

Hillsborough County
Solid Waste
Energy Recovery
Facility

**Application for Amendment of Power Plant Site Certification** 

Air Pollution Control Equipment Retrofit

Volume III

Application for Air Permit-Long Form DEP Form No. 62-210.900(1)

September 1997.

## Hillsborough County Solid Waste Energy Recovery Facility

**Application for Amendment of Power Plant Site Certification** 

**Air Pollution Control Equipment Retrofit** 

Volume III

Application for Air Permit-Long Form DEP Form No. 62-210.900(1)

Prepared by

Camp Dresser & McKee Inc. Tampa, Florida

RTP Environmental Associates Inc. Green Brook, New Jersey

September 1997

# Department of Environmental Protection

## **DIVISION OF AIR RESOURCES MANAGEMENT**

## APPLICATION FOR AIR PERMIT - LONG FORM

## I. APPLICATION INFORMATION

## **Identification of Facility Addressed in This Application**

Facility Owner/Company Name:     Hillsborough County	. •	
2. Site Name : Hillsborough County SWERF		··
3. Facility Identification Number:	0570261	[ ] Unknown
4. Facility Location: Hillsborough County Solid Waste Energy	rgy Recovery Facility	
Street Address or Other Locator:	350 Falkenburg Road	
City: Tampa	County: Hillsborough	Zip Code: 33619-
5. Relocatable Facility? [ ] Yes [X] No	6	Existing Permitted Facility? [X] Yes [ ] No

#### Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official:		
Name: Daniel A. Kleman		
Title: County Adminstrator		
2. Owner or Authorized Representative or Responsible Official Mailing Address :		
Organization/Firm: Hillsborough County		
Street Address: 601 E. Kennedy		
City: Tampa		
State: FL Zip Code: 33602		
3. Owner/Authorized Representative or Responsible Official Telephone Numbers :		
Telephone: (813)276-2909 Fax: (813)276-2960		
4. Owner/Authorized Representative or Responsible Official Statement :		

I, the undersigned, am the owner or authorized representative\* of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this application, whichever is applicable. 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. 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 any permitted emissions units.

Elemen by Pat Bear Date Date

\* Attach letter of authorization if not currently on file.

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## **Scope of Application**

		Permit
Emissions Unit ID	Description of Emissions Unit	Type
001	Municipal Waste Combustor - Unit #1	
002	Municipal Waste Combustor - Unit #2	
003	Municipal Waste Combustor - Unit #3	
004	MWC Auxiliary Burner - Unit #1	
005	MWC Auxiliary Burner - Unit #2	
006	MWC Auxiliary Burner - Unit #3	
007	Ash Building and Handling Systems	
008	Lime Silo	
009	Carbon Silo	

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## Purpose of Application and Category

Cate F.A	egory I: All Air Operation Permit Applications Subject to Processing Under Chapter 62-213, .C.
This	s Application for Air Permit is submitted to obtain:
	Initial air operation permit under Chapter 62-213, F.A.C., for an existing facility which is classified as a Title V source.
[ ]	Initial air operation permit under Chapter 62-213, F.A.C., for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.
	Current construction permit number:
\$ 1	
[ ]	Air operation permit renewal under Chapter 62-213, F.A.C., for a Title V source.
	Operation permit to be renewed:
	Air operation permit revision for a Title V source to address one or more newly constructed or modified emissions units addressed in this application.
	Current construction permit number:
	Operation permit to be revised:
[	] Air operation permit revision or administrative correction for a Title V source to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application.
	Operation permit to be revised/corrected:
[	] Air operation permit revision for a Title V source for reasons other than construction or  I. Part 4 - 1
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modification of an emissions unit. Operation permit to be revised: Reason for revision: Category II: All Air Operation Permit Applications Subject to Processing Under Rule 62-210.300(2)(b), F.A.C. This Application for Air Permit is submitted to obtain: 1 Initial air operation permit under Rule 62-210.300(2)(b), F.A.C., for an existing facility seeking classification as a synthetic non-Title V source. Current operation/construction permit number(s): ] Renewal air operation permit under Fule 62-210.300(2)(b), F.A.C., for a synthetic non-Title V source. Operation permit to be renewed: ] Air operation permit revision for a synthetic non-Title V source. [ Operation permit to be revised: Reason for revision:

Category III: All Air Construction Permit Applications for All Facilities and Emissions Units

This Application for Air Permit is submitted to obtain:

[X] Air construction permit to construct or modify one or more emissions units within a facility (including any facility classified as a Title V source).

Current operation permit number(s), if any:

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Power Plant Site Certification PPSA #83-19. PSD Air Permit PSD-FL-121(A).

[ ] Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

Current operation permit number(s):

] Air construction permit for one or more existing, but unpermitted, emissions units.

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#### **Application Processing Fee**

Check one:

[X] Attached - Amount:

\$10000.00

[ ] Not Applicable.

#### Construction/Modification Information

1. Description of Proposed Project or Alterations:

Replacing the air pollution control equipment. The existing electrostatic precipitators will be replaced with spray dryer absorbers, fabric filters, activated carbon injection and selective non-catalytic reduction system.

2. Projected or Actual Date of Commencement of Construction:

01-May-1998

3. Projected Date of Completion of Construction:

01-Oct-2000

#### Professional Engineer Certification

1. Professional Engineer Name:

Douglas W. Fredericks

Registration Number:

44261

2. Professional Engineer Mailing Address:

Organization/Firm: Camp Dresser & McKee

Street Address: 1715 North Westshore Blvd.

City: Tampa

State: FL Zip Code: 33607-\_

3. Professional Engineer Telephone Numbers:

Telephone: (813)281-2900

Fax: (813)288-8787

#### 4. Professional Engineer Statement:

I, the undersigned, hereby certified, 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 pollutant 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.

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

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [X] 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.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision 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 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.

Signature

9/11/97

Date

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

#### **Application Contact**

1. Name and Title of Application Contact:

Name: Douglas W. Fredericks

Title: Project Engineer

2. Application Contact Mailing Address:

Organization/Firm:

Camp Dresser & McKee

Street Address:

1715 N Westshore Blvd Suite875

City:

Tampa

FL

State:

Zip Code:

33607-

3. Application Contact Telephone Numbers:

Telephone: (813)281-2900

Fax: (813)288-8787

#### Application Comment

The Hillsborough County Solid Waste Energy Recovery Facility (Facility) is a Power Plant Siting Act (PPSA) facility. The Facility has three Municipal Waste Combustors (MWC) each with a maximum daily charging rate of 440 tons per day of municipal solid waste having a heat content of 4,500 Btu/lb. The MWCs were permitted as PPSA No. 83-19. The facility PSD Permit No. is PSD-FL-121(A). Air quality requirements are contained in the current PPSA Conditions of Certification. The emissions are currently controlled by Electrostatic Precipitators (ESPs).

The County is proposing to install new APC equipment. The Retrofit will allow the Facility to meet the new emissions limits and monitoring requirements established by EPA's EG for Large Municipal Waste Combustors (MWC), which are codified in 40 CFR Subpart Cb and adopted by FDEP in FAC 62-204.800(8).

The proposed improvements to the APC equipment consist of replacing the existing ESPs with SDAs and FFs, and adding ACI systems and SNCR systems. The new APC equipment will require storage silos for lime and carbon, and a storage tank for ammonia or urea. PM emissions during silo filling operations will be controlled with FF dust collectors.

With this application, the County is requesting amendments to its existing air permit [PSD-FL-121(A)] and authorization to proceed with construction of the Retrofit in compliance with the EG. Revisions to the existing PSD permit either required by the EG or requested by the County include:

- New emission limits and/or averaging times for all pollutants, including emission limits for pollutants not

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currently regulated by the existing permit (dioxins/furans, hydrogen chloride [HCl], cadmium [Cd], and ammonia [NH3]);

- CEM for sulfur dioxide (SO2), nitrogen oxides (NOx), and CO not currently required under the existing permit;
- Annual compliance tests for pollutants not measured by CEM, as required by the EG, (PM, lead [Pb], mercury [Hg], Cd, HCl, and dioxins/furans for the MWCs, and opacity for the MWCs, fugitive flyash sources, and storage silos), including some new pollutants and monitoring methods not included in the existing permit; and
- Real-time, continuous monitoring of processing parameters indicative of good combustion practices (GCP) (steam or feedwater flow to precisely monitor MWC load, economizer outlet temperature, and PM control device inlet temperature) to minimize MWC organic emissions as well as other parameters such as carbon injection rates to ensure compliance with Facility-specific requirements established by compliance tests.

In addition to the EG requirements, the County is proposing the following additional revisions to the existing PSD permit for the Facility which are consistent with maintaining no net increase in the Facility's maximum potential to emit, current industry practices, and EG definitions:

- Replacement of the VOC limit with the EG requirement for GCP and continuous CO monitoring.
- Adjustement of currently permitted concentration limits for HF and Be to be corrected to 7 percent O2, and to maintain current maximum potential ton-per-year emission rates for these pollutants.
- More accurate definition of the types of fuels allowed to be processed at the Facility consistent with the EG definition of MSW;
- More complete description of the allowable MWC operating conditions which recognizes unit operations under a range of solid waste heat contents;
- Restricting auxiliary burner natural gas usage in each MWC to less than 10 percent of the total annual gross heat input to obviate the NOx monitoring and reporting requirements under 40 CFR 60 Subpart Db;
- Requirement to determine the amount of solid waste combusted shall be determined on a daily average basis for each MWC using the Facility's truck scale weight data for a calendar month and MWC operating data for the same calendar month.
- Requirement to conduct compliance testing at the "maximum demonstrated MWC unit load," expressed as steam or feed water flow, recorded for 4 consecutive hours during the most recent dioxin/furan performance test in which compliance with the dioxin/furan emissions limit was achieved.

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### II. FACILITY INFORMATION

#### A. GENERAL FACILITY INFORMATION

#### Facility, Location, and Type

Zone: 17		68.20 North (km):	3092.70
2. Facility Latitude/Lon Latitude (DD/MM/SS)	•	4 Longitude (DD/MM/SS):	82 20 22
3. Governmental Facility Code:	4. Facility Status Code: A	5. Facility Major Group SIC Code: 49	6. Facility SIC(s): 4953

7. Facility Comment:

#### **Facility Contact**

1. Name and Title of Facility Contact:

John Burbridge Plant Manager

2. Facility Contact Mailing Address:

Organization/Firm: Ogden Martin Systems of Hills. Inc.

Street Address: 350 Falkenburg Road

City: Tampa State: FL Zip Code: 33619-\_\_\_

3. Facility Contact Telephone Numbers:

Telephone: (813)684-5688 Fax: (813)684-7964

## **Facility Regulatory Classifications**

1. Small Business Stationary Source?	N	
2. Title V Source?	Y	
3. Synthetic Non-Title V Source?	N	
4. Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?	Y	
5. Synthetic Minor Source of Pollutants Other than HAPs?	N	81 1 2 2
6. Major Source of Hazardous Air Pollutants (HAPs)?	Y	
7. Synthetic Minor Source of HAPs?	N	
8. One or More Emissions Units Subject to NSPS?	. <b>Y</b>	
9. One or More Emission Units Subject to NESHAP?	N	
10. Title V Source by EPA Designation?	Y	
11. Facility Regulatory Classifications Comment :		

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## Rule Applicability Analysis

Volume 2, Section 2, of this application contains the Rule Applicability Analysis.

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### List of Applicable Regulations

FAC 62-297.310(1) Required Number of Tests

FAC 62-297.310(2) Operating Rate During Testing

FAC 62-297.310(3) Calculation of Emission Rate

FAC 62-297.310(4) Applicable Test Procedures

FAC 62-297.310(5) Required Stack Sampling Facilities

FAC 62-297.310(6) Frequency of Compliance Tests

FAC 62-297.310(7) Test Reports

40 CFR 50 Ambient Air Quality Standards

40 CFR 52 Subpart K Approval and Promulgation of Implementation Plans, Florida

40 CFR 82 Protection of Stratospheric Ozone

FAC 62-4 Permits

FAC 62-103 Rules of Administrative Procedure

FAC 62-210 Stationary Sources - General Requirements

FAC 62-210.300 Permits Required

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DEP Form No. 62-210.900(1) - Form

**List of Applicable Regulations** 

FAC 62-210.300(3)(a)5 Exemption for internal combustion engines

FAC 62-210.300(3)(a)16 Exemption for brazing, soldering or welding equipment

FAC 62-210.300(3)(A)20-21 Exemption for emergency electrical generators, heating units, etc.

FAC 62-210.300(5) Notification of Startup

FAC 62-210.300(6) Emission Unit Reclassification

FAC 62-210.350 Public Notice and Comment

FAC 62-210.350(3) Additional Public Notice Requirements for Title V Sources

FAC 62-210.360 Administrative Permit Corrections

FAC 62-210.370(3) Annual Operating Reports

FAC 62-210.550 (GEP) Stack Height Policy

FAC 62-210.650 Circumvention

FAC 62-210.700 Excess Emissions

FAC 62-210.900 Forms and Instructions

FAC 62-212 Stationary Sources - Preconstruction Review

FAC 62-213 Operating Permits for Major Sources of Air Pollution

II. Part 3b - 2

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#### List of Applicable Regulations

FAC 62-256 Open Burning and Frost Protection Fires

FAC 62-296 Stationary Sources Emissions Standards (as listed below)

FAC 62-296.320(2) Objectionable Odor Prohibited

FAC 62-296.320(3) Industrial, Commercial and Municipal Open Burning Prohibited

FAC 62-296.320(4)(c) Unconfined Emissions of Particulate Matter

FAC 62-296.416(3)(e) Specific Emission Limiting and Performance Standards for Mercury

Exemptions from Regulations for Facilty and Specific Emissions Units:

FAC 62-296.320(4)(a) General Particulate Emission Limiting Standards NOT APPLICABLE

FAC 62-296.500 RACT- VOC and NOx Emitting Facilities NOT APPLICABLE

FAC 62-296.600 RACT - Lead NOT APPLICABLE

FAC 62-296.700 RACT - Particulate matter NOT APPLICABLE TO ASH HANDLING SYSTEMS

40 CFR 63 Subpart B - Requirements for MACT Determinations for Major Sources NOT APPLICABLE

MWC Units 1 through 4 Applicable Regulations:

40 CFR 60 Subpart A New Source Performance Standards (NSPS) General Provisions

II. Part 3b - 3

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#### **BEST AVAILABLE COPY**

#### **B. FACILITY REGULATIONS**

## **List of Applicable Regulations**

40 CFR 60 Subpart Cb Emissions Guidelines for Existing Municipal Waste Combustors (MWCs)

40 CFR 60 Subpart Db Standards of Performance for Industrial-Commercial-Institutional Steam Generati

40 CFR 60 Subpart E Standards of Performance for Incinerators

40 CFR 61 Subpart C Beryllium National Emission Standard for Hazardous Air Pollutants (NESHAP)

40 CFR 64 - Compliance Assurance Monitoring

FAC 62-210.700 Excess Emissions

FAC 62-296.320(4)(b) General Visible Emission Standards

FAC 62-296.401(3) Specific Emission Limiting and Performance Standards Requirements for Incinerators

II. Part 3b - 4

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## C. FACILITY POLLUTANTS

## **Facility Pollutant Information**

1. Pollutant Emitted	2. Pollutant Classification
СО	A
NOX	Α
РМ	В
SO2	Α
HCL	Α '
РВ	В
H027	В
DIOX	В
H114	В
H107	A
H021	В

II. Part 4 - 1

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Facility Pollutant Information	Poliulani1	
1. Pollutant Emitted: CO		
2. Requested Emissions Cap:	(lbs/hour)	(tons/year)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment:  Not applicable.  Comment on previous page of forms: The Facility could emit ammonia from a permit limit of 50 ppmdv @ 7% O2 f maximum potential emission rate of 15 (Facility total for three units). This pol have a code for ammonia, so it is not re Volume 2 of this application.	for ammonia slip in the stack gases 5.73 lb/hr (Facility total for three ullutant is not emissions limited by	s. This is equivalent to a nits) and 60 tons per year any rule. ELSA does not

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Facility Pollutant Information	Pollutant <u>2</u>	
1. Pollutant Emitted: NOX		
2. Requested Emissions Cap:	(lbs/hour)	(tons/year)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment:		
Not applicable.		

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Facility Pollutant Information	Pollutant3	
1. Pollutant Emitted: PM	_	
2. Requested Emissions Cap:	(lbs/hour)	(tons/year)
3. Basis for Emissions Cap Code:		
Facility Pollutant Comment:     Not applicable.		

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Facility Pollutant Information	Pollutant4	
1. Pollutant Emitted: SO2		
2. Requested Emissions Cap:	(lbs/hour)	(tons/year)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment:		
Not applicable.		

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Facility Pollutant Information	Pollutant <u>5</u>	
1. Pollutant Emitted: HCL		
2. Requested Emissions Cap:	(lbs/hour)	(tons/year)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment:		
Not applicable.		

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Facility Pollutant Information	Pollutant <u>6</u>	
1. Pollutant Emitted: PB		
2. Requested Emissions Cap:	(lbs/hour)	(tons/year)
3. Basis for Emissions Cap Code:		·
4. Facility Pollutant Comment:		
Not applicable.	· .	

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Facility Pollutant Information	Pollutant7	
1. Pollutant Emitted: H027		
2. Requested Emissions Cap:	(lbs/hour)	(tons/year)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment:		
Not applicable.		

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Facility Pollutant Information	Pollutant <u>8</u>	
1. Pollutant Emitted: DIOX		
2. Requested Emissions Cap:	(lbs/hour)	(tons/year)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment:		
Not applicable.		

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Facility Pollutant Information	Pollutant9	
1. Pollutant Emitted: H114		
2. Requested Emissions Cap:	(lbs/hour)	(tons/year)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment:		
Not applicable.		·

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Facility Pollutant Information	Pollutant <u>10</u>	
1. Pollutant Emitted: H107	·	
2. Requested Emissions Cap:	(lbs/hour)	(tons/year)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment:		
Not applicable.		

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Facility Pollutant Information	Pollutant11	
1. Pollutant Emitted: H021		
2. Requested Emissions Cap:	(lbs/hour)	(tons/year)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment:		
Not applicable.		

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#### D. FACILITY SUPPLEMENTAL INFORMATION

## **Supplemental Requirements for All Applications**

1. Area Map Showing Facility Location:	App. A, Fig. 1
2. Facility Plot Plan:	App. A., Fig. 2
3. Process Flow Diagram(s):	App. A., Fig. 3
4. Precautions to Prevent Emissions of Unconfined Particulate Matter:	App. A, Att. 1
5. Fugitive Emissions Identification:	App. A., Att. 2
6. Supplemental Information for Construction Permit Application:	See Vol. 2

## Additional Supplemental Requirements for Category I Applications Only

7. List of Proposed Exempt Activities:	NA
8. List of Equipment/Activities Regulated under Title VI:	NA
9. Alternative Methods of Operation:	NA
10. Alternative Modes of Operation (Emissions Trading):	NA
11. Identification of Additional Applicable Requirements :	NA
12. Compliance Assurance Monitoring Plan:	NA
13. Risk Management Plan Verification:	NA
14. Compliance Report and Plan:	NA
15. Compliance Certification (Hard-copy Required):	NA

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## III. EMISSIONS UNIT INFORMATION

## A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emiss	tions Unit Information Section1
Munic	ipal Waste Combustor - Unit #1
Type	of Emissions Unit Addressed in This Section
1. Re	gulated or Unregulated Emissions Unit? Check one:
[ X	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.
2. Sin	gle Process, Group of Processes, or Fugitive Only? Check one:
[ X]	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.

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<b>Emissions</b>	Unit	<b>Information Section</b>	1

## B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

## **Emissions Unit Description and Status**

1. Description of Emissions Unit Addressed in This Section :		
Municipal Waste Combustor - U	nit #1	
·		
2. Emissions Unit Identification	Number: 001	
[ ] No Corresponding I	D [ ] Uı	nknown
3. Emissions Unit Status	4. Acid Rain Unit?	5. Emissions Unit Major
Code: A	[ ] Yes [X] No	Group SIC Code: 49
,	·	
6. Emissions Unit Comment:		
Stack flow parameters are based	on BURN model runs.	

