delivery. This can be accomplished by contacting the appropriate facility manager. There are numerous factors that affect the ability of a facility to accept wastes on any given day. Typically these factors are boiler availability and current waste inventories. All facilities have scheduled outages periodically. However, there are still unplanned outages that can occur which may or may not affect the ability of the facility to accept additional waste. The plant operating status and the effect on waste deliveries will be considered by the facility when the plant is contacted to schedule a delivery. At the time of scheduling or at some point prior to the waste arriving at the facility, the generator will provide a listing of the specific wastes that will be delivered to the facility. This list will be checked against the approved list and also be used to further verify the contents of the load upon delivery. This is accomplished by completion of a Special Waste Pre-Shipment Notification form by the generator or agent, and review of the form by Wheelabrator facility personnel prior to delivery. A copy of the current Special Waste Pre-Shipment Notification form is attached but, in the event changes may have been made, the most recent version of this form can be found at WMSolutions.com.

The Special Waste Pre-Shipment Notification form lists shipping, scheduling and billing information, witness and off loading requirements in addition to a Generator Non-Hazardous Waste Certification statement. By signing and dating this statement, the generator certifies that the material to be disposed of is not regulated as a hazardous waste under RCRA, or by any similar applicable federal, state or local regulation. In addition, when applicable the materials that are being disposed of are certified as controlled substances under the Controlled Substances Act. Also, the generator-signed statement certifies that the wastes to be disposed of only contain wastes approved under the approval number listed and do not contain wastes identified by Wheelabrator as unacceptable or not previously approved. Lastly, the Special Waste Pre-Shipment Notification form has a Certificate of Destruction section that is completed, including signature and date, by facility personnel once the waste has been unloaded and properly disposed of.

#### 3.0 Acceptance and Processing

#### 3.1 Waste Acceptance

The Wheelabrator North and South Broward facilities can accept waste in roll off containers, dump trailers and box trailers. For non-bulk loads, i.e. drum or cubic yard boxes, it is preferred to have the containers palletized, and if possible, delivered in walking floor trailers. Walking floor trailers speed up the unloading process and require less manpower to complete the job. All waste delivery personnel are required to comply with the facility's Tipping Floor Rules while at the facility and would be discussed prior to entering the Tipping Floor with all delivery personnel accompanying the load.

In addition, Wheelabrator North and South Broward have methods to transport bulk powder materials directly to the feed chute hopper rather than disposing of them into the facility pits. These methods are employed for safety reasons, eliminating the possibility of creating a powder-induced dust cloud in the facility pit. At North Broward a transport box is available at the north crane hoisting bay. Palletized drums and/or boxes of powdered waste material can be loaded into the hoisting box, raised 78 feet within the facility to the charging deck where they can then be manually removed and fed directly to a boiler's feed chute hopper. South Broward employs the same concept but uses a freight elevator rather than a hoisting box.

If needed, an unloading ramp can be used to offload palletized loads and transport the waste material within the Tipping Floor where it is pushed into the receiving pit with the front end loader. Further mixing can be

accomplished using the orange peel grapple prior to placing the material into the boiler feed hopper. Boiler operations personnel will be monitored for impacts of the waste on emissions as well as steam load. Adjustments to feed rates will be made to compensate for observed impacts if needed. An unloading ramp can also be used to offload powdered material for feeding directly to the feed chute hopper as referenced above.

#### 3.2 Waste QA/QC

Typically waste delivered in roll-off containers and dump trailers will be dumped onto the Tipping Floor for inspection prior to being pushed into the pit. Inspections are typically visual to look for any anomalous wastes. A sample may be taken at that time to verify that the waste conforms to the associated profile. If a waste sample is taken, the facility would typically not wait for the results of the analytical testing before disposing of the waste in the pit.

Certain wastes, like pharmaceutical waste, require a more labor intensive QA/QC process. Typically with these types of loads, a portion or all of the waste may need to be direct fed into the hopper and not pushed into the pit. Part of the QA/QC process would be to identify these wastes on the truck and handle them accordingly.

