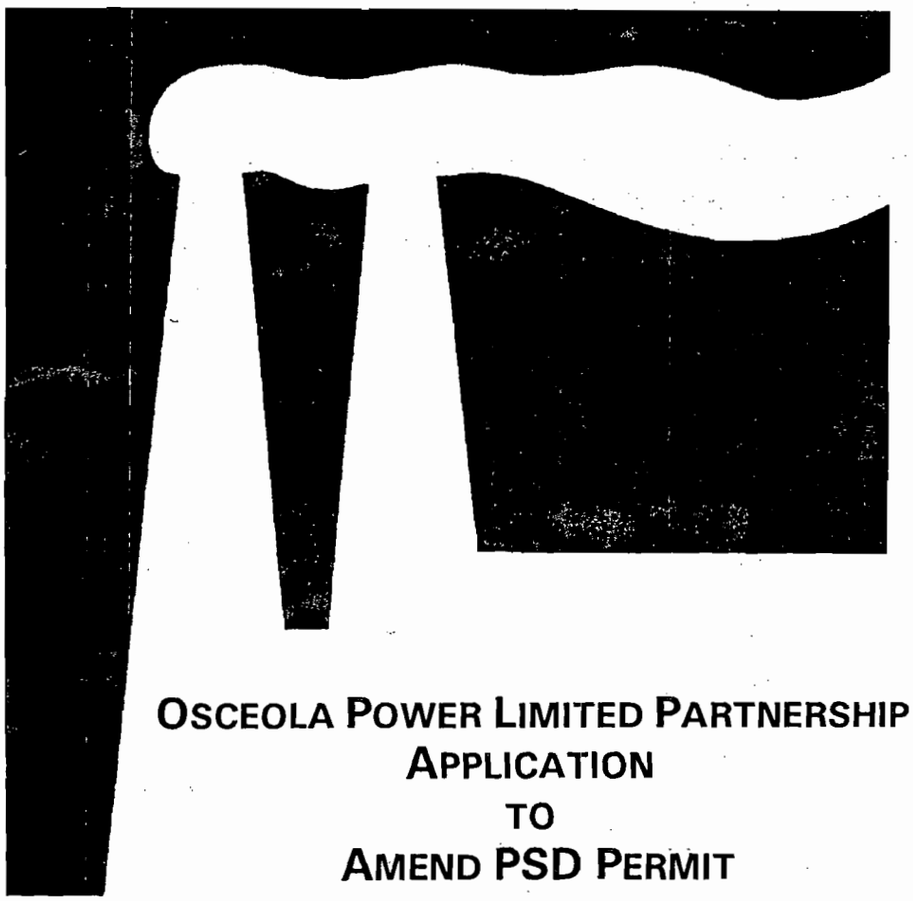

OSCEOLA POWER LIMITED PARTNERSHIP
APPLICATION
TO
AMEND PSD PERMIT

PREPARED BY:
KBN ENGINEERING AND APPLIED SCIENCES, INC.
6241 NW 23RD STREET
GAINESVILLE, FL 32653-1500

MAY 1996
9651011Y/F1

APPLICATION TO AMEND PSD PERMIT FOR OSCEOLA POWER LIMITED PARTNERSHIP

Prepared For:

Osceola Power Limited Partnership
P.O. Box 606
Pahokee, Florida 33476

Prepared By:

KBN Engineering and Applied Sciences, Inc.
6241 NW 23rd Street
Gainesville, Florida 32653-1500

May 1996
9651011Y/F1

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PART A

PERMIT APPLICATION FORM

OSCEOLA POWER LIMITED PARTNERSHIP

Department of
Environmental Protection

DIVISION OF AIR RESOURCES MANAGEMENT

APPLICATION FOR AIR PERMIT - LONG FORM

See Instructions for Form No. 62-210.900(1)

I. APPLICATION INFORMATION

This section of the Application for Air Permit form identifies the facility and provides general information on the scope and purpose of this application. This section also includes information on the owner or authorized representative of the facility (or the responsible official in the case of a Title V source) and the necessary statements for the applicant and professional engineer, where required, to sign and date for formal submittal of the Application for Air Permit to the Department. If the application form is submitted to the Department using ELSA, this section of the Application for Air Permit must also be submitted in hard-copy.

Identification of Facility Addressed in This Application

Enter the name of the corporation, business, governmental entity, or individual that has ownership or control of the facility; the facility site name, if any; and the facility's physical location. If known, also enter the facility identification number.

1. Facility Owner/Company Name: **Osceola Power Limited Partnership**	
2. Site Name: **Osceola Power L.P.**	
3. Facility Identification Number: **0990331**	[ ] Unknown
4. Facility Location Information: Street Address or Other Locator: **U.S. 98 and Hatton Highway** City: **Pahokee** County: **Palm Beach** Zip Code: **33476**	
5. Relocatable Facility? [ ] Yes [x] No	6. Existing Permitted Facility? [x] Yes [ ] No

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	5-16-96
2. Permit Number:	0990331-003-AC
3. PSD Number (if applicable):	PSD-FL-197C
4. Siting Number (if applicable):	

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official:

   Don Schaberg, General Manager

2. Owner/Authorized Representative or Responsible Official Mailing Address:

Organization/Firm: **Osceola Power Limited Partnership**
Street Address: **P.O. Box** 606
City: **Pahokee** State: **FL** Zip Code: **33476**

3. Owner/Authorized Representative or Responsible Official Telephone Numbers:

Telephone: 407-924-9000 Fax: (407)**924-7428**

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 unit.*

Signature: Don Schaberg Date: 5/14/96

* Attach letter of authorization if not currently on file.

Scope of Application

This Application for Air Permit addresses the following emissions unit(s) at the facility. An Emissions Unit Information Section (a Section III of the form) must be included for each emissions unit listed.

Emissions Unit ID		Description of Emissions Unit	Permit Type
Unit #	Unit ID		
1R	001	Boiler No.1 fired by Biomass/No.2 oil/Coal/TDF	ACM2
2R	002	Boiler No.2 fired by Biomass/No.2 oil/Coal/TDF	ACM2
3R		Fugitive Emissions from Biomass/Coal/Ash Handling	ACM2

See individual Emissions Unit (EU) sections for more detailed descriptions.
Multiple EU IDs indicated with an asterisk (*). Regulated EU indicated with an "R".

Purpose of Application and Category

Check one (except as otherwise indicated):

Category I: All Air Operation Permit Applications Subject to Processing Under Chapter 62-213, F.A.C.

This 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: _____

[ ] 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 renewed: _____

[ ] 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. Also check Category III.

Operation permit to be revised/corrected: _____

_____

[ ] Air operation permit revision for a Title V source for reasons other than construction or modification of an emissions unit. Give reason for the revision e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.

Operation permit to be revised: _____

Reason for revision: _____

_____

Category II: All Air Construction Permit Applications Subject to Processing Under Rule 62-210.300(2)(b),F.A.C.

This Application for Air Permit is submitted to obtain:

[ ] 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 Rule 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. Give reason for revision; e.g.; to address one or more newly constructed or modified emissions units.

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: _____

AC 50-269980

[ ] 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.

Application Processing Fee

Check one:

[ ] Attached - Amount: $ **$ 250.00** [ ] Not Applicable.

Construction/Modification Information

1. Description of Proposed Project or Alterations:

This application proposes revisions to the current construction permit to accommodate tire-derived fuel utilization. Construction of a.74 MW Biomass fired cogeneration facility.

2. Projected or Actual Date of Commencement of Construction :

1 Jul 1996

3. Projected Date of Completion of Construction :

1 Jun 1997

Professional Engineer Certification

1. Professional Engineer Name: **David A. Buff**
   Registration Number: **19011**

2. Professional Engineer Mailing Address:
   Organization/Firm: **KBN Eng and Applied Sciences, Inc.**
   Street Address: **6241 NW 23rd Street, Suite 500**
   City: **Gainesville** State: **FL** Zip Code: **32653-1500**

3. Professional Engineer Telephone Numbers:
   Telephone: **(352) 336-5600** Fax: **(352) 336-6603**

4. Professional Engineer's Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

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 unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

David A. Buff — 5/3/96

Signature — Date

(seal)

* Attach any exception to certification statement.

Application Contact

1. Name and Title of Application Contact:
   David A. Buff,

2. Application Contact Mailing Address:

   Organization/Firm: **KBN Eng and Applied Sciences**
   Street Address: **6241 NW 23rd Street, Suite 500**
   City: **Gainesville** State: **FL** Zip Code: **32653-1500**

3. Application Contact Telephone Numbers:

   Telephone: **(352) 336-5600** Fax: **(352) 336-6603**

Application Comment

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates:
   Zone: 17 East (km): 544.2 North (km): 2968.0

2. Facility Latitude/Longitude:
   Latitude (DD/MM/SS): 26 / 49 / 45 Longitude: (DD/MM/SS): 80 / 33 / 0

3. Governmental Facility Code:	4. Facility Status Code:	5. Facility Major Group SIC Code:	6. Facility SIC(s):
0	A	49	

7. Facility Comment (limit to 500 characters):
   74 MW Electric Cogen using biomass, oil, coal, or tire-derived fuel

Facility Contact

1. Name and Title of Facility Contact:
   S. Donald Schaberg, P.E.

2. Facility Contact Mailing Address:
   Organization/Firm: Osceola Power Limited Partnership
   Street Address: P.O. Box 606
   City: Pahokee State: FL Zip Code: 33476

3. Facility Contact Telephone Numbers:
   Telephone: 407-924-9000 Fax: (407)924-7428

Facility Regulatory Classifications

1. Small Business Stationary Source? [ ] Yes [x] No [ ] Unknown
2. Title V Source? [x] Yes [ ] No
3. Synthetic Non-Title V Source? [ ] Yes, [x] No
4. Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)? [x] Yes [ ] No
5. Synthetic Minor Source of Pollutants Other than HAPs? [ ] Yes [x] No
6. Major Source of Hazardous Air Pollutants (HAPs)? [x] Yes [ ] No
7. Synthetic Minor Source of HAPs? [ ] Yes [x] No
8. One or More Emissions Units Subject to NSPS? [x] Yes [ ] No
9. One or More Emissions Units Subject to NESHAP? [ ] Yes [x] No
10. Title V Source by EPA Designation? [ ] Yes [x] No
11. Facility Regulatory Classifications Comment (limit to 200 characters):

B. FACILITY REGULATIONS

Rule Applicability Analysis (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)

Not Applicable

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

62-210.300
62-212.300

C. FACILITY POLLUTANTS

Facility Pollutant Information

1. Pollutant Emitted		2. Pollutant Classification
PM	Particulate Matter - Total	A
PM10	Particulate Matter - PM10	A
SO2	Sulfur Dioxide	A
NOx	Nitrogen Oxides	A
CO	Carbon Monoxide	A
VOC	Volatile Organic Compounds	A
PB	Lead - Total	B
H114	Mercury Compounds	B
H021	Beryllium Compounds	B
FL	Fluorides - Total	B
SAM	Sulfuric Acid Mist	B
HAPS	Total Hazardous Air Pollutants	A
H106	Hydrochloric acid	A

D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Detail Information:

1. Pollutant Emitted:		
2. Requested Emissions Cap:	(lb/hr)	(tons/yr)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment (limit to 400 characters):		

Facility Pollutant Detail Information:

1. Pollutant Emitted:		
2. Requested Emissions Cap:	(lb/hr)	(tons/yr)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment (limit to 400 characters):		

E. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements for All Applications

1. Area Map Showing Facility Location:
   [X] Attached, Document ID: PART B
   [ ] Not Applicable [ ] Waiver Requested

2. Facility Plot Plan:
   [X] Attached, Document ID: PART B
   [ ] Not Applicable [ ] Waiver Requested

3. Process Flow Diagram(s):
   [X] Attached, Document ID(s): PART B
   [ ] Not Applicable [ ] Waiver Requested

4. Precautions to Prevent Emissions of Unconfined Particulate Matter:
   [X] Attached, Document ID: PART B
   [ ] Not Applicable [ ] Waiver Requested

5. Fugitive Emissions Identification:
   [X] Attached, Document ID: PART B
   [ ] Not Applicable [ ] Waiver Requested

6. Supplemental Information for Construction Permit Application:
   [X] Attached, Document ID: PART B
   [ ] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

7. List of Proposed Exempt Activities:
   [ ] Attached, Document ID: _____
   [X] Not Applicable

8. List of Equipment/Activities Regulated under Title VI:
   [ ] Attached, Document ID: _____
   [ ] Equipment/Activities On site but Not Required to be Individually Listed
   [X] Not Applicable

9. Alternative Methods of Operation:
   [ ] Attached, Document ID: _____
   [X] Not Applicable

10. Alternative Modes of Operation (Emissions Trading):
    [ ] Attached, Document ID: _____
    [X] Not Applicable

11. Identification of Additional Applicable Requirements:
[ ] Attached, Document ID: _____
[x] Not Applicable

12. Compliance Assurance Monitoring Plan:
[ ] Attached, Document ID: _____
[x] Not Applicable

13. Risk Management Plan Verification:

[ ] Plan Submitted to Implementing Agency - Verification Attached
Document ID: _____

[ ] Plan to be Submitted to Implementing Agency by Required Date

[x] Not Applicable

14. Compliance Report and Plan
[ ] Attached, Document ID: _____
[x] Not Applicable

15. Compliance Statement (Hard-copy Required)
[ ] Attached, Document ID: _____
[x] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

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

Type of Emissions Unit Addressed in This Section

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. Single 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.

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

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Boiler No.1 fired by Biomass/No.2 oil/Coal/TDF**		
2. Emissions Unit Identification Number: [ ] No Corresponding ID [ ] Unknown **001**		
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 (limit to 500 characters): **74 MW gross generating capacity for entire facility**		

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters):

ESP - Electrostatic Precipitator

2. Control Device or Method Code: **10**

B.

1. Description (limit to 200 characters):

Selective Non-Catalytic Reduction for NOx

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

C.

1. Description (limit to 200 characters):

Activated Carbon injection system.

2. Control Device or Method Code: **48**

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

Emissions Unit Details

1. Initial Startup Date:	
2. Long-term Reserve Shutdown Date:	
3. Package Unit: Manufacturer:	Model Number:
4. Generator Nameplate Rating:	74 MW
5. Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature:	 °F seconds °F

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate:		760	mmBtu/hr
2. Maximum Incineration Rate:	lbs/hr		tons/day
3. Maximum Process or Throughput Rate:			
4. Maximum Production Rate:			
5. Operating Capacity Comment (limit to 200 characters): **Maximum heat input rates: Biomass - 760 MMBtu/hr; No.2 Fuel Oil - 600 MMBtu/hr; Coal - 530 MMBtu/hr; Tire-derived fuel - 370 MMBtu/hr**			

Emissions Unit Operating Schedule

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

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Rule Applicability Analysis (Required for Category II Applications and Category III applications involving non Title-V sources. See Instructions.)

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

40 CFR 60,Subpart Da
40 CFR 60,Subparts Ea and Cb

E. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: BLR 1
2. Emission Point Type Code: [x] 1 [ ] 2 [ ] 3 [ ] 4
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:
5. Discharge Type Code: [ ] D [ ] F [ ] H [ ] P [ ] R [x] V [ ] W
6. Stack Height: 200 feet
7. Exit Diameter: 8 feet
8. Exit Temperature: 295 °F

9. Actual Volumetric Flow Rate:	**246,000** acfm
10. Percent Water Vapor:	%
11. Maximum Dry Standard Flow Rate:	dscfm
12. Nonstack Emission Point Height:	feet
13. Emission Point UTM Coordinates: Zone: **17** East (km): **544.2** North (km): **2968.0**	
14. Emission Point Comment (limit to 200 characters): **Stack parameters based on biomass.**	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 1 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):

   Electric Utility Boiler - Bagasse

2. Source Classification Code (SCC):

   1-01-011-01

3. SCC Units:

   Tons Burned

4. Maximum Hourly Rate:	5. Maximum Annual Rate:
89.412	**783,144**

6. Estimated Annual Activity Factor:

7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
0.03	**0.8**

9. Million Btu per SCC Unit:

   8

10. Segment Comment (limit to 200 characters):

    Maximum Percent Sulfur: 0.025. Million Btu per SCC Unit: 8.5. Total bagasse both boilers = 965,647 TPY

Segment Description and Rate: Segment 2 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Electric Utility Boiler - Wood Fired Boiler**	
2. Source Classification Code (SCC): **1-01-009-03**	
3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **69.091**	5. Maximum Annual Rate: **605,236**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: **0.03**	8. Maximum Percent Ash: **3.2**
9. Million Btu per SCC Unit: **11**	
10. Segment Comment (limit to 200 characters): **Maximum Percert Sulfur: 0.025. Total wood waste both boilers = 623,055 TPY**	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 3 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):

   Electric Utility Boiler - Distillate Oil - Grades 1 and 2 Oil

2. Source Classification Code (SCC):

   1-01-005-01

3. SCC Units:

   Thousand Gallons Burned

4. Maximum Hourly Rate:	5. Maximum Annual Rate:
4.348	**13,942**

6. Estimated Annual Activity Factor:

7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
0.05	

9. Million Btu per SCC Unit:

   138

10. Segment Comment (limit to 200 characters):

    Maximum Annual Rate: 13,942.251. Total No.2 Fuel Oil both boilers = 13,942,251 gal/yr. This represents 24.9% oil firing on a heat input basis.