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Municipal Waste Combustor - Unit #1	
Emissions Unit Control Equipment 1	
1. Description:	
Spray Dryer Absorber	
2. Control Device or Method Code: 41	

Emissions Unit Information Section 1

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Municipal Waste Combustor - Unit #1	1		
Emissions Unit Control Equipment	2		
1. Description:			
Fabric Filter			
2. Control Device or Method Code:	16		_

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Emissions Unit Information Section Municipal Waste Combustor - Unit #1	
Emissions Unit Control Equipment 3	
1. Description:	
Activated Carbon Injection	
2. Control Device or Method Code: 48	

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	Imissions Unit Information Section  [1  Iunicipal Waste Combustor - Unit #1
<u>E</u>	missions Unit Control Equipment 4
1	. Description:
	Selective Non-Catalytic Reduction System
2	2. Control Device or Method Code: 107

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### C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section  Municipal Waste Combustor - Unit #1	
Emissions Unit Details	
1. Initial Startup Date : 18-Dec-1986	
2. Long-term Reserve Shutdown Date:	
3. Package Unit: Manufacturer:	Model Number:
4. Generator Nameplate Rating: 29 MW	
5. Incinerator Information:  Dwell Temperature: 1,800  Dwell Time: 1.00  Incinerator Afterburner Temperature:  Emissions Unit Operating Capacity	Degrees Fahrenheit Seconds Degrees Fahrenheit
1. Maximum Heat Input Rate: 172 mmBtu/hr	·
2. Maximum Incinerator Rate: 38333.30 lb/hr	460.00 tons/day
3. Maximum Process or Throughput Rate: 104000	lb steam/hr
4. Maximum Production Rate:	
5. Operating Capacity Comment: Generator nameplate rating is for the entire facility. Demonstratio throughput capacity shall be measured by steam or feedwater flow of nominal design capacity.	
Emissions Unit Operating Schedule	
Requested Maximum Operating Schedule:	

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7 days/week

8,760 hours/year

24 hours/day

52 weeks/year

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# D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

	nissions Unit Information Section unicipal Waste Combustor - Unit #1	1
Ru	le Applicability Analysis	
Re	efer to Volume 2, Section 2, for Rule App	plicability Analysis.

<b>Emissions Unit Information Section</b>	n 1
Municipal Waste Combustor - Unit #1	

#### List of Applicable Regulations

Refer to Volume 2, Permit Application Text, Section 2, for List of Applicable Regulations.

III. Part 6b - 1

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#### E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section				
Municipal Waste Combustor - Unit #1				
Emission Point Description and Type:				
1. Identification of Point on Plot Plan or Flow Diagram:	Emission Poi	nt #1		
2. Emission Point Type Code:				
3. Descriptions of Emission Points Comprising this Emission (limit to 100 characters per point) NA	ns Unit for VE	Tracking:		
4. ID Numbers or Descriptions of Emission Units with this E	Emission Point	in Common:		
NA				
5. Discharge Type Code:	V	- · ·		
6. Stack Height:	220	feet		
7. Exit Diameter:	5.1	feet		
8. Exit Temperature :	290	°F		
9. Actual Volumetric Flow Rate:	88869	acfm		
10. Percent Water Vapor:	15.41	%		
11. Maximum Dry Standard Flow Rate:	53189	dscfm		
12. Nonstack Emission Point Height:		feet		
13. Emission Point UTM Coordinates:				
Zone: 17 East (km): 368.200	North (kı	m): 3092.700		
14. Emission Point Comment:  The stack flow parameters listed are based on BURN model output for worst-case emissions (115% of nominal thermal load w/ 6000 Btu/lb waste.				

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#### F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 1
Municipal Waste Combustor - Unit #1
Segment Description and Rate: Segment 1
1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode):
Mass burn
2. Source Classification Code (SCC): 5-01-001-05
3. SCC Units: Tons Burned (all solid fuels)
4. Maximum Hourly Rate: 19.17 5. Maximum Annual Rate: 167,899.40
6. Estimated Annual Activity Factor:
7. Maximum Percent Sulfur:  8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 9
10. Segment Comment:
Maximum hourly rate is based upon boiler loading capacity of 38,333 lb/hr.

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### G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

# Emissions Unit Information Section Municipal Waste Combustor - Unit #1

1. Pollutant Emitted	Primary Control     Device Code	Secondary Control     Device Code	Pollutant     Regulatory Code
1 - CO	099		EL
2 - NOX	107		EL
3 - PM	016		EL
4 - SO2	041	016	EL
5 - HCL	041	016	EL
6 - PB	016		EL
7 - H027	016		EL
8 - DIOX	041	016	EL
9 - H114	048	016	·EL
10 - H107	041	016	EL
11 - H021	016		EL

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Municipal Waste Combustor - Unit #1				
Pollutant Potential/Estimated Emissions: Pollutant1_				
1. Pollutant Emitted: CO				
2. Total Percent Efficiency of Control:	%			
3. Potential Emissions: 17.24 lb/hour	75.50	tons/year		
4. Synthetically Limited?  [ ] Yes [X ] No		_		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year		
6. Emissions Factor: Reference: 40 CFR 60 Subpart Cb				
7. Emissions Method Code: 0				
8. Calculations of Emissions:				
See Volume 2, Appendix B				
9. Pollutant Potential/Estimated Emissions Comment:				
Emission estimate based on 4-hr arithmetic block avg. CO colless than 100 ppmv (7% O2), as determined by CEMs, consist		_		

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Emissions Unit Information Section1 Municipal Waste Combustor - Unit #1					
Pollutant Information Section1					
	lowable Emissions 1				
1.	Basis for Allowable Emissions Code:	RULE			
2.	Future Effective Date of Allowable Emission	ons:			
3.	Requested Allowable Emissions and Units:	100.00	ppn	ndv @ 7% O2	
4.	Equivalent Allowable Emissions:				$\neg$
	17.24	lb/hour	75.50	tons/year	
5.	Method of Compliance:				
	CEM, as specified in 40 CFR 60 Appendix B				
6.	Pollutant Allowable Emissions Comment (I	Desc. of Related O	perating Metl	hod/Mode):	
	Emission limit based on 100 ppmdv corrected to	o 7% O2 (4-hour avg	g.)		

Emissions Unit Information Section Municipal Waste Combustor - Unit #1				
Pollutant Potential/Estimated Emissions: Pollutant 2				
1. Pollutant Emitted: NOX				
2. Total Percent Efficiency of Control: %				
3. Potential Emissions : 58.10 lb/hour 254.20 tons/year				
4. Synthetically Limited?  [ ] Yes [X ] No				
5. Range of Estimated Fugitive/Other Emissions:  to tons/year				
6. Emissions Factor: Reference: 40 CFR 60 Subpart Cb				
7. Emissions Method Code: 0				
8. Calculations of Emissions:				
See Volume 2, Appendix B.				
9. Pollutant Potential/Estimated Emissions Comment:				
The 24-hr block arithmetic mean NOx concentration in flue gases will be at or below 205 ppmv (corrected to 7% O2), as determined by CEMs, consistent with EPA's Emission Guidlines.				

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Emissions Unit Information Section1 Municipal Waste Combustor - Unit #1				
Pollutant Information Section 2				
Allowable Emissions 1_				
1. Basis for Allowable Emissions Code:	RULE			
2. Future Effective Date of Allowable Emission	ns:			
3. Requested Allowable Emissions and Units:	205.00	ppmo	lv @ 7% O2	
4. Equivalent Allowable Emissions:				
58.10	lb/hour	254.20	tons/year	
5. Method of Compliance:				
CEM, as specified in 40 CFR 60 Appendix B				
6. Pollutant Allowable Emissions Comment (D	esc. of Related Op	erating Meth	od/Mode):	
Emission limit is based on a 24-hour average. 40 CFR 60 Subpart Cb				

Municipal Waste Combustor - Unit #1		
Pollutant Potential/Estimated Emissions: Pollutant	3	
1. Pollutant Emitted: PM		
2. Total Percent Efficiency of Control:	%	
3. Potential Emissions: 4.06 lb/hour	17.80	tons/year
4. Synthetically Limited?  [ ] Yes [X ] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor: Reference: 40 CFR 60 Subpart Cb		
7. Emissions Method Code: 0		
8. Calculations of Emissions:		
See Volume 2, Appendix B.		
9. Pollutant Potential/Estimated Emissions Comment:		
For conservatism, all PM was assumed to be PM10. Emiss 7% O2), consistent with EPA Emission Guidelines.	ion based on 0.01	2 gr/dscf (corrected to

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Emissions Unit Information Section 1  Municipal Waste Combustor - Unit #1					
Po	Ilutant Information Section3				
All	lowable Emissions 1				
1.	Basis for Allowable Emissions Code:	RULE			
2.	Future Effective Date of Allowable Emission	ns:		-	
3.	Requested Allowable Emissions and Units:	0.01	gr/	dscf @ 7% O2	
4.	Equivalent Allowable Emissions:				
	4.06	lb/hour	17.80	tons/year	
5.	Method of Compliance:	<u>-</u> .			
	Stack test; Method 5				
6.	Pollutant Allowable Emissions Comment (L	Desc. of Related O	perating Met	hod/Mode):	
	0.012 gr/dscf @ 7% O2 (ELSA does not show a EPA's Emissions Guideline limit for large muni 60 CFR 60 Subpart Cb	_			

Municipal Waste Combustor - Unit #1						
<u>Pollutant</u>	Potential/Est	timated Emissio	ns: Pollutant	4		
1. Pollut	ant Emitted:	SO2				
2. Total	Percent Efficie	ency of Control:	75.00	%		-
3. Potent	al Emissions	:				
		32.53	lb/hour	142.47	tons/year	
_	tically Limite Yes [	d? X ] No				
5. Range	of Estimated	Fugitive/Other E	missions:	to		tons/year
6. Emiss	ions Factor: Reference:	40 CFR 60 Su	bpart Cb			
7. Emissi	ons Method C	Code: 0				
8. Calcul	ations of Emis	ssions :				
See V	olume 2, Appe	ndix B.		·		
9. Polluta	ant Potential/E	Estimated Emissi	ons Comment:			
SO2 emission limit is based on maximum estimated inlet concentration of 330 ppmdv (corrected to 7% O2) and applying a 75 % control efficiency, consistent with EPA's Emission Guidelines.						

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Emissions Unit Information Section1 Municipal Waste Combustor - Unit #1					
Po	ollutant Information Section4_				
All	llowable Emissions 1				
1.	. Basis for Allowable Emissions Code:	RULE			
2.	. Future Effective Date of Allowable Emissions				
3.	. Requested Allowable Emissions and Units :	75.00	pero	cent removal	
4.	. Equivalent Allowable Emissions:				
	32.53	lb/hour	142.47	tons/year	
5.	. Method of Compliance :			_	
	CEM, as specified in 40 CFR 60 Appendix B				
6.	Pollutant Allowable Emissions Comment (De	esc. of Related C	perating Met	hod/Mode):	
	40 CFR 60 Subpart Cb specifies the less stringen inlet concentration is assumed to be 330 ppmdv @ this inlet concentration.				

	Municipal Waste Combustor - Unit #1					
Po	llutant Potential/Esti	mated Emissions	s: Pollutant	5		
1.	Pollutant Emitted:	HCL				
2.	Total Percent Efficier	ncy of Control:	95.00	%		
3.	Potential Emissions:			_		
		16.83	lb/hour	73.70	tons/year	
4.	Synthetically Limited [ ] Yes [X	? [ ] No				
5.	Range of Estimated F	fugitive/Other Em	issions:	to	tons/year	
6.	Emissions Factor: Reference:	40 CFR 60 Subp	oart Cb			
7.	Emissions Method Co	ode: 0				
8.	Calculations of Emiss	sions :				
	See Volume 2, Append	dix B.				
9.	9. Pollutant Potential/Estimated Emissions Comment:					
	HCl emission limit is based on 1500 ppmdv (corrected to 7% O2) inlet and applying a 95 % control efficiency, consistent with EPA's Emission Guidelines.					
_						

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Emissions Unit Information Section1 Municipal Waste Combustor - Unit #1					
Po	Ilutant Information Section 5				
<u>All</u>	owable Emissions 1				
1.	Basis for Allowable Emissions Code:	RULE			
2.	Future Effective Date of Allowable Emissi	ions :			
3.	Requested Allowable Emissions and Units	95.00	per	cent removal	
4.	Equivalent Allowable Emissions:				
	16.83	lb/hour	73.70	tons/year	
5.	Method of Compliance:				
	Stack test; Method 26 or 26A				
6.	Pollutant Allowable Emissions Comment	(Desc. of Related C	perating Me	thod/Mode):	
	40 CFR 60 Subpart Cb specifies the less string inlet concentration is assumed to be 1500 ppm of this inlet concentration.				

Municipal Waste Combustor - Unit #1							
<u>Pol</u>	Pollutant Potential/Estimated Emissions: Pollutant6_						
1.	Pollutant Emitted:	PB		·			
2.	Total Percent Efficie	ency of Control	:	%			
3.	Potential Emissions	•					
		0.07	lb/hour	0.28		tons/year	
4.	Synthetically Limite [ ] Yes [	d? X ] No					,
5.	Range of Estimated	Fugitive/Other	Emissions:		to	1	ons/year
6.	Emissions Factor : Reference :	40 CFR 60 S	ubpart Cb				
7.	Emissions Method C	Code: 0					•
8.	Calculations of Emis	ssions:					
	See Volume 2, Appe	ndix B.					
9.	Pollutant Potential/E	Estimated Emiss	ions Comment:				
	0.44 mg/dscm @ 7% 40 CFR 60 Subpart 0		delines limit				

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Emissions Unit Information Section  Municipal Waste Combustor - Unit #1						
Po	llutant Information Section	6				
Al	lowable Emissions 1_					
1.	Basis for Allowable Emissions Code	;	RULE			
2.	Future Effective Date of Allowable l	- Emissions	:			
3.	Requested Allowable Emissions and	Units:	440.00	ι	ıg/dscm @ 7% O2	
4.	Equivalent Allowable Emissions:					
	0.07	1	b/hour	0.28	tons/year	
5.	Method of Compliance:					
	Stack test; Method 29				·	
6.	Pollutant Allowable Emissions Com	ment (De	sc. of Related Op	erating M	Iethod/Mode):	
	40 CFR 60 Subpart Cb					

Emissions Unit Information Section  Municipal Waste Combustor - Unit #1	_		
Pollutant Potential/Estimated Emissions: Po	llutant <u>7</u>		
1. Pollutant Emitted: H027			
2. Total Percent Efficiency of Control:	%		
3. Potential Emissions : lb/hou	r 0.03	tons/year	
4. Synthetically Limited?  [ ] Yes [X ] No			
5. Range of Estimated Fugitive/Other Emissions:		to	tons/year
6. Emissions Factor: Reference: 40 CFR 60 Subpart Cb			
7. Emissions Method Code: 0			
8. Calculations of Emissions:			
See Volume 2, Appendix B	·		
9. Pollutant Potential/Estimated Emissions Comm	ent:		
lb/hr: 0.00592 (ELSA will not print this in Item #3 0.04 mg/dscm @ 7% O2; limit is from Emission C	-	ubpart Cb	

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Emissions Unit Information Section  Municipal Waste Combustor - Unit #1	1			
Pollutant Information Section 7				
Allowable Emissions 1				
1. Basis for Allowable Emissions Code:	RULE			
			•	
2. Future Effective Date of Allowable Emissio	ns:			
				}
3. Requested Allowable Emissions and Units:	0.04	m	g/dscm @ 7% O2	
4. Equivalent Allowable Emissions:				
0.01	lb/hour	0.03	tons/year	
5. Method of Compliance:				
Stack test; Method 29				
6. Pollutant Allowable Emissions Comment (I	Desc. of Related O	perating Mo	ethod/Mode):	
40 CFR 60 Subpart Cb				

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Municipal Waste Combustor - Unit #1					
Pollutant Potential/Estimated Emissions: Pollutant 8					
1. Pollutant Emitted: DIOX			• 5.5.5.5.5.5.5		
2. Total Percent Efficiency of Con	trol:	%			
3. Potential Emissions:	lb/hour		tons/year		
4. Synthetically Limited?  [ ] Yes [X ] No					
5. Range of Estimated Fugitive/Otl	her Emissions:	to	tons/year		
6. Emissions Factor: Reference: 40 CFR 6	60 Subpart Cb				
7. Emissions Method Code: 0					
8. Calculations of Emissions:					
See Volume 2, Appendix B.					
9. Pollutant Potential/Estimated Er	nissions Comment:				
Potential Emissions: 4.44 x 10-6 lb/hr 1.94 x 10-5 to	ons ner vear				
(ELSA will not print in Item #3) 30 ng/dscm @ 7% O2; limit from	- •				

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Emissions Unit Information Section1 Municipal Waste Combustor - Unit #1					
Pollutant Information Section 8					
Allowable Emissions 1					
1. Basis for Allowable Emissions Code:	RULE				
2. Future Effective Date of Allowable Emissions:					
3. Requested Allowable Emissions and Units:	30.00	ng/dscm @ 7% O2			
4. Equivalent Allowable Emissions:					
lb/	hour	tons/year			
5. Method of Compliance:					
Stack test; Method 23					
6. Pollutant Allowable Emissions Comment (Desc.	of Related Opera	nting Method/Mode):			
Equivalent Allowable Emissions: 4.44 x 10-6 lb/hr 1.94 x 10-5 tons per year (ELSA will not print in Item #4.) 40 CFR 60 Subpart Cb					

Emissions Unit Inform Municipal Waste Combustor		1			
Pollutant Potential/Estim	nated Emissions	: Pollutant	9		
1. Pollutant Emitted: I	H114	_		_	
2. Total Percent Efficience	cy of Control:	85.00	%		
3. Potential Emissions:	0.02	lb/hour	0.09	tons/year	
4. Synthetically Limited?  [ ] Yes [X	] No				
5. Range of Estimated Fu	gitive/Other Emi	issions:	to		tons/year
6. Emissions Factor: Reference:	40 CFR 60 Subp	art Cb			•
7. Emissions Method Cod	le: 0				
8. Calculations of Emission	ons :				
See Volume 2, Appendi	х В.				
9. Pollutant Potential/Esti	mated Emissions	s Comment:			
85% removal of assume 40 CFR 60 Subpart Cb		concentration of	900 ug/dscm @	? 7% O2.	
4. Synthetically Limited?  [ ] Yes [X]  5. Range of Estimated Fu  6. Emissions Factor: Reference:  7. Emissions Method Cod  8. Calculations of Emission See Volume 2, Appendication  9. Pollutant Potential/Estimated Fu  85% removal of assume	] No gitive/Other Emi 40 CFR 60 Subp le: 0 ons: x B. mated Emissions ed maximum inlet	issions:  art Cb  s Comment:	to		tons/year

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Emissions Unit Information Section 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
Pollutant Information Section 9				
Allowable Emissions 1				
1. Basis for Allowable Emissions Code:	RULE			
2. Future Effective Date of Allowable Emissi	ions :			
3. Requested Allowable Emissions and Units	85.00	1	percent removal	
4. Equivalent Allowable Emissions:				$\dashv$
0.02	lb/hour	0.09	tons/year	
5. Method of Compliance:				٦
Stack test; Method 29				
6. Pollutant Allowable Emissions Comment (	(Desc. of Related (	Operating M	lethod/Mode):	7
40 CFR 60 Subpart Cb specifies the less string to 70 ug/dscm @ 7% O2 by Florida Mercury I ug/dscm @ 7% O2; allowable emissions based	Rules). Maximum ii	nlet concent	ration is assumed to be 900	- 1

Emissions Unit Information Section  Municipal Waste Combustor - Unit #1		
Pollutant Potential/Estimated Emissions: Pollutant	10	
1. Pollutant Emitted: H107	_	
2. Total Percent Efficiency of Control:	%	
3. Potential Emissions : 1.00 lb/hour	4.40	tons/year
4. Synthetically Limited?  [ ] Yes [X ] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor : Reference : Existing PSD Permit		2 - 4
7. Emissions Method Code: 0		
8. Calculations of Emissions:		
See Volume 2, Appendix B.		
9. Pollutant Potential/Estimated Emissions Comment:		
6.74 mg/dscm @ 7% O2  Based on current permit limit (PSD-FL-121(A)).		

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	Emissions Unit Information Section  Municipal Waste Combustor - Unit #1			
Po	llutant Information Section10			
<u>All</u>	lowable Emissions 1			
1.	Basis for Allowable Emissions Code:  OTHER			
2.	Future Effective Date of Allowable Emissions:			
3.	Requested Allowable Emissions and Units: 6.74 mg/dscm @ 7% O2			
4.	Equivalent Allowable Emissions:			
	1.00 lb/hour 4.40 tons/year			
5.	Method of Compliance :			
	Compliance previously demonstrated.			
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):			
	Based on existing permit limit (PSD-FL-121(A)), and adjusted to appropriate units (i.e. from gr/dscf @12% CO2 to mg/dscm @7%O2). See Volume 2, Sections 2, 4 and Appendix B. Compliance for this pollutant previously demonstrated by initial Facility compliance test.			