#### 3.3 Non-Conforming Waste

Any wastes that are found to be non-conforming to the associated profile will be placed in a holding area and the customer or agent notified. If information can be provided to make a waste acceptability determination, the Regional Waste Approval Manager will be contacted with the information. If the waste is found to be acceptable, it will be added to the approval. If no information can be provided immediately, or the waste is found to be unacceptable, it will be rejected back to the customer or agent. Every attempt will be made to make the determination of waste conformance with the profile before the delivery vehicle leaves the facility. However, this may not always be case and would require the generator to arrange for a truck to return to the facility to pick up the non-conforming waste(s).

#### 3.4 Periodic recertification

On a periodic basis each waste approval is reviewed to ensure it continues to be acceptable by the facility. Typically this will happen no more frequently than annually from the date the waste was first approved.

#### 4.0 Facility Support Structure/Contact Point

All waste acceptability inquiries are to be routed to the appropriate Sales Representative. The Sales Representative will collect the necessary information on a potential new waste needed for the Waste Approval Manager to perform the acceptability review.

#### 5.0 Recordkeeping

Information on approved wastes will be entered into the Fastlane system. This system is used at the facility scale house to track the entry of approved wastes and haulers. This system also tracks tonnages per approval and can prevent entry of waste under a profile if the annual allowed tonnage has been exceeded, or if there are other reasons to not allow acceptance of a particular waste.

#### 6.0 Employee Training

Employees that are involved with Supplemental Waste operations will receive training as appropriate to their position.

#### ATTACHMENT A

WHEELABRATOR NORTH AND SOUTH BROWARD WASTE PROFILE FORM (DOWNLOADED 6-21-13)

(NOTE: The most current form is accessed through WMsolutions.com)





Requested Facility:	☐ COD ☐ Renewal? Original Profile Number:	
A. GENERATOR INFORMATION (MATERIAL ORIGIN)		AE AS GENERATO
1. Generator Name:	1. Billing Name:	
2. Site Address:	2. Billing Address:	
(City, State, ZIP)	(City, State, ZIP)	
3. County:	3. Contact Name:	
4. Contact Name:	4. Email:	
5. Email:	5. Phone: 6. Fax:	☐ Yes ☐ No
6. Phone: 7. Fax:	7. WM Hauled?	
8. Generator EPA ID: N/A	8. P.O. Number:	
9. State ID: N/A		
C. MATERIAL INFORMATION	D. REGULATORY INFORMATION	
1. Common Name:	1. EPA Hazardous Waste?	☐ Yes* ☐ No
Describe Process Generating Material:	Code:	
	2. State Hazardous Waste?	☐ Yes ☐ No
	Code:  3. Is this material non-hazardous due to Treatment,	
	Delisting, or an Exclusion?	☐ Yes* ☐ N
	4. Contains Underlying Hazardous Constituents?	□ Yes* □ N
2. Material Composition and Contaminants:	5. Contains benzene <b>and</b> subject to Benzene NESHAP?	☐ Yes* ☐ N
1.	6. Facility remediation subject to 40 CFR 63 GGGGG?	☐ Yes* ☐ N
2.	7. CERCLA or State-mandated clean-up?	☐ Yes* ☐ N
3. 4.	8. NRC or State-regulated radioactive or NORM waste?	? 🛘 Yes* 🖵 No
4. ≥100%	*If Yes, see Addendum (page 2) for additional quest	tions and space
3. State Waste Codes: N/A	9. Contains PCBs? → If Yes, answer a, b and c.	🔲 Yes 🔲 No
4. Color:	a. Regulated by 40 CFR 761?	☐ Yes ☐ No
5. Physical State at 70°F: Solid Liquid Other:	b. Remediation under 40 CFR 761.61 (a)?	☐ Yes ☐ No
6. Free Liquid Range Percentage: to	c. Were PCB imported into the US?	🛄 Yes 🔲 No
7. pH:	10. Regulated and/or Untreated Medical/Infectious Waste?	🔲 Yes 🔲 No
8. Strong Odor:	11. Contains Asbestos?	☐ Yes ☐ No
9. Flash Point: □ <140°F □ 140°−199°F □ ≥200° □ N/A (Solid)	→ If Yes: □ Non-Friable □ Non-Friable – Regul	
E. ANALYTICAL AND OTHER REPRESENTATIVE INFORMATION	F. SHIPPING AND DOT INFORMATION	
1. Analytical attached	1. ☐ One-Time Event ☐ Repeat Event/Ongoing Busin	ness
Please identify applicable samples and/or lab reports:	Estimated Quantity/Unit of Measure:	
Flease identity applicable samples and/or lab reports.	☐ Tons ☐ Yards ☐ Drums ☐ Gallons ☐ Other	
	3. Container Type and Size:	
	4. USDOT Proper Shipping Name:	□ N//
2. Other information attached (such as MSDS)? ☐ Yes	4. 03DOT Floper Shipping Name.	<b>-</b> 117/
2. Other information attached (such as M3D3)?		
G. GENERATOR CERTIFICATION (PLEASE READ AND CERTIFY BY SIGNATURE) By signing this EZ Profile™ form, I hereby certify that all information submitted in this and all relevant information necessary for proper material characterization and to identify known a sample that is representative as defined in 40 CFR 261 - Appendix 1 or by using a in the process or new analytical) will be identified by the Generator and be disclosed to W	own and suspected hazards has been provided. Any analytical data atta an equivalent method. All changes occurring in the character of the ma aste Management prior to providing the material to Waste Manageme	ached was derived aterial (i.e., change ent.
If I am an agent signing on behalf of the Generator, I have confirmed with the Generator that information contained in this Profile is accurate and complete.	Certification Signature ——	
Name (Print): Date:		
Title:		
Company:		