Segment Description and Rate: Segment 4 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Electric Utility Boiler - Bituminous Coal - Spreader Stoker**	
2. Source Classification Code (SCC): **1-01-002-04**	
3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **22.084**	5. Maximum Annual Rate: **18,221**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: **0.7**	8. Maximum Percent Ash: **3.7**
9. Million Btu per SCC Unit: **24**	
10. Segment Comment (limit to 200 characters): **Total coal both boilers = 18,221 TPY. This represents 5.4% coal burning on a heat input basis.**	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 5 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):

   Solid Waste - Tire Derived Fuel

2. Source Classification Code (SCC):

   1-01-012-01

3. SCC Units:

   Tons Burned

4. Maximum Hourly Rate:	5. Maximum Annual Rate:
11.94	**43,687**

6. Estimated Annual Activity Factor:

7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
1.2	**4.9**

9. Million Btu per SCC Unit:

   31

10. Segment Comment (limit to 200 characters):

    Total TDF both boilers = 43,687 TPY. This represents 16.5% TDF burning on a heat input basis (6.6% on a weight basis).

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):	
2. Source Classification Code (SCC):	
3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):	

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

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
H114	048		EL
PB	010		EL
H021	010		EL
PM	010		EL
PM10	010		EL
SO2			EL
NOx	107		EL
CO			EL
VOC			EL
FL			EL
SAM			EL

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

Pollutant Detail Information:

1. Pollutant Emitted: **H114**
2. Total Percent Efficiency of Control: **25** %
3. Potential Emissions: **0.0046** lb/hour **0.0168** tons/year
4. Synthetically Limited? [**x**] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **See Part B** Reference:
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [**x**] 5
8. Calculation of Emissions (limit to 600 characters): **See Part B**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **0.0168 TPY total both boilers**

Emissions Unit Information Section 1 of 3
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **5.7 E-06 lb/MMBtu**
4. Equivalent Allowable Emissions: **0.0043** lb/hour **0.0168** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 101A**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Emission limit is for bagasse. Emission limit for wood waste is 2.9E-07 lb/MMBtu.**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **2.4 E-06 lb/MMBtu**
4. Equivalent Allowable Emissions: **0.0014** lb/hour **0.0063** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 101A**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing.**

Emissions Unit Information Section 1 **of** 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: OTHER	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 8.4 E-06 lb/MMBtu	
4. Equivalent Allowable Emissions:	0.0045 lb/hour 0.0021 tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 101A	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on coal firing	

B.

1. Basis for Allowable Emissions Code: OTHER	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 6.5 E-06 lb/MMBtu	
4. Equivalent Allowable Emissions:	0.0024 lb/hour 0.0026 tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 101A	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on tire-derived fuel firing.	

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

Pollutant Detail Information:

1. Pollutant Emitted: **PB**
2. Total Percent Efficiency of Control: **98** %
3. Potential Emissions: **0.0166** lb/hour **0.0377** tons/year
4. Synthetically Limited? [**X**] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **See Part B** Reference:
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **See Part B**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **0.0377 TPY total for both boilers**

Emissions Unit Information Section 1 of 3
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **2.7 E-06 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**0.0021** lb/hour **0.0092** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 12**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on biomass firing.**	

B.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **8.9 E-07 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**0.0005** lb/hour **0.0006** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 12**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing.**	

Emissions Unit Information Section 1 **of** 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **5.1 E-06 lb/MMBtu**
4. Equivalent Allowable Emissions: **0.0027** lb/hour **0.0013** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 12**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on coal firing.**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **4.2 E-05 lb/MMBtu**
4. Equivalent Allowable Emissions: **0.0155** lb/hour **0.017** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 12**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on tire-derived fuel firing.**

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

Pollutant Detail Information:

1. Pollutant Emitted: **H021**
2. Total Percent Efficiency of Control: **98** %
3. Potential Emissions: **0.0031** lb/hour **0.0013** tons/year
4. Synthetically Limited? [**X**] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **5.9 E-06 lb/MMBtu** Reference: **See Part B**
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **5.9E-06 lb/MMBtu x 530 MMBtu/hr = 0.0031 lb/hr**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **0.0013 TPY total for both boilers.**

Emissions Unit Information Section 1 **of** 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **3.5 E-07 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**0.0002** lb/hour **0.0009** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 104**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing.**	

B.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **5.9 E-06 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**0.0031** lb/hour **0.0015** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 104**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on coal firing.**	

Emissions Unit Information Section 1 **of** 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **4.5 E-07 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**0.0002** lb/hour **0.0002** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 104**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Equivalent Allowable Emissions: 0.00017 lbs/hr; 0.00019 tons/yr. Based on tire-derived fuel firing.**	

B.

1. 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 (limit to 60 characters):	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	

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

Pollutant Detail Information:

1. Pollutant Emitted: **PM**
2. Total Percent Efficiency of Control: **98** %
3. Potential Emissions: **22.8** lb/hour **99.86** tons/year
4. Synthetically Limited? [**x**] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.03 lb/MMBtu** Reference: **40 CFR 60 Subpa Da**
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [**x**] 5
8. Calculation of Emissions (limit to 600 characters): **0.03 lb/MMBtu x 760 MMBtu/hr = 22.8 lb/hr**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **123.12 TPY total for both boilers**

Emissions Unit Information Section 1 **of** 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **RULE**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.03 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**22.8** lb/hour **99.86** tons/year
5. Method of Compliance (limit to 60 characters): **Annual Stack testing using EPA Method 5.**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **40 CFR 60, Subpart Da. Maximum lb/hr based on biomass firing.**	

B.

1. 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 (limit to 60 characters):	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	

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

Pollutant Detail Information:

1. Pollutant Emitted: **PM10**
2. Total Percent Efficiency of Control: **98** %
3. Potential Emissions: **22.8** lb/hour **99.86** tons/year
4. Synthetically Limited? [**x**] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.03 lb/MMBtu** Reference: **40 CFR 60 Subpart Da**
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [**x**] 5
8. Calculation of Emissions (limit to 600 characters): **0.03 lb/MMBtu x 760 MMBtu/hr = 22.8 lb/hr**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **123.12 TPY total for both boilers**

Emissions Unit Information Section 1 of 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **RULE**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.03 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**22.8** lb/hour **99.86** tons/year
5. Method of Compliance (limit to 60 characters):	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **40 CFR 60, Subpart Da. Maximum lb/hr based on biomass firing.**	

B.

1. 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 (limit to 60 characters):	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	

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

Pollutant Detail Information:

1. Pollutant Emitted: **SO2**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **636** lb/hour **339** tons/year
4. Synthetically Limited? [**x**] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **1.2 lb/MMBtu** Reference: **40 CFR 60 Subpart Da**
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [**x**] 5
8. Calculation of Emissions (limit to 600 characters): **1.2 lb/MMBtu x 530 MMBtu/hr = 636.0 lb/hr**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **339.0 TPY total for both boilers**

Emissions Unit Information Section 1 of 3
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:	**RULE**
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	**1.2** **lb/MMBtu**
4. Equivalent Allowable Emissions:	**636** lb/hour **339** tons/year
5. Method of Compliance (limit to 60 characters):	**Limit coal burning to 5.4% for facility fuel analysis**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	**40 CFR 60, Subpart Da. Based on coal firing**

B.

1. Basis for Allowable Emissions Code:	**OTHER**
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	**0.05** **lb/MMBtu**
4. Equivalent Allowable Emissions:	**30** lb/hour **32.7** tons/year
5. Method of Compliance (limit to 60 characters):	**Limit fuel oil burning to 24.9% for any single boiler**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	**Based on No.2 fuel oil firing and BACT.**

Emissions Unit Information Section 1 of 3
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:	**OTHER**
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	**See Comment**
4. Equivalent Allowable Emissions:	**76** lb/hour **66.6** tons/year
5. Method of Compliance (limit to 60 characters):	**Continuous SO2 monitor**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	**Requested Allowable Emissions and Units: 0.1 lb/MMBtu 24-hr avg; 0.02 lb/MMBtu, annual average. Based on bagasse firing and fuel sulfur content.**

B.

1. Basis for Allowable Emissions Code:	**OTHER**
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	**See Comment**
4. Equivalent Allowable Emissions:	**444** lb/hour **339** tons/year
5. Method of Compliance (limit to 60 characters):	**Continuous SO2 monitor.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	**Requested allowable emissions: 1.2 lb/MMBtu, 24-hr avg.; 0.4 lb/MMBtu, annual avg. Based on tire-derived fuel firing.**

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

Pollutant Detail Information:

1. Pollutant Emitted: **NOx**
2. Total Percent Efficiency of Control: **40** %
3. Potential Emissions: **88.2** lb/hour **386.3** tons/year
4. Synthetically Limited? [**x**] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.116 lb/MMBtu** Reference: **Based on NOx control**
7. Emissions Method Code: [ ] 0 [ ] 1 [**x**] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **0.116 lb/MMBtu x 760 MMBtu/hr = 88.2 lb/hr**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **477.1 TPY total for both boilers**

Emissions Unit Information Section 1 of 3
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **ESCPSD**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.116 lb/MMBtu**
4. Equivalent Allowable Emissions: **88.2** lb/hour **386.3** tons/year
5. Method of Compliance (limit to 60 characters): **Annual stack test using EPA Method 7 or 7E**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on biomass firing**

B.

1. Basis for Allowable Emissions Code: **ESCPSD**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.126 lb/MMBtu**
4. Equivalent Allowable Emissions: **72** lb/hour **78.5** tons/year
5. Method of Compliance (limit to 60 characters): **Limit fuel oil burning to 24.9% for any single boiler**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing**

Emissions Unit Information Section 1 of 3
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **ESCPSD**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.15 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**79.5** lb/hour **37.6** tons/year
5. Method of Compliance (limit to 60 characters): **Limit coal burning to 10.8% for any single boiler**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on coal firing**	

B.

1. Basis for Allowable Emissions Code: **ESCPSD**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.116 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**42.9** lb/hour **47** tons/year
5. Method of Compliance (limit to 60 characters): **See Comment**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Method of Compliance: Annual stack testing using EPA Method 7 or 7E. Limit TDF Firing to 25% on an annual basis. Based on tire-derived fuel firing.**	

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

Pollutant Detail Information:

1. Pollutant Emitted: CO
2. Total Percent Efficiency of Control: %
3. Potential Emissions: 266 lb/hour 1,165.1 tons/year
4. Synthetically Limited? [x] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: 0.35 lb/MMBtu Reference: Boiler design
7. Emissions Method Code: [ ] 0 [ ] 1 [x] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): 0.35 lb/MMBtu x 760 MMBtu/hr = 266 lb/hr
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): 1,436.4 TPY total for both boilers

Emissions Unit Information Section 1 of 3
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.35 lb/MMBtu**
4. Equivalent Allowable Emissions: **266** lb/hour **1,165.1** tons/year
5. Method of Compliance (limit to 60 characters): **Continuous CO monitor**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on biomass firing**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.2 lb/MMBtu**
4. Equivalent Allowable Emissions: **120** lb/hour **130.9** tons/year
5. Method of Compliance (limit to 60 characters): **Limit fuel burning to 24.9% for any single boiler**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing**

Emissions Unit Information Section 1 of 3
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.2 lb/MMBtu**
4. Equivalent Allowable Emissions: **106** lb/hour **50.1** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 10 annually**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on coal firing. Limit coal burning to 5.4% entire facility; 10.8% for any single boiler.**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.35 lb/MMBtu**
4. Equivalent Allowable Emissions: **129.5** lb/hour **141.8** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 10 annually.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on tire-derived fuel firing. TDF limited to 25% for each boiler.**

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

Pollutant Detail Information:

1. Pollutant Emitted: **VOC**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **45.6** lb/hour **219.15** tons/year
4. Synthetically Limited? [**x**] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.06 lb/MMBtu** Reference: **Boiler design**
7. Emissions Method Code: [ ] 0 [ ] 1 [**x**] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **0.06 lb/MMBtu x 760 MMBtu/hr = 45.6 lb/hr**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **Based on biomass firing**

Emissions Unit Information Section 1 of 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **ESCNAA**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **See Comment**	
4. Equivalent Allowable Emissions: **45.6** lb/hour	**219.15** tons/year
5. Method of Compliance (limit to 60 characters): **Annual stack test using EPA Method 25 or 25A**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on biomass firing, 67% bagasse heat input - 33% wood waste heat input. Requested Allowable Emissions and Units: 0.06 lb/MMBtu bagasse; 0.04 lb/MMBtu wood waste.**	

B.

1. Basis for Allowable Emissions Code: **ESCNAA**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.03 lb/MMBtu**	
4. Equivalent Allowable Emissions: **18** lb/hour	**19.6** tons/year
5. Method of Compliance (limit to 60 characters): **Limit fuel burning to 24.9% for any single boiler**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing**	

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:	ESCNAA
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	0.03 lb/MMBtu
4. Equivalent Allowable Emissions:	15.9 lb/hour 7.52 tons/year
5. Method of Compliance (limit to 60 characters):	Limit coal burning to 10.8% for any single boiler
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	Based on coal firing

B.

1. Basis for Allowable Emissions Code:	ESCNAA
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	0.04 lb/MMBtu
4. Equivalent Allowable Emissions:	14.8 lb/hour 16.2 tons/year
5. Method of Compliance (limit to 60 characters):	EPA Method 25 or 25A annually.
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	Based on tire-derived fuel firing. TDF limited to 25% for any single boiler.

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

Pollutant Detail Information:

1. Pollutant Emitted: **FL**

2. Total Percent Efficiency of Control: %

3. Potential Emissions: **12.7** lb/hour **5.25** tons/year

4. Synthetically Limited? [**X**] Yes [ ] No

5. Range of Estimated Fugitive/Other Emissions:

   [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr

6. Emission Factor: **0.024 lb/MMBtu**

   Reference: **See Part B**

7. Emissions Method Code:

   [ ] 0 [ ] 1 [**X**] 2 [ ] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters):

   0.024 lb/MMBtu x 530 MMBtu/hr = 12.7 lb/hr

9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

   Based on coal firing

Emissions Unit Information Section 1 of 3
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **See Comment**
4. Equivalent Allowable Emissions: **0.0038** lb/hour **0.004** tons/year
5. Method of Compliance (limit to 60 characters):
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Allowable emissions: 6.3E-06 lb/MMBtu. Based on No.2 fuel oil firing.**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.024 lb/MMBtu**
4. Equivalent Allowable Emissions: **12.7** lb/hour **5.25** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 13A or 13B once every 5 years.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on coal firing.**

Emissions Unit Information Section 1 **of** 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:	**OTHER**
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	**See Comment**
4. Equivalent Allowable Emissions:	**0.24** lb/hour **0.26** tons/year
5. Method of Compliance (limit to 60 characters):	**EPA Method 13A or 13B once every 5 years.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	**Based on tire-derived fuel firing**

B.

1. 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 (limit to 60 characters):	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	

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

Pollutant Detail Information:

1. Pollutant Emitted: **SAM**

2. Total Percent Efficiency of Control: %

3. Potential Emissions: **5.6** lb/hour **5.9** tons/year

4. Synthetically Limited? [**X**] Yes [ ] No

5. Range of Estimated Fugitive/Other Emissions:

   [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr

6. Emission Factor: **0.01 lb/MMBtu**

   Reference: **See Part B**

7. Emissions Method Code:

   [ ] 0 [ ] 1 [ ] 2 [**X**] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters):

   0.0049 lb/MMBtu x 390 MMBtu/hr = 1.91 lb/hr; 0.010 lb/MMBtu x 370 MMBtu/hr = 3.7 lb/hr. Total = 1.91 + 3.7 = 5.6 lb/hr

9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

   Based on biomass/TDF firing.

Emissions Unit Information Section 1 of 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.0049 lb/MMBtu,24-hr**	
4. Equivalent Allowable Emissions:	**3.72** lb/hour **3.26** tons/year
5. Method of Compliance (limit to 60 characters): **Method 8 once every 5 years**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on biomass firing. Annual average based on 0.00098 lb/MMBtu.**	

B.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.0025 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**1.5** lb/hour **1.64** tons/year
5. Method of Compliance (limit to 60 characters):	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing**	

Emissions Unit Information Section 1 of 3
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.01 lb/MMBtu**
4. Equivalent Allowable Emissions: **5.3** lb/hour **2.5** tons/year
5. Method of Compliance (limit to 60 characters):
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on coal firing**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.01 lb/MMBtu**
4. Equivalent Allowable Emissions: **3.7** lb/hour **4.1** tons/year
5. Method of Compliance (limit to 60 characters): **Method 8 once every 5 years**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on tire derived fuel firing. Annual average based on 0.0066 lb/MMBtu.**

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitations: Visible Emissions Limitation 1 of 1

1.	Visible Emissions Subtype: VE20
2.	Basis for Allowable Opacity: [X] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: 20. % Exceptional Conditions: 27. % Maximum Period of Excess Opacity Allowed: 6 min/hour
4.	Method of Compliance: EPA Method 9
5.	Visible Emissions Comment (limit to 200 characters): 40 CFR 60 Subpart Da

Visible Emissions Limitations: Visible Emissions Limitation _____ of _____

1.	Visible Emissions Subtype:
2.	Basis for Allowable Opacity: [ ] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4.	Method of Compliance:
5.	Visible Emissions Comment (limit to 200 characters):

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor 1 of 6

1. Parameter Code: VE	2. Pollutant(s):
2. CMS Requirement: [X] Rule [ ] Other	
3. Monitor Information: Monitor Manufacturer: Durag Model Number: D-R281-31-AV Serial Number: 31500	
4. Installation Date: 05 Dec 1995	
5. Performance Specification Test Date:	
6. Continuous Monitor Comment (limit to 200 characters): 40 CFR 60, Subpart Da	

Continuous Monitoring System Continuous Monitor 2 of 6

1. Parameter Code: EM	2. Pollutant(s): NOx
2. CMS Requirement: [X] Rule [ ] Other	
3. Monitor Information: Monitor Manufacturer: Thermo Environmental Instruments Model Number: 42D Serial Number: 42D-53361-296	
4. Installation Date: 05 Dec 1995	
5. Performance Specification Test Date:	
6. Continuous Monitor Comment (limit to 200 characters): 40 CFR 60, Subpart Da	

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor 3 of 6

1. Parameter Code: EM	2. Pollutant(s): SO2
2. CMS Requirement: [ ] Rule [X] Other	
3. Monitor Information: Monitor Manufacturer: Thermo Environmental Instruments Model Number: 43B Serial Number: 43B-53359-296	
4. Installation Date: 05 Dec 1995	
5. Performance Specification Test Date:	
6. Continuous Monitor Comment (limit to 200 characters): 40 CFR 60, Subpart Da	

Continuous Monitoring System Continuous Monitor 4 of 6

1. Parameter Code: EM	2. Pollutant(s): CO
2. CMS Requirement: [ ] Rule [X] Other	
3. Monitor Information: Monitor Manufacturer: Thermo Environmental Instruments Model Number: 48 Serial Number: 48-53434-296	
4. Installation Date: 05 Dec 1995	
5. Performance Specification Test Date:	
6. Continuous Monitor Comment (limit to 200 characters):	

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor 5 of 6

1. Parameter Code: O2	2. Pollutant(s):
2. CMS Requirement: [X] Rule [ ] Other	
3. Monitor Information: Monitor Manufacturer: Yokogowa Model Number: 2A8C Serial Number: JJ113PA188	
4. Installation Date: 05 Dec 1995	
5. Performance Specification Test Date:	
6. Continuous Monitor Comment (limit to 200 characters): 40 CFR 60, Subpart Da	

Continuous Monitoring System Continuous Monitor 6 of 6

1. Parameter Code: CO2.	2. Pollutant(s):
2. CMS Requirement: [ ] Rule [X] Other	
3. Monitor Information: Monitor Manufacturer: California Analytical Model Number: ZRH1 Serial Number: N5B3528T	
4. Installation Date: 05 Dec 1995	
5. Performance Specification Test Date:	
6. Continuous Monitor Comment (limit to 200 characters):	

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

   If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

   [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 the 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 the 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.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[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 the source 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 the source consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and the emissions unit consumes increment.