Municipal Waste Combustor - Unit #1		
Pollutant Potential/Estimated Emissions: Pollutant	11	
1. Pollutant Emitted: H021		
2. Total Percent Efficiency of Control:	%	
3. Potential Emissions : lb/hour		tons/year
4. Synthetically Limited?  [ ] Yes [X ] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor: Reference: Existing PSD permit		·
7. Emissions Method Code: 0		
8. Calculations of Emissions:		
See Volume 2, Appendix B.		
9. Pollutant Potential/Estimated Emissions Comment:		
Potential Emissions:  2.18 x 10-4 lb/hr 9.56 x 10-4 tons per year  (ELSA will not print in Item #3.)  Based on current permit limit (PSD-FL-121(A)).		

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Emissions Unit Information Section  Municipal Waste Combustor - Unit #1		
Pollutant Information Section11		
Allowable Emissions 1		
1. Basis for Allowable Emissions Code:	OTHER	
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:	1.48	ug/dscm @ 7% O2
4. Equivalent Allowable Emissions:		
lb/h	our	tons/year
5. Method of Compliance:		
Compliance previously demonstrated.		
6. Pollutant Allowable Emissions Comment (Desc.	of Related Oper	rating Method/Mode):
Equivalent Allowable Emissions:  2.18 x 10-4 lb/hr 9.56 x 10-4 tons per year  (ELSA will not print in Item #4.)  Based on existing permit limit (PSD-FL-121(A)), and @12% CO2 to ug/dscm @7%O2). See Volume 2, See pollutant previously demonstrated by initial Facility of	ections 2, 4 and A	· · ·

# I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Municipal Waste Combustor - Unit #1	
<u>Visible Emissions Limitation</u> : Visible	Emissions Limitation 1
1. Visible Emissions Subtype:	10
2. Basis for Allowable Opacity:	RULE
3. Requested Allowable Opacity:	
Normal C Exceptional C	Conditions: 10 % Conditions: %
Maximum Period of Excess Opacity	
4. Method of Compliance:	
COM and Annual stack test	
5. Visible Emissions Comment:	
40 CFR 60 Subpart Cb opacity limit	

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Emissions Unit Information Section  Municipal Waste Combustor - Unit #1  Continuous Monitoring System: Continuous Monitor1		
1. Parameter Code: VE	2. Pollutant :	
3. CMS Requirement: RULE		
4. Monitor Information:		
Manufacturer: Lear Siegler Model Number: RM 41 Serial Number: 15603802		
5. Installation Date:	01-Oct-1986	
6. Performance Specification Test Date:	10-Mar-1987	
7. Continuous Monitor Comment:		

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Emissions Unit Information Section		
1. Parameter Code: O2	2. Pollutant:	
3. CMS Requirement: OTHER		
4. Monitor Information :  Manufacturer : Ametek Corp.  Model Number : Thermox WDG  Serial Number : CO36232-3		
5. Installation Date: 18-	Dec-1986	
6. Performance Specification Test Date:		
7. Continuous Monitor Comment:		

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Emissions Unit Information Section1 Municipal Waste Combustor - Unit #1		
Continuous Monitoring System: Continuous	s Monitor 3	
1. Parameter Code: EM	2. Pollutant: CO	
3. CMS Requirement: RULE		
4. Monitor Information :		
Manufacturer : Model Number : Serial Number :		
5. Installation Date :		
6. Performance Specification Test Date:		
7. Continuous Monitor Comment :		
Information to be provided.		

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Municipal Waste Combustor - Unit #1		
1. Parameter Code: EM	2. Pollutant: NOX	
3. CMS Requirement: RULE		
4. Monitor Information :		
Manufacturer : Model Number : Serial Number :		
5. Installation Date:		
6. Performance Specification Test Date :		
7. Continuous Monitor Comment:		
Information to be provided.		

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Municipal Waste Combustor - Unit #1  Continuous Monitoring System: Continuous Monitor5		
1. Parameter Code: EM	2. Pollutant: SO2	
3. CMS Requirement: RULE		
4. Monitor Information:		
Manufacturer : Model Number : Serial Number :		
5. Installation Date:		
6. Performance Specification Test Date:		
7. Continuous Monitor Comment:		
Information to be provided.		

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### K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emissions Unit Information Section 1				
Municipal Waste Combustor - Unit #1				
PSD Increment Consumption Determination				
1. Increment Consuming for Particulate Matter or Sulfur Dioxide?				
[X] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.				
[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.				
[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.				
[ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.				
[ ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.				

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2.	2. Increment Consuming for Nitrogen Dioxide?							
[	] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.							
[	]	] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.						
[	] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.							
[	]			emissions unit begons are zero, and o		•	-	ation after March 28, 1988. ement.
[ X	[X] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.							
3.	3. Increment Consuming/Expanding Code:							
		PM:	C	SO2:	С		NO2:	E
4.	4. Baseline Emissions:							
		PM:		lb/hour				tons/year
		SO2 : NO2 :	4	lb/hour	•			tons/year tons/year
5	P	SD Comment:				-		
<i>J</i> .								

III. Part 12 - 2

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#### L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 1	
Municipal Waste Combustor - Unit #1	
Supplemental Requirements for All Applications	
1. Process Flow Diagram:	App. A, Fig. 3
2. Fuel Analysis or Specification:	NA
3. Detailed Description of Control Equipment:	To be provided
4. Description of Stack Sampling Facilities :	To be provided
5. Compliance Test Report :	Vol. 2, App. E
6. Procedures for Startup and Shutdown:	NA
7. Operation and Maintenance Plan :	NA
8. Supplemental Information for Construction Permit Application:	Volume 2
9. Other Information Required by Rule or Statue:	NA .
Additional Supplemental Requirements for Category I Application	s Only
10. Alternative Methods of Operations:	NA
11. Alterntive Modes of Operation (Emissions Trading):	NA

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12. Identification of Additional Applicable Requirements: NA					
13. Compliance AssurPlan:	rance Monitoring	NA			
14. Acid Rain Application (Hard-copy Required):					
NA	Acid Rain Part - Phase II (Fo	rm No. 62-210.900(1)(a))			
NA	Repowering Extension Plan (	(Form No. 62-210.900(1)(a)1.)			
NA	New Unit Exemption (Form	No. 62-210.900(1)(a)2.)			
NA	Retired Unit Exemption (For	m No. 62-210.900(1)(a)3.)			
		•			

#### III. EMISSIONS UNIT INFORMATION

### A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissio	ons Unit Information Section 2
Municip	al Waste Combustor - Unit #2
Type of	Emissions Unit Addressed in This Section
1. Regu	lated or Unregulated Emissions Unit? Check one:
[X]	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.
2. Sing	le Process, Group of Processes, or Fugitive Only? Check one:
[ X]	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.

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<b>Emissions</b>	Unit Information Section	2
------------------	--------------------------	---

# B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

### **Emissions Unit Description and Status**

1. Description of Emissions Unit Addressed in This Section :						
Municipal Waste Combustor - Unit #2						
2. Emissions Unit Identification Number: 002  [ ] No Corresponding ID [ ] Unknown						
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code: 49				
6. Emissions Unit Comment:						
Stack flow parameters are based on BURN model runs.						

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Municipal Waste Combustor - Unit #2						
Emissions Unit Control Equipment	1					
1. Description:						
Spray Dryer Absorber						
2. Control Device or Method Code:	41					

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<b>Emissions Unit Information Section</b>	2
Municipal Waste Combustor - Unit #2	

### Emissions Unit Control Equipment 2

1. Description:			
Fabric Filter			
2. Control Device or Method Code:	16		

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Emissions Unit Information Section Municipal Waste Combustor - Unit #2	2
Emissions Unit Control Equipment	3
1. Description:	
Activated Carbon Injection	
2. Control Device or Method Code:	48

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Emissions Unit Information Section	2
Municipal Waste Combustor - Unit #2	

<b>Emissions</b>	Unit	Control	<b>Equipment</b>	4

1. Description:	33333
Selective Non-Catalytic Reduction System	
2. Control Device or Method Code:	107

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### C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

<b>Emissions Unit Information Section</b>	2
Municipal Waste Combustor - Unit #2	

#### **Emissions Unit Details**

1. Initial Startup Date:	18-Dec-1986			
2. Long-term Reserve Shutdown Date :				
3. Package Unit : Manufacturer :		Model Number:		
4. Generator Nameplate Rating: 29	MW			
5. Incinerator Information :  Dwell Temperature :  Dwell Time :  Incinerator Afterburner Temperature :	1,800 1.00	Degrees Fahrenheit Seconds Degrees Fahrenheit		

#### **Emissions Unit Operating Capacity**

1. Maximum Heat Input Rate:	172	mmBtu/hr		
2. Maximum Incinerator Rate:	38333.30	lb/hr	460.00	tons/day
3. Maximum Process or Throughput Rate:		104000	lb :	steam/hr
4. Maximum Production Rate:				
5. Operating Capacity Comment: Generator nameplate rating is for the entire facility. Demonstration of compliance with maximum throughput capacity shall be measured by steam or feedwater flow. Maximum incinerator rate is 115% of nominal design capacity.				

### **Emissions Unit Operating Schedule**

Requested Maximum Operating Schedule:					
24 hours/day	7 days/week				
52 weeks/yea	r 8,760 hours/year				

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# D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Emissions Unit Information Section  Municipal Waste Combustor - Unit #2
Rule Applicability Analysis
Refer to Volume 2, Section 2, for Rule Applicability Analysis.

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<b>Emissions Unit</b>	Information Section	2
Municipal Waste	Combustor - Unit #2	

### **List of Applicable Regulations**

Refer to Volume 2, Permit Application Text, Section 2, for List of Applicable Regulations.

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#### E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 2		
Municipal Waste Combustor - Unit #2		
Emission Point Description and Type:		
1. Identification of Point on Plot Plan or Flow Diagram:	Emission Poir	nt #1
2. Emission Point Type Code: 1		
3. Descriptions of Emission Points Comprising this Emissio (limit to 100 characters per point) NA	ns Unit for VE	Tracking:
4. ID Numbers or Descriptions of Emission Units with this	Emission Point	in Common:
NA		
5. Discharge Type Code:	V	<del></del>
6. Stack Height:	220	feet
7. Exit Diameter:	5.1	feet
8. Exit Temperature :	290	°F
9. Actual Volumetric Flow Rate:	88869	acfm
10. Percent Water Vapor:	15.41	%
11. Maximum Dry Standard Flow Rate:	53189	dscfm
12. Nonstack Emission Point Height:		feet
13. Emission Point UTM Coordinates:		
Zone: 17 East (km): 368.200	North (kr	n): 3092.700
14. Emission Point Comment:  The stack flow parameters listed are based on BURN model nominal thermal load w/ 6000 Btu/lb waste.	output for worst-	-case emissions (115% of

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### F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 2				
Municipal Waste Combustor - Unit #2				
Segment Description and Rate: Segment	1			
1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode):				
Mass burn				
2. Source Classification Code (SCC): 5-01-	001-05			
3. SCC Units: Tons Burned (all solid fuels)	-			
4. Maximum Hourly Rate: 19.17	5. Maximum Annual Rate: 167,899.40			
6. Estimated Annual Activity Factor:				
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:			
9. Million Btu per SCC Unit: 9				
10. Segment Comment:				
Maximum hourly rate is based upon boiler loading	ng capacity of 38,333 lb/hr.			

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### G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

<b>Emissions Unit Information Section</b>	2
Municipal Waste Combustor - Unit #2	

1. Pollutant Emitted	Primary Control     Device Code	Secondary Control     Device Code	Pollutant     Regulatory Code
1 - CO	099		EL
2 - NOX	107		EL
3 - PM	016		EL
4 - SO2	041	016	EL
5 - HCL	041	016	EL
6 - PB	016	_	EL -
7 - H027	016		EL
8 - DIOX	041	016	EL
9 - H114	048	016	EL
10 - H107	041	016	EL
11 - H021	016		EL

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Emissions Unit Information Section Municipal Waste Combustor - Unit #2	<u>2</u>
Pollutant Potential/Estimated Emissions:	Pollutant 1
1. Pollutant Emitted: CO	
2. Total Percent Efficiency of Control:	%
3. Potential Emissions:	
17.24 lb/ho	our 75.50 tons/year
4. Synthetically Limited? [ ] Yes [X ] No	
5. Range of Estimated Fugitive/Other Emissions:	to tons/year
6. Emissions Factor: Reference: 40 CFR 60 Subpart Cb	
7. Emissions Method Code: 0	
8. Calculations of Emissions:	
See Volume 2, Appendix B	
9. Pollutant Potential/Estimated Emissions Comm	ment:
	k avg. CO concentration in flue gas will be equal to or CEMs, consistent with EPA's Emission Guidlines.

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Emissions Unit Information Section  Municipal Waste Combustor - Unit #2							
ollutant Information Section1							
llowable Emissions 1							
. Basis for Allowable Emissions Code : RULE							
. Future Effective Date of Allowable Emissions :							
. Requested Allowable Emissions and Units : 100.00 ppmdv @ 7% O2							
. Equivalent Allowable Emissions :							
17.24 lb/hour 75.50 tons/year							
. Method of Compliance :							
CEM, as specified in 40 CFR 60 Appendix B							
. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):							
Emission limit based on 100 ppmdv corrected to 7% O2 (4-hour avg.)							

Municipal Waste Combustor - Unit #2					
Pollutant Potential/Estimated Emissions: Pollutant	2				
1. Pollutant Emitted: NOX					
2. Total Percent Efficiency of Control:	%				
3. Potential Emissions:					
58.10 lb/hour	254.20	tons/year			
4. Synthetically Limited?  [ ] Yes [X ] No					
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year			
6. Emissions Factor: Reference: 40 CFR 60 Subpart Cb					
7. Emissions Method Code: 0					
8. Calculations of Emissions:					
See Volume 2, Appendix B.					
9. Pollutant Potential/Estimated Emissions Comment:					
The 24-hr block arithmetic mean NOx concentration in fluction (corrected to 7% O2), as determined by CEMs, consistent v					

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Emissions Unit Information Section  Municipal Waste Combustor - Unit #2							
Pol	Ilutant Information Section 2						
<u>All</u>	owable Emissions 1						
1.	Basis for Allowable Emissions Code:	RULE					
2.	Future Effective Date of Allowable Emission	ons:					
3	Requested Allowable Emissions and Units	: 205.00	ממת	ndv @ 7% O2	1		
٥.	requested / mowable Emissions and Omis	. 203.00	ppii	MV G 770 02			
4.	Equivalent Allowable Emissions:		•		-		
	58.10	lb/hour	254.20	tons/year			
5.	Method of Compliance :				1		
	CEM, as specified in 40 CFR 60 Appendix B						
6.	Pollutant Allowable Emissions Comment (	Desc. of Related O	perating Metl	nod/Mode):			
	Emission limit is based on a 24-hour average. 40 CFR 60 Subpart Cb						

	Municipal Waste Combustor - Unit #2						
Poll	Pollutant Potential/Estimated Emissions: Pollutant 3_						
1.	Pollutant Emitted:	PM	_				
2.	Total Percent Efficion	ency of Control:		%			
3. ]	Potential Emissions	:					
		4.06	lb/hour	17.80	tons/year		
4. \$	Synthetically Limite [ ] Yes [	d? X ] No					
<b>5.</b> ]	Range of Estimated	Fugitive/Other E	missions:	to		tons/year	
<b>6.</b> 1	Emissions Factor : Reference :	40 CFR 60 Su	bpart Cb				
7. I	Emissions Method C	Code: 0					
8. (	Calculations of Emis	ssions:					
	See Volume 2, Appe	ndix B.					
9. ]	Pollutant Potential/E	Estimated Emission	ons Comment:				
	For conservatism, al 7% O2), consistent v			ission based on 0.	012 gr/dscf (co	orrected to	

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	Emissions Unit Information Section  Municipal Waste Combustor - Unit #2						
Po	llutant Information Section 3						
<u>Al</u>	lowable Emissions 1						
1.	Basis for Allowable Emissions Code:	RULE					
2.	Future Effective Date of Allowable Emission	ons :					
3.	Requested Allowable Emissions and Units:	: 0.01	gr	/dscf @ 7% O2			
*		•					
4.	Equivalent Allowable Emissions:			,			
	4.06	lb/hour	17.80	tons/year			
5.	Method of Compliance:						
	Stack test; Method 5						
6.	Pollutant Allowable Emissions Comment (I	Desc. of Related	Operating Me	ethod/Mode):			
	0.012 gr/dscf @ 7% O2 (ELSA does not show EPA's Emissions Guideline limit for large mun 60 CFR 60 Subpart Cb	_					

Municipal Waste Combustor - Unit #2		
Pollutant Potential/Estimated Emissions: Pollutant	4	
1. Pollutant Emitted: SO2		
2. Total Percent Efficiency of Control: 75.00	%	
3. Potential Emissions: 32.53 lb/hour	142.47	tons/year
4. Synthetically Limited?  [ ] Yes [X ] No		· ·
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor: Reference: 40 CFR 60 Subpart Cb		
7. Emissions Method Code: 0		
8. Calculations of Emissions:		
See Volume 2, Appendix B.		
9. Pollutant Potential/Estimated Emissions Comment:		
SO2 emission limit is based on maximum estimated inlet conc O2) and applying a 75 % control efficiency, consistent with E	•	-

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	Emissions Unit Information Section  Municipal Waste Combustor - Unit #2							
Po	llutant Information Section 4							
<u>All</u>	lowable Emissions 1							
1.	Basis for Allowable Emissions Code : RULE							
2.	Future Effective Date of Allowable Emissions:							
3.	Requested Allowable Emissions and Units: 75.00 percent removal							
4.	Equivalent Allowable Emissions:							
	32.53 lb/hour 142.47 tons/year							
5.	Method of Compliance :							
	CEM, as specified in 40 CFR 60 Appendix B							
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):							
	40 CFR 60 Subpart Cb specifies the less stringent of 75% removal or 29 ppmdv @ 7% O2. Maximum inlet concentration is assumed to be 330 ppmdv @ 7% O2; allowable emissions based on 75% removal of this inlet concentration.							

	Municipal Waste Combustor - Unit #2					
Po	ollutant Potential/Estimated I	<u>Emissions</u>	: Pollutant	5		
1.	Pollutant Emitted: HCL					
2.	2. Total Percent Efficiency of C	ontrol:	95.00	%		-
3.	. Potential Emissions:					
	16.8	33	lb/hour	73.70	tons/year	•
4.	Synthetically Limited? [ ] Yes [X ] No				,	
5.	5. Range of Estimated Fugitive/	Other Em	issions:	to	ı	tons/year
6.	6. Emissions Factor: Reference: 40 CF	R 60 Subp	art Cb			
7.	. Emissions Method Code:	0				
8.	3. Calculations of Emissions:					
	See Volume 2, Appendix B.					
9.	Pollutant Potential/Estimated	Emission	s Comment:			
	HCl emission limit is based on efficiency, consistent with EPA			7% O2) inlet a	nd applying a 95	5 % control
-						

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	nissions Unit Information Section unicipal Waste Combustor - Unit #2	2				
Po	llutant Information Section	5				
<u>All</u>	owable Emissions 1					
1.	Basis for Allowable Emissions Code	:	RULE			
2.	Future Effective Date of Allowable F	 Emissions :				
3.	Requested Allowable Emissions and	Units:	95.00	perce	ent removal	
4.	Equivalent Allowable Emissions:					
	16.83	lb/hou	ır	73.70	tons/year	
5.	Method of Compliance:					
	Stack test; Method 26 or 26A					
6.	Pollutant Allowable Emissions Com	ment (Desc. of	Related Ope	rating Meth	od/Mode):	
	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):  40 CFR 60 Subpart Cb specifies the less stringent of 95% removal or 29 ppmdv @ 7% O2. Maximum inlet concentration is assumed to be 1500 ppmdv @ 7% O2; allowable emissions based on 95% removal of this inlet concentration.					