# EZ Profile™ Addendum

WASTE MANAGEMENT	
Only complete this Addendum if prompted by responses on Exor to provide additional information. Sections and question n EZ Profile™.	
C. MATERIAL INFORMATION	
Describe Process Generating Material (Continued from page 1):	If more space is needed, please attach additional pages
Material Composition and Contaminants (Continued from page 1):	If more space is needed, please attach additional pages
5.	
6.	
7. 8.	
9.	
10.	
	≥100%
D. REGULATORY INFORMATION	
Please list all USEPA listed and characteristic waste code numbers:	
b. Is the material subject to the Alternative Debris standards (40 CFR 268.	.45)?
c. Is the material subject to the Alternative Soil standards (40 CFR 268.49	
d. Is the material exempt from Subpart CC Controls (40 CFR 264.1083 an	nd 265.1084)? □ Yes □ No
→ If Yes, please select one of the following:	
☐ Waste has been determined to be LDR exempt [265.1083(c)(4) organic treatment standards (including UHCs for D-coded charac	teristic wastes) or a Specified Technology has been utilized.
☐ Waste does not qualify for a LDR exemption, but the average VOo was based on analytical testing (upload copy of analysis) or gener	
<ul> <li>2. State Hazardous Waste → Please list all state waste codes:</li> <li>3. For material that is Treated, Delisted, or Excluded → Please indicate the care</li> </ul>	ateaary below:
☐ Delisted Hazardous Waste ☐ Excluded Waste under 40 CFR	<del>-</del> •
☐ Treated Hazardous Waste Debris ☐ Treated Characteristic Hazardou	
4. Underlying Hazardous Constituents $\rightarrow$ Please list all Underlying Hazardous	Constituents:
5. Benzene NESHAP → Please include percent water/moisture in chemical co	omposition.
a. Are you a TSDF? $ ightarrow$ If yes, please complete Benzene NESHAP questions	
b. What is your facility's current total annual benzene quantity in Megagrar	
Flow weighted average benzene concentration is ppmv	
c. Is this waste soil from remediation at a closed facility?	☐ Yes ☐ No
Benzene concentration in remediation waste is ppmw.     Has material been treated to remove 99% of the benzene or to achieve	<10 ppmw?
e. Is material exempt from controls in accordance with 40 CFR 61.342?	< 10 ppmw? □ Yes □ No
→ If yes, specify exemption:	

☐ Yes ☐ No

☐ Yes ☐ No

proper disposal.

treatment and control requirements at an off-site TSDF?