[ ] 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.	Increment Consuming/Expanding Code:			
	PM	[x] C	[ ] E	[ ] Unknown
	SO_2	[x] C	[ ] E	[ ] Unknown
	NO_2	[x] C	[ ] E	[ ] Unknown
4.	Baseline Emissions:			
	PM	lb/hour		tons/year
	SO_2	lb/hour		tons/year
	NO_2			tons/year
5.	PSD Comment (limit to 200 characters):			

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements for All Applications

1.	Process Flow Diagram	
	[X] Attached, Document ID: PART B	
	[ ] Not Applicable	[ ] Waiver Requested
2.	Fuel Analysis or Specification	
	[X] Attached, Document ID: PART B	
	[ ] Not Applicable	[ ] Waiver Requested
3.	Detailed Description of Control Equipment	
	[X] Attached, Document ID: PART B	
	[ ] Not Applicable	[ ] Waiver Requested
4.	Description of Stack Sampling Facilities	
	[ ] Attached, Document ID: _____	
	[X] Not Applicable	[ ] Waiver Requested
5.	Compliance Test Report	
	[ ] Attached, Document ID: _____	[X] Not Applicable
	[ ] Previously Submitted, Date: _____	
6.	Procedures for Startup and Shutdown	
	[ ] Attached, Document ID: _____	[X] Not Applicable
7.	Operation and Maintenance Plan	
	[ ] Attached, Document ID: _____	[X] Not Applicable
8.	Supplemental Information for Construction Permit Application	
	[X] Attached, Document ID: PART B	[ ] Not Applicable
9.	Other Information Required by Rule or Statute	
	[X] Attached, Document ID: PART B	[ ] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operation

[ ] Attached, Document ID: _____ [ ] Not Applicable

11. Alternative Modes of Operation (Emissions Trading)

[ ] Attached, Document ID: _____ [ ] Not Applicable

12. Identification of Additional Applicable Requirements

[ ] Attached, Document ID: _____ [ ] Not Applicable

13. Compliance Assurance Monitoring Plan

[ ] Attached, Document ID: _____ [ ] Not Applicable

14. Acid Rain Permit Application (Hard Copy Required)

[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID: _____

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID: _____

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID: _____

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID: _____

[ ] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

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

Type of Emissions Unit Addressed in This Section

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. Single 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.

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

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Boiler No.2 fired by Biomass/No.2 oil/Coal/TDF**		
2. Emissions Unit Identification Number: [ ] No Corresponding ID [ ] Unknown **002**		
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 (limit to 500 characters): **74 MW gross generating capacity for entire facility**		

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters):

ESP - Electrostatic Precipitator

2. Control Device or Method Code: **10**

B.

1. Description (limit to 200 characters):

Selective Non-Catalytic Reduction for NOx

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

C.

1. Description (limit to 200 characters):

Activated Carbon injection system.

2. Control Device or Method Code: **48**

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

Emissions Unit Details

1. Initial Startup Date:	
2. Long-term Reserve Shutdown Date:	
3. Package Unit: Manufacturer:	Model Number:
4. Generator Nameplate Rating:	74 MW
5. Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature:	 °F seconds °F

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate:		760	mmBtu/hr
2. Maximum Incineration Rate:	lbs/hr		tons/day
3. Maximum Process or Throughput Rate:			
4. Maximum Production Rate:			

5. Operating Capacity Comment (limit to 200 characters):

Maximum heat input rates: Biomass - 760 MMBtu/hr; No.2 Fuel Oil - 600 MMBtu/hr; Coal - 530 MMBtu/hr; Tire-derived fuel - 370 MMBtu/hr

Emissions Unit Operating Schedule

1. Requested Maximum Operating Schedule:

24	hours/day	7	days/week
52	weeks/yr	8,760	hours/yr

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Rule Applicability Analysis (Required for Category II Applications and Category III applications involving non Title-V sources. See Instructions.)

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

40 CFR 60, Subpart Da
40 CFR 60, Subparts Ea and Cb

E. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: BLR 2
2. Emission Point Type Code: [x] 1 [ ] 2 [ ] 3 [ ] 4
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:
5. Discharge Type Code: [ ] D [ ] F [ ] H [ ] P [ ] R [x] V [ ] W
6. Stack Height: 200 feet
7. Exit Diameter: 8 feet
8. Exit Temperature: 295 °F

9. Actual Volumetric Flow Rate:	**246,000** acfm
10. Percent Water Vapor:	%
11. Maximum Dry Standard Flow Rate:	dscfm
12. Nonstack Emission Point Height:	feet
13. Emission Point UTM Coordinates: Zone: **17** East (km): **544.2** North (km): **2968.0**	
14. Emission Point Comment (limit to 200 characters): **Stack parameters based on biomass.**	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 1 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):

   Electric Utility Boiler - Bagasse

2. Source Classification Code (SCC):

   1-01-011-01

3. SCC Units:

   Tons Burned

4. Maximum Hourly Rate:	5. Maximum Annual Rate:
89.412	**783,144**

6. Estimated Annual Activity Factor:

7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
0.03	**0.8**

9. Million Btu per SCC Unit:

   8

10. Segment Comment (limit to 200 characters):

    Maximum Percent Sulfur: 0.025. Million Btu per SCC Unit: 8.5. Total bagasse both boilers = 965,647 TPY

Segment Description and Rate: Segment 2 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Electric Utility Boiler - Wood Fired Boiler**
2. Source Classification Code (SCC): **1-01-009-03**
3. SCC Units: **tons burned**

4. Maximum Hourly Rate:	5. Maximum Annual Rate:
69.091	**605,236**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: **0.03**	8. Maximum Percent Ash: **3.2**
9. Million Btu per SCC Unit: **11**	

10. Segment Comment (limit to 200 characters): **Maximum Percent Sulfur: 0.025. Total wood waste both boilers = 623,055 TPY**

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 3 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):

   Electric Utility Boiler - Distillate Oil - Grades 1 and 2 Oil

2. Source Classification Code (SCC):

   1-01-005-01

3. SCC Units:

   1,000 gal burned

4. Maximum Hourly Rate:	5. Maximum Annual Rate:
4.348	**13,942**

6. Estimated Annual Activity Factor:

7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
0.05	

9. Million Btu per SCC Unit:

   138

10. Segment Comment (limit to 200 characters):

    Maximum Annual Rate: 13,942.251. Total No.2 Fuel Oil both boilers = 13,942,251 gal/yr. This represents 24.9% oil firing on a heat input basis.

Segment Description and Rate: Segment 4 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Electric Utility Boiler - Bituminous Coal - Spreader Stoker**
2. Source Classification Code (SCC): **1-01-002-04**
3. SCC Units: **Tons Burned**

4. Maximum Hourly Rate: **22.084**	5. Maximum Annual Rate: **18,221**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: **0.7**	8. Maximum Percent Ash: **3.7**
9. Million Btu per SCC Unit: **24**	

10. Segment Comment (limit to 200 characters): **Total coal both boilers = 18,221 TPY. This represents 5.4% coal burning on a heat input basis.**

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 5 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Solid Waste - Tire-Derived Fuel**	
2. Source Classification Code (SCC): **1-01-012-01**	
3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **11.94**	5. Maximum Annual Rate: **43,687**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: **1.2**	8. Maximum Percent Ash: **4.9**
9. Million Btu per SCC Unit: **31**	
10. Segment Comment (limit to 200 characters): **Total TDF both boilers = 43,687 TPY. This represents 16.5% TDF on a heat input basis (6.6% on a weight basis)**	

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):	
2. Source Classification Code (SCC):	
3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):	

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

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
H114	048		EL
PB	010		EL
H021	010		EL
PM	010		EL
PM10	010		EL
SO2			EL
NOx	107		EL
CO			EL
VOC			EL
FL			EL
SAM			EL
HAPS			NS
H106			NS

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

Pollutant Detail Information:

1. Pollutant Emitted: **H114**
2. Total Percent Efficiency of Control: **25** %
3. Potential Emissions: **0.0046** lb/hour **0.0168** tons/year
4. Synthetically Limited? [**X**] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **See Part B** Reference:
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [**X**] 5
8. Calculation of Emissions (limit to 600 characters): **See Part B**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **0.0168 TPY total both boilers**

Emissions Unit Information Section 2 of 3
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **5.7 E-06 lb/MMBtu**
4. Equivalent Allowable Emissions: **0.0043** lb/hour **0.0168** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 101A**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Emission limit is for bagasse. Emission limit for wood waste is 2.9E-07 lb/MMBtu.**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **2.4 E-06 lb/MMBtu**
4. Equivalent Allowable Emissions: **0.0014** lb/hour **0.0063** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 101A**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing.**

Emissions Unit Information Section 2 of 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **8.4 E-06 lb/MMBtu**
4. Equivalent Allowable Emissions: **0.0045** lb/hour **0.0021** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 101A**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on coal firing**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **6.5 E-06 lb/MMBtu**
4. Equivalent Allowable Emissions: **0.0024** lb/hour **0.0026** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 101A**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on tire-derived fuel firing.**

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

Pollutant Detail Information:

1. Pollutant Emitted: **PB**
2. Total Percent Efficiency of Control: **98** %
3. Potential Emissions: **0.0166** lb/hour **0.0377** tons/year
4. Synthetically Limited? [**X**] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **See Part B** Reference:
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **See Part B**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **0.0377 TPY total for both boilers**

Emissions Unit Information Section 2 **of** 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: OTHER	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 2.7 E-06 lb/MMBtu	
4. Equivalent Allowable Emissions:	0.0021 lb/hour 0.0092 tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 12	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on biomass firing.	

B.

1. Basis for Allowable Emissions Code: OTHER	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 8.9 E-07 lb/MMBtu	
4. Equivalent Allowable Emissions:	0.0005 lb/hour 0.0006 tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 12	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on No.2 fuel oil firing.	

Emissions Unit Information Section 2 **of** 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:	OTHER
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	5.1 E-06 lb/MMBtu
4. Equivalent Allowable Emissions:	0.0027 lb/hour 0.0013 tons/year
5. Method of Compliance (limit to 60 characters):	EPA Method 12
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	Based on coal firing.

B.

1. Basis for Allowable Emissions Code:	OTHER
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	4.2 E-05 lb/MMBtu
4. Equivalent Allowable Emissions:	0.0155 lb/hour 0.017 tons/year
5. Method of Compliance (limit to 60 characters):	EPA Method 12
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	Based on tire-derived fuel firing.

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

Pollutant Detail Information:

1. Pollutant Emitted: **H021**
2. Total Percent Efficiency of Control: **98** %
3. Potential Emissions: **0.0031** lb/hour **0.0013** tons/year
4. Synthetically Limited? [**X**] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **5.9 E-06 lb/MMBtu** Reference: **See Part B**
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **5.9E-06 lb/MMBtu x 530 MMBtu/hr = 0.0031 lb/hr**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **0.0013 TPY total for both boilers.**

Emissions Unit Information Section 2 **of** 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **3.5 E-07 lb/MMBtu**
4. Equivalent Allowable Emissions: **0.0002** lb/hour **0.0009** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 104**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing.**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **5.9 E-06 lb/MMBtu**
4. Equivalent Allowable Emissions: **0.0031** lb/hour **0.0015** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 104**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on coal firing.**

Emissions Unit Information Section 2 **of** 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: OTHER	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 4.5 E-07 lb/MMBtu	
4. Equivalent Allowable Emissions: 0.0002 lb/hour	0.0002 tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 104	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Equivalent Allowable Emissions: 0.00017 lbs/hr; 0.00019 tons/yr. Based on tire-derived fuel firing.	

B.

1. 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 (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

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

Pollutant Detail Information:

1. Pollutant Emitted: **PM**
2. Total Percent Efficiency of Control: **98** %
3. Potential Emissions: **22.8** lb/hour **99.86** tons/year
4. Synthetically Limited? [**X**] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.03 lb/MMBtu** Reference: **40 CFR 60 Subpa Da**
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [**X**] 5
8. Calculation of Emissions (limit to 600 characters): **0.03 lb/MMBtu x 760 MMBtu/hr = 22.8 lb/hr**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **123.12 TPY total for both boilers**

Emissions Unit Information Section 2 of 3
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **RULE**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.03 lb/MMBtu**
4. Equivalent Allowable Emissions: **22.8** lb/hour **99.86** tons/year
5. Method of Compliance (limit to 60 characters): **Annual Stack testing using EPA Method 5.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **40 CFR 60, Subpart Da. Maximum lb/hr based on biomass firing.**

B.

1. 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 (limit to 60 characters):
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):

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

Pollutant Detail Information:

1. Pollutant Emitted: **PM10**
2. Total Percent Efficiency of Control: **98** %
3. Potential Emissions: **22.8** lb/hour **99.86** tons/year
4. Synthetically Limited? [**x**] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.03 lb/MMBtu** Reference: **40 CFR 60 Subpart Da**
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [**x**] 5
8. Calculation of Emissions (limit to 600 characters): **0.03 lb/MMBtu x 760 MMBtu/hr = 22.8 lb/hr**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **123.12 TPY total for both boilers**

Emissions Unit Information Section 2 **of** 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **RULE**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.03 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**22.8** lb/hour **99.86** tons/year
5. Method of Compliance (limit to 60 characters):	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **40 CFR 60, Subpart Da. Maximum lb/hr based on biomass firing.**	

B.

1. 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 (limit to 60 characters):	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	

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

Pollutant Detail Information:

1. Pollutant Emitted: **SO2**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **636** lb/hour **339** tons/year
4. Synthetically Limited? [**x**] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **1.2 lb/MMBtu** Reference: **40 CFR 60 Subpart Da**
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [**x**] 5
8. Calculation of Emissions (limit to 600 characters): **1.2 lb/MMBtu x 530 MMBtu/hr = 636.0 lb/hr**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **339.0 TPY total for both boilers**

Emissions Unit Information Section 2 **of** 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: RULE	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 1.2 lb/MMBtu	
4. Equivalent Allowable Emissions:	636 lb/hour 339 tons/year
5. Method of Compliance (limit to 60 characters): Limit coal burning to 5.4% for facility fuel analysis	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): 40 CFR 60, Subpart Da. Based on coal firing	

B.

1. Basis for Allowable Emissions Code: OTHER	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.05 lb/MMBtu	
4. Equivalent Allowable Emissions:	30 lb/hour 32.7 tons/year
5. Method of Compliance (limit to 60 characters): Limit fuel oil burning to 24.9% for any single boiler	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on No.2 fuel oil firing and BACT.	

Emissions Unit Information Section 2 of 3
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:	**OTHER**
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	**See Comment**
4. Equivalent Allowable Emissions:	**76** lb/hour **66.6** tons/year
5. Method of Compliance (limit to 60 characters):	**Continuous SO2 monitor**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	**Requested Allowable Emissions and Units: 0.1 lb/MMBtu 24-hr avg; 0.02 lb/MMBtu, annual average. Based on bagasse firing and fuel sulfur content.**

B.

1. Basis for Allowable Emissions Code:	**OTHER**
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	**See Comment**
4. Equivalent Allowable Emissions:	**444** lb/hour **339** tons/year
5. Method of Compliance (limit to 60 characters):	**Continuous SO2 monitor.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	**Requested allowable emissions: 1.2 lb/MMBtu, 24-hr avg.; 0.4 lb/MMBtu, annual avg. Based on tire-derived fuel firing.**

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

Pollutant Detail Information:

1. Pollutant Emitted: **NOx**
2. Total Percent Efficiency of Control: **40** %
3. Potential Emissions: **88.2** lb/hour **386.3** tons/year
4. Synthetically Limited? [**x**] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.116 lb/MMBtu** Reference: **Based on NOx control**
7. Emissions Method Code: [ ] 0 [ ] 1 [**x**] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **0.116 lb/MMBtu x 760 MMBtu/hr = 88.2 lb/hr**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **477.1 TPY total for both boilers**

Emissions Unit Information Section 2 **of** 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **ESCPSD**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.116 lb/MMBtu**
4. Equivalent Allowable Emissions: **88.2** lb/hour **386.3** tons/year
5. Method of Compliance (limit to 60 characters): **Annual stack test using EPA Method 7 or 7E**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on biomass firing**

B.