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Emissions Unit Information Section Municipal Waste Combustor - Unit #2			
Pollutant Potential/Estimated Emissions: Pollutant	6		
1. Pollutant Emitted: PB			
2. Total Percent Efficiency of Control:	%		
3. Potential Emissions:	0.20	tomakinan	
0.07 lb/hour	0.28	tons/year	
4. Synthetically Limited?  [ ] Yes [X ] No			
5. Range of Estimated Fugitive/Other Emissions:			
		to	tons/year
6. Emissions Factor: Reference: 40 CFR 60 Subpart Cb			
7. Emissions Method Code: 0			
8. Calculations of Emissions:			
See Volume 2, Appendix B.			
9. Pollutant Potential/Estimated Emissions Comment:			
0.44 mg/dscm @ 7% O2 40 CFR 60 Subpart Cb Emission Guidelines limit			

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Emissions Unit Information Section2_ Municipal Waste Combustor - Unit #2							
Po	llutant Information Section	6					
<u>Al</u>	lowable Emissions 1						
1.	Basis for Allowable Emissions C	ode:	RULE				
2.	Future Effective Date of Allowab	le Emission	is:				
3.	Requested Allowable Emissions	and Units:	440.00		ug/dscm @ 7% O2		
4.	Equivalent Allowable Emissions	•					
	0.0	7	lb/hour	0.28	tons/year		
5.	Method of Compliance:						
	Stack test; Method 29						
6.	Pollutant Allowable Emissions C	omment (D	esc. of Related Ope	erating l	Method/Mode):		
	40 CFR 60 Subpart Cb						

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Municipal Waste Combustor - Unit #2				
Pollutant Potential/Estimated Emission	s: Pollutant	7		
1. Pollutant Emitted: H027				
2. Total Percent Efficiency of Control:		%		
3. Potential Emissions:				
	lb/hour	0.03	tons/year	
4. Synthetically Limited?  [ ] Yes [X ] No			·	. :
5. Range of Estimated Fugitive/Other En	nissions:	to		on aksoon
		- to		ons/year
6. Emissions Factor: Reference: 40 CFR 60 Sub	part Cb			
7. Emissions Method Code: 0			·	
8. Calculations of Emissions:				
See Volume 2, Appendix B				
9. Pollutant Potential/Estimated Emission	ns Comment:			
lb/hr: 0.00592 (ELSA will not print this 0.04 mg/dscm @ 7% O2; limit is from I		es, 40 CFR Sul	opart Cb	

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	missions Unit Information Section unicipal Waste Combustor - Unit #2	2			
Po	Illutant Information Section 7	-			
Al	lowable Emissions 1				
1.	Basis for Allowable Emissions Code:	RUL	Æ		
2.	Future Effective Date of Allowable Emi	ssions:			
3.	Requested Allowable Emissions and Un	its: 0.04	n	ng/dscm @ 7% O2	
4.	Equivalent Allowable Emissions:				
	0.01	lb/hour	0.03	tons/year	
5.	Method of Compliance:				
	Stack test; Method 29				
6.	Pollutant Allowable Emissions Commer	nt (Desc. of Relate	ed Operating M	ethod/Mode):	
	40 CFR 60 Subpart Cb				

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Emissions Unit Information Section  Municipal Waste Combustor - Unit #2			
Pollutant Potential/Estimated Emissions: Pollutant	8		
1. Pollutant Emitted: DIOX			
2. Total Percent Efficiency of Control:	%		
3. Potential Emissions:		_	
lb/hour			tons/year
4. Synthetically Limited?  [ ] Yes [X ] No			
5. Range of Estimated Fugitive/Other Emissions:		to	tons/year
6. Emissions Factor: Reference: 40 CFR 60 Subpart Cb			
7. Emissions Method Code: 0			
8. Calculations of Emissions:			
See Volume 2, Appendix B.			
9. Pollutant Potential/Estimated Emissions Comment:			
Potential Emissions:			
4.44 x 10-6 lb/hr 1.94 x 10-5 tons per year (ELSA will not print in Item #3)			
30 ng/dscm @ 7% O2; limit from 40 CFR 60 Subpart Cb			

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Emissions Unit Information Section Municipal Waste Combustor - Unit #2	2	•
Pollutant Information Section	8	
Allowable Emissions 1		
1. Basis for Allowable Emissions Code	: RULE	
2. Future Effective Date of Allowable I	Emissions :	
3. Requested Allowable Emissions and	Units: 30.00	ng/dscm @ 7% O2
4. Equivalent Allowable Emissions:		
	lb/hour	tons/year
5. Method of Compliance:		
Stack test; Method 23		
6. Pollutant Allowable Emissions Com	ment (Desc. of Related O	perating Method/Mode):
Equivalent Allowable Emissions: 4.44 x 10-6 lb/hr 1.94 x 10-5 tons per (ELSA will not print in Item #4.) 40 CFR 60 Subpart Cb	year	

	nicipal Waste Combustor - Unit #2
<u>Pol</u>	lutant Potential/Estimated Emissions: Pollutant 9
1.	Pollutant Emitted: H114
2.	Total Percent Efficiency of Control: 85.00 %
3.	Potential Emissions:
	0.02 lb/hour 0.09 tons/year
4.	Synthetically Limited?
	[ ] Yes [X ] No
5.	Range of Estimated Fugitive/Other Emissions:
	to tons/year
6.	Emissions Factor:
	Reference: 40 CFR 60 Subpart Cb
7.	Emissions Method Code: 0
8.	Calculations of Emissions:
	See Volume 2, Appendix B.
9.	Pollutant Potential/Estimated Emissions Comment:
	85% removal of assumed maximum inlet concentration of 900 ug/dscm @ 7% O2. 40 CFR 60 Subpart Cb

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	nissions Unit Information Section 2 nicipal Waste Combustor - Unit #2
Po	llutant Information Section 9
All	owable Emissions 1
1.	Basis for Allowable Emissions Code: RULE
2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units: 85.00 percent removal
4.	Equivalent Allowable Emissions:
	0.02 lb/hour 0.09 tons/year
5.	Method of Compliance :
	Stack test; Method 29
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):
	40 CFR 60 Subpart Cb specifies the less stringent of 85% removal or 80 ug/dscm @ 7% O2 (but reduced to 70 ug/dscm @ 7% O2 by Florida Mercury Rules). Maximum inlet concentration is assumed to be 900 ug/dscm @ 7% O2; allowable emissions based on 85% removal of this inlet concentration.

Emissions Unit Information Section  Municipal Waste Combustor - Unit #2			
Pollutant Potential/Estimated Emissions: Pollutant	10		
1. Pollutant Emitted: H107			
2. Total Percent Efficiency of Control:	%		
3. Potential Emissions: 1.00 lb/hour	4.40	tons/year	r
4. Synthetically Limited?  [ ] Yes [X ] No			
5. Range of Estimated Fugitive/Other Emissions:		to	tons/year
6. Emissions Factor: Reference: Existing PSD Permit			
7. Emissions Method Code: 0			
8. Calculations of Emissions:			
See Volume 2, Appendix B.			
9. Pollutant Potential/Estimated Emissions Comment:			
6.74 mg/dscm @ 7% O2 Based on current permit limit (PSD-FL-121(A)).			

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Emissions Unit Information Section Municipal Waste Combustor - Unit #2
Pollutant Information Section10
Allowable Emissions 1
Basis for Allowable Emissions Code:  OTHER
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 6.74 mg/dscm @ 7% O2
4. Equivalent Allowable Emissions:
1.00 lb/hour 4.40 tons/year
5. Method of Compliance:
Compliance previously demonstrated.
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):
Based on existing permit limit (PSD-FL-121(A)), and adjusted to appropriate units (i.e. from gr/dscf @12% CO2 to mg/dscm @7%O2). See Volume 2, Sections 2, 4 and Appendix B. Compliance for this pollutant previously demonstrated by initial Facility compliance test.

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# H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

	nicipal Waste Combustor - Unit #2			
Po	Ilutant Potential/Estimated Emissions: Pollu	tant <u>11</u>	_	
1.	Pollutant Emitted: H021			
2.	Total Percent Efficiency of Control:	%		
3.	Potential Emissions:  lb/hour			tons/year
4.	Synthetically Limited? [ ] Yes [X ] No			
5.	Range of Estimated Fugitive/Other Emissions:		to	tons/year
6.	Emissions Factor: Reference: Existing PSD permit			
7.	Emissions Method Code: 0			
8.	Calculations of Emissions:			
	See Volume 2, Appendix B.			
9.	Pollutant Potential/Estimated Emissions Commen	t :		
	Potential Emissions:  2.18 x 10-4 lb/hr 9.56 x 10-4 tons per year  (ELSA will not print in Item #3.)  Based on current permit limit (PSD-FL-121(A)).			

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	ssions Unit Information Section icipal Waste Combustor - Unit #2
Pollu	itant Information Section 11
Allo	wable Emissions 1
1. E	Basis for Allowable Emissions Code:  OTHER
2. F	Future Effective Date of Allowable Emissions:
3. R	Requested Allowable Emissions and Units: 1.48 ug/dscm @ 7% O2
4. E	Equivalent Allowable Emissions:
	lb/hour tons/year
5. N	Method of Compliance:
Ċ	Compliance previously demonstrated.
E 2 (1 E	Collutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):  Equivalent Allowable Emissions:  2.18 x 10-4 lb/hr 9.56 x 10-4 tons per year  ELSA will not print in Item #4.)  Based on existing permit limit (PSD-FL-121(A)), and adjusted to appropriate units (i.e. from gr/dscf @ 12% CO2 to ug/dscm @ 7%O2). See Volume 2, Sections 2, 4 and Appendix B. Compliance for this pollutant previously demonstrated by initial Facility compliance test.

III. Part 9c - 22

### I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section Municipal Waste Combustor - Unit #2					
<u>Visible Emissions Limitation</u> : Visible Emissions Limitation 1					
1. Visible Emissions Subtype: 10					
2. Paris for Alla July Occasion. DVII.					
2. Basis for Allowable Opacity: RULE					
3. Requested Allowable Opacity:					
Normal Conditions: 10 % Exceptional Conditions: %					
Exceptional Conditions: %  Maximum Period of Excess Opacity Allowed: min/hour					
4. Method of Compliance:					
COM and Annual stack test					
5. Visible Emissions Comment:					
40 CFR 60 Subpart Cb opacity limit					

III. Part 10 - 2

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Emissions Unit Information Section2 Municipal Waste Combustor - Unit #2  Continuous Monitoring System: Continuous Monitor 1				
1. Parameter Code : VE	2. Pollutant :			
3. CMS Requirement: RULE				
4. Monitor Information:				
Manufacturer: Lear Siegler Model Number: RM 41 Serial Number: 15603802				
5. Installation Date :	01-Oct-1986			
6. Performance Specification Test Date:	10-Mar-1987			
7. Continuous Monitor Comment:				

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Emissions Unit Information Section2  Municipal Waste Combustor - Unit #2  Continuous Monitoring System: Continuous Monitor2				
1. Parameter Code: O2	2. Pollutant:			
3. CMS Requirement: OTHER				
4. Monitor Information:	-			
Manufacturer: Ametek Corp.  Model Number: Thermox WDG  Serial Number: CO36232-3	· -			
5. Installation Date: 18-	Dec-1986			
6. Performance Specification Test Date:	*			
7. Continuous Monitor Comment:				

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Emissions Unit Information Section2  Municipal Waste Combustor - Unit #2  Continuous Monitoring System: Continuous Monitor 3				
1. Parameter Code: EM	2. Pollutant : CO			
3. CMS Requirement: RULE				
4. Monitor Information :  Manufacturer :  Model Number :  Serial Number :				
5. Installation Date :				
6. Performance Specification Test Date:				
7. Continuous Monitor Comment :  Information to be provided.				

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Emissions Unit Information Section2  Municipal Waste Combustor - Unit #2					
Continuous Monitoring System: Continuo	ous Monitor4				
1. Parameter Code: EM	2. Pollutant : NOX				
3. CMS Requirement: RULE					
4. Monitor Information:  Manufacturer:  Model Number:  Serial Number:					
5. Installation Date:					
6. Performance Specification Test Date:					
7. Continuous Monitor Comment:					
Information to be provided.					

III. Part 11 - 11

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Emissions Unit Information Section  Municipal Waste Combustor - Unit #2	2		
1. Parameter Code: EM	2. Pollutant:	SO2	
3. CMS Requirement: RULE			
4. Monitor Information :	<u> </u>		
Manufacturer: Model Number: Serial Number:			
5. Installation Date:			
6. Performance Specification Test Date:			
7. Continuous Monitor Comment :			
Information to be provided.			

III. Part 11 - 12

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### K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

E	mis	sions Unit Information Section 2
M	unio	cipal Waste Combustor - Unit #2
<u>P</u> :	SD_	Increment Consumption Determination
1.	In	crement Consuming for Particulate Matter or Sulfur Dioxide?
[ ]	<b>K</b> ]	The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
]	]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
]	]	The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
]	]	For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
[	]	None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

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2.	Inc	crement Consur	ming for N	itrogen Dioxide	e?			
[	]		has under	gone PSD revie				ew as part of this dioxide. If so, emissions
[	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.							
[	]	unit began init	ial operati		ry 8, 19	88, but before M		or source, and the emissions h 28, 1988. If so, baseline
[	]	•		_		ill begin) initial og s unit consumes i	•	ation after March 28, 1988. ement.
[ X	[]	case, additiona	al analysis, issions hav	beyond the sco	pe of th	nis application, is	nee	unit are nonzero. In such eded to determine whether e date that may consume or
3.	In	crement Consu	ming/Expa	anding Code:				
		PM:	С	SO2:	С	NO	2:	Е
4.	В	aseline Emissio	ns:					
		PM:		lb/hour				tons/year
		SO2:		lb/hour				tons/year
•		NO2:						tons/year
5.	PS	SD Comment:						

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#### L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

\_\_\_2

Municipal Waste Combustor - Unit #2	
Supplemental Requirements for All Applications	
1. Process Flow Diagram:	App. A, Fig. 3
2. Fuel Analysis or Specification:	NA
3. Detailed Description of Control Equipment:	To be provided
4. Description of Stack Sampling Facilities :	To be provided
5. Compliance Test Report :	Vol. 2, App. E
6. Procedures for Startup and Shutdown:	NA
7. Operation and Maintenance Plan:	NA
8. Supplemental Information for Construction Permit Application:	Volume 2
9. Other Information Required by Rule or Statue:	NA
Additional Supplemental Requirements for Category I Applications	s Only
10. Alternative Methods of Operations:	NA
11. Alterntive Modes of Operation (Emissions Trading):	NA

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**Emissions Unit Information Section** 

12. Identification of A	Additional Applicable Requirements:	NA
13. Compliance Assu Plan:	rance Monitoring	NA
14. Acid Rain Applic	eation (Hard-copy Required):	
NA Acid Rain Part - Phase II (For		m No. 62-210.900(1)(a))
NA	Repowering Extension Plan (F	Form No. 62-210.900(1)(a)1.)
NA	To. 62-210.900(1)(a)2.)	
NA	Retired Unit Exemption (Form	n No. 62-210.900(1)(a)3.)

#### III. EMISSIONS UNIT INFORMATION

### A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissio	ons Unit Information Section3
Municip	al Waste Combustor - Unit #3
Type of	Emissions Unit Addressed in This Section
1. Regu	lated or Unregulated Emissions Unit? Check one:
[X]	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.
2. Sing	le Process, Group of Processes, or Fugitive Only? Check one:
[ X]	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.

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Emissions Unit Information Section 3
Emissions ome information section

# B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

### **Emissions Unit Description and Status**

1. Description of Emissions Unit Addressed in This Section :					
Municipal Waste Combustor - Unit #3					
2. Emissions Unit Identification Number: 003  [ ] No Corresponding ID [ ] Unknown					
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code: 49			
6. Emissions Unit Comment:					
Stack flow parameters are based on BURN model runs.					

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Emissions Unit Information Section3 Municipal Waste Combustor - Unit #3
Emissions Unit Control Equipment 1
1. Description:
Spray Dryer Absorber
2. Control Device or Method Code: 41

Municipal Waste Combustor - Unit #3
Emissions Unit Control Equipment 2
1. Description:
Fabric Filter
2. Control Device or Method Code: 16

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Emissions Unit Information Section	3
Municipal Waste Combustor - Unit #3	

Emissions Unit Control Equipment 3
------------------------------------

1. Description:			
Activated Carbon Injection			
2. Control Device or Method Code:	48		

Municipal Waste Combustor - Unit #3
Emissions Unit Control Equipment 4
1. Description:
Selective Non-Catalytic Reduction System
2. Control Device or Method Code: 107

### C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section	3
Municipal Waste Combustor - Unit #3	

#### **Emissions Unit Details**

1. Initial Startup Date:	18-Dec-1986	_		
2. Long-term Reserve Shutdown Date :				
3. Package Unit : Manufacturer :		Model Number:		
4. Generator Nameplate Rating: 29	MW			
5. Incinerator Information :  Dwell Temperature :  Dwell Time :  Incinerator Afterburner Temperature :	1,800 1.00	Degrees Fahrenheit Seconds Degrees Fahrenheit		

#### **Emissions Unit Operating Capacity**

1. Maximum Heat Input Rate:	172	mmBtu/hr		
2. Maximum Incinerator Rate:	38333.30	lb/hr	460.00	tons/day
3. Maximum Process or Throughput Rate:		104000	lb ste	eam/hr
4. Maximum Production Rate:				

5. Operating Capacity Comment:

Generator nameplate rating is for the entire facility. Demonstration of compliance with maximum throughput capacity shall be measured by steam or feedwater flow. Maximum incinerator rate is 115% of nominal design capacity.

#### **Emissions Unit Operating Schedule**

Requested Maximum Operating	Schedule:	
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year

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# D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Emissions Unit Information Section  Municipal Waste Combustor - Unit #3	3
Rule Applicability Analysis	
Refer to Volume 2, Section 2, for Rule Applica	bility Analysis.

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Emissions Unit Information Section	3
Municipal Waste Combustor - Unit #3	

#### **List of Applicable Regulations**

Refer to Volume 2, Permit Application Text, Section 2, for List of Applicable Regulations.

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#### E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 3		
Municipal Waste Combustor - Unit #3		
Emission Point Description and Type:		
1. Identification of Point on Plot Plan or Flow Diagram:	Emission Poir	nt #1
2. Emission Point Type Code: 1		
3. Descriptions of Emission Points Comprising this Emission (limit to 100 characters per point)  NA	ons Unit for VE	Tracking:
4. ID Numbers or Descriptions of Emission Units with this	Emission Point	in Common:
NA		
5. Discharge Type Code:	V	
6. Stack Height:	220	feet
7. Exit Diameter:	5.1	feet
8. Exit Temperature :	290	°F
9. Actual Volumetric Flow Rate:	88869	acfm
10. Percent Water Vapor:	15.41	%
11. Maximum Dry Standard Flow Rate:	53189	dscfm
12. Nonstack Emission Point Height:		feet
13. Emission Point UTM Coordinates:		
Zone: 17 East (km): 368.200	North (kr	n): 3092.700
14. Emission Point Comment:  The stack flow parameters listed are based on BURN model nominal thermal load w/ 6000 Btu/lb waste.	output for worst-	-case emissions (115% of

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#### F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 3	_
Municipal Waste Combustor - Unit #3	
Segment Description and Rate: Segment	1
1. Segment Description (Process/Fuel Type and A	Associated Operating Method/Mode):
Mass burn	
2. Source Classification Code (SCC): 5-01-0	001-05
3. SCC Units: Tons Burned (all solid fuels)	
4. Maximum Hourly Rate: 19.17	5. Maximum Annual Rate: 167,899.40
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 9	
10. Segment Comment:	
Maximum hourly rate is based upon boiler loading	g capacity of 38,333 lb/hr.

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### G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section
Municipal Waste Combustor - Unit #3

1. Pollutant Emitted	Primary Control     Device Code	Secondary Control     Device Code	Pollutant     Regulatory Code
1 - CO	099		EL
2 - NOX	107		EL
3 - PM	016		EL
4 - SO2	041	016	EL
5 - HCL	041	016	EL
6 - PB	016		EL
7 - H027	016		EL
8 - DIOX	041	016	EL
9 - H114	048	. 016	EL .
10 - H107	041	016	EL
11 - H021	016		EL

# H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section Municipal Waste Combustor - Unit #3	3		
Pollutant Potential/Estimated Emissions	: Pollutant	1	
1. Pollutant Emitted: CO			
2. Total Percent Efficiency of Control:		%	
3. Potential Emissions:	_		
17.24	lb/hour	75.50	tons/year
4. Synthetically Limited? [ ] Yes [X ] No			
5. Range of Estimated Fugitive/Other Emi	ssions:	to	tons/year
6. Emissions Factor: Reference: 40 CFR 60 Subpa	art Cb		
7. Emissions Method Code: 0			
8. Calculations of Emissions:			
See Volume 2, Appendix B			
9. Pollutant Potential/Estimated Emissions	Comment:		
Emission estimate based on 4-hr arithmeti less than 100 ppmv (7% O2), as determine	_		= = =

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Emissions Unit Information Section Municipal Waste Combustor - Unit #3					
Po	Pollutant Information Section1				
Al	Allowable Emissions 1				
1.	1. Basis for Allowable Emissions Code:	RULE			
2.	2. Future Effective Date of Allowable Emissions:				
3.	3. Requested Allowable Emissions and Units:	100.00 ppmdv @ 7% O2			
4.	4. Equivalent Allowable Emissions:				
	17.24 lb/hour	r 75.50 tons/year			
5.	5. Method of Compliance :				
	CEM, as specified in 40 CFR 60 Appendix B				
6.	6. Pollutant Allowable Emissions Comment (Desc. of F	Related Operating Method/Mode):			
	Emission limit based on 100 ppmdv corrected to 7% O2 (	(4-hour avg.)			