7. CERCLA or State-Mandated clean up -> Please submit the Record of Decision or other documentation to assist others in the evaluation for

f. Based on your knowledge of your waste and the BWON regulations, do you believe that this waste stream is subject to

6. 40 CFR 63 GGGGG. → Does the material contain <500 ppmw VOHAPs at the point of determination?

8. NRC or state regulated radioactive or NORM Waste → Please identify Isotopes and pCi/g: \_



# Additional Profile Information

	Profile Number: _	
C. MATERIAL INFORMATION		
Material Composition and Contaminants (Continued from page 2):	If more space is needed, please attach	additional pages.
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38.		
39.		
40		
		≥100%
D. REGULATORY INFORMATION		
1. EPA Hazardous Waste		
a. Please list all USEPA listed and characteristic waste code numbers (Continu	ed from page 2):	
	F-3V	<del>-</del>

# ATTACHMENT B SPECIAL WASTE PRE-SHIPMENT NOTIFICATION FORM





SPECIAL WASTE PRE-SHIPMENT NOTIFICATION

**INSTRUCTIONS:** Complete all sections of this pre-shipment notification including the Generator Non-Hazardous Certification. All items contained in this shipment are to be identified on the third page of this notification. The receiving facility will complete the certificate of destruction section and return a copy of this form to the party identified under the Billing Information section.

certificate of destruction section and return a cunder the Billing Information section.	copy of this form	to the party identified
•		
Ship From/Scheduling Information	Dalinous Timos	Fatimeted Terror
Delivery Date:	Delivery Time:	Estimated Tons:
Company:	Address:	
Contact:	City, State:	
Transporter:	Approval Code:	
NOTE: Please complete the detailed Waste this form. If the Wastes contain Controlled Substances Act, or any equivalent state law information, and information on the license the controlled substances to witness destruction.  Wheelabrator Destination Facility:  Billing Information COD? (Check applicab	Substances under, provide names are of the individuation.	er the Controlled of substances, schedule
Company:	Bill to:	Location:
Contact:	Telephone:	
Address:	Fax:	
City, State Zip:	Purchase Order #:	
	Authorized Signat	
Date		

# **Load Disposal Requirements** Yes/No Will this load be witnessed? ΠП (NOTE: Controlled Substances must remain in possession of a properly licensed customer at all times and must be witnessed) Will this load require off loading? (i.e., not a self- unloading vehicle) ПП Will the generator or broker require direct deposit of the waste to the boiler feed chute? Are there any other special instructions or information? Generator Non-Hazardous Waste Certification I certify that the materials destined for disposal identified in this preshipment manifest are not regulated as a hazardous waste under the Resource Conservation and Recovery Act Regulations found in 40 CFR Part 260 et seq., or by any similar applicable Federal, State or Local Regulations. I further certify that if the materials destined for disposal identified in this preshipment manifest are regulated as controlled substances under the Controlled Substances Act, 21 USC 801 et seq., or any equivalent state law, that I will supply an individual to accompany these substances who is properly licensed by the U.S. Drug Enforcement Agency to possess them in a reverse distribution and destruction process and that the substances will remain in the possession, custody and control of such properly licensed person until they are destroyed. The wastes destined for disposal covered by this certification only contain the wastes approved under the approval number listed herein and do not contain any wastes identified by Wheelabrator as being not acceptable or not previously approved. Signature: Title: Date: Certificate of Destruction Wheelabrator Facility: The material listed on this manifest has been received and destroyed as required by the generator. Address: The destruction of these materials was witnessed by: City, State Zip: Contact Name: Name: Telephone: Date:

Signature: \_

# Waste Shipment Information

Indicate each approval code and applicable waste information.

Approval #	Waste Description	Quantity	Packaging
	-		-
<u> </u>			_
			_
	-		_
			•

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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Australasia + 61 3 8862 3500
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North America + 1 800 275 3281
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