1. Basis for Allowable Emissions Code: **ESCPSD**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.126 lb/MMBtu**
4. Equivalent Allowable Emissions: **72** lb/hour **78.5** tons/year
5. Method of Compliance (limit to 60 characters): **Limit fuel oil burning to 24.9% for any single boiler**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing**

Emissions Unit Information Section 2 of 3
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **ESCPSD**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.15 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**79.5** lb/hour **37.6** tons/year
5. Method of Compliance (limit to 60 characters): **Limit coal burning to 10.8% for any single boiler**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on coal firing**	

B.

1. Basis for Allowable Emissions Code: **ESCPSD**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.116 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**42.9** lb/hour **47** tons/year
5. Method of Compliance (limit to 60 characters): **See Comment**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Method of Compliance: Annual stack testing using EPA Method 7 or 7E. Limit TDF Firing to 25% on an annual basis. Based on tire-derived fuel firing.**	

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

Pollutant Detail Information:

1. Pollutant Emitted: CO
2. Total Percent Efficiency of Control: %
3. Potential Emissions: 266 lb/hour 1,165.1 tons/year
4. Synthetically Limited? [x] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: 0.35 lb/MMBtu Reference: Boiler design
7. Emissions Method Code: [ ] 0 [ ] 1 [x] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): 0.35 lb/MMBtu x 760 MMBtu/hr = 266 lb/hr
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): 1,436.4 TPY total for both boilers

Emissions Unit Information Section 2 **of** 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:	**OTHER**
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	**0.35 lb/MMBtu**
4. Equivalent Allowable Emissions:	**266** lb/hour **1,165.1** tons/year
5. Method of Compliance (limit to 60 characters):	**Continuous CO monitor**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	**Based on biomass firing**

B.

1. Basis for Allowable Emissions Code:	**OTHER**
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	**0.2 lb/MMBtu**
4. Equivalent Allowable Emissions:	**120** lb/hour **130.9** tons/year
5. Method of Compliance (limit to 60 characters):	**Limit fuel burning to 24.9% for any single boiler**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	**Based on No.2 fuel oil firing**

Emissions Unit Information Section 2 of 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.2 lb/MMBtu**	
4. Equivalent Allowable Emissions: **106** lb/hour	**50.1** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 10 annually**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on coal firing. Limit coal burning to 5.4% entire facility; 10.8% for any single boiler.**	

B.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.35 lb/MMBtu**	
4. Equivalent Allowable Emissions: **129.5** lb/hour	**141.8** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 10 annually.**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on tire-derived fuel firing. TDF limited to 25% for each boiler.**	

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

Pollutant Detail Information:

1. Pollutant Emitted: **VOC**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **45.6** lb/hour **219.15** tons/year
4. Synthetically Limited? [**x**] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.06 lb/MMBtu** Reference: **Boiler design**
7. Emissions Method Code: [ ] 0 [ ] 1 [**x**] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **0.06 lb/MMBtu x 760 MMBtu/hr = 45.6 lb/hr**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **Based on biomass firing**

Emissions Unit Information Section 2 **of** 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **ESCNAA**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **See Comment**	
4. Equivalent Allowable Emissions: **45.6** lb/hour	**219.15** tons/year
5. Method of Compliance (limit to 60 characters): **Annual stack test using EPA Method 25 or 25A**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on biomass firing, 67% bagasse heat input - 33% wood waste heat input. Requested Allowable Emissions and Units: 0.06 lb/MMBtu bagasse; 0.04 lb/MMBtu wood waste.**	

B.

1. Basis for Allowable Emissions Code: **ESCNAA**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.03 lb/MMBtu**	
4. Equivalent Allowable Emissions: **18** lb/hour	**19.6** tons/year
5. Method of Compliance (limit to 60 characters): **Limit fuel burning to 24.9% for any single boiler**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing**	

Emissions Unit Information Section 2 of 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **ESCNAA**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.03** **lb/MMBtu**
4. Equivalent Allowable Emissions: **15.9** lb/hour **7.52** tons/year
5. Method of Compliance (limit to 60 characters): **Limit coal burning to 10.8% for any single boiler**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on coal firing**

B.

1. Basis for Allowable Emissions Code: **ESCNAA**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.04** **lb/MMBtu**
4. Equivalent Allowable Emissions: **14.8** lb/hour **16.2** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 25 or 25A annually.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on tire-derived fuel firing. TDF limited to 25% for any single boiler.**

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

Pollutant Detail Information:

1. Pollutant Emitted: **FL**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **12.7** lb/hour **5.25** tons/year
4. Synthetically Limited? [**X**] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.024 lb/MMBtu** Reference: **See Part B**
7. Emissions Method Code: [ ] 0 [ ] 1 [**X**] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **0.024 lb/MMBtu x 530 MMBtu/hr = 12.7 lb/hr**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **Based on coal firing**

Emissions Unit Information Section 2 of 3
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **See Comment**
4. Equivalent Allowable Emissions: **0.0038** lb/hour **0.004** tons/year
5. Method of Compliance (limit to 60 characters):
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Allowable emissions: 6.3E-06 lb/MMBtu. Based on No.2 fuel oil firing.**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.024 lb/MMBtu**
4. Equivalent Allowable Emissions: **12.7** lb/hour **5.25** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 13A or 13B once every 5 years.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on coal firing.**

Emissions Unit Information Section 2 **of** 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **See Comment**	
4. Equivalent Allowable Emissions: **0.24** lb/hour	**0.26** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 13A or 13B once every 5 years.**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on tire-derived fuel firing**	

B.

1. 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 (limit to 60 characters):	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	

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

Pollutant Detail Information:

1. Pollutant Emitted: **SAM**

2. Total Percent Efficiency of Control: %

3. Potential Emissions: **5.6** lb/hour **5.9** tons/year

4. Synthetically Limited? [**X**] Yes [ ] No

5. Range of Estimated Fugitive/Other Emissions:

   [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr

6. Emission Factor: **0.01 lb/MMBtu**

   Reference: **See Part B**

7. Emissions Method Code:

   [ ] 0 [ ] 1 [ ] 2 [**X**] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters):

   0.0049 lb/MMBtu x 390 MMBtu/hr = 1.91 lb/hr; 0.010 lb/MMBtu x 370 MMBtu/hr = 3.7 lb/hr. Total = 1.91 + 3.7 = 5.6 lb/hr

9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

   Based on biomass/TDF firing.

Emissions Unit Information Section 2 of 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.0049 lb/MMBtu,24-hr**	
4. Equivalent Allowable Emissions:	**3.72** lb/hour **3.26** tons/year
5. Method of Compliance (limit to 60 characters): **Method 8 once every 5 years**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on biomass firing. Annual average based on 0.00098 lb/MMBtu.**	

B.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.0025 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**1.5** lb/hour **1.64** tons/year
5. Method of Compliance (limit to 60 characters):	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing**	

Emissions Unit Information Section 2 of 3
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.01 lb/MMBtu**
4. Equivalent Allowable Emissions: **5.3** lb/hour **2.5** tons/year
5. Method of Compliance (limit to 60 characters):
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on coal firing**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.01 lb/MMBtu**
4. Equivalent Allowable Emissions: **3.7** lb/hour **4.1** tons/year
5. Method of Compliance (limit to 60 characters): **Method 8 once every 5 years**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on tire derived fuel firing. Annual average based on 0.0066 lb/MMBtu.**

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitations: Visible Emissions Limitation 1 of 1

1.	Visible Emissions Subtype: VE20
2.	Basis for Allowable Opacity: [X] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: 20. % Exceptional Conditions: 27. % Maximum Period of Excess Opacity Allowed: 6 min/hour
4.	Method of Compliance: EPA Method 9
5.	Visible Emissions Comment (limit to 200 characters): 40 CFR 60, Subpart Da

Visible Emissions Limitations: Visible Emissions Limitation _____ of _____

1.	Visible Emissions Subtype:
2.	Basis for Allowable Opacity: [ ] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4.	Method of Compliance:
5.	Visible Emissions Comment (limit to 200 characters):

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor 1 of 6

1. Parameter Code: VE	2. Pollutant(s):
2. CMS Requirement: [X] Rule [ ] Other	
3. Monitor Information: Monitor Manufacturer: Durag Model Number: DR281-31-AV Serial Number: 31505	
4. Installation Date: 05 Dec 1995	
5. Performance Specification Test Date:	
6. Continuous Monitor Comment (limit to 200 characters): 40 CFR 60, Subpart Da	

Continuous Monitoring System Continuous Monitor 2 of 6

1. Parameter Code: EM	2. Pollutant(s): NOx
2. CMS Requirement: [X] Rule [ ] Other	
3. Monitor Information: Monitor Manufacturer: Thermo Environmental Instruments Model Number: 42D Serial Number: 42D-53474-296	
4. Installation Date: 05 Dec 1995	
5. Performance Specification Test Date:	
6. Continuous Monitor Comment (limit to 200 characters): 40 CFR 60, Subpart Da	

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor 3 of 6

1. Parameter Code: EM	2. Pollutant(s): SO2
2. CMS Requirement: [ ] Rule [X] Other	
3. Monitor Information: Monitor Manufacturer: Thermo Environmental Instruments Model Number: 43B Serial Number: 43B-53227-295	
4. Installation Date: 05 Dec 1995	
5. Performance Specification Test Date:	
6. Continuous Monitor Comment (limit to 200 characters): 40 CFR 60, Subpart Da	

Continuous Monitoring System Continuous Monitor 4 of 6

1. Parameter Code: EM	2. Pollutant(s): CO
2. CMS Requirement: [ ] Rule [X] Other	
3. Monitor Information: Monitor Manufacturer: Thermo Environmental Instruments Model Number: 48 Serial Number: 48-53334-296	
4. Installation Date: 05 Dec 1995	
5. Performance Specification Test Date:	
6. Continuous Monitor Comment (limit to 200 characters):	

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor 5 of 6

1. Parameter Code: O2	2. Pollutant(s):
2. CMS Requirement: [X] Rule [ ] Other	
3. Monitor Information: Monitor Manufacturer: Yokogowa Model Number: ZA8C Serial Number: JJ113PA189	
4. Installation Date: 05 Dec 1995	
5. Performance Specification Test Date:	
6. Continuous Monitor Comment (limit to 200 characters): 40 CFR 60, Subpart Da	

Continuous Monitoring System Continuous Monitor 6 of 6

1. Parameter Code: CO2	2. Pollutant(s):
2. CMS Requirement: [ ] Rule [X] Other	
3. Monitor Information: Monitor Manufacturer: California Analytical Model Number: ZARH1 Serial Number: N5B3535T	
4. Installation Date: 05 Dec 1995	
5. Performance Specification Test Date:	
6. Continuous Monitor Comment (limit to 200 characters):	

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

   If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

   [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 the 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 the 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.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[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 the source 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 the source consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and the emissions unit consumes increment.

[ ] 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.	Increment Consuming/Expanding Code:			
	PM	[x] C	[ ] E	[ ] Unknown
	SO_2	[x] C	[ ] E	[ ] Unknown
	NO_2	[x] C	[ ] E	[ ] Unknown
4.	Baseline Emissions:			
	PM	lb/hour		tons/year
	SO_2	lb/hour		tons/year
	NO_2			tons/year
5.	PSD Comment (limit to 200 characters):			

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements for All Applications

1.	Process Flow Diagram	
	[X] Attached, Document ID: PART B	
	[ ] Not Applicable	[ ] Waiver Requested
2.	Fuel Analysis or Specification	
	[X] Attached, Document ID: PART B	
	[ ] Not Applicable	[ ] Waiver Requested
3.	Detailed Description of Control Equipment	
	[X] Attached, Document ID: PART B	
	[ ] Not Applicable	[ ] Waiver Requested
4.	Description of Stack Sampling Facilities	
	[ ] Attached, Document ID: _____	
	[X] Not Applicable	[ ] Waiver Requested
5.	Compliance Test Report	
	[ ] Attached, Document ID: _____	[X] Not Applicable
	[ ] Previously Submitted, Date: _____	
6.	Procedures for Startup and Shutdown	
	[ ] Attached, Document ID: _____	[X] Not Applicable
7.	Operation and Maintenance Plan	
	[ ] Attached, Document ID: _____	[X] Not Applicable
8.	Supplemental Information for Construction Permit Application	
	[X] Attached, Document ID: PART B	[ ] Not Applicable
9.	Other Information Required by Rule or Statute	
	[X] Attached, Document ID: PART B	[ ] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operation

[ ] Attached, Document ID: _____ [ ] Not Applicable

11. Alternative Modes of Operation (Emissions Trading)

[ ] Attached, Document ID: _____ [ ] Not Applicable

12. Identification of Additional Applicable Requirements

[ ] Attached, Document ID: _____ [ ] Not Applicable

13. Compliance Assurance Monitoring Plan

[ ] Attached, Document ID: _____ [ ] Not Applicable

14. Acid Rain Permit Application (Hard Copy Required)

[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID: _____

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID: _____

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID: _____

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID: _____

[ ] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

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

Type of Emissions Unit Addressed in This Section

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. Single Process, Group of Processes, or Fugitive Only? Check one:

[ ] This Emissions Unit information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[X] 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.

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

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Fugitive Emissions from Biomass/Coal/Ash Handling**		
2. Emissions Unit Identification Number: [X] 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 (limit to 500 characters):		

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters):

Baghouse

2. Control Device or Method Code: 18

B.

1. Description (limit to 200 characters):

Enclosures

2. Control Device or Method Code: 54

C.

1. Description (limit to 200 characters):

2. Control Device or Method Code:

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

Emissions Unit Details

1. Initial Startup Date:	
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:	 °F seconds °F

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate:		mmBtu/hr
2. Maximum Incineration Rate:	lbs/hr	tons/day
3. Maximum Process or Throughput Rate:	**956,647**	**TPY**
4. Maximum Production Rate:		
5. Operating Capacity Comment (limit to 200 characters): **956,647 TPY biomass; 18,221 TPY coal; 43,687 TPY TDF**		

Emissions Unit Operating Schedule

1. Requested Maximum Operating Schedule:			
	24 hours/day		**7** days/week
	52 weeks/yr		**8,760** hours/yr

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Rule Applicability Analysis (Required for Category II Applications and Category III applications involving non Title-V sources. See Instructions.)

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

62-296.300(2)
62-296.300(3)

E. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: Fuel Handling System
2. Emission Point Type Code: [ ] 1 [ ] 2 [ ] 3 [x] 4
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:
5. Discharge Type Code: [ ] D [x] F [ ] H [ ] P [ ] R [ ] V [ ] W
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:	**10** feet
13. Emission Point UTM Coordinates: Zone: **17** East (km): **544.2** North (km): **2968**	
14. Emission Point Comment (limit to 200 characters): **Fugitive emissions**	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Pulp & Paper and Wood Products; Fugitive Emissions**	
2. Source Classification Code (SCC): **3-07-888-01**	
3. SCC Units: **Tons Product**	
4. Maximum Hourly Rate:	5. Maximum Annual Rate: **956,647**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters): **Segment represents biomass handling and storage operations.**	

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Mineral Products; Fugitive Emissions**	
2. Source Classification Code (SCC): **3-05-888-01**	
3. SCC Units: **Tons Product**	
4. Maximum Hourly Rate:	5. Maximum Annual Rate: **18,221**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters): **Segment represents coal handling and storage operations.**	

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

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM			WP
PM10			WP

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitations: Visible Emissions Limitation 1 of 1

1.	Visible Emissions Subtype: VE
2.	Basis for Allowable Opacity: [X] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: 20. % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4.	Method of Compliance: VE test using Method 9
5.	Visible Emissions Comment (limit to 200 characters): 62-296.320(4)(b)

Visible Emissions Limitations: Visible Emissions Limitation _____ of _____

1.	Visible Emissions Subtype:
2.	Basis for Allowable Opacity: [ ] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4.	Method of Compliance:
5.	Visible Emissions Comment (limit to 200 characters):

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
2. CMS Requirement: [ ] Rule [ ] Other	
3. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
4. Installation Date:	
5. Performance Specification Test Date:	
6. Continuous Monitor Comment (limit to 200 characters):	

Continuous Monitoring System Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
2. CMS Requirement: [ ] Rule [ ] Other	
3. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
4. Installation Date:	
5. Performance Specification Test Date:	
6. Continuous Monitor Comment (limit to 200 characters):	

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

   If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

   [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 the 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 the 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.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[ ] 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 the source 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 the source consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and the emissions unit consumes increment.