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### H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section  Municipal Waste Combustor - Unit #3				
Pollutant Potential/Estimated Emissions: Pollutant	2_			
1. Pollutant Emitted: NOX		_	-	_
2. Total Percent Efficiency of Control:	%			
3. Potential Emissions: 58.10 lb/hour	254.20		tons/year	
4. Synthetically Limited?  [ ] Yes [X ] No				
5. Range of Estimated Fugitive/Other Emissions:		to		tons/year
6. Emissions Factor: Reference: 40 CFR 60 Subpart Cb				
7. Emissions Method Code: 0			, .	
8. Calculations of Emissions:			_	
See Volume 2, Appendix B.				
9. Pollutant Potential/Estimated Emissions Comment:				
The 24-hr block arithmetic mean NOx concentration in flue g (corrected to 7% O2), as determined by CEMs, consistent wi	_			

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Emissions Unit Information Section Municipal Waste Combustor - Unit #3	_		
Pollutant Information Section 2			
Allowable Emissions 1			
1. Basis for Allowable Emissions Code:	RULE		
2. Future Effective Date of Allowable Emissions	:		,
3. Requested Allowable Emissions and Units:	205.00	ppmdv	@ 7% O2
4. Equivalent Allowable Emissions:			
58.10 lt	o/hour	254.20	tons/year
5. Method of Compliance:			
CEM, as specified in 40 CFR 60 Appendix B			·
6. Pollutant Allowable Emissions Comment (Des	c. of Related Ope	erating Method	/Mode) :
Emission limit is based on a 24-hour average. 40 CFR 60 Subpart Cb			

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# H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section  Municipal Waste Combustor - Unit #3		
Pollutant Potential/Estimated Emissions: Pollutant	3	
1. Pollutant Emitted: PM		·
2. Total Percent Efficiency of Control:	%	
3. Potential Emissions:		
4.06 lb/hour	17.80	tons/year
4. Synthetically Limited?  [ ] Yes [X ] No		
5. Range of Estimated Fugitive/Other Emissions:		
	to	tons/year
6. Emissions Factor: Reference: 40 CFR 60 Subpart Cb		
7. Emissions Method Code: 0		
8. Calculations of Emissions:		
See Volume 2, Appendix B.	_	
9. Pollutant Potential/Estimated Emissions Comment:		
For conservatism, all PM was assumed to be PM10. Emiss 7% O2), consistent with EPA Emission Guidelines.	sion based on 0.012	2 gr/dscf (corrected to

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Emissions Unit Information Section  Municipal Waste Combustor - Unit #3					
Po	Ilutant Information Section 3				
<u>All</u>	owable Emissions 1				
1.	Basis for Allowable Emissions Code: RULE				
2.	Future Effective Date of Allowable Emissions:				
3.	Requested Allowable Emissions and Units: 0.01 gr/dscf @ 7% O2				
4.	Equivalent Allowable Emissions:				
	4.06 lb/hour 17.80 tons/year				
5.	Method of Compliance :				
	Stack test; Method 5				
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):				
	0.012 gr/dscf @ 7% O2 (ELSA does not show all digits in Item #3.) EPA's Emissions Guideline limit for large municipal waste combustors. 60 CFR 60 Subpart Cb				

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# H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section  Municipal Waste Combustor - Unit #3				
Pollutant Potential/Estimated Emissions: Pollutant	4			
1. Pollutant Emitted: SO2				
2. Total Percent Efficiency of Control: 75.00	%			
3. Potential Emissions : 32.53 lb/hour	142,47	tons/year		
4. Synthetically Limited?  [ ] Yes [X ] No		tonsi y ota		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year		
6. Emissions Factor: Reference: 40 CFR 60 Subpart Cb	·			
7. Emissions Method Code: 0				
8. Calculations of Emissions:				
See Volume 2, Appendix B.				
9. Pollutant Potential/Estimated Emissions Comment:				
SO2 emission limit is based on maximum estimated inlet concentration of 330 ppmdv (corrected to 7% O2) and applying a 75 % control efficiency, consistent with EPA's Emission Guidelines.				

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Emissions Unit Information Section  Municipal Waste Combustor - Unit #3							
Po	Pollutant Information Section 4						
Allowable Emissions 1							
1.	Basis for Allowable Emissions Code:	RULE					
2.	Future Effective Date of Allowable Emission	ons :					
3.	Requested Allowable Emissions and Units:	: 75.00	perc	cent removal			
4.	Equivalent Allowable Emissions:						
	32.53	lb/hour	142.47	tons/year			
5.	Method of Compliance:						
	CEM, as specified in 40 CFR 60 Appendix B						
6.	Pollutant Allowable Emissions Comment (I	Desc. of Related C	perating Meth	nod/Mode):			
	40 CFR 60 Subpart Cb specifies the less string inlet concentration is assumed to be 330 ppmdv this inlet concentration.						

### H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section  Municipal Waste Combustor - Unit #3	3		
Pollutant Potential/Estimated Emissions:	Pollutant <u>5</u>	_	
1. Pollutant Emitted: HCL		-	
2. Total Percent Efficiency of Control:	95.00 %	_	
3. Potential Emissions:			_
16.83 lb/	hour 73.70	)	tons/year
4. Synthetically Limited?  [ ] Yes [X ] No			
5. Range of Estimated Fugitive/Other Emissio	ns:		
		to	tons/year
6. Emissions Factor: Reference: 40 CFR 60 Subpart C	lb .		
7. Emissions Method Code: 0			
8. Calculations of Emissions:			
See Volume 2, Appendix B.			·
9. Pollutant Potential/Estimated Emissions Co	mment:		
HCl emission limit is based on 1500 ppmdv (or efficiency, consistent with EPA's Emission Gu		nlet and app	olying a 95 % control

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Emissions Unit Information Section Municipal Waste Combustor - Unit #3							
Po	Pollutant Information Section 5						
<u> </u>	lowable Emissions 1						
1.	Basis for Allowable Emissions Code:		RULE				
2.	Future Effective Date of Allowable En	nissions :					
3.	Requested Allowable Emissions and U	Jnits :	95.00	percent removal			
4.	Equivalent Allowable Emissions:						
	16.83	lb/hour	73.70	tons/year			
5.	Method of Compliance:						
	Stack test; Method 26 or 26A						
6.	Pollutant Allowable Emissions Comm	ent (Desc. of F	Related Operating	Method/Mode):			
	40 CFR 60 Subpart Cb specifies the less inlet concentration is assumed to be 1500 of this inlet concentration.	•	• •		I .		

# H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section Municipal Waste Combustor - Unit #3			
Pollutant Potential/Estimated Emissions: Pollutant	6		
1. Pollutant Emitted: PB			
2. Total Percent Efficiency of Control:	%		
3. Potential Emissions : 0.07 lb/hour	0.28	tons/year	
4. Synthetically Limited?  [ ] Yes [X ] No			
5. Range of Estimated Fugitive/Other Emissions:	t	O	tons/year
6. Emissions Factor: Reference: 40 CFR 60 Subpart Cb			: "
7. Emissions Method Code: 0			
8. Calculations of Emissions:			
See Volume 2, Appendix B.			
9. Pollutant Potential/Estimated Emissions Comment:			
0.44 mg/dscm @ 7% O2 40 CFR 60 Subpart Cb Emission Guidelines limit			

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Emissions Unit Information Section  Municipal Waste Combustor - Unit #3					
	Ilutant Information Section 6				
1.	Basis for Allowable Emissions Code:	RULE			
2.	Future Effective Date of Allowable Emission	ons:			
3.	Requested Allowable Emissions and Units	: 440.00		ug/dscm @ 7% O2	
4.	Equivalent Allowable Emissions:			·	
	0.07	lb/hour	0.28	tons/year	
5.	Method of Compliance:				
	Stack test; Method 29	•			
6.	Pollutant Allowable Emissions Comment ( 40 CFR 60 Subpart Cb	Desc. of Related O	perating	Method/Mode):	

### H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section Municipal Waste Combustor - Unit #3			
Pollutant Potential/Estimated Emissions: Pollutant			
1. Pollutant Emitted: H027			
2. Total Percent Efficiency of Control:	%		
3. Potential Emissions : lb/hour	0.03	tons/year	
4. Synthetically Limited?  [ ] Yes [X ] No			
5. Range of Estimated Fugitive/Other Emissions:		to	tons/year
6. Emissions Factor: Reference: 40 CFR 60 Subpart Cb	·		
7. Emissions Method Code: 0			
8. Calculations of Emissions:			
See Volume 2, Appendix B			
9. Pollutant Potential/Estimated Emissions Comment:			
lb/hr: 0.00592 (ELSA will not print this in Item #3.) 0.04 mg/dscm @ 7% O2; limit is from Emission Guideline	s, 40 CFR	Subpart Cb	

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Emissions Unit Information Section Municipal Waste Combustor - Unit #3	_		
Pollutant Information Section 7			
Allowable Emissions 1			
1. Basis for Allowable Emissions Code:	RULE		
2. Future Effective Date of Allowable Emissions	:		
3. Requested Allowable Emissions and Units:	0.04	mg/dscr	m @ 7% O2
4. Equivalent Allowable Emissions:			
0.01	b/hour 0	.03	tons/year
5. Method of Compliance:			
Stack test; Method 29			
<ol> <li>Pollutant Allowable Emissions Comment (Des 40 CFR 60 Subpart Cb</li> </ol>	sc. of Related Opera	ating Method	/Mode):

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### H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

	inicipal Waste Combustor - Unit #3			
Po	Ilutant Potential/Estimated Emissions: Pollutant	8		
1.	Pollutant Emitted: DIOX			
2.	Total Percent Efficiency of Control:	%		
3.	Potential Emissions: lb/hour			tons/year
4.	Synthetically Limited? [ ] Yes [X ] No			
5.	Range of Estimated Fugitive/Other Emissions:		to	tons/year
6.	Emissions Factor: Reference: 40 CFR 60 Subpart Cb			
7.	Emissions Method Code: 0			
8.	Calculations of Emissions:			
	See Volume 2, Appendix B.			
9.	Pollutant Potential/Estimated Emissions Comment:			
	Potential Emissions: 4.44 x 10-6 lb/hr 1.94 x 10-5 tons per year (ELSA will not print in Item #3) 30 ng/dscm @ 7% O2; limit from 40 CFR 60 Subpart Cb			

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Emissions Unit Information Section Municipal Waste Combustor - Unit #3	3	
Pollutant Information Section 8	_	
Allowable Emissions 1		
1. Basis for Allowable Emissions Code:	RULE	
2. Future Effective Date of Allowable Em	nissions:	
3. Requested Allowable Emissions and U	nits: 30.00	ng/dscm @ 7% O2
4. Equivalent Allowable Emissions:		
	lb/hour	tons/year
5. Method of Compliance:		
Stack test; Method 23		
6. Pollutant Allowable Emissions Commo	ent (Desc. of Related Oper	rating Method/Mode):
Equivalent Allowable Emissions: 4.44 x 10-6 lb/hr 1.94 x 10-5 tons per ye (ELSA will not print in Item #4.) 40 CFR 60 Subpart Cb	ear	

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### H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section  Municipal Waste Combustor - Unit #3		
Pollutant Potential/Estimated Emissions: Pollutant	9	
1. Pollutant Emitted: H114		
2. Total Percent Efficiency of Control: 85.00	%	
3. Potential Emissions : 0.02 lb/hour	0.09	tons/year
4. Synthetically Limited?  [ ] Yes [X ] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor: Reference: 40 CFR 60 Subpart Cb		
7. Emissions Method Code: 0		·
8. Calculations of Emissions:		
See Volume 2, Appendix B.		
9. Pollutant Potential/Estimated Emissions Comment:		
85% removal of assumed maximum inlet concentration of 40 CFR 60 Subpart Cb	900 ug/dscm @	7% O2.

III. Part 9b - 31

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section  Municipal Waste Combustor - Unit #3	3		
Pollutant Information Section 9			
Allowable Emissions 1			
1. Basis for Allowable Emissions Code:	RULE		
2. Future Effective Date of Allowable Emission	ns:		
3. Requested Allowable Emissions and Units:	85.00	J	percent removal
4. Equivalent Allowable Emissions:			
0.02	lb/hour	0.09	tons/year
5. Method of Compliance:			
Stack test; Method 29			
6. Pollutant Allowable Emissions Comment (D	Desc. of Related O	perating N	lethod/Mode):
40 CFR 60 Subpart Cb specifies the less stringe to 70 ug/dscm @ 7% O2 by Florida Mercury Rug/dscm @ 7% O2: allowable emissions based of	ules). Maximum in	let concenti	ration is assumed to be 900

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#### H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section  Municipal Waste Combustor - Unit #3			
Pollutant Potential/Estimated Emissions: Pollutant	10		
1. Pollutant Emitted: H107			
2. Total Percent Efficiency of Control:	%		
3. Potential Emissions:			
1.00 lb/hour	4.40	tons/year	
4. Synthetically Limited?  [ ] Yes [X ] No			
5. Range of Estimated Fugitive/Other Emissions:		to	tonakioon
		to	tons/year
6. Emissions Factor: Reference: Existing PSD Permit			
7. Emissions Method Code: 0			
8. Calculations of Emissions:			
See Volume 2, Appendix B.			
9. Pollutant Potential/Estimated Emissions Comment:			
6.74 mg/dscm @ 7% O2 Based on current permit limit (PSD-FL-121(A)).			

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	cipal Waste Combustor - Unit #3
Polli	tant Information Section10
Allo	vable Emissions 1
1. E	asis for Allowable Emissions Code: OTHER
2. F	uture Effective Date of Allowable Emissions:
3. F	equested Allowable Emissions and Units: 6.74 mg/dscm @ 7% O2
4. E	quivalent Allowable Emissions:
	1.00 lb/hour 4.40 tons/year
5. N	Iethod of Compliance:
(	Compliance previously demonstrated.
6. F	ollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):
(	ased on existing permit limit (PSD-FL-121(A)), and adjusted to appropriate units (i.e. from gr/dscf @12% CO2 to mg/dscm @7%O2). See Volume 2, Sections 2, 4 and Appendix B. Compliance for this ollutant previously demonstrated by initial Facility compliance test.

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### H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section  Municipal Waste Combustor - Unit #3			
Pollutant Potential/Estimated Emissions: Pollutant	11		
1. Pollutant Emitted: H021			
2. Total Percent Efficiency of Control:	%		
3. Potential Emissions:			
lb/hour			tons/year
4. Synthetically Limited?  [ ] Yes [X ] No		-	
5. Range of Estimated Fugitive/Other Emissions:		to	tons/year
6. Emissions Factor: Reference: Existing PSD permit			
7. Emissions Method Code: 0			
8. Calculations of Emissions:			
See Volume 2, Appendix B.			
9. Pollutant Potential/Estimated Emissions Comment:			
Potential Emissions:  2.18 x 10-4 lb/hr 9.56 x 10-4 tons per year  (ELSA will not print in Item #3.)  Based on current permit limit (PSD-FL-121(A)).			

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Emissions Unit Information Section  Municipal Waste Combustor - Unit #3	3	
Pollutant Information Section11		
Allowable Emissions 1_		
1. Basis for Allowable Emissions Code:	OTHER	
2. Future Effective Date of Allowable Emiss	sions:	
3. Requested Allowable Emissions and Units	s: 1.48	ug/dscm @ 7% O2
4. Equivalent Allowable Emissions:		
	lb/hour	tons/year
5. Method of Compliance:		
Compliance previously demonstrated.	·	
6. Pollutant Allowable Emissions Comment	(Desc. of Related Ope	rating Method/Mode):
Equivalent Allowable Emissions:  2.18 x 10-4 lb/hr 9.56 x 10-4 tons per year (ELSA will not print in Item #4.)  Based on existing permit limit (PSD-FL-121( @12% CO2 to ug/dscm @7%O2). See Volume pollutant previously demonstrated by initial F	ime 2, Sections 2, 4 and A	

DEP Form No. 62-210.900(1) - Form

### I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Municipal Waste Combustor - Unit #3	
<u>Visible Emissions Limitation</u> : Visible Emissions Limitation	1
1. Visible Emissions Subtype: 10	
2. Basis for Allowable Opacity: RULE	
3. Requested Allowable Opacity:	
Normal Conditions: 10 Exceptional Conditions: Maximum Period of Excess Opacity Allowed:	% % min/hour
4. Method of Compliance:	
COM and Annual stack test	
5. Visible Emissions Comment:	
40 CFR 60 Subpart Cb opacity limit	

DEP Form No. 62-210.900(1) - Form

1. P	arameter Code: VE	2. Pollutant :
3. C	MS Requirement : RULE	
4. M	Ionitor Information :	
	Manufacturer: Lear Siegler Model Number: RM 41 Serial Number: 15603802	
5. In	stallation Date:	01-Oct-1986
6. Po	erformance Specification Test Date:	10-Mar-1987

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Municipal Waste Combustor - Unit #3  Continuous Monitoring System: Continuous Monitor 2				
1. Parameter Code: O2	2. Pollutant:			
3. CMS Requirement: OTHER				
4. Monitor Information :				
Manufacturer: Ametek Corp.  Model Number: Thermox WDG  Serial Number: CO36232-3				
5. Installation Date:	8-Dec-1986			
6. Performance Specification Test Date:				
7. Continuous Monitor Comment:				

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Emissions Unit Information Section3  Municipal Waste Combustor - Unit #3  Continuous Monitoring System: Continuous Monitor 3				
1. Parameter Code: EM	us Monitor 3  2. Pollutant: CO			
3. CMS Requirement: RULE				
·				
Manufacturer:				
Model Number : Serial Number :				
5. Installation Date:				
6. Performance Specification Test Date:				
7. Continuous Monitor Comment:				
Information to be provided.				

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Emissions Unit Information Section3  Municipal Waste Combustor - Unit #3  Continuous Monitoring System: Continuous Monitor4				
1. Parameter Code : EM	2. Pollutant: NOX			
3. CMS Requirement: RULE				
4. Monitor Information :  Manufacturer :  Model Number :  Serial Number :				
5. Installation Date :				
6. Performance Specification Test Date:				
7. Continuous Monitor Comment:				
Information to be provided.				

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Municipal Waste Combustor - Unit #3  Continuous Monitoring System: Continuous Monitor5			
1. Parameter Code : EM	2. Pollutant: SO2		
3. CMS Requirement: RULE			
4. Monitor Information :			
Manufacturer : Model Number : Serial Number :			
5. Installation Date:			
6. Performance Specification Test Date:			
7. Continuous Monitor Comment:			
Information to be provided.			

DEP Form No. 62-210.900(1) - Form

### K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

E	mis	sions Unit Information Section 3
M	luni	cipal Waste Combustor - Unit #3
<u>P</u>	<u>SD</u>	Increment Consumption Determination
1.	In	crement Consuming for Particulate Matter or Sulfur Dioxide?
[3	<b>K</b> ]	The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
[	]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
]	1	The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
[	]	For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
[	]	None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

III. Part 12 - 13

DEP Form No. 62-210.900(1) - Form

2.	2. Increment Consuming for Nitrogen Dioxide?						
[	]		has undergone				ew as part of this lioxide. If so, emissions
[	]	paragraph (c) of and the emission	of the definition ons unit address	of "majo ed in this	r source of ai section comr	r pollution" in ( nenced (or will	or source pursuant to Chapter 62-213, F.A.C., commence) construction sions unit consumes
[	]	] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.					
[	]	•	y, the emissions emissions are ze	_		•	ation after March 28, 1988. ement.
[3	[X] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.						
3	Ir	ncrement Consu	ming/Expanding	g Code :			· .
		PM:	C	SO2:	С	NO2:	Е
4	В	aseline Emission	ns:				
		PM : SO2 : NO2 :		lb/hour lb/hour			tons/year tons/year tons/year
5.	P	SD Comment:					

III. Part 12 - 14

DEP Form No. 62-210.900(1) - Form

#### L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 3

Municipal Waste Combustor - Unit #3			
Supplemental Requirements for All Applications			
1. Process Flow Diagram:	App. A, Fig. 3		
2. Fuel Analysis or Specification:	NA		
3. Detailed Description of Control Equipment:	To be provided		
4. Description of Stack Sampling Facilities:	To be provided		
5. Compliance Test Report :	Vol. 2, App. E		
6. Procedures for Startup and Shutdown:	NA		
7. Operation and Maintenance Plan:	NA		
8. Supplemental Information for Construction Permit Application:	Volume 2		
9. Other Information Required by Rule or Statue :	NA .		
Additional Supplemental Requirements for Category I Applications Only			
10. Alternative Methods of Operations:	NA		
11. Alterntive Modes of Operation (Emissions Trading):	NA		

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DEP Form No. 62-210.900(1) - Form

12. Identification of A	Iditional Applicable Requirements: NA	
13. Compliance Assur Plan:	ance Monitoring NA	
14. Acid Rain Applica	tion (Hard-copy Required):	
NA	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))	
NA	Repowering Extension Plan (Form No. 62-210.900(1)(a)1	.)
NA	New Unit Exemption (Form No. 62-210.900(1)(a)2.)	
NA	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)	

#### III. EMISSIONS UNIT INFORMATION

### A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Ŀr	nissi	ons Unit Information Section 4				
M	WC A	Auxiliary Burner - Unit #1				
Ţ	pe o	f Emissions Unit Addressed in This Section				
1.	Reg	Regulated or Unregulated Emissions Unit? Check one:				
	[X]	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.				
2.	Sing	ele Process, Group of Processes, or Fugitive Only? Check one:				
[	[ X]	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.				