[ ] 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.	Increment Consuming/Expanding Code:			
	PM	[X] C	[ ] E	[ ] Unknown
	SO_2	[ ] C	[ ] E	[ ] Unknown
	NO_2	[ ] C	[ ] E	[ ] Unknown
4.	Baseline Emissions:			
	PM	lb/hour		tons/year
	SO_2	lb/hour		tons/year
	NO_2			tons/year
5.	PSD Comment (limit to 200 characters):			

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements for All Applications

1.	Process Flow Diagram	
	[X] Attached, Document ID: PART B	
	[ ] Not Applicable	[ ] Waiver Requested
2.	Fuel Analysis or Specification	
	[ ] Attached, Document ID: _____	
	[X] Not Applicable	[ ] Waiver Requested
3.	Detailed Description of Control Equipment	
	[X] Attached, Document ID: PART B	
	[ ] Not Applicable	[ ] Waiver Requested
4.	Description of Stack Sampling Facilities	
	[ ] Attached, Document ID: _____	
	[ ] Not Applicable	[X] Waiver Requested
5.	Compliance Test Report	
	[ ] Attached, Document ID: _____	[X] Not Applicable
	[ ] Previously Submitted, Date: _____	
6.	Procedures for Startup and Shutdown	
	[ ] Attached, Document ID: _____	[X] Not Applicable
7.	Operation and Maintenance Plan	
	[ ] Attached, Document ID: _____	[X] Not Applicable
8.	Supplemental Information for Construction Permit Application	
	[X] Attached, Document ID: PART B	[ ] Not Applicable
9.	Other Information Required by Rule or Statute	
	[X] Attached, Document ID: PART B	[ ] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

10.	Alternative Methods of Operation [ ] Attached, Document ID: _____ [ ] Not Applicable
11.	Alternative Modes of Operation (Emissions Trading) [ ] Attached, Document ID: _____ [ ] Not Applicable
12.	Identification of Additional Applicable Requirements [ ] Attached, Document ID: _____ [ ] Not Applicable
13.	Compliance Assurance Monitoring Plan [ ] Attached, Document ID: _____ [ ] Not Applicable
14.	Acid Rain Permit Application (Hard Copy Required) [ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ [ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ [ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ [ ] Not Applicable

PART B

SUPPLEMENTAL INFORMATION FOR PERMIT APPLICATION

OSCEOLA POWER LIMITED PARTNERSHIP

1.0 INTRODUCTION

Osceola Power Limited Partnership (Osceola Power) was issued a prevention of significant deterioration (PSD) permit in 1993 and an amendment in 1995 for construction of a 74 megawatt electric (MWe) cogeneration facility. The cogeneration facility, which is now in the startup period, will use primarily biomass (bagasse and wood waste materials) to generate steam and electricity. The cogeneration facility is located adjacent to the existing Osceola Farms sugar mill, east of Pahokee, Florida. The cogeneration system consists of two new combustion units and a steam turbine electric generator. After the cogeneration facility begins commercial operation, the existing sugar mill boilers will only operate when one or more of the cogeneration units are shutdown. The existing boilers will be permanently shutdown and rendered incapable of operation no later than January 1, 1999.

The cogeneration facility will provide enough steam energy for the needs of the Osceola Farms sugar mill and will generate electricity which will be sold to Florida Power & Light Company (FPL). Further, the proposed facility will reduce overall air emissions and water consumption compared to the existing facility while generating approximately 18 times more electric energy than the existing facility.

The original state construction permit (AC50-219795) and federal PSD permit (PSD-FL-197) were issued to Osceola Power on September 27, 1993. The permit was modified on October 16, 1995 (AC50-269980; PSD-FL-197A) to reflect certain design changes in the facility since the original permits were issued.

Osceola Power is now requesting authorization to utilize tire-derived fuel (TDF) as a supplemental fuel. TDF would be used primarily in the off-season when bagasse fuel is not available. During the off-season, the primary fuel for the facility will be wood waste. However, wood waste is not a commodity fuel, and as such, supplies and availability may vary depending on various factors. The use of TDF as a supplemental fuel will help insure an adequate fuel supply is available to operate the facility and meet the demands of the sugar mill.

The requested use of TDF as a supplemental fuel will not increase emissions to the atmosphere of any regulated pollutants, except for lead. A small increase in lead emissions is predicted due to

TDF utilization. All current permit limits for the facility will be retained, except in the case of lead. For lead, the increase in emissions is below the PSD significant emission rate. Therefore, PSD or nonattainment new source review do not apply to the modification.

This supplemental information report for the air construction permit application contains three additional sections. A description of the project, including air emission rates for TDF firing, is presented in Section 2.0. The air quality review requirements for the project and new source review applicability are discussed in Section 3.0. An updated air quality impact (dispersion modeling) analysis for hazardous/toxic air pollutants is presented in Section 4.0. Supportive information is contained in the appendices.

2.0 PROJECT DESCRIPTION

2.1 CURRENT COGENERATION FACILITY AIR PERMIT

Osceola Power was issued a state construction permit (AC50-219795) and federal PSD permit (PSD-FL-197) on September 27, 1993, for the construction of a 60 MWe (gross) capacity biomass/coal-fired cogeneration facility. The permit was amended on April 8, 1994 to allow up to 65 MWe (gross) generating capacity. The permit was also amended on October 16, 1995 (AC50-269980; PSD-FL-197A) to allow up to 74 MWe (gross, 1-hour average) generating capacity and to update certain design information for the facility.

The cogeneration facility consists of two steam boilers and one steam turbine and associated equipment. Each boiler is capable of producing an average of 506,000 lbs/hr steam. During the sugar processing season, the cogeneration facility is to provide steam to the existing Osceola Farms sugar mill by burning primarily bagasse, which is the residual cellulose fiber resulting from the sugar cane grinding process, while also generating electricity. During the off-season, the cogeneration facility will burn primarily wood waste to generate electricity.

The current construction permit limits the maximum heat input to each of the two boilers to 760 million British thermal units per hour (MMBtu/hr) when firing biomass, 600 MMBtu/hr when No. 2 fuel oil, and 530 MMBtu/hr when firing low sulfur coal. Maximum annual heat input to the entire facility is limited to 8.208×10^{12} Btu/yr. Maximum annual coal burning is limited to 18,221 tons per year (TPY), which is approximately 5.4 percent of the total maximum annual heat input.

The two new boilers are subject to federal new source performance standards (NSPS) for electric utility boilers (40 CFR 60, Subpart Da). Because the facility will burn wood waste potentially originating from residential sources, the boilers are also subject to a reporting and record keeping requirement under 40 CFR 60, Subparts Ea and Cb, which are the NSPS for municipal waste combustors. Because of the broad definition of municipal solid waste (MSW), wood waste is potentially classified as municipal solid waste. Because Osceola Power will limit the total amount of MSW fired in each boiler to less than 30 percent (weight basis) on a calendar quarter basis, no provisions of Subparts Ea and Cb will apply to the facility, other than the record keeping and reporting requirements.

Air pollution control equipment serving each boiler consists of an electrostatic precipitator (ESP) to control particulate matter (PM) and heavy metal emissions, a selective non-catalytic reduction (SNCR) system for the control of NO_x emissions, and a mercury control system.

A regional map showing the location of the site is presented in Figure 2-1. A location map showing the existing sugar mill, cogeneration site, and plant property boundaries is presented in Figure 2-2.

2.2 PROPOSED REVISIONS TO AIR CONSTRUCTION PERMIT

Osceola Power is requesting authorization to utilize tire-derived fuel (TDF) as a supplemental fuel. TDF would primarily be used in the off-season when bagasse is not available, but may also be used during the crop season to extend the bagasse fuel supply. During the off-season, the cogeneration facility will use primarily wood waste. The facility has not yet constructed any coal handling facilities, and therefore cannot presently burn coal. Therefore, the facility must rely on wood waste sources to supply the fuel needs during the off-season. However, wood waste is not a commodity fuel, and the supply may vary depending on a number of factors beyond the control of Osceola Power. As a result, Osceola Power is seeking alternative sources of fuel. TDF is a fuel that is available, clean burning, and utilization of TDF helps alleviate a large solid waste disposal problem in the state of Florida.

The use of TDF will not affect any current plant capacities, permit conditions or limitations (except for lead emissions). TDF burning can be accommodated within the current air emission limits for the facility. TDF is a cleaner fuel than coal, and therefore can replace coal as an alternate fuel. The remaining sections present information related to TDF burning, including firing rates and air emissions. Information presented in the 1995 construction permit application is not repeated herein, unless such information is affected by TDF utilization. A revised flow diagram for the facility is presented in Figure 2-3.

2.2.1 FUELS

Osceola Power is planning on burning 100 percent biomass fuels. It is planned that the bagasse from the sugar grinding operation will provide approximately two-thirds of the annual fuel requirements of the facility. The remaining fuel requirements will be provided by wood waste materials, which could include clean construction and demolition wood debris, yard trimmings,

land clearing debris, and other clean cellulose and vegetative matter. However, because wood waste materials are not commodity fuels and the supply of wood waste may fluctuate, it is necessary to have the ability to burn limited amounts of other fuels in the event that the supply of biomass fuel is not adequate. Therefore, each combustion unit will have the capability to burn biomass, biomass/TDF, very low sulfur fuel oil, and coal. It is requested that the use of TDF also be authorized as a supplemental fuel.

TDF fuel is produced by chipping whole tires and removing the wire bead. The TDF will be generated at offsite locations and trucked to the Osceola Power facility.

Fuel specifications for each fuel that may be utilized by the cogeneration facility, including TDF, are presented in Table 2-1. Based on these fuel specifications, maximum hourly firing rates are shown in Table 2-2 for each fuel when fired alone. The maximum heat input to each boiler due to biomass fuels is 760 MMBtu/hr. Due to limitations of the fuel oil firing system, maximum heat input of No. 2 fuel oil is limited to 600 MMBtu/hr. Maximum heat input due to coal will be 530 MMBtu/hr. Biomass and fossil fuels may also be burned in combination, not to exceed a total heat input of 760 MMBtu/hr per boiler. These maximum heat input rates are the same as the current permitted rates.

TDF will always be burned in combination with biomass. Maximum TDF input to each boiler will not exceed 25 percent on a weight basis (approximately 48 percent on a heat input basis), up to a maximum of 23,871 lb/hr (11.94 TPH and 370 MMBtu/hr).

On an annual basis, all fuels may be fired alone or in combination, not to exceed a total heat input for both boilers of 8.208×10^{12} Btu/yr. Burning of No. 2 fuel oil will be limited to a total of 24.9 percent of the total annual heat input, and coal burning will be limited to 5.4 percent of the total annual heat input. TDF firing will be limited to 16.5 percent annually on a facility-wide basis (heat input basis) or 43,867 TPY total for the facility.

Four cases are shown in Table 2-2 to illustrate the anticipated scenario of firing 100 percent biomass fuel and the potential cases of firing the maximum amount of fuel oil, coal or TDF, with the remaining heat input due to biomass. When only biomass is fired, the annual heat input requirement is 8.208×10^{12} Btu/yr for the entire facility (total both boilers). Under the worst-

case fuel oil burning case of firing No. 2 fuel oil at 24.9 percent of the total annual heat input, the annual heat input requirement for the entire facility becomes 7.727 x 10^{12} Btu/yr, due to the different heat transfer efficiency for No. 2 fuel oil versus biomass. Similarly, under the worst-case coal firing case of firing coal at 5.4 percent of the total annual heat input, the annual heat input requirement for the entire facility becomes 8.098 x 10^{12} Btu/yr. Under the worst-case TDF firing case of 16.5 percent of the total annual heat input (6.6 percent on a weight basis), the annual heat input for the entire facility is 8.208 x 10^{12} Btu/yr.

2.2.2 FUEL HANDLING SYSTEM

A revised flow diagram of the fuel handling system is presented in Figure 2-4. The figure incorporates the use of TDF at the site. TDF will be stored at the site in an existing bermed area (see Figure 2-5). In order to accommodate TDF firing, a feed hopper and conveyor will be constructed to feed TDF material onto the boiler feed conveyor. The TDF will be moved by front end loader from the storage area to the feed hopper. A separate waste tire permit application is being prepared for the storage area and will be submitted to FDEP.

2.2.3 FACILITY PLOT PLAN

A plot plan of the Osceola Power cogeneration facility is presented in Figure 2-5. This diagram indicates the TDF storage area.

2.2.4 SIMULTANEOUS OPERATION OF THE COGENERATION AND SUGAR MILL BOILERS

The current construction permit contains a condition which limits the simultaneous operation of the cogeneration boilers and the sugar mill boilers. During the period from initial firing until commercial operation, the Osceola Power cogeneration boilers may operate simultaneously with the existing sugar mill boilers. Only biomass or No. 2 fuel oil will be fired in the cogeneration boilers during this period. In addition, if the cogeneration boilers generate more than 570,000 lb/hr steam (24-hour average) during this period, steam in excess of 570,000 lb/hr (24-hour-average) must be sent to the Osceola sugar mill, and the existing Osceola sugar mill boilers steam production must be reduced by an equivalent amount.

This period of simultaneous operation was not to exceed a total duration of 12 months, and simultaneous operation during this 12-month period was not occur on more than 120 calendar

days. After the first 12 months of cogeneration facility operation, the existing Osceola sugar mill boilers can be operated only when both cogeneration facility boilers are shutdown. The existing boilers are to be permanently disabled and made incapable of operation within three years of commercial startup of the cogeneration facility, but no later than January 1, 1999.

Osceola Power is requesting in a seperate letter that this period of simultaneous operation of the cogeneration boilers and the existing sugar mill boilers be extended through April 1, 1997. Osceola Power will be requesting that the current construction permit be revised to reflect this change.

2.3 APPLICABILITY OF FEDERAL NEW SOURCE PERFORMANCE STANDARDS

2.3.1 NSPS FOR ELECTRIC UTILITY STEAM GENERATING UNITS

Based on the maximum heat input to the cogeneration facility boilers and the type of fuel burned, the boilers are subject to the federal NSPS for electric utility steam generating units (40 CFR 60, Subpart Da). The proposed cogeneration units are classified as "resource recovery units", since combustion of non-fossil fuels will be more than 75 percent on a quarterly (calendar) heat input basis. The proposed use of TDF will not affect this classification.

For resource recovery units under Subpart Da, SO_2 emissions are limited to 1.2 lb/MMBtu. TDF contains up to 1.2 percent sulfur, with potential SO_2 emissions of up to 1.6 lb/MMBtu. However, TDF will always be burned in combination with biomass, at amounts up to 25 percent on a weight basis. Under such conditions, published studies indicate significant SO_2 removal can be achieved, resulting in SO_2 emissions of less than 1.2 lb/MMBtu. Supportive information for this conclusion is provided in Attachment B. Source testing while firing TDF/biomass will be used to demonstrate compliance with this limit.

2.3.2 NSPS FOR VOLATILE ORGANIC LIQUID STORAGE TANKS

The distillate fuel oil storage tank at Osceola Power is subject to the record keeping requirements of federal NSPS for Volatile Organic Liquid (VOL) storage vessels. The NSPS applies to all tanks of greater than 15,000 gallon capacity which will store any VOL and which was constructed after July 23, 1984. The NSPS requirements for such a tank, contained in 40 CFR 60.116b, states that the owner/operator of the storage tank must maintain information relating to the dimensions and capacity of the storage tank. This information must be readily accessible and be

kept for the life of the source. Osceola Power will comply with this requirement by maintaining tank specification information on file at the plant site.

2.3.3 NSPS FOR MUNICIPAL SOLID WASTE COMBUSTORS

EPA has recently promulgated revised NSPS for municipal waste combustors (MWCs). Three NSPS are potentially applicable to the Osceola Power facility: Subpart Ea, Subpart Eb, and Subpart Cb. Subpart Ea applies to MWCs which commenced construction between December 21, 1989 and September 20, 1994; Subpart Eb applies to MWCs which commenced construction after September 20, 1994; and Subpart Cb applies to MWCs which commenced construction prior to September 20, 1994. Construction was commenced on the Osceola Power facility between December 2, 1989 and September 20, 1994. Therefore, Subparts Ea and Cb are potentially applicable to the facility.

Although Osceola Power intends to burn clean wood waste and TDF, the MWC regulations define municipal solid waste (MSW) to include yard waste and tires if obtained from household, commercial/retail and/or institutional sources. This broad definition would encompass materials potentially burned by Osceola. However, both Subparts Ea and Cb contain exemptions from the regulations for "co-fired combustors". A co-fired combustor is a unit which combusts MSW with non-MSW fuel and which is subject to a federally enforceable permit limiting the unit to less than 30 percent MSW (weight basis) as measured on a calendar quarter basis.

Osceola Power is requesting that a permit condition be imposed on each unit at the facility that limits the amount of MSW combusted to less than 30 percent by weight on a calendar quarter basis. Such a condition will insure that Osceola Power does not become subject to the NSPS for MWCs.

2.4 EMISSIONS OF REGULATED POLLUTANTS FROM BOILERS

2.4.1 CRITERIA/DESIGNATED POLLUTANTS

The emission limits for all criteria/designated pollutants emitted by the Osceola Power boilers are presented in Table 2-3. The emission limits in terms of lb/MMBtu, lb/hr and tons per year (TPY) are all the same as currently permitted, except in the case of lead.

Emission limits for TDF firing have been developed based on available TDF analysis and considering the air pollution control equipment installed on the Osceola Power boilers. The TDF analysis and uncontrolled and controlled emission factors are presented in Table 2-4. Based on data from wood-fired boilers in the pulp and paper industry, it is believed that a significant SO_2 capture will occur in the fly ash when firing TDF in combination with biomass. This removal will be verified by stack testing as well as the continuous SO_2 monitor. If it is determined that the proposed SO_2 emission limit for TDF cannot be attained, the annual TDF quantity fired will be further limited to remain within the annual SO_2 emission limit for both boilers.

Maximum hourly emissions from each of the Osceola Power boilers for each fuel are presented in Table 2-5. Since TDF will always be burned in combination with biomass, with up to 25 percent TDF on a weight basis, emission rates are also presented for 25 percent TDF/75 percent biomass firing (weight basis) in Table 2-5. Emission factors and specific references are provided in Appendix A, Table A-1. As shown, the maximum hourly emissions occur when burning either biomass, biomass/TDF, or coal.

The total maximum annual emissions for each pollutant from both boilers, including the proposed TDF firing, are presented in Table 2-6. These are based upon the same emission factors as presented in Table 2-5. The total maximum annual emission rate for each pollutant is based upon the worst-case fuel operating scenario and is identified in the far right column of Table 2-6. The maximum annual emissions for any of the criteria/designated pollutants are not higher than currently permitted, except in the case of lead. The current permit limit for lead is 0.011 TPY, total for both boilers. The proposed lead emission limit, based on biomass/TDF firing, is 0.038 TPY.

2.4.2 EMISSIONS OF HAZARDOUS/TOXIC AIR POLLUTANTS

Emission factors for hazardous air pollutants (HAPs) and other air toxics for the Osceola Power facility have not changed since the 1995 application. The emission factors were obtained from various sources, as shown in Appendix A. Emission factors for HAPs and other air toxics, including those for TDF firing obtained from Table 2-4, are shown in Table 2-7. Maximum hourly emissions of HAPs are presented in Table 2-7, and maximum annual HAP emissions are presented in Table 2-8, and include the proposed TDF firing. Emissions of some HAPs/toxics increase due to the TDF firing, compared to biomass, No. 2 fuel oil, or coal firing.

2.5 FUGITIVE EMISSIONS OF PARTICULATE MATTER

Fugitive dust emissions from TDF handling are not expected, other than emissions from front end loader movement in the TDF storage area. Based upon the factors and controls presented in the 1995 original application for the Osceola Power facility, fugitive dust emissions due to vehicular traffic associated with TDF handling are estimated as follows:

8 hrs/day x 365 days/yr x 5 mph = 14,600 VMT/yr

14,600 VMT/yr x 0.48 lb/VMT / 2,000 lb/ton = 3.50 TPY

Table 2-1. Design Fuel Specifications[a] for the Osceola Power Cogeneration Facility

Parameter	Biomass		No. 2 Fuel Oil	Bituminous Coal	Tire-Derived Fuel
	Bagasse	Wood Waste			
Specific Gravity	—	—	0.865	—	—
Heating Value (Btu/lb)	4,250	5,500	19,175	12,000	15,500
Heating Value (Btu/gal)	—	—	138,000	—	—
Ultimate Analysis (dry basis percentage):					
Carbon	48.93	49.58	87.01	82.96	84.4
Hydrogen	6.14	5.87	12.47	5.41	7.1
Nitrogen	0.25	0.40	0.02	1.58	0.24
Oxygen	43.84	40.90	0.00	5.72	2.18
Sulfur	0.009	0.009	0.50	0.67	1.23
Ash/Inorganic	0.83	3.24	0.00	3.66	4.9
Moisture	52	37	—	4.5	0.6

[a] Represents average fuel characteristics.

Sources: Okeelanta Corp., 1992.
Combustion Engineering, 1981.
Waste Recovery, Inc., 1986.

Table 2-2. Maximum Fuel Usage and Heat Input Rates, Osceola Power Limited Partnership

Fuel	Heat Input	Heat Transfer Efficiency (%)	Heat Output	Fuel Firing Rate	
	Maximum Short-Term (per boiler)				
	(MMBtu/hr)		(MMBtu/hr)		
Biomass - Bagasse	760	68	517	178,824	lb/hr
- Wood Waste	760	68	517	138,182	lb/hr
No. 2 Fuel Oil	600	85	510	4,348	gal/hr
Coal	530	85	451	44,167	lb/hr
Tire-Derived Fuel	370	68	252	23,871	lb/hr
	Annual Average (total two boilers)				
	(Btu/yr)		(Btu/yr)		
NORMAL OPERATIONS					
Biomass	8.208E+12	68	5.581E+12	965,647	TPY^a
No. 2 Fuel Oil	0	85	0	0	gal/yr
Coal	0	85	0	0	TPY
Tire-Derived Fuel	0	68	0	0	TPY
TOTAL	8.208E+12		5.581E+12		
24.9% OIL FIRING					
Biomass	5.803E+12	68	3.946E+12	682,706	TPY
No. 2 Fuel Oil	1.924E+12	85	1.635E+12	13,942,251	gal/yr
Coal	0	85	0	0	TPY
Tire-Derived Fuel	0	68	0	0	TPY
TOTAL	7.727E+12		5.581E+12		
5.4% COAL FIRING					
Biomass	7.661E+12	68	5.209E+12	901,294	TPY
No. 2 Fuel Oil	0	85	0	0	gal/yr
Coal	4.373E+11	85	3.717E+11	18,221	TPY
Tire-Derived Fuel	0	68	0	0	TPY
TOTAL	8.098E+12		5.581E+12		
16.5% TIRE-DERIVED FUEL (6.6% TDF, weight basis)					
Biomass	6.854E+12	68	4.660E+12	623,055	TPY^b
No. 2 Fuel Oil	0	85	0	0	gal/yr
Coal	0	85	0	0	TPY
Tire-Derived Fuel	1.354E+12	68	9.209E+11	43,687	TPY
TOTAL	8.208E+12		5.581E+12		

^a Based on bagasse firing.
^b Based on wood waste firing.

Notes: Total heat output required = 5.581E+12 Btu/yr total both boilers.
Fuels may be burned in combination, not to exceed total heat outputs.
Based on fuel heating values as follows:
Bagasse - 4,250 Btu/lb
Wood Waste - 5,500 Btu/lb
No. 2 Fuel Oil - 138,000 Btu/gal
Coal - 12,000 Btu/lb
Tire-derived fuel - 15,500 Btu/lb

Basis for annual heat input

Grinding season: 440,000 lb/hr steam; 658 MMBtu/hr/boiler; 140 crop days
Heat input= 4.4218E+12 Btu/yr

Non-grinding season: 273,150 lb/hr steam; 369 MMBtu/hr/boiler; 225 crop days; 95% capacity
Heat input= 3.7859E+12 Btu/yr

Totals: Heat input= 8.2077E+12 Btu/yr

Table 2-3. Current and Proposed Emission Limits for the Osceola Power Facility

Pollutant	Emission Limit[d] (per boiler)								Total Both Boilers[e] (TPY)
	Biomass		No. 2 Oil		Bit. Coal		Tire-Derived Fuel		
	(lb/MMBtu)	(lb/hr)	(lb/MMBtu)	(lb/hr)	(lb/MMBtu)	(lb/hr)	(lb/MMBtu)	(lb/hr)	
Particulate (TSP)	0.03	22.8	0.03	18.0	0.03	15.9	0.03	11.1	123.1
Particulate (PM10)	0.03	22.8	0.03	18.0	0.03	15.9	0.03	11.1	123.1
Sulfur Dioxide									
3-Hour Average	—	—	—	—	1.2	636.0	1.2	444.0	—
24-Hour Average	0.10	76.0	0.05	30.0	1.2	636.0	1.2	444.0	—
Annual Average	0.02[a]	—	—	—	1.2[a]	—	0.4[a]	—	339.0[f]
Nitrogen Oxides									
Annual Average	0.12[a]	88.2[a]	0.12[a]	72.0[a]	0.15[a]	79.5[a]	0.116[a]	42.9[a]	477.1
Carbon Monoxide									
8-Hour Average	0.35	266.0	0.2	120.0	0.2	106.0	0.35	129.5	1,436.4
Volatile Organic Compounds									
Bagasse	0.06[b]	45.6[b]	0.03	18.0	0.03	15.9	0.04	14.8	219.2
Wood Waste	0.04[c]	30.4[c]							
Lead	2.7×10^{-5}	0.002	8.9×10^{-7}	0.0005	5.1×10^{-5}	0.0027	4.2×10^{-5}	0.016	0.038
Mercury									
Bagasse	5.7×10^{-6} [b]	0.0043[b]	2.4×10^{-6}	0.0014	8.4×10^{-6}	0.0045	6.5×10^{-6}	0.0024	0.0168
Wood Waste	0.29×10^{-6} [c]	0.00022[c]							
Beryllium	—	—	3.5×10^{-7}	0.00021	5.9×10^{-6}	0.0031	4.5×10^{-7}	1.7×10^{-4}	0.0013
Fluorides	—	—	6.3×10^{-6}	0.0038	0.024	12.7	6.5×10^{-4}	0.24	2.08
Sulfuric Acid Mist	0.0049	3.72	0.0025	1.50	0.010	5.3	0.010	3.70	5.94

[a] Compliance based on 30-day rolling average, per 40 CFR 60, Subpart Da.
[b] Emission limit for bagasse. Subject to revision after testing pursuant to Specific Conditions Nos. 23 and 24.
[c] Emission limit for wood waste. subject to revision after testing pursuant to Specific Conditions Nos. 23 and 24.
[d] The emission limit shall be prorated when more than one type of fuel is burned in a boiler.
[e] Limit heat input from No. 2 fuel to less than 25 percent of total heat input on a calendar quarter basis, coal to 18,221 tons and TDF to 43,687 TPY during any 12-month period, and the combination of oil and coal to less than 25 percent of the total heat input on a calendar quarter basis.
[f] Compliance based on a 12-month rolling average.

Table 2-4 . Summary of Tire Derived Fuel Analysis and Potential Emissions

Parameter	Reference 1 Analysis	Reference 1 lb/MMBtu	Reference 2 Analysis	Reference 2 lb/MMBtu	Highest Uncontrolled Emission Rate (lb/MMBtu)	ESP Control Eff. (%)	Highest Controlled Emission Rate (lb/MMBtu)	
	(% by wt.)		(% by wt.)					
Carbon	83.87	--	83.87	--	--	--	--	
Hydrogen	7.09	--	7.09	--	--	--	--	
Oxygen	2.17	--	2.17	--	--	--	--	
Nitrogen	0.24	--	0.24	--	--	--	--	
Sulfur	1.23	0.79	1.23	0.79	1.59 (SO2)	--	1.2	24-hr^b
						--	0.4	Annual^b
Ash	4.78	--	4.78	--	--	--	--	
Moisture	0.62	--	0.62	--	--	--	--	
Heating Value (Btu/lb)	15,500	--	15,500	--	--	--	--	
	(ppm)		(ppm)					
Aluminum			900	5.81E-02	5.81E-02	99	5.81E-04	
Antimony	--	--	0.01	6.45E-07	6.45E-07	99	6.45E-09	
Arsenic	--	--	7	4.52E-04	4.52E-04	99	4.52E-06	
Barium	--	--	12	7.74E-04	7.74E-04	99	7.74E-06	
Beryllium	--	--	0.7	4.52E-05	4.52E-05	99	4.52E-07	
Cadmium	6	3.87E-04	6	3.87E-04	3.87E-04	99	3.87E-06	
Chromium	97	6.26E-03	100	6.45E-03	6.45E-03	99	6.45E-05	
Chlorine	1,490	9.61E-02	--	--	9.61E-02	0	9.61E-02	a
Cobalt	--	--	500	3.23E-02	3.23E-02	99	3.23E-04	
Copper	--	--	950	6.13E-02	6.13E-02	99	6.13E-04	
Fluoride	10	6.45E-04	--	--	6.45E-04	0	6.45E-04	
Lead	65	4.19E-03	--	--	4.19E-03	99	4.19E-05	
Manganese	--	--	1,000	6.45E-02	6.45E-02	99	6.45E-04	
Mercury	--	--	0.1	6.45E-06	6.45E-06	0	6.45E-06	b
Molybdenum	--	--	70	4.52E-03	4.52E-03	99	4.52E-05	
Nickel	--	--	60	3.87E-03	3.87E-03	99	3.87E-05	
Selenium	--	--	105	6.77E-03	6.77E-03	99	6.77E-05	
Tin	--	--	0.01	6.45E-07	6.45E-07	99	6.45E-09	
Uranium	--	--	0.04	2.58E-06	2.58E-06	99	2.58E-08	
Vanadium (ppm)	--	--	1	6.45E-05	6.45E-05	99	6.45E-07	
Zinc (ppm)	15,200	9.81E-01	13,000	8.39E-01	9.81E-01	99	9.81E-03	

a Assumed to be emitted as hydrogen chloride (HCl).
b Based on sulfur capture achievable due to alkaline fly ash.
References:

1. Waste Recovery, Inc. Bulletin 20.20.1C Dec. 1986.
2. Burning Tires for Fuel and Tire Pyrolysis: Air Implications. EPA-450/3-91-024.

Table 2-5. Maximum Hourly Emissions for Osceola Power Cogeneration Facility (per boiler)

Regulated Pollutant	Biomass			No. 2 Fuel Oil			Coal			Tire-Derived Fuel			25%TDF/ 75% Biomass^d	Maximum Emissions for any fuel
	Emission Factor (lb/MMBtu)	Activity Factor (MMBtu/hr)	Maximum Emissions (lb/hr)	Emission Factor (lb/MMBtu)	Activity Factor (MMBtu/hr)	Maximum Emissions (lb/hr)	Emission Factor (lb/MMBtu)	Activity Factor (MMBtu/hr)	Maximum Emissions (lb/hr)	Emission Factor (lb/MMBtu)	Activity Factor (MMBtu/hr)	Maximum Emissions (lb/hr)	(lb/hr)	(lb/hr)
Particulate (TSP)	0.03	760	22.8	0.03	600	18.0	0.03	530	15.9	0.03	370	11.1	22.8	22.8
Particulate (PM10)	0.03	760	22.8	0.03	600	18.0	0.03	530	15.9	0.03	370	11.1	22.8	22.8
Sulfur dioxide:														
3-hour	—	—	—	—	—	—	1.2	530	636.0	—	—	—	—	636.0
24-hour	0.10	760	76.0	0.05	600	30.0	1.2	530	636.0	1.2	370	444.0	483.0	636.0
Nitrogen oxides^a	0.116	760	88.2	0.12	600	72.0	0.15	530	79.5	0.116	370	42.9	88.2	88.2
Carbon monoxide^b	0.35	760	266.0	0.2	600	120.0	0.2	530	106.0	0.35	370	129.5	266.0	266.0
Volatile organic compds.:														
Bagasse	0.06	760	45.6	0.03	600	18.0	0.03	530	15.9	0.04	370	14.8	38.2	45.6
Wood Waste	0.04	760	30.4											
Lead	2.7E-06	760	0.0021	8.9E-07	600	0.00053	5.1E-06	530	0.0027	4.2E-05	370	0.0155	0.0166	0.0166
Mercury - Bagasse	5.7E-06	760	0.0043	2.4E-06	600	0.00144	8.4E-06	530	0.0045	6.5E-06	370	0.0024	0.0046	0.0046
- Wood Waste	2.9E-07	760	0.00022											
Beryllium	–	760	–	3.5E-07	600	0.00021	5.9E-06	530	0.0031	4.5E-07	370	1.7E-04	1.67E-04	0.0031
Fluorides	–	760	–	6.3E-06	600	0.0038	0.024	530	12.7	6.5E-04	370	0.24	0.24	12.7
Sulfuric acid mist^c	0.0049	760	3.72	0.0025	600	1.50	0.010	530	5.30	0.010	370	3.70	5.61	5.6
Total reduced sulfur	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Asbestos	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Vinyl Chloride	–	–	–	–	–	–	–	–	–	–	–	–	–	–

^a 30-day rolling average.
^b 8-hour average.
^c 24-hour average.
^d Weight basis; 370 MMBtu/hr TDF and 390 MMBtu/hr biomass.

Table 2-6. Maximum Annual Emissions for Osceola Power Cogeneration Facility (total all boilers)

Regulated Pollutant	Biomass Emission Factor (lb/MMBtu)	Biomass Activity Factor (E12 Btu/yr)	Biomass Annual Emissions (TPY)	Alternate Fuel Emission Factor (lb/MMBtu)	Alternate Fuel Activity Factor (E12 Btu/yr)	Alternate Fuel Annual Emissions (TPY)	Total Annual Emissions (TPY)
			100% Biomass				
Particulate (TSP)	0.03	8.208	123.12	--	--	--	123.12 a
Particulate (PM10)	0.03	8.208	123.12	--	--	--	123.12 a
Sulfur dioxide	0.02	8.208	82.08	--	--	--	82.08
Nitrogen oxides	0.116	8.208	476.06	--	--	--	476.06
Carbon monoxide	0.35	8.208	1,436.40	--	--	--	1,436.40 a
VOC - Bagasse	0.06	5.499 b	164.98	--	--	--	219.15 a
- Wood Waste	0.04	2.709 c	54.17				
Lead	2.7E-06	8.208	0.011	--	--	--	0.011
Mercury - Bagasse	5.70E-06	5.499 b	0.0157	--	--	--	0.0161
- Wood Waste	2.90E-07	2.709 c	0.00039				
Beryllium	--	--	--	--	--	--	--
Fluorides	--	--	--	--	--	--	--
Sulfuric acid mist	0.00098	8.208	4.02	--	--	--	4.02
			75.1% Biomass / 24.9% Fuel Oil				
Particulate (TSP)	0.03	5.803	87.05	0.03	1.924	28.86	115.91
Particulate (PM10)	0.03	5.803	87.05	0.03	1.924	28.86	115.91
Sulfur dioxide	0.02	5.803	58.03	0.05	1.924	48.10	106.13
Nitrogen oxides	0.116	5.803	336.57	0.12	1.924	115.44	452.01
Carbon monoxide	0.35	5.803	1,015.53	0.2	1.924	192.40	1,207.93
VOC - Bagasse	0.06	3.888 b	116.64	0.03	1.924	28.86	183.80
- Wood Waste	0.04	1.915 c	38.30				
Lead	2.7E-06	5.803	0.0078	8.9E-07	1.924	0.0009	0.009
Mercury - Bagasse	5.70E-06	3.888 b	0.0111	2.4E-06	1.924	0.0023	0.0137
- Wood Waste	2.90E-07	1.915 c	0.00028				
Beryllium	--	--	--	3.5E-07	1.924	0.00034	0.00034
Fluorides	--	--	--	6.27E-06	1.924	0.0060	0.0060
Sulfuric acid mist	0.00098	5.803	2.84	0.0025	1.924	2.41	5.25
			94.6% Biomass / 5.4% Coal				
Particulate (TSP)	0.03	7.661	114.92	0.03	0.4373	6.56	121.47
Particulate (PM10)	0.03	7.661	114.92	0.03	0.4373	6.56	121.47
Sulfur dioxide	0.02	7.661	76.61	1.2	0.4373	262.38	338.99
Nitrogen oxides	0.116	7.661	444.34	0.15	0.4373	32.80	477.14 a
Carbon monoxide	0.35	7.661	1,340.68	0.2	0.4373	43.73	1,384.41
VOC - Bagasse	0.06	5.133 b	153.99	0.03	0.4373	6.56	211.11
- Wood Waste	0.04	2.528 c	50.56				
Lead	2.7E-06	7.661	0.010	5.1E-06	0.4373	0.0011	0.0115
Mercury - Bagasse	5.70E-06	5.133 b	0.0146	8.4E-06	0.4373	0.0018	0.0168 a
- Wood Waste	2.90E-07	2.528 c	0.00037				
Beryllium	--	--	--	5.9E-06	0.4373	0.0013	0.0013 a
Fluorides	--	--	--	0.024	0.4373	5.25	5.25 a
Sulfuric acid mist	0.00098	7.661	3.75	0.010	0.4373	2.19	5.94 a
			83.5% Biomass / 16.5% Tire-Derived Fuel				
Particulate (TSP)	0.03	6.854	102.81	0.03	1.354	20.31	123.12
Particulate (PM10)	0.03	6.854	102.81	0.03	1.354	20.31	123.12
Sulfur dioxide	0.02	6.854	68.54	0.40	1.354	270.86	339.40 a
Nitrogen oxides	0.116	6.854	397.51	0.116	1.354	78.55	476.06
Carbon monoxide	0.35	6.854	1,199.39	0.35	1.354	237.01	1,436.40 a
VOC - Bagasse	0.06	4.592 b	137.76	0.04	1.354	27.09	210.08
- Wood Waste	0.04	2.262 c	45.23				
Lead	2.7E-06	6.854	0.009	4.2E-05	1.354	0.0284	0.0377 a
Mercury - Bagasse	5.70E-06	4.592 b	0.0131	6.5E-06	1.354	0.0044	0.0168 d
- Wood Waste	2.90E-07	2.262 c	0.00033				
Beryllium	--	--	--	4.5E-07	1.354	0.00030	0.00030
Fluorides	--	--	--	6.5E-04	1.354	0.44	0.44
Sulfuric acid mist	0.00098	6.854	3.36	0.0034	1.354	2.30	5.66

a Denotes maximum annual emissions for any fuel scenario.
b Represents 67% of total heat input.
c Represents 33% of total heat input.
d Maximum annual mercury emissions will be limited to 0.0168 TPY.