III. Part 1 - 4

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<b>Emissions Unit Information Section</b>	4	

### B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

#### **Emissions Unit Description and Status**

1. Description of Emissions Unit Addressed in This Section :				
MWC Auxiliary Burner - Unit #1				
2. Emissions Unit Identification Number: 004  [ ] No Corresponding ID [ ] Unknown				
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code: 49		
6. Emissions Unit Comment:				
Each MWC unit will be equipped with a natural-gas-fired auxiliary burner with a rated heat input capacity upgraded to about 60 MMBtu/hr. These burners are necessary for firing the combustor during startups and shutdowns, and to maintain furnace temperatures when sustained low-Btu wastes are encountered.				

III. Part 2 - 4

DEP Form No. 62-210.900(1) - Form

### C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

<b>Emissions Unit Information Section</b>	4
MWC Auxiliary Burner - Unit #1	

#### **Emissions Unit Details**

1. Initial Startup Date:	01-Oct-2000	•
2. Long-term Reserve Shutdown Date:		
3. Package Unit: Manufacturer: Information to be provided.		Model Number:
4. Generator Nameplate Rating:	MW	
5. Incinerator Information :		Degrees Fahrenheit Seconds Degrees Fahrenheit

#### **Emissions Unit Operating Capacity**

1. Maximum Heat Input Rate: 60	mmBtu/hr	
2. Maximum Incinerator Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:	600000	cf/hr
4. Maximum Production Rate:		

### 5. Operating Capacity Comment:

The maximum short-term throughput is 60,000 cf/hr and on an annual basis the avg. throughput would be no more than 17,250 cf/hr. Although flexibility to use at any time is requested, actual use would be limited to start-up, shut-down and warm-up periods, and to no more than 10% of the total annual heat input to the combustor.

#### **Emissions Unit Operating Schedule**

Requested Maximum Operating Schedule :

24 hours/day
52 weeks/year

7 days/week
8,760 hours/year

III. Part 4 - 7

DEP Form No. 62-210.900(1) - Form

### D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

MWC Auxiliary Burner - Unit #1
Rule Applicability Analysis
Refer to Volume 2, Section 2, for Rule Applicability Analysis.

III. Part 6a - 4

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<b>Emissions Unit Information Section</b>	4
MWC Auxiliary Burner - Unit #1	

#### **List of Applicable Regulations**

Refer to Volume 2, Permit Application Text, Section 2, for List of Applicable Regulations.

III. Part 6b - 4

DEP Form No. 62-210.900(1) - Form

#### E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 4	
MWC Auxiliary Burner - Unit #1	
Emission Point Description and Type:	
1. Identification of Point on Plot Plan or Flow Diagram	:
2. Emission Point Type Code: 2	
3. Descriptions of Emission Points Comprising this Emi (limit to 100 characters per point)	ssions Unit for VE Tracking:
4. ID Numbers or Descriptions of Emission Units with t	his 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:	acfm
10. Percent 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 Comment:  Auxiliary burners would be used primariliy in conjunction startup, shutdown, and low-Btu wastes. Therefore, no see	

III. Part 7a - 4

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#### F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 4	-			
MWC Auxiliary Burner - Unit #1				
Segment Description and Rate: Segment	1			
1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode):				
Auxiliary burner will use natural gas				
2. Source Classification Code (SCC): 1-02-0	06-02			
-				
3. SCC Units: Million Cubic Feet Burned (all gas	seous fuels)			
4. Maximum Hourly Rate: 0.06	5. Maximum Annual Rate: 12.56			
6. Estimated Annual Activity Factor: 0.00				
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:			
9. Million Btu per SCC Unit: 1,000				
10. Segment Comment:				

III. Part 8 - 4

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# G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

<b>Emissions Unit Information Section</b>	4
MWC Auxiliary Burner - Unit #1	

1. Pollutant Emitted	Primary Control     Device Code	Secondary Control     Device Code	Pollutant     Regulatory Code
1 - NOX			NS
I - NOX			INS

III. Part 9a - 4

DEP Form No. 62-210.900(1) - Form

### H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

MWC Auxiliary Burner - Unit #1
Pollutant Potential/Estimated Emissions: Pollutant1
1. Pollutant Emitted: NOX
2. Total Percent Efficiency of Control:  %
3. Potential Emissions: 2.40 lb/hour 10.60 tons/year
4. Synthetically Limited?  [ ] Yes [X ] No
5. Range of Estimated Fugitive/Other Emissions:  to tons/year
6. Emissions Factor: Reference: 40 CFR 60.44b(d)
7. Emissions Method Code: 5
8. Calculations of Emissions:
Burner operating at $115\% = 172.5$ MMBtu/hr, but restricted to $10$ %/yr operation = $17.25$ MMBtu/hr
200 lb/10^6 cf NG * 17,250,000 Btu/hr * 1 cf NG/1000 Btu = 3.45 lb/hr
3.45 lb/hr * 1 ton/2000 lb * 8760 hrs/yr = 15.1 tons/yr.
9. Pollutant Potential/Estimated Emissions Comment:
Emission Factor: 200 lb/MMcu.ft. (ELSA does not print in Item #6.) These emissions are part of, and not in addition to, combustor emissions. Allowable emissions for combustors include auxiliary buners.

III. Part 9b - 34

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# I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

MWC Auxiliary Burner - Unit #1		
Visible Emissions Limitation: Visib	le Emissions Limitation	1
1. Visible Emissions Subtype:	20	
2. Basis for Allowable Opacity:	RULE	
3. Requested Allowable Opacity:		
	Conditions: 20	%
Maximum Period of Excess Opacit	Conditions: y Allowed:	% min/hour
4. Method of Compliance:		
СОМ		
5. Visible Emissions Comment:	-	
FAC 62-296.320(4)(b)		

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# K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emissions Unit Information Section 4
MWC Auxiliary Burner - Unit #1
PSD Increment Consumption Determination
1. Increment Consuming for Particulate Matter or Sulfur Dioxide?
[ ] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
[X] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
[ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
[ ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

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2. Increment Consuming for Nitrogen Dioxide?								
[3	[ ]		has undergone			indergoing PSD r iously, for nitroge		
[	]	] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.						
[	] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.							
[	]	•		_		ill begin) initial og s unit consumes i	_	ter March 28, 1988.
[	[ ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.							
3.	In	ncrement Consum	ming/Expandin	g Code :	· .		. ,	-
		PM:	С	SO2:	С	NO	2: C	
4.	В	aseline Emission	ns:					
		PM:		lb/hour			tons/ye	ar
		SO2:		lb/hour			tons/ye	ar
		NO2:					tons/ye	ar
5.	5. PSD Comment:							

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### L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 4				
MWC Auxiliary Burner - Unit #1				
Supplemental Requirements for All Applications				
1. Process Flow Diagram:	App. A, Fig. 3			
2. Fuel Analysis or Specification:	NA			
3. Detailed Description of Control Equipment:	NA			
4. Description of Stack Sampling Facilities:	NA			
5. Compliance Test Report :	NA			
6. Procedures for Startup and Shutdown:	NA			
7. Operation and Maintenance Plan:	NA			
8. Supplemental Information for Construction Permit Application:	Volume 2			
9. Other Information Required by Rule or Statue :	NA			
Additional Supplemental Requirements for Category I Applications Only				
10. Alternative Methods of Operations:	NA			
11. Alterntive Modes of Operation (Emissions Trading):	NA			

III. Part 13 - 7

DEP Form No. 62-210.900(1) - Form

12. Identification of Additional Applicable Requirements : NA				
13. Compliance Assur Plan:	rance Monitoring NA			
14. Acid Rain Application (Hard-copy Required):				
NA	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))			
NA	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)			
NA	New Unit Exemption (Form No. 62-210.900(1)(a)2.)			
NA	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)			

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#### III. EMISSIONS UNIT INFORMATION

### A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissio	ons Unit Information Section5_
MWC A	uxiliary Burner - Unit #2
Type of	Emissions Unit Addressed in This Section
1. Regu	lated or Unregulated Emissions Unit? Check one:
[X]	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.
2. Singl	le Process, Group of Processes, or Fugitive Only? Check one:
[ X]	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.
[ 1]	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.

III. Part 1 - 5

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<b>Emissions</b>	Unit	Information	Section	5

### B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

#### **Emissions Unit Description and Status**

1. Description of Emissions Unit Addressed in This Section :						
MWC Auxiliary Burner - Unit #2						
2. Emissions Unit Identification Number: 005						
[ ] No Corresponding ID [ ] Unknown						
3. Emissions Unit Status	4. Acid Rain Unit?	5. Emissions Unit Major				
Code: A	[ ] Yes [X] No	Group SIC Code: 49				
	·					
6. Emissions Unit Comment:						
Each MWC unit will be equipped with a natural-gas-fired auxiliary burner with a rated heat input capacity upgraded to about 60 MMBtu/hr. These burners are necessary for firing the combustor during startups and shutdowns, and to maintain furnace temperatures when sustained low-Btu wastes are encountered.						

III. Part 2 - 5

DEP Form No. 62-210.900(1) - Form

#### C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section  MWC Auxiliary Burner - Unit #2	5	;		
Emissions Unit Details				
1. Initial Startup Date:	I-Oct-2000			
2. Long-term Reserve Shutdown Date:				
3. Package Unit: Manufacturer: Information to be provided.		Model Number:		
4. Generator Nameplate Rating:	MW	*		
5. Incinerator Information :		Degrees Fahrenheit Seconds Degrees Fahrenheit		
Emissions Unit Operating Capacity				
1. Maximum Heat Input Rate: 60	mmBtu/hr			
2. Maximum Incinerator Rate:	lb/hr	tons/day		
3. Maximum Process or Throughput Rate:	600000	cf/hr		
4. Maximum Production Rate:				
5. Operating Capacity Comment:  The maximum short-term throughput is 60,000 cf/hr and on an annual basis the avg. throughput would be no more than 17,250 cf/hr. Although flexibility to use at any time is requested, actual use would be limited to start-up, shut-down and warm-up periods, and to no more than 10% of the total annual heat input to the combustor.				
Emissions Unit Operating Schedule				
Requested Maximum Operating Schedule: 24 hours/day 52 weeks/yea		7 days/week 8,760 hours/year		
III Par	t 4 - 9	· · · · · · · · · · · · · · · · · · ·		

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## D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

MWC Auxiliary Burner - Unit #2
Rule Applicability Analysis
Refer to Volume 2, Section 2, for Rule Applicability Analysis.

III. Part 6a - 5

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Emissions Unit Information Section	5
MWC Auxiliary Burner - Unit #2	

#### **List of Applicable Regulations**

Refer to Volume 2, Permit Application Text, Section 2, for List of Applicable Regulations.

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#### E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 5	
MWC Auxiliary Burner - Unit #2	
Emission Point Description and Type:	
1. Identification of Point on Plot Plan or Flow Diagra	am:
2. Emission Point Type Code: 2	
3. Descriptions of Emission Points Comprising this E (limit to 100 characters per point)	Emissions Unit for VE Tracking:
4. ID Numbers or Descriptions of Emission Units wit	th 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:	acfm
10. Percent 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 Comment:  Auxiliary burners would be used primariliy in conjunstartup, shutdown, and low-Btu wastes. Therefore, n	

III. Part 7a - 5

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#### F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section5					
MWC Auxiliary Burner - Unit #2					
Segment Description and Rate: Segment 1					
1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode):					
Auxiliary burner will use natural gas					
2. Source Classification Code (SCC): 1-02-006-02					
3. SCC Units: Million Cubic Feet Burned (all gaseous fuels)					
4. Maximum Hourly Rate: 0.06 5. Maximum Annual Rate: 12.56					
6. Estimated Annual Activity Factor:					
7. Maximum Percent Sulfur:  8. Maximum Percent Ash:					
9. Million Btu per SCC Unit: 1,000					
10. Segment Comment:					

III. Part 8 - 5

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### G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

<b>Emissions Unit Information Section</b>	5
MWC Auxiliary Burner - Unit #2	

1. Pollutant Emitted	Primary Control     Device Code	Secondary Control     Device Code	Pollutant     Regulatory Code
1 - NOX			NS

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### H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

MWC Auxiliary Burner - Unit #2	
Pollutant Potential/Estimated Emissions: Pollutant1_	_
1. Pollutant Emitted: NOX	
2. Total Percent Efficiency of Control: %	
3. Potential Emissions: 3.45 lb/hour 15.16	0 tons/year
4. Synthetically Limited?  [ ] Yes [X ] No	
5. Range of Estimated Fugitive/Other Emissions:	to tons/year
6. Emissions Factor: Reference: 40 CFR 60.44b(d)	
7. Emissions Method Code: 5	·
8. Calculations of Emissions:	
Burner operating at 115% = 172.5 MMBtu/hr ,but restricted to 10	%/yr operation = 17.25 MMBtu/hr
200 lb/10^6 cf NG * 17,250,000 Btu/hr * 1 cf NG/1000 Btu = 3.45	5 lb/hr
3.45 lb/hr * 1 ton/2000 lb * 8760 hrs/yr = 15.1 tons/yr.	
9. Pollutant Potential/Estimated Emissions Comment:	
Emission Factor: 200 lb/MMcu.ft. (ELSA does not print in Item #6 These emissions are part of, and not in addition to, combustor emiss combustors include auxiliary buners.	-

III. Part 9b - 35

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## I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

MWC Auxiliary Burner - Unit #2	_5		
Visible Emissions Limitation: Visible	Emissions Limitation _	1	
1. Visible Emissions Subtype: 2	0		
2. Basis for Allowable Opacity: R	ULE		
3. Requested Allowable Opacity:			•.•
Normal C Exceptional C Maximum Period of Excess Opacity		% % min/hour	
4. Method of Compliance:			
СОМ			en en la companya de la companya de La companya de la companya de
5. Visible Emissions Comment:			_
FAC 62-296.320(4)(b)			

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#### **BEST AVAILABLE COPY**

### K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emi	ssions Unit Information Section5_				
MWC Auxiliary Burner - Unit #2					
<u>PSD</u>	PSD Increment Consumption Determination				
1. Increment Consuming for Particulate Matter or Sulfur Dioxide?					
	The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes				
and of the second second	increment.				
[X]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.				
[ ]	The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.				
[ ]	For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.				
[ ]	None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.				

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2.	2. Increment Consuming for Nitrogen Dioxide?							
[ X	X ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.							
[	] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.							
[	] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.					<b>S</b>		
[	]					will begin) initial oper ons unit consumes incr	ration after March 28, 1988. ement.	.·.
[	] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.							
3.	In	crement Consu	ming/E	xpanding Code:	-		···	7
		PM:	С	SO2:	С	NO2:	С	
4.	Ва	aseline Emissio	ns:					
		PM : SO2 : NO2 :		lb/hour lb/hour			tons/year tons/year	
5.	PS	SD Comment:						

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#### L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 5

MWC Auxiliary Burner - Unit #2				
Supplemental Requirements for All Applications				
1. Process Flow Diagram:	App. A, Fig. 3			
2. Fuel Analysis or Specification:	NA			
3. Detailed Description of Control Equipment:	NA			
4. Description of Stack Sampling Facilities:	NA			
5. Compliance Test Report :	NA			
6. Procedures for Startup and Shutdown:	NA			
7. Operation and Maintenance Plan:	NA			
8. Supplemental Information for Construction Permit Application :	Volume 2			
9. Other Information Required by Rule or Statue:	NA			
Additional Supplemental Requirements for Category I Application	ns Only			
10. Alternative Methods of Operations:	NA			
11. Alterntive Modes of Operation (Emissions Trading):	NA			

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12. Identification of Ac	dditional Applicable Requirements:	NA
13. Compliance Assura	ance Monitoring	NA
14. Acid Rain Applica	tion (Hard-copy Required):	
NA	Acid Rain Part - Phase II (Form	No. 62-210.900(1)(a))
NA	Repowering Extension Plan (Fo	orm No. 62-210.900(1)(a)1.)
NA	New Unit Exemption (Form No	o. 62-210.900(1)(a)2.)
NA	Retired Unit Exemption (Form	No. 62-210.900(1)(a)3.)
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DEP Form No. 62-210.900(1) - Form

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#### III. EMISSIONS UNIT INFORMATION

## A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissic	ons Unit Information Section6
MWC A	auxiliary Burner - Unit #3
Type of	Emissions Unit Addressed in This Section
1. Regu	ulated or Unregulated Emissions Unit? Check one:
[X]	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.
2. Sing	le Process, Group of Processes, or Fugitive Only? Check one:
[ X]	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.

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<b>Emissions</b>	Unit	Information	Section	6	

### B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

#### **Emissions Unit Description and Status**

1. Description of Emissions Unit	Addressed in This Section:		
MWC Auxiliary Burner - Unit #3	3		
Emissions Unit Identification     No Corresponding I		known	
Code: A		5. Emissions Unit Major Group SIC Code: 49	
	逐渐进行。他的"数十年"。 计图像	The Armanian area areas	
6. Emissions Unit Comment:			
Each MWC unit will be equipped with a natural-gas-fired auxiliary burner with a rated heat input capacity upgraded to about 60 MMBtu/hr. These burners are necessary for firing the combustor during startups and shutdowns, and to maintain furnace temperatures when sustained low-Btu wastes are encountered.			

III. Part 2 - 6

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# C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section  MWC Auxiliary Burner - Unit #3		
Emissions Unit Details		
1. Initial Startup Date : 01-	Oct-2000	-
2. Long-term Reserve Shutdown Date:		
3. Package Unit: Manufacturer: Information to be provided.		Model Number :
4. Generator Nameplate Rating:	MW	
5. Incinerator Information :  Dwell Temperature :  Dwell Time :  Incinerator Afterburner Temperature :		Degrees Fahrenheit Seconds Degrees Fahrenheit
Emissions Unit Operating Capacity		
1. Maximum Heat Input Rate: 60	mmBtu/hr	
2. Maximum Incinerator Rate:	1b/hr	tons/day
3. Maximum Process or Throughput Rate:	600000	cf/hr
4. Maximum Production Rate:		_
5. Operating Capacity Comment:  The maximum short-term throughput is 60,000 cf be no more than 17,250 cf/hr. Although flexibility limited to start-up, shut-down and warm-up period input to the combustor.	y to use at any tin	ne is requested, actual use would be
Emissions Unit Operating Schedule		
Requested Maximum Operating Schedule :  24 hours/day 52 weeks/year	11	7 days/week 8,760 hours/year
III. Part 4	1- 11	

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## D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Emissions Unit Information Section MWC Auxiliary Burner - Unit #3	6
Rule Applicability Analysis	
Refer to Volume 2, Section 2, for Rule App	plicability Analysis.

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Emissions Unit Information Section	6
MWC Auxiliary Burner - Unit #3	

#### **List of Applicable Regulations**

Refer to Volume 2, Permit Application Text, Section 2, for List of Applicable Regulations.