Note: No emissions of total reduced sulfur, asbestos, or vinyl chloride are expected.

Table 2-7. Maximum Hourly Emissions of Hazardous/ Toxic Air Pollutants for Osceola Power Cogeneration Facility (per boiler).

Hazardous Air Pollutant	Biomass			No. 2 Fuel Oil			Coal			Tire-Derived Fuel			25%TDF/ 75% Biomass^a	Maximum Hourly Emissions For Any Fuel	Maximum Hourly Total Both Boilers
	Emission Factor (lb/MMBtu)	Activity Factor (MMBtu/hr)	Hourly Emissions (lb/hr)	Emission Factor (lb/MMBtu)	Activity Factor (MMBtu/hr)	Hourly Emissions (lb/hr)	Emission Factor (lb/MMBtu)	Activity Factor (MMBtu/hr)	Hourly Emissions (lb/hr)	Emission Factor (lb/MMBtu)	Activity Factor (MMBtu/hr	Hourly Emissions (lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)
Hazardous Air Pollutants															
Acetaldehyde	7.8E-04	760	0.59	--	600	--	--	530	--	--	370	--	0.30	0.59	1.19
Acetophenone	3.7E-06	760	0.00	--	600	--	--	530	--	--	370	--	0.0014	0.0028	0.0056
Acrolein	6.5E-05	760	0.0494	--	600	--	--	530	--	--	370	--	0.025	0.049	0.099
Antimony	UD	760	--	2.4E-07	600	1.4E-04	3.49E-05	530	0.018	6.45E-09	370	2.4E-06	2.39E-06	0.018	0.037
Arsenic	1.30E-04	760	0.0988	4.2E-08	600	2.5E-05	5.4E-06	530	0.0029	4.52E-06	370	1.7E-03	0.05	0.10	0.20
Benzene	1.3E-03	760	1.0	--	600	--	--	530	--	--	370	--	0.51	0.99	1.98
Beryllium	--	--	--	3.5E-07	600	2.1E-04	5.9E-06	530	3.1E-03	4.50E-07	370	1.67E-04	1.67E-04	0.0031	0.0063
Cadmium	8.4E-07	760	6.38E-04	1.1E-07	600	6.6E-05	4.3E-07	530	2.3E-04	3.87E-06	370	1.4E-03	0.0018	0.0018	0.0035
Carbon Disulfide	1.3E-04	760	0.0988	--	600	--	--	530	--	--	370	--	0.051	0.099	0.198
Carbon Tetrachloride	6.0E-06	760	4.6E-03	--	600	--	--	530	--	--	370	--	0.0023	0.0046	0.0091
Chlorine	9.2E-04	760	7.0E-01	--	600	--	--	530	--	--	370		0.36	0.70	1.40
Chloroform	4.7E-05	760	0.036	--	600	--	--	530	--	--	370	--	0.018	0.036	0.071
Chromium	1.58E-04	760	0.120	6.7E-07	600	4.0E-04	1.66E-05	530	0.0088	8.45E-06	370	0.0024	0.064	0.12	0.24
Chromium +6	3.17E-05	760	0.024	1.3E-07	600	7.8E-05	3.1E-06	530	0.0016	--	370	--	0.012	0.024	0.048
Cobalt	1.5E-07	760	1.14E-04	1.2E-05	600	0.0072	7.2E-05	530	0.038	3.23E-04	370	0.120	0.120	0.120	0.239
Cumene	1.8E-05	760	0.0137	--	600	--	--	530	--	--	370	--	0.0070	0.014	0.027
Di - n - butyl Phthalate	5.8E-05	760	0.044	--	600	--	--	530	--	--	370	--	0.023	0.044	0.088
Ethyl Benzene	3.9E-06	760	0.0030	--	600	--	--	530	--	--	370	--	0.0015	0.0030	0.0059
Formaldehyde	1.3E-03	760	0.99	4.05E-04	600	0.24	2.2E-04	530	0.12	4.05E-04	370	0.150	0.66	0.99	1.98
n Hexane	5.5E-04	760	0.418	--	600	--	--	530	--	--	370	--	0.21	0.42	0.84
Hydrogen Chloride	5.6E-04	760	0.43	6.37E-04	600	0.38	7.9E-02	530	41.87	9.61E-02	370	35.56	35.78	41.87	83.74
Lead	2.7E-06	760	0.0021	8.9E-07	600	0.0005	5.1E-06	530	0.0027	4.19E-05	370	0.0155	0.0166	0.0166	0.0331
Manganese	9.5E-05	760	0.072	1.4E-07	600	8.4E-05	3.1E-07	530	1.8E-04	8.45E-04	370	0.24	0.28	0.28	0.55
Mercury - Bagasse	5.7E-06	760	0.0043	2.4E-06	600	0.0014	8.4E-06	530	0.0045	5.00E-06	370	0.0019	0.0041	0.0045	0.0089
-Wood Waste	2.9E-07	760	2.20E-04												
Methanol	1.5E-03	760	1.1400	--	600	--	--	530	--	--	370	--	0.59	1.14	2.28
Methyl Ethyl Ketone	1.2E-05	760	0.0091	--	600	--	--	530	--	--	370	--	0.0047	0.0091	0.0182
Methyl Isobutyl Ketone	8.6E-04	760	0.65	--	600	--	--	530	--	--	370	--	0.34	0.65	1.31
Methylene Chloride	1.5E-03	760	1.14	--	600	--	--	530	--	--	370	--	0.59	1.14	2.28
Napthalene	5.9E-04	760	0.45	--	600	--	--	530	--	--	370	--	0.23	0.45	0.90
Nickel	6.3E-06	760	0.005	1.70E-06	600	1.0E-03	1.0E-05	530	0.0053	3.87E-05	370	0.0143	0.0168	0.0168	0.0336
Phenols	4.1E-05	760	0.0312	--	600	--	--	530	--	--	370	--	0.016	0.031	0.062
Phosphorus	1.6E-06	760	0.0012	5.81E-05	600	0.035	8.6E-04	530	0.46	--	370	--	6.24E-04	0.46	0.91
POM	2.2E-07	760	1.67E-04	8.4E-06	600	0.0050	--	530	--	--	370	--	8.58E-05	0.0050	0.010
Selenium	3.8E-06	760	0.0029	3.8E-07	600	2.3E-04	5.34E-05	530	0.028	6.77E-05	370	0.025	0.027	0.028	0.057
Styrene	1.5E-05	760	0.0114	--	600	--	--	530	--	--	370	--	0.0059	0.011	0.023
2, 3, 7, 8-TCDD(dioxin	6.0E-12	760	4.56E-09	--	600	--	--	530	--	--	370	--	2.3E-09	4.6E-09	9.1E-09
Toluene	9.0E-05	760	0.068	--	600	--	--	530	--	--	370	--	0.035	0.068	0.137
1, 1, 1 Trichloroethane	1.7E-04	760	0.13	--	600	--	--	530	--	--	370	--	0.066	0.13	0.26
Trichloroethylene	7.6E-06	760	0.006	--	600	--	--	530	--	--	370	--	0.0030	0.0058	0.0116
m&p Xylene	7.8E-06	760	0.0059	--	600	--	--	530	--	--	370	--	0.0030	0.0059	0.0119
o Xylene	2.6E-06	760	0.0020	--	600	--	--	530	--	--	370	--	0.0010	0.0020	0.0040
Total HAPs =			8.34			0.88			42.56			36.13	40.41		
112 (r) (non-HAPs)															
Ammonia	4.80E-02	760	36.48	1.48E-02	600	8.88	4.8E-02	530	25.44	4.80E-02	370	17.76	36.48	36.48	72.96
Bromine	4.59E-05	760	0.035	6.97E-07	600	4.2E-04	7.9E-04	530	0.42	--	370	--	0.018	0.42	0.84
Flourine	--	--	--	6.27E-06	600	0.0038	0.024	530	12.72	6.45E-04	370	0.24	0.24	12.72	25.44
Sulfuric acid	0.0049	760	3.72	2.50E-03	600	1.50	0.010	530	5.30	0.010	370	3.70	5.61	5.61	11.22
Other Air Toxics															
Acetone	3.80E-04	760	0.289	--	600	--	--	530	--	--	370	--	0.148	0.289	0.578
Barium	5.20E-06	760	0.0040	6.69E-07	600	4.0E-04	7.44E-05	530	0.039	7.74E-06	370	0.0029	0.005	0.039	0.079
Benzo(a)anthracene	7.53E-07	760	5.72E-04	--	600	--	--	530	--	--	370	--	2.94E-04	5.72E-04	0.0011
Benzo(a)pyrene	3.53E-08	760	2.68E-05	--	600	--	--	530	--	--	370	--	1.38E-05	2.68E-05	5.37E-05
Chrysene	3.53E-05	760	0.027	--	600	--	--	530	--	--	370	--	0.014	0.027	0.054
Copper	1.48E-04	760	0.11	4.20E-05	600	0.025	--	530	--	6.13E-04	370	0.23	0.28	0.28	0.57
Indium	1.27E-04	760	0.097	--	600	--	--	530	--	--	370	--	0.050	0.097	0.193
Iodine	2.12E-06	760	0.0016	--	600	--	--	530	--	--	370	--	0.0008	0.0016	0.0032
Isopropanol	9.20E-03	760	6.99	--	600	--	--	530	--	--	370	--	3.59	6.99	13.98
Molybdenum	2.24E-07	760	1.7E-04	4.88E-07	600	2.9E-04	8.83E-06	530	0.0047	4.52E-05	370	0.0167	0.0168	0.0168	0.034
PAH	5.90E-10	760	4.5E-07	--	600	--	--	530	--	--	370	--	2.30E-07	4.48E-07	8.97E-07
Silver	1.40E-06	760	0.0011	--	600	--	--	530	--	--	370	--	0.0005	0.0011	0.0021
Thallium	UD	760	--	--	600	--	--	530	--	--	370	--	--	--	--
Tin	3.65E-08	760	2.8E-05	3.30E-06	600	0.0020	8.83E-06	530	0.0047	6.45E-09	370	2.4E-06	1.66E-05	0.0047	0.0094
Tungsten	1.29E-08	760	9.8E-06	--	600	--	--	530	--	--	370	--	5.03E-06	9.80E-06	1.96E-05
Uranium	--	760	--	--	600	--	--	530	--	2.58E-08	370	9.5E-06	9.5E-06	9.5E-06	1.9E-05
Vanadium	1.41E-07	760	1.1E-04	--	600	--	--	530	--	6.45E-07	370	2.4E-04	2.9E-04	2.9E-04	5.9E-04
Yttrium	6.59E-08	760	5.0E-05	--	600	--	--	530	--	--	370	--	2.6E-05	5.0E-05	1.0E-04
Zinc	4.24E-04	760	0.32	6.69E-06	600	0.0040	3.49E-04	530	0.18	9.81E-03	370	3.63	3.80	3.80	7.59
Zirconium	4.12E-07	760	3.13E-04	--	600	--	--	530	--	--	370	--	1.6E-04	3.1E-04	6.3E-04

Note: UD = undetectable levels in gas stream.
^a Weight basis.

Table 2-8. Maximum Annual Emissions of Harzardous/Toxic Air Pollutants for Osceola Power (total all boilers)

Pollutant	Biomass Emission Factor (lb/MMBtu)	Biomass Activity Factor (E12 Btu/yr)	Biomass Annual Emissions (TPY)	Alternate Fuel Emission Factor (lb/MMBtu)	Alternate Fuel Activity Factor (E12 Btu/yr)	Alternate Fuel Annual Emissions (TPY)	Annual Emissions (TPY)
			100% Biomass				
Hazardous Air Pollutants							
Acetaldehyde	7.80E-04	8.208	3.20	–	–	–	3.20 a
Acetophenone	3.70E-06	8.208	0.015	–	–	–	0.015 a
Acrolein	6.50E-05	8.208	0.27	–	–	–	0.27 a
Antimony	UD	8.208	–	–	–	–	–
Arsenic	6.79E-05	8.208	0.28	–	–	–	0.28 a
Benzene	1.30E-03	8.208	5.34	–	–	–	5.34 a
Beryllium	–	8.208	–	–	–	–	–
Cadmium	8.40E-07	8.208	0.0034	–	–	–	0.0034
Carbon Disulfide	1.30E-04	8.208	0.53	–	–	–	0.53 a
Carbon Tetrachloride	6.00E-06	8.208	0.025	–	–	–	0.025 a
Chlorine	9.20E-04	8.208	3.78	–	–	–	3.78 a
Chloroform	4.70E-05	8.208	0.19	–	–	–	0.19 a
Chromium	8.27E-05	8.208	0.34	–	–	–	0.34 a
Chromium +6	1.65E-05	8.208	0.068	–	–	–	0.068 a
Cobalt	1.50E-07	8.208	6.2E-04	–	–	–	6.2E-04
Cumene	1.80E-05	8.208	0.07	–	–	–	0.07 a
Di - n - butyl Phthalate	5.80E-05	8.208	0.24	–	–	–	0.24 a
Ethyl Benzene	3.90E-06	8.208	0.016	–	–	–	0.016 a
Formaldehyde	1.30E-03	8.208	5.34	–	–	–	5.34 a
n Hexane	5.50E-04	8.208	2.26	–	–	–	2.26 a
Hydrogen Chloride	5.60E-04	8.208	2.30	–	–	–	2.30
Lead	2.70E-06	8.208	0.011	–	–	–	0.011
Manganese	9.50E-05	8.208	0.39	–	–	–	0.39
Mercury - Bagasse	5.70E-06	8.208	0.023	–	–	–	0.023
-Wood Waste	2.90E-07	8.208	0.0012	–	–	–	0.0012 a
Methanol	1.50E-03	8.208	6.16	–	–	–	6.16 a
Methyl Ethyl Ketone	1.20E-05	8.208	0.049	–	–	–	0.049 a
Methyl Isobutyl Ketone	8.60E-04	8.208	3.53	–	–	–	3.53 a
Methylene Chloride	1.50E-03	8.208	6.16	–	–	–	6.16 a
Napthalene	5.90E-04	8.208	2.42	–	–	–	2.42 a
Nickel	6.30E-06	8.208	0.026	–	–	–	0.026
Phenols	4.10E-05	8.208	0.17	–	–	–	0.17 a
Phosphorus	1.60E-06	8.208	0.0066	–	–	–	0.0066
POM (Polycyclic Org. Matter)	2.20E-07	8.208	0.0009	–	–	–	0.0009
Selenium	3.80E-06	8.208	0.016	–	–	–	0.016
Styrene	1.50E-05	8.208	0.062	–	–	–	0.062 a
2, 3, 7, 8 -TCDD (dioxin)	6.00E-12	8.208	2.5E-08	–	–	–	2.5E-08 a
Toluene	9.00E-05	8.208	0.37	–	–	–	0.37 a
1, 1, 1 Trichloroethane	1.70E-04	8.208	0.70	–	–	–	0.70 a
Trichloroethylene	7.60E-06	8.208	0.031	–	–	–	0.031 a
m&p Xylene	7.80E-06	8.208	0.032	–	–	–	0.032 a
o Xylene	2.60E-06	8.208	0.011	–	–	–	0.011 a
Total HAPs							44.411
112 (r) (non-HAPs)							
Ammonia	4.80E-02	8.208	196.99	–	–	–	196.99 a
Bromine	4.59E-05	8.208	0.19	–	–	–	0.19
Flourine	–	8.208	–	–	–	–	–
Sulfuric acid	9.80E-04	8.208	4.02	–	–	–	4.02
Other Air Toxics							
Acetone	3.80E-04	8.208	1.56	–	–	–	1.56 a
Barium	5.20E-06	8.208	0.02	–	–	–	0.02
Benzo(a)anthracene	7.53E-07	8.208	0.0031	–	–	–	0.0031
Benzo(a)pyrene	3.53E-08	8.208	1.45E-04	–	–	–	1.45E-04 a
Chrysene	3.53E-05	8.208	0.14	–	–	–	0.14 a
Copper	8.02E-05	8.208	0.33	–	–	–	0.33
Indium	1.27E-04	8.208	0.52	–	–	–	0.52 a
Iodine	2.12E-06	8.208	0.0087	–	–	–	0.0087 a
Isopropanol	9.20E-03	8.208	37.76	–	–	–	37.76 a
Molybdenum	2.24E-07	8.208	9.19E-04	–	–	–	9.19E-04
PAH	5.90E-10	8.208	2.42E-06	–	–	–	2.42E-06 a
Silver	1.40E-06	8.208	0.0057	–	–	–	0.0057 a
Thallium	UD	8.208	–	–	–	–	–
Tin	3.65E-08	8.208	1.5E-04	–	–	–	1.5E-04
Tungsten	1.29E-08	8.208	5.3E-05	–	–	–	5.3E-05 a
Uranium	–	8.208	–	–	–	–	–
Vanadium	1.41E-07	8.208	5.8E-04	–	–	–	5.8E-04
Yttrium	6.59E-08	8.208	2.7E-04	–	–	–	2.7E-04 a
Zinc	4.24E-04	8.208	1.74	–	–	–	1.74
Zirconium	4.12E-07	8.208	0.0017	–	–	–	0.0017 a