III. Part 6b - 6

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#### E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section6_				
MWC Auxiliary Burner - Unit #3				
Emission Point Description and Type:				
1. Identification of Point on Plot Plan or Flow Diagram:				
2. Emission Point Type Code: 2				
3. Descriptions of Emission Points Comprising this Emissions U (limit to 100 characters per point)	3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: (limit to 100 characters per point)			
4. ID Numbers or Descriptions of Emission Units with this Emi	ssion Point in Common:			
5. Discharge Type Code:				
6. Stack Height:	feet			
7. Exit Diameter:	feet			
8. Exit Temperature :	°F			
9. Actual Volumetric Flow Rate:	acfm			
10. Percent 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 Comment:				

III. Part 7a - 6

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#### F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 6
MWC Auxiliary Burner - Unit #3
Segment Description and Rate: Segment 1
1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode):
Auxiliary burner will use natural gas
2. Source Classification Code (SCC): 1-02-006-02
3. SCE Units: Million Cubic Feet Burned (all gaseous fuels)
4. Maximum Hourly Rate: 0.06 5. Maximum Annual Rate: 12.56
6. Estimated Annual Activity Factor: 0.00
7. Maximum Percent Sulfur:  8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 1,000
10. Segment Comment:

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## G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

<b>Emissions Unit Information Section</b>	6
MWC Auxiliary Burner - Unit #3	

1. Pollutant Emitted	Primary Control     Device Code	Secondary Control     Device Code	4. Pollutant Regulatory Code
1 - NOX			NS

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## H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section6_ MWC Auxiliary Burner - Unit #3		
Pollutant Potential/Estimated Emissions: Pollutant	_1_	
1. Pollutant Emitted: NOX		
2. Total Percent Efficiency of Control:	%	
3. Potential Emissions : 3.45 lb/hour	15.10	tons/year
4. Synthetically Limited?  [ ] Yes [X ] No		·
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor: Reference: 40 CFR 60.44b(d)		
7. Emissions Method Code: 5		
8. Calculations of Emissions:		-
Burner operating at 115% = 172.5 MMBtu/hr, but restricted	ed to 10 %/yr op	peration = 17.25 MMBtu/hr
200 lb/10^6 cf NG * 17,250,000 Btu/hr * 1 cf NG/1000 Bt	tu = 3.45  lb/hr	
3.45 lb/hr * 1 ton/2000 lb * 8760 hrs/yr = 15.1 tons/yr.		
9. Pollutant Potential/Estimated Emissions Comment:		
Emission Factor: 200 lb/MMcu.ft. (ELSA does not print in These emissions are part of, and not in addition to, combust combustors include auxiliary buners.		llowable emissions for

III. Part 9b - 36

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# I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

MWC Auxiliary Burner - Unit #3  Visible Emissions Limitation: Visible Emissions Limitation	1
1. Visible Emissions Subtype: 20	
1. Visible Emissions subtype . 20	
2. Basis for Allowable Opacity: RULE	
3. Requested Allowable Opacity:	
Normal Conditions: 20	%
Exceptional Conditions:  Maximum Period of Excess Opacity Allowed:	% min/hour
4. Method of Compliance:	_
COM	
5. Visible Emissions Comment:	
FAC 62-296.320(4)(b)	

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### K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emissions Unit Information Section6  MWC Auxiliary Burner - Unit #3				
<u>PSI</u>	<u>D</u>	Increment Consumption Determination		
1.	[n	crement Consuming for Particulate Matter or Sulfur Dioxide?		
[ ]		The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.		
[ X ]	l	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.		
[ ]		The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.		
[ ]		For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.		
[ ]		None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.		

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Z. II	iciement Consu	ililig for ivide	igen Dioxic	16 !		
[X]	The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.					
[ ]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.					
[ ]	[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.					
.[]		▼	_		ll begin) initial oper s unit consumes incr	ration after March 28, 1988. rement.
[ ]	case, additiona	al analysis, be issions have o	yond the sc	ope of th	is application, is ne	s unit are nonzero. In such eded to determine whether he date that may consume or
3. I	ncrement Consu	ming/Expand	ing Code:			
	PM:	С	SO2:	C	NO2 :	С
4. E	Baseline Emissio	ons:				
	PM:		lb/hour			tons/year
	SO2:		lb/hour			tons/year
	NO2:					tons/year
5. F	SD Comment:					

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#### L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

6

MWC Auxiliary Burner - Unit #3 Supplemental Requirements for All Applications	
1. Process Flow Diagram:	App. A, Fig. 3
2. Fuel Analysis or Specification:	NA
3. Detailed Description of Control Equipment:	NA
4. Description of Stack Sampling Facilities :	NA
5. Compliance Test Report :	NA
6. Procedures for Startup and Shutdown:	NA
7. Operation and Maintenance Plan :	NA
8. Supplemental Information for Construction Permit Application:	Volume 2
9. Other Information Required by Rule or Statue :	NA
Additional Supplemental Requirements for Category I Application	ns Only
10. Alternative Methods of Operations:	NA
11. Alterntive Modes of Operation (Emissions Trading):	NA

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**Emissions Unit Information Section** 

12. Identification of Add	litional Applicable Requirements:	NA
13. Compliance Assurar Plan:	nce Monitoring	NA
14. Acid Rain Applicati	on (Hard-copy Required):	
NA	NA Acid Rain Part - Phase II (Form	
NA Repowering Extension Plan (Fo		orm No. 62-210.900(1)(a)1.)
NA New Unit Exemption (Form No. 62-210.900(1)(a)2.)		o. 62-210.900(1)(a)2.)
NA Retired Unit Exemption (Form		No. 62-210.900(1)(a)3.)

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#### III. EMISSIONS UNIT INFORMATION

## A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissions	Unit Information Section7			
Ash Buildin	Ash Building and Handling Systems			
Type of E	missions Unit Addressed in This Section			
1. Regulat	ted or Unregulated Emissions Unit? Check one:			
	The emissions unit addressed in this Emissions Unit Information Section is a regulated missions unit.			
	he emissions unit addressed in this Emissions Unit Information Section is an unregulated missions unit.			
2. Single F	Process, Group of Processes, or Fugitive Only? Check one:			
pı	This Emissions Unit Information Section addresses, as a single emissions unit, a single rocess or production unit, or activity, which produces one or more air pollutants and which as at least one definable emission point (stack or vent).			
pı	This Emissions Unit Information Section addresses, as a single emissions unit, a group of rocess 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 rocess or production units and activities which produce fugitive emissions only.			

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## B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

#### **Emissions Unit Description and Status**

1. Description of Emissions Unit	Addressed in This Section:	
Ash Building and Handling Syste	ems	
Emissions Unit Identification     No Corresponding I		ıknown
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code: 49
6. Emissions Unit Comment :		

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Ash Building and Handling Systems	
Emissions Unit Control Equipment 1	
1. Description:	
Fabric filter on building exhaust vent.	
2. Control Device or Method Code: 18	

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Emissions Unit Information Section 7 Ash Building and Handling Systems
Emissions Unit Control Equipment 2
1. Description:
Enclosed building and conveyance systems.
2. Control Device or Method Code: 54

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Emissions Unit Information Section 7 Ash Building and Handling Systems
Emissions Unit Control Equipment3_
1. Description:
Ash is wet and building has water sprays.
2. Control Device or Method Code: 61

III. Part 3 - 18

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## C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section  Ash Building and Handling Systems	7	
Emissions Unit Details		
1. Initial Startup Date:	18-Dec-1986	
2. Long-term Reserve Shutdown Date:		
3. Package Unit: Manufacturer:		Model Number :
4. Generator Nameplate Rating:	MW	
5. Incinerator Information :  Dwell Temperature :  Dwell Time :  Incinerator Afterburner Temperature :		Degrees Fahrenheit Seconds Degrees Fahrenheit
Emissions Unit Operating Capacity		
1. Maximum Heat Input Rate:	mmBtu/hr	
2. Maximum Incinerator Rate:	lb/hr	, tons/day
3. Maximum Process or Throughput Rate:	100800	tons per year
4. Maximum Production Rate:		
5. Operating Capacity Comment:		
Emissions Unit Operating Schedule		
Requested Maximum Operating Schedule: 24 hours/da 52 weeks/y	•	7 days/week 8,760 hours/year

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## D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Cmissions Unit Information Section7 Ash Building and Handling Systems				
Rule Applicability Analysis				
Refer to Volume 2, Section 2, for Rule Applicability Analysis.				

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DEP Form No. 62-210.900(1) - Form

<b>Emissions Unit Information Section</b>	7
Ash Building and Handling Systems	

### List of Applicable Regulations

Refer to Volume 2, Permit Application Text, Section 2, for Applicable Regulations

III. Part 6b - 7

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#### E. EMISSION POINT (STACK/VENT) INFORMATION

7\_\_\_

Emission Point Description and Type:					
1.	1. Identification of Point on Plot Plan or Flow Diagram:				
2.	Emission Point Type Code: 3				
3.	Descriptions of Emission Points Comprising this Emissions U	nit:			
	Particulate matter emissions from fabric filter on building exhaust v	ent			
4.	. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:				
	Ash handling building and conveyance systems				
5.	Discharge Type Code:	R			
6.	Stack Height:	5	feet		
7.	Exit Diameter:	2.00	feet		
8.	Exit Temperature :	77	°F		
9.	Actual Volumetric Flow Rate:	12,000	acfm		
10.	Percent Water Vapor :	5.00	%		
11.	Maximum Dry Standard Flow Rate:		dscfm		
12.	Nonstack Emission Point Height:		feet		
13.	. Emission Point UTM Coordinates :				
	Zone: East (km):	North (kn	n):		
14	Emission Point Comment: The ash handling building and systems are existing, and will not b	e altered.			

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**Emissions Unit Information Section** 

Ash Building and Handling Systems

### F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section7  Ash Building and Handling Systems  Segment Description and Rate: Segment1							
					1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode):		
					Quenched ash has metals removed, and is loaded into	o trucks for transport to disposal.	
2. Source Classification Code (SCC): 5-01-999-99							
a aggretic — —	·						
3. SCC Units: Tons Processed							
4. Maximum Hourly Rate: 5	Maximum Annual Rate: 100,800.00						
6. Estimated Annual Activity Factor: 0.00	·						
7. Maximum Percent Sulfur:	. Maximum Percent Ash:						
9. Million Btu per SCC Unit:							
10. Segment Comment:							
This is an existing process that would not change with the Retrofit.							

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DEP Form No. 62-210.900(1) - Form Effective : 3-21-96

### G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

<b>Emissions Unit Information Section</b>	7
Ash Building and Handling Systems	

1. Pollutant Emitted	Primary Control     Device Code	Secondary Control     Device Code	Pollutant     Regulatory Code
1 - PM	018		EL
2 - PM	061	054	NS

### H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section Ash Building and Handling Systems	n <u>7</u>			
Pollutant Potential/Estimated Emission	ns: Pollutant	1		
1. Pollutant Emitted: PM				
2. Total Percent Efficiency of Control:		%		
3. Potential Emissions:	lb/hour		tons/year	
4. Synthetically Limited?  [ ] Yes [ ] No				
5. Range of Estimated Fugitive/Other En	nissions:	•	to	tons/year
6. Emissions Factor : Reference :				
7. Emissions Method Code:				
8. Calculations of Emissions:				
9. Pollutant Potential/Estimated Emission	ns Comment :			

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### H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Ash Building and Handling Systems				
Pollutant Potential/Estimated Emissions: Pollu	ıtant <u>2</u>			
1. Pollutant Emitted: PM				
2. Total Percent Efficiency of Control:	%			
3. Potential Emissions:		·	tons/year	
4. Synthetically Limited?  [ ] Yes [ ] No				
5. Range of Estimated Fugitive/Other Emissions:		to		tons/year
6. Emissions Factor: Reference:				
7. Emissions Method Code:				
8. Calculations of Emissions:				
9. Pollutant Potential/Estimated Emissions Commen	nt:			
Visible emissions (5% opacity) will occur less than 5 except during periods of maintenance and repair, in a	•			-

III. Part 9b - 38

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	h Building and Handling Systems
	Ilutant Information Section 2
	Basis for Allowable Emissions Code:
2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units:
4.	Equivalent Allowable Emissions:
	lb/hour tons/year
5.	Method of Compliance:
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):
	Visible emissions (5% opacity) will occur less than 5 percent of the time from ash transfer systems, except during periods of maintenance and repair, in accordance with the Emission Guidelines.

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# I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Ash Building and Handling Systems  Visible Emissions Limitation: Vision	ible Emissions Limi	tation	1	
1. Visible Emissions Subtype:	05			
2. Basis for Allowable Opacity:	RULE			
3. Requested Allowable Opacity:				
Norm	al Conditions:	5	%	
Exception	al Conditions:		%	
Maximum Period of Excess Opac	city Allowed:	3	min/hour	
4. Method of Compliance:				
Method 22				
5. Visible Emissions Comment:			-	

III. Part 10 - 7

DEP Form No. 62-210.900(1) - Form

### K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emissions Unit Information Section7
Ash Building and Handling Systems
PSD Increment Consumption Determination
1. Increment Consuming for Particulate Matter or Sulfur Dioxide?
[X] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
[ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

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2.	In	crement Consur	ning for Nitroge	en Dioxide?			
[	]		has undergone	n this section is under PSD review previously		ew as part of this loxide. If so, emissions	
[	]	paragraph (c) of and the emission	of the definition ons unit address	<del>-</del>	r pollution" in C nenced (or will c	Chapter 62-213, F.A.C., commence) construction	
[	]	The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.					
[	]			unit began (or will be ero, and emissions unit		tion after March 28, 1988. ment.	
[	]	] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.					
3.	. It	ncrement Consu	ming/Expandin	g Code :			
		PM:	С	SO2:	NO2:		
4	. В	aseline Emission	ns:				
		PM:		lb/hour		tons/year	
		SO2:		lb/hour		tons/year	
		NO2:				tons/year	
5	. P	SD Comment:					

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DEP Form No. 62-210.900(1) - Form

#### L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 7	
Ash Building and Handling Systems	
Supplemental Requirements for All Applications	
1. Process Flow Diagram:	App. A, Fig. 3
2. Fuel Analysis or Specification:	NA
3. Detailed Description of Control Equipment :	to be provided
4. Description of Stack Sampling Facilities:	NA
5. Compliance Test Report :	NA
6. Procedures for Startup and Shutdown:	NA
7. Operation and Maintenance Plan:	NA
8. Supplemental Information for Construction Permit Application:	Volume 2
9. Other Information Required by Rule or Statue:	NA
Additional Supplemental Requirements for Category I Application	s Only
10. Alternative Methods of Operations:	NA
11. Alterntive Modes of Operation (Emissions Trading):	NA

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DEP Form No. 62-210.900(1) - Form

12. Identification of A	dditional Applicable Requirements:	NA
13. Compliance Assur Plan:	rance Monitoring	NA
14. Acid Rain Applica	ation (Hard-copy Required):	
NA	Acid Rain Part - Phase II (	(Form No. 62-210.900(1)(a))
NA	Repowering Extension Pla	an (Form No. 62-210.900(1)(a)1.)
NA	New Unit Exemption (For	rm No. 62-210.900(1)(a)2.)
NA	Retired Unit Exemption (F	Form No. 62-210.900(1)(a)3.)
	e distant	as the second of

DEP Form No. 62-210.900(1) - Form Effective: 3-21-96

#### III. EMISSIONS UNIT INFORMATION

### A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissio	ons Unit Information Section 8
Lime Sile	0
Type of	Emissions Unit Addressed in This Section
1. Regu	alated or Unregulated Emissions Unit? Check one:
[X]	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.
2. Singl	le Process, Group of Processes, or Fugitive Only? Check one:
[ X]	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.

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# B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

### **Emissions Unit Description and Status**

1. Description of Emissions Unit	Addressed in This Section:			
Lime Silo				
	N. I. and			
2. Emissions Unit Identification Number: 008  [ ] No Corresponding ID [ ] Unknown				
3. Emissions Unit Status Code: C	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code: 49		
6. Emissions Unit Comment:				
A lime storage silo will be equipped with a FF system designed for an outlet grain loading of 0.030 gr/dscf or less.				

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Emissions Unit Information Section8 Lime Silo
Emissions Unit Control Equipment 1
1. Description:
Fabric filter designed for an outlet grain loading of 0.03 gr/dscf or less.
2. Control Device or Method Code: 18

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# C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

01-Oct-2000	
	-
	Model Number:
MW	
	Degrees Fahrenheit Seconds Degrees Fahrenheit
mmBtu/hr	
lb/hr	tons/day
4200	tons/yr
y ear	7 days/week 8,760 hours/year
	mmBtu/hr lb/hr 4200

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# D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Emissions Unit Information Section 8 Lime Silo
Rule Applicability Analysis
Refer to Volume 2, Section 2, for Rule Applicability Analysis.

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<b>Emissions</b>	<b>Unit Information Section</b>	8
Lime Silo		

#### **List of Applicable Regulations**

Refer to Volume 2, Permit Application Text, Section 2, for List of Applicable Regulations.

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### E. EMISSION POINT (STACK/VENT) INFORMATION

8

Lime Silo				
Emission Point Descr	iption and Type:			
1. Identification of I	Point on Plot Plan or Flow	Diagram :	Lime Storage	Silo
2. Emission Point T	ype Code :	1		
(limit to 100 charac	mission Points Comprising ters per point) the lime silo. Doorway for tr		s Unit for VE	Tracking:
4. ID Numbers or D	escriptions of Emission Un	nits with this E	mission Point	in Common:
5. Discharge Type (	Code:		F	
6. Stack Height:				feet
7. Exit Diameter:				feet
8. Exit Temperature	:		77	°F
9. Actual Volumetri	c Flow Rate :			acfm
10. Percent Water V	apor:			%
11. Maximum Dry S	Standard Flow Rate:			dscfm
12. Nonstack Emiss	ion Point Height :			feet
13. Emission Point	JTM Coordinates:			
Zone:	East (km):		North (kr	n) :
14. Emission Point ( Emissions would yet been developed)	occur during the unloading o	of one 20-ton tru	ck per hour. De	esign information has not

III. Part 7a - 7

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

### F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 8	_
Lime Silo	
Segment Description and Rate: Segment	1
1. Segment Description (Process/Fuel Type and	Associated Operating Method/Mode):
Temporary storage of lime	
2. Source Classification Code (SCC):	
time alaman properties and the second time to the second particles and the second time and the second time and	
3. SCC Units: Tons Stored	
<b>,</b> '	·
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 4,380.00
6. Estimated Annual Activity Factor: 0.00	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
·	
9. Million Btu per SCC Unit:	
·	
10. Segment Comment:	
The annual usage of lime is based on 20 lb of lim	e for every ton of refuse.

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DEP Form No. 62-210.900(1) - Form

# G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section	8
Lime Silo	

1. Pollutant Emitted	Primary Control     Device Code	Secondary Control     Device Code	4. Pollutant Regulatory Code
1 - PM	018		EL

DEP Form No. 62-210.900(1) - Form

# H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section Lime Silo	8			
Pollutant Potential/Estimated Emission	s: Pollutan	t <u>1</u>	·	
1. Pollutant Emitted: PM				
2. Total Percent Efficiency of Control:		%		
3. Potential Emissions:	lh/hour	1 25	tonskioor	
0.31	lb/hour	1.35	tons/year	
4. Synthetically Limited?  [ ] Yes [X ] No				
5. Range of Estimated Fugitive/Other En	nissions:			,
		to	to	ns/year
6. Emissions Factor: Reference: Vol. 1, Sec. 2				
7. Emissions Method Code: 0				
8. Calculations of Emissions:				
0.030 gr/dscf *1200 dscfm * 1 lb/7000 g	gr * 60 min/hr =	0.154 lb/hr		
0.154 lb/hr * 1 ton/2000 lbs * 8760 hrs/	yr = 1.35  ton/yr			
9. Pollutant Potential/Estimated Emission	ns Comment:			
Emission factor = 0.030 gr/dscf (ELSA does not print this in Item #6.)				

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Emissions Unit Information Section Lime Silo	<del></del>		
Pollutant Information Section1			
Allowable Emissions 1			
1. Basis for Allowable Emissions Code:	RULE		
2. Future Effective Date of Allowable Emission	as:		
3. Requested Allowable Emissions and Units:	0.03	gr/ds	cf
4. Equivalent Allowable Emissions:			
•	lb/hour	1.35	tons/year
5. Method of Compliance:			
No visible emissions (VE exemptions)			2.4
6. Pollutant Allowable Emissions Comment (De	esc. of Related Op	erating Meth	od/Mode):
FAC 62-296.711(2)(b) PM RACT for silos Method 9 Visible Emissions test requested in lieu	u of stack test.		

DEP Form No. 62-210.900(1) - Form Effective: 3-21-96

# I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Lime Silo			
Visible Emissions Limitation: Visib	le Emissions Limitation	1	
1. Visible Emissions Subtype:	5		
2. Basis for Allowable Opacity:	RULE	<u> </u>	
. ,			
3. Requested Allowable Opacity:			
	1 Conditions: 5 1 Conditions: ty Allowed:	% % min/hour	
4. Method of Compliance:			
Annual test; Method 9			
5. Visible Emissions Comment:			,
FAC 62-297.620(4)			

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# K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

$\mathbf{E}$	mis	sions Unit Information Section 8		
Li	Lime Silo			
PSD Increment Consumption Determination				
1.	In	crement Consuming for Particulate Matter or Sulfur Dioxide?		
]	j	The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.		
[ 2	K]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.		
]	]	The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.		
[	]	For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.		
]	]	None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.		

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2.	2. Increment Consuming for Nitrogen Dioxide?						
[	]	] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.					
[	] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.						
[	]	unit began init	ial opera		, 1988, but before March	or source, and the emissions h 28, 1988. If so, baseline	
[	]			_	r will begin) initial operations unit consumes incre	ation after March 28, 1988. ement.	
[	None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.						
3.	In	crement Consu	ming/Ex	panding Code:			
		PM:	С	SO2:	NO2:		
4.	В	aseline Emission	ns:				
		PM:		0.0000 lb/hour		tons/year	
		SO2:		lb/hour		tons/year	
		NO2:				tons/year	
5.	P	SD Comment:					

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### L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Lime Silo				
Supplemental Requirements for All Applications				
1. Process Flow Diagram:	App. A, Fig. 3			
2. Fuel Analysis or Specification:	NA			
3. Detailed Description of Control Equipment :	To be provided			
4. Description of Stack Sampling Facilities :	NA			
5. Compliance Test Report :	NA			
6. Procedures for Startup and Shutdown:	NA			
7. Operation and Maintenance Plan:	NA .			
8. Supplemental Information for Construction Permit Application:	Volume 2			
9. Other Information Required by Rule or Statue:	NA			
Additional Supplemental Requirements for Category I Applications Only				
10. Alternative Methods of Operations:	NA			
11. Alterntive Modes of Operation (Emissions Trading):	NA			

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**Emissions Unit Information Section** 

12. Identification of A	Additional Applicable Requirements:	NA		
13. Compliance Assu Plan:	NA			
14. Acid Rain Application (Hard-copy Required):				
NA	Acid Rain Part - Phase II (Fo	e II (Form No. 62-210.900(1)(a))  n Plan (Form No. 62-210.900(1)(a)1.)  (Form No. 62-210.900(1)(a)2.)		
NA	Repowering Extension Plan			
NA	New Unit Exemption (Form			
NA	Retired Unit Exemption (For	rm No. 62-210.900(1)(a)3.)		

### III. EMISSIONS UNIT INFORMATION

### A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

En	Emissions Unit Information Section 9					
Cai	bon S	Silo				
<u>Ty</u>	pe of	f Emissions Unit Addressed in This Section				
1.	1. Regulated or Unregulated Emissions Unit? Check one:					
[	[X] 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.				
2.	Sing	le Process, Group of Processes, or Fugitive Only? Check one:				
[	X]	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.				

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<b>Emissions</b>	<b>Unit Information Section</b>	9
------------------	---------------------------------	---

### B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

### **Emissions Unit Description and Status**

1. Description of Emissions Unit Addressed in This Section:						
Carbon Silo	Carbon Silo					
	2. Emissions Unit Identification Number: 009  [ ] No Corresponding ID [ ] Unknown					
3. Emissions Unit Status Code: C	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code: 49				
6. Emissions Unit Comment:  A carbon silo will be equipped with a FF system designed for an outlet grain loading of 0.030 gr/dscf or less.						

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Carbon Silo
Emissions Unit Control Equipment 1
1. Description:
Fabric filter designed for an outlet grain loading of 0.030 gr/dscf or less.
2. Control Device or Method Code: 18

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# C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

Carbon Silo	<u>9</u>	
<b>Emissions Unit Details</b>		
1. Initial Startup Date:	01-Oct-2000	
2. Long-term Reserve Shutdown Date:		
3. Package Unit: Manufacturer: Information to be provided.		Model Number:
4. Generator Nameplate Rating:	MW	
5. Incinerator Information :  Dwell Temperature :  Dwell Time :  Incinerator Afterburner Temperature :		Degrees Fahrenheit Seconds Degrees Fahrenheit
Emissions Unit Operating Capacity		
1. Maximum Heat Input Rate:	mmBtu/hr	
2. Maximum Incinerator Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:	210	tons/yr
4. Maximum Production Rate:		
5. Operating Capacity Comment:		
Emissions Unit Operating Schedule		
Requested Maximum Operating Schedule:  24 hours/da 52 weeks/y	•	7 days/week 8,760 hours/year

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# D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Carbon Silo
Rule Applicability Analysis
Refer to Volume 2, Section 2, for Rule Applicability Analysis.

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Emissions	Unit	Information	Section	9
Carbon Silo	,			

### List of Applicable Regulations

Refer to Volume 2, Permit Application Text, Section 2, for List of Applicable Regulations.

### E. EMISSION POINT (STACK/VENT) INFORMATION

Carbon Silo				
Emission Point Description and Type:				
1. Identification of Point on Plot Plan or Flow Diagram:	Carbon Silo			
2. Emission Point Type Code: 1				
3. Descriptions of Emission Points Comprising this Emission (limit to 100 characters per point)  Baghouse vent on the activated carbon silo. Doorway for truck		Tracking:		
4. ID Numbers or Descriptions of Emission Units with this E	mission Point	in Common:		
5. Discharge Type Code:	F			
6. Stack Height:		feet		
7. Exit Diameter:		feet		
8. Exit Temperature :	77	°F		
9. Actual Volumetric Flow Rate:		acfm		
10. Percent Water Vapor:		%		
11. Maximum Dry Standard Flow Rate:		dscfm		
12. Nonstack Emission Point Height:		feet ·		
13. Emission Point UTM Coordinates:		-		
Zone: East (km):	North (kr	n) :		
14. Emission Point Comment:  Emissions would occur during the unloading of one 20-ton truyet been developed.	ick per hour. De	esign information has not		

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Emissions Unit Information Section

### F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 9	-			
Carbon Silo				
Segment Description and Rate: Segment	1			
1. Segment Description (Process/Fuel Type and A	Associated Operating Method/Mode):			
Temporary storage of activated carbon				
2. Source Classification Code (SCC):				
3. SCC Units: Tons Stored	:			
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 219.00			
6. Estimated Annual Activity Factor: 0.00				
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:			
9. Million Btu per SCC Unit:				
10. Segment Comment:				
The annual usage of carbon is based on 1 lb of activated carbon for every ton of refuse.				

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### **G. EMISSIONS UNIT POLLUTANTS** (Regulated and Unregulated Emissions Units)

<b>Emissions</b>	Unit	Information	Section	9
Carbon Silo				

1. Pollutant Emitted	Primary Control     Device Code	Secondary Control     Device Code	4. Pollutant Regulatory Code
1 - PM	018		EL

III. Part 9a - 9

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# H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section Carbon Silo	9		
Pollutant Potential/Estimated Emissions	Pollutant	_1_	
1. Pollutant Emitted: PM			
2. Total Percent Efficiency of Control:		%	
3. Potential Emissions:			
0.31	lb/hour	1.35	tons/year
4. Synthetically Limited?  [ ] Yes [X ] No			
5. Range of Estimated Fugitive/Other Emi	issions:		
		to	tons/year
6. Emissions Factor: Reference: Vol. 2, Sec. 2			
7. Emissions Method Code: 0			
8. Calculations of Emissions:			
0.030 gr/dscf *1200 dscfm * 1 lb/7000 gr	* * 60 min/hr = 0	).154 lb/hr	
0.154 lb/hr * 1 ton/2000 lbs * 8760 hrs/yr	r = 1.35 ton/yr		
9. Pollutant Potential/Estimated Emissions	s Comment:		
Emission Factor: 0.03 gr/dscf (ELSA does not print in Item #6.)			
<u> </u>			

III. Part 9b - 40

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Emissions Unit Information Section 9 Carbon Silo			
Pollutant Information Section1			
Allowable Emissions 1			
1. Basis for Allowable Emissions Code:	RULE		
2. Future Effective Date of Allowable Emission	as:		
3. Requested Allowable Emissions and Units :	0.03	gr/dso	ef
4. Equivalent Allowable Emissions:			
0.31	lb/hour	1.35	tons/year
5. Method of Compliance:			
No visible emissions (VE exemptions)			
6. Pollutant Allowable Emissions Comment (D	esc. of Related Op	erating Metho	od/Mode) :
FAC 62-296.711(2)(b) PM RACT for silos Method 9 vistible emission test requested in lieu	of stack test.		

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### I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Carbon Silo	9	
Visible Emissions Limitation: Visib	le Emissions Limitation _	1
1. Visible Emissions Subtype:	5	
2. Basis for Allowable Opacity:	RULE	
3. Requested Allowable Opacity:		·
	Conditions: 5 Conditions: ty Allowed:	% % min/hour
4. Method of Compliance:		-
Annual test; Method 9		
5. Visible Emissions Comment:		
FAC 62-297.620(4)		•

III. Part 10 - 9

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### K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emissions Unit Information Section 9			
Carb	on Silo		
<u>PSD</u>	Increment Consumption Determination		
1. Ir	acrement Consuming for Particulate Matter or Sulfur Dioxide?		
[]	The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.		
[X]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.		
[ ]	The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.		
[ ]	For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.		
[ ]	None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.		

III. Part 12 - 17

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2.	2. Increment Consuming for Nitrogen Dioxide?					
[	] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.					
[	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.					
[	]	unit began init	ial operation aft	er February 8	-	or source, and the emissions h 28, 1988. If so, baseline
[	]	•		_	or will begin) initial opera sions unit consumes incre	ation after March 28, 1988. ement.
[	None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.					
3.	In	crement Consu	ming/Expandin	g Code:		••
		PM:	С	SO2:	NO2:	
4.	В	aseline Emissio	ns:			
		PM:	0.0000	lb/hour	·	tons/year
		SO2:		lb/hour		tons/year
		NO2:				tons/year
5.	5. PSD Comment:					

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### L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 9			
Carbon Silo			
Supplemental Requirements for All Applications			
1. Process Flow Diagram:	App. A, Fig. 3		
2. Fuel Analysis or Specification :	NA		
3. Detailed Description of Control Equipment :	To be provided		
4. Description of Stack Sampling Facilities:	NA		
5. Compliance Test Report :	NA		
6. Procedures for Startup and Shutdown:	NA		
7. Operation and Maintenance Plan:	NA		
8. Supplemental Information for Construction Permit Application :	Volume 2		
9. Other Information Required by Rule or Statue:	NA		
Additional Supplemental Requirements for Category I Applications Only			
10. Alternative Methods of Operations:	NA		
11. Alterntive Modes of Operation (Emissions Trading):	NA		

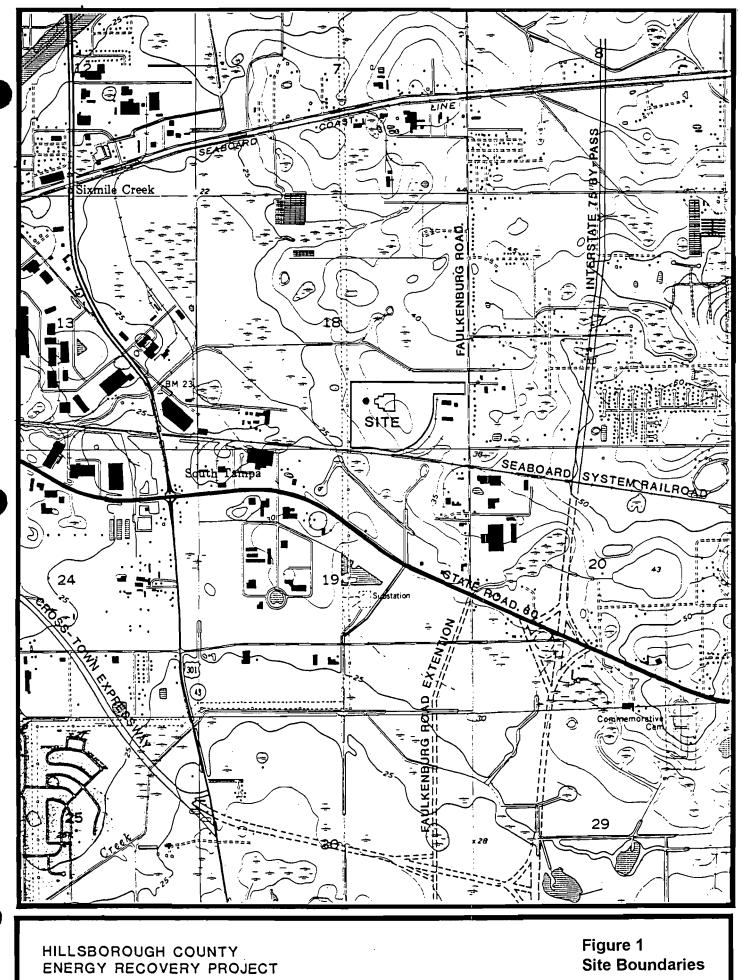
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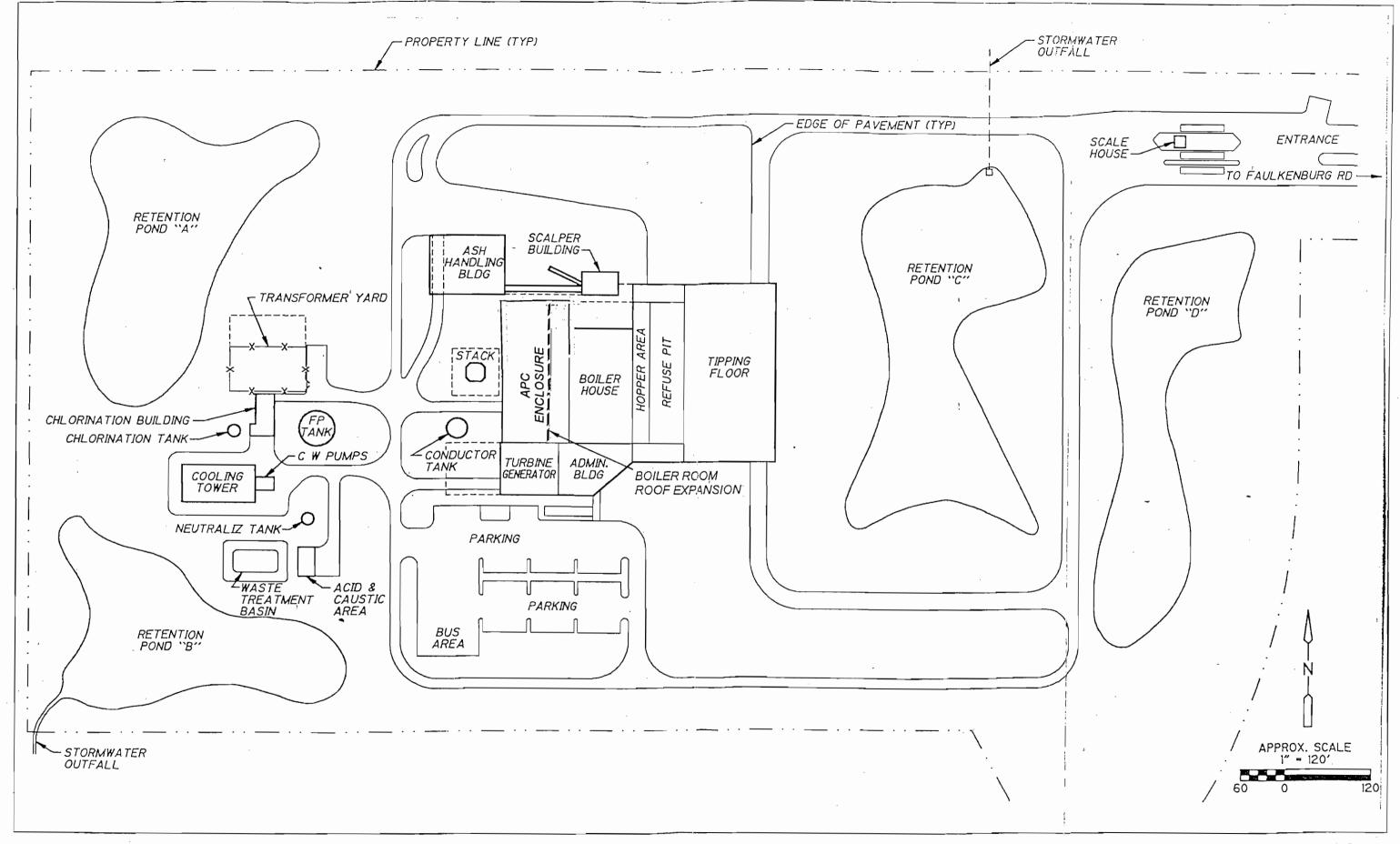
12. Identification of Additional Applicable Requirements :		NA
13. Compliance Assurance Monitoring Plan:		NA
14. Acid Rain Applic	cation (Hard-copy Required):	
NA	Acid Rain Part - Phase II (Fo	orm No. 62-210.900(1)(a))
NA Repowering Extension Plan (		(Form No. 62-210.900(1)(a)1.)
NA New Unit Exemption (Form No. 62-210.900(1)(a)2.)		No. 62-210.900(1)(a)2.)
NA	Retired Unit Exemption (For	rm No. 62-210.900(1)(a)3.)

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Appendix A



FEET 



Hillsborough County Solid Waste Energy Recovery Facility

Figure 2
Existing and Future Facility Layout

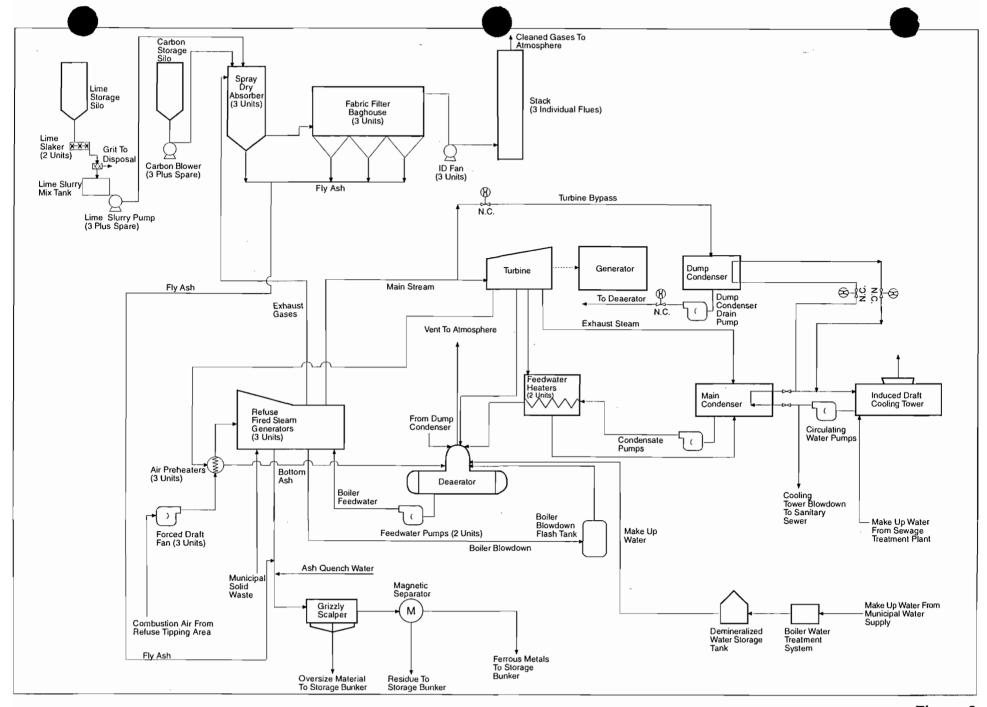


Figure 3
Hillsborough County Solid Waste Resource Recovery Facility
Overall Process Flow Diagram

# Appendix A Attachment 1

#### **Precautions to Prevent Emissions of Unconfined Particulate Matter**

#### Precautions include the following:

- Roads, parking area and yards are paved.
- A street sweeper equipped with a vacuum system is used to remove particulate matter from roads and other paved areas.
- The unpaved areas of the facility are maintained and either sodded or landscaped.
- The combustion system is maintained under negative pressure.
- Enclosed hoods, fans, filters, or similar equipment is used to contain and capture particulate matter.
- The bottom and fly ash conveyor systems are totally enclosed.
- The ash is wetted before being stored in the ash storage building.
- Ash is loaded into trucks inside a totally enclosed building equipped with a dust collector.

# Appendix A Attachment 2

### **List of Potential Fugitive Emissions**

The following processes have been identified as contributing to fugitive emissions:

- Mobile operating equipment including the front-end loaders, street sweeper and forklift.
- The Cooling Tower evaporation and drift.
- Yard waste composting on site.
- Ash truck loading.
- Operation of refuse, ash and compost trucks and vehicles.