Table 2-8. Maximum Annual Emissions of Harzardous/Toxic Air Pollutants for Osceola Power (total all boilers)

Pollutant	Biomass Emission Factor (lb/MMBtu)	Biomass Activity Factor (E12 Btu/yr)	Biomass Annual Emissions (TPY)	Alternate Fuel Emission Factor (lb/MMBtu)	Alternate Fuel Activity Factor (E12 Btu/yr)	Alternate Fuel Annual Emissions (TPY)	Annual Emissions (TPY)
			75.1% Biomass / 24.9% Fuel Oil				
Hazardous Air Pollutants							
Acetaldehyde	7.80E-04	5.803	2.26	--	1.924	--	2.26
Acetophenone	3.70E-06	5.803	0.011	--	1.924	--	0.011
Acrolein	6.50E-05	5.803	0.19	--	1.924	--	0.19
Antimony	UD	5.803	--	2.40E-07	1.924	0.0002	0.0002
Arsenic	6.79E-05	5.803	0.20	4.20E-08	1.924	4.0E-05	0.20
Benzene	1.30E-03	5.803	3.77	--	1.924	--	3.77
Beryllium	--	5.803	--	3.50E-07	1.924	3.4E-04	0.0003 a
Cadmium	8.40E-07	5.803	0.0024	1.10E-07	1.924	1.1E-04	0.0025
Carbon Disulfide	1.30E-04	5.803	0.38	--	1.924	--	0.38
Carbon Tetrachloride	6.00E-06	5.803	0.017	--	1.924	--	0.017
Chlorine	9.20E-04	5.803	2.67	--	1.924	--	2.67
Chloroform	4.70E-05	5.803	0.14	--	1.924	--	0.14
Chromium	8.27E-05	5.803	0.24	6.70E-07	1.924	0.0006	0.24
Chromium +6	1.65E-05	5.803	0.048	1.30E-07	1.924	1.3E-04	0.048
Cobalt	1.50E-07	5.803	4.4E-04	1.20E-05	1.924	0.012	0.012
Cumene	1.80E-05	5.803	0.052	--	1.924	--	0.052
Di - n - butyl Phthalate	5.80E-05	5.803	0.17	--	1.924	--	0.17
Ethyl Benzene	3.90E-06	5.803	0.011	--	1.924	--	0.011
Formaldehyde	1.30E-03	5.803	3.77	4.05E-04	1.924	0.39	4.16
n Hexane	5.50E-04	5.803	1.60	--	1.924	--	1.60
Hydrogen Chloride	5.60E-04	5.803	1.62	6.37E-04	1.924	0.61	2.24
Lead	2.70E-06	5.803	0.008	2.70E-06	1.924	0.0026	0.010
Manganese	9.50E-05	5.803	0.28	1.40E-07	1.924	1.3E-04	0.28
Mercury - Bagasse	6.30E-06	5.803	0.018	2.40E-06	1.924	0.0023	0.021
-Wood Waste	2.90E-07	5.803	0.0008	--	1.924	--	0.0008
Methanol	1.50E-03	5.803	4.35	--	1.924	--	4.35
Methyl Ethyl Ketone	1.20E-05	5.803	0.035	--	1.924	--	0.035
Methyl Isobutyl Ketone	8.60E-04	5.803	2.50	--	1.924	--	2.50
Methylene Chloride	1.50E-03	5.803	4.35	--	1.924	--	4.35
Napthalene	5.90E-04	5.803	1.71	--	1.924	--	1.71
Nickel	6.30E-06	5.803	0.018	1.70E-06	1.924	0.0016	0.020
Phenols	4.10E-05	5.803	0.12	--	1.924	--	0.12
Phosphorus	1.60E-06	5.803	0.0046	5.81E-05	1.924	0.056	0.061
POM (Polycyclic Org. Matter)	2.20E-07	5.803	0.0006	8.40E-06	1.924	0.008	0.009 a
Selenium	3.80E-06	5.803	0.011	3.80E-07	1.924	3.7E-04	0.011
Styrene	1.50E-05	5.803	0.044	--	1.924	--	0.044
2, 3, 7, 8 -TCDD (dioxin)	6.00E-12	5.803	1.7E-08	--	1.924	--	1.7E-08
Toluene	9.00E-05	5.803	0.26	--	1.924	--	0.26
1, 1, 1 Trichloroethane	1.70E-04	5.803	0.49	--	1.924	--	0.49
Trichloroethylene	7.60E-06	5.803	0.022	--	1.924	--	0.022
m & p Xylene	7.80E-06	5.803	0.023	--	1.924	--	0.023
o Xylene	2.60E-06	5.803	0.008	--	1.924	--	0.008
Total HAPs							32.486
112 (r) (non-HAPs)							
Ammonia	4.80E-02	5.803	139.27	1.48E-02	1.924	14.24	153.51
Bromine	4.59E-05	5.803	0.13	6.97E-07	1.924	0.0007	0.13
Flourine	--	5.803	--	6.30E-06	1.924	0.0061	0.0061
Sulfuric acid	9.80E-04	5.803	2.84	2.50E-03	1.924	2.41	5.25
Other Air Toxics							
Acetone	3.80E-04	5.803	1.10	--	--	--	1.10
Barium	5.20E-06	5.803	0.02	6.69E-07	1.924	0.0006	0.02
Benzo(a)anthracene	7.53E-07	5.803	0.0022	4.20E-05	1.924	0.040	0.04 a
Benzo(a)pyrene	3.53E-08	5.803	1.02E-04	--	1.924	--	0.00
Chrysene	3.53E-05	5.803	0.10	--	1.924	--	0.10
Copper	8.02E-05	5.803	0.23	--	1.924	--	0.23
Indium	1.27E-04	5.803	0.37	--	1.924	--	0.37
Iodine	2.12E-06	5.803	0.0062	--	1.924	--	0.0062
Isopropanol	9.20E-03	5.803	26.69	--	1.924	--	26.69
Molybdenum	2.24E-07	5.803	6.50E-04	4.88E-07	1.924	4.7E-04	0.0011
PAH	5.90E-10	5.803	1.71E-06	--	1.924	--	1.71E-06
Silver	1.40E-06	5.803	0.0041	--	1.924	--	0.0041
Thallium	UD	5.803	--	--	1.924	--	--
Tin	3.65E-08	5.803	1.1E-04	3.30E-06	1.924	0.0032	0.0033 a
Tungsten	1.29E-08	5.803	3.7E-05	--	1.924	--	3.74E-05
Uranium	--	5.803	--	--	1.924	--	--
Vanadium	1.41E-07	5.803	4.1E-04	--	1.924	--	4.09E-04
Yttrium	6.59E-08	5.803	1.9E-04	--	1.924	--	1.91E-04
Zinc	4.24E-04	5.803	1.23	6.69E-06	1.924	0.006	1.24
Zirconium	4.12E-07	5.803	0.0012	--	1.924	--	0.0012

Table 2-8. Maximum Annual Emissions of Harzardous/Toxic Air Pollutants for Osceola Power (total all boilers)

Pollutant	Biomass Emission Factor (lb/MMBtu)	Biomass Activity Factor (E12 Btu/yr)	Biomass Annual Emissions (TPY)	Alternate Fuel Emission Factor (lb/MMBtu)	Alternate Fuel Activity Factor (E12 Btu/yr)	Alternate Fuel Annual Emissions (TPY)	Annual Emissions (TPY)
			94.6% Biomass / 5.4% Coal				
Hazardous Air Pollutants							
Acetaldehyde	7.80E-04	7.661	2.99	–	0.4373	–	2.99
Acetophenone	3.70E-06	7.661	0.014	–	0.4373	–	0.014
Acrolein	6.50E-05	7.661	0.25	–	0.4373	–	0.25
Antimony	UD	7.661	–	3.49E-05	0.4373	0.008	0.008 a
Arsenic	6.79E-05	7.661	0.26	5.40E-06	0.4373	0.0012	0.26
Benzene	1.30E-03	7.661	4.98	–	0.4373	–	4.98
Beryllium	–	7.661	–	3.50E-07	0.4373	7.7E-05	7.7E-05
Cadmium	8.40E-07	7.661	0.0032	4.30E-07	0.4373	9.4E-05	0.0033
Carbon Disulfide	1.30E-04	7.661	0.50	–	0.4373	–	0.50
Carbon Tetrachloride	6.00E-06	7.661	0.023	–	0.4373	–	0.023
Chlorine	9.20E-04	7.661	3.52	–	0.4373	–	3.52
Chloroform	4.70E-05	7.661	0.18	–	0.4373	–	0.18
Chromium	8.27E-05	7.661	0.32	1.66E-05	0.4373	0.004	0.32
Chromium +6	1.65E-05	7.661	0.063	3.10E-06	0.4373	0.0007	0.064
Cobalt	1.50E-07	7.661	5.7E-04	7.20E-05	0.4373	0.016	0.016
Cumene	1.80E-05	7.661	0.069	–	0.4373	–	0.069
Di - n - butyl Phthalate	5.80E-05	7.661	0.22	–	0.4373	–	0.22
Ethyl Benzene	3.90E-06	7.661	0.015	–	0.4373	–	0.015
Formaldehyde	1.30E-03	7.661	4.98	2.20E-04	0.4373	0.05	5.03
n Hexane	5.50E-04	7.661	2.11	–	0.4373	–	2.11
Hydrogen Chloride	5.60E-04	7.661	2.15	7.90E-02	0.4373	17.27	19.42
Lead	2.70E-06	7.661	0.010	5.10E-06	0.4373	–	0.010
Manganese	9.50E-05	7.661	0.36	3.10E-07	0.4373	6.8E-05	0.36
Mercury - Bagasse	6.30E-06	7.661	0.024	8.40E-06	0.4373	0.0018	0.026 a
-Wood Waste	2.90E-07	7.661	0.0011	–	0.4373	–	0.0011
Methanol	1.50E-03	7.661	5.75	–	0.4373	–	5.75
Methyl Ethyl Ketone	1.20E-05	7.661	0.046	–	0.4373	–	0.046
Methyl Isobutyl Ketone	8.60E-04	7.661	3.29	–	0.4373	–	3.29
Methylene Chloride	1.50E-03	7.661	5.75	–	0.4373	–	5.75
Napthalene	5.90E-04	7.661	2.26	–	0.4373	–	2.26
Nickel	6.30E-06	7.661	0.024	1.00E-05	0.4373	0.0022	0.026
Phenols	4.10E-05	7.661	0.16	–	0.4373	–	0.16
Phosphorus	1.60E-06	7.661	0.0061	8.60E-04	0.4373	0.19	0.194 a
POM (Polycyclic Org. Matter)	2.20E-07	7.661	0.0008	–	0.4373	–	0.0008
Selenium	3.80E-06	7.661	0.015	5.34E-05	0.4373	0.012	0.026
Styrene	1.50E-05	7.661	0.057	–	0.4373	–	0.057
2, 3, 7, 8 TCDD (dioxin)	6.00E-12	7.661	2.3E-08	–	0.4373	–	2.3E-08
Toluene	9.00E-05	7.661	0.34	–	0.4373	–	0.34
1, 1, 1 Trichloroethane	1.70E-04	7.661	0.65	–	0.4373	–	0.65
Trichloroethylene	7.60E-06	7.661	0.029	–	0.4373	–	0.029
m & p Xylene	7.80E-06	7.661	0.030	–	0.4373	–	0.030
o Xylene	2.60E-06	7.661	0.010	–	0.4373	–	0.010
Total HAPs							59.008
112 (r) (non-HAPs)							
Ammonia	4.80E-02	7.661	183.86	4.80E-02	0.4373	10.50	194.4
Bromine	4.59E-05	7.661	0.18	7.90E-04	0.4373	0.17	0.35 a
Flourine	–	7.661	–	2.40E-02	0.4373	5.25	5.25 a
Sulfuric acid	9.80E-04	7.661	3.75	0.010	0.4373	2.19	5.94 a
Other Air Toxics							
Acetone	3.80E-04	7.661	1.46	–	0.4373	–	1.46
Barium	5.20E-06	7.661	0.02	7.44E-05	0.4373	0.016	0.04 a
Benzo(a)anthracene	7.53E-07	7.661	2.88E-03	–	0.4373	–	2.88E-03
Benzo(a)pyrene	3.53E-08	7.661	1.35E-04	–	0.4373	–	1.35E-04
Chrysene	3.53E-05	7.661	0.14	–	0.4373	–	0.14
Copper	8.02E-05	7.661	0.31	–	0.4373	–	0.31
Indium	1.27E-04	7.661	0.49	–	0.4373	–	0.49
Iodine	2.12E-06	7.661	0.0081	–	0.4373	–	0.0081
Isopropanol	9.20E-03	7.661	35.24	–	0.4373	–	35.24
Molybdenum	2.24E-07	7.661	8.58E-04	8.83E-06	0.4373	0.0019	0.0028
PAH	5.90E-10	7.661	2.26E-06	–	0.4373	–	2.26E-06
Silver	1.40E-06	7.661	0.0054	–	0.4373	–	0.0054
Thallium	UD	7.661	–	–	0.4373	–	–
Tin	3.65E-08	7.661	1.4E-04	8.83E-06	0.4373	0.0019	0.0021
Tungsten	1.29E-08	7.661	4.9E-05	–	0.4373	–	4.94E-05
Uranium	–	7.661	–	–	0.4373	–	–
Vanadium	1.41E-07	7.661	5.4E-04	–	0.4373	–	5.40E-04
Yttrium	6.59E-08	7.661	2.5E-04	–	0.4373	–	2.52E-04
Zinc	4.24E-04	7.661	1.62	3.49E-04	0.4373	0.08	1.70
Zirconium	4.12E-07	7.661	0.0016	–	0.4373	–	0.0016

Table 2-8. Maximum Annual Emissions of Harzardous/Toxic Air Pollutants for Osceola Power (total all boilers)

Pollutant	Biomass Emission Factor (lb/MMBtu)	Biomass Activity Factor (E12 Btu/yr)	Biomass Annual Emissions (TPY)	Alternate Fuel Emission Factor (lb/MMBtu)	Alternate Fuel Activity Factor (E12 Btu/yr)	Alternate Fuel Annual Emissions (TPY)	Annual Emissions (TPY)
			83.5% Biomass / 16.5% Tire-Derived Fuel				
Hazardous Air Pollutants							
Acetaldehyde	7.80E-04	6.854	2.67	--	1.354	--	2.67
Acetophenone	3.70E-06	6.854	0.013	--	1.354	--	0.013
Acrolein	6.50E-05	6.854	0.22	--	1.354	--	0.22
Antimony	UD	6.854	--	6.45E-09	1.354	4.4E-06	4.4E-06
Arsenic	6.79E-05	6.854	0.23	4.52E-06	1.354	0.003	0.24
Benzene	1.30E-03	6.854	4.46	--	1.354	--	4.455
Beryllium	--	6.854	--	--	1.354	--	--
Cadmium	8.40E-07	6.854	0.0029	3.87E-06	1.354	0.0026	0.0055 a
Carbon Disulfide	1.30E-04	6.854	0.45	--	1.354	--	0.45
Carbon Tetrachloride	6.00E-06	6.854	0.021	--	1.354	--	0.021
Chlorine	9.20E-04	6.854	3.15	--	1.354		3.15
Chloroform	4.70E-05	6.854	0.16	--	1.354	--	0.16
Chromium	8.27E-05	6.854	0.28	6.45E-06	1.354	0.0044	0.29
Chromium +6	1.65E-05	6.854	0.057	--	1.354	--	0.057
Cobalt	1.50E-07	6.854	5.1E-04	3.23E-04	1.354	0.22	0.22 a
Cumene	1.80E-05	6.854	0.062	--	1.354	--	0.062
Di - n - butyl Phthalate	5.80E-05	6.854	0.20	--	1.354	--	0.20
Ethyl Benzene	3.90E-06	6.854	0.013	--	1.354	--	0.013
Formaldehyde	1.30E-03	6.854	4.46	4.05E-04	1.354	0.27	4.73
n Hexane	5.50E-04	6.854	1.88	--	1.354	--	1.88
Hydrogen Chloride	5.60E-04	6.854	1.92	9.61E-02	1.354	65.1	67.0 a
Lead	2.70E-06	6.854	0.009	4.20E-05	1.354	2.8E-02	0.038 a
Manganese	9.50E-05	6.854	0.33	6.45E-04	1.354	0.44	0.76 a
Mercury - Bagasse	6.30E-06	6.854	0.022	5.00E-06	1.354	3.4E-03	0.025
-Wood Waste	2.90E-07	6.854	0.0010	--	1.354	--	0.0010
Methanol	1.50E-03	6.854	5.14	--	1.354	--	5.14
Methyl Ethyl Ketone	1.20E-05	6.854	0.041	--	1.354	--	0.041
Methyl Isobutyl Ketone	8.60E-04	6.854	2.95	--	1.354	--	2.95
Methylene Chloride	1.50E-03	6.854	5.14	--	1.354	--	5.14
Napthalene	5.90E-04	6.854	2.02	--	1.354	--	2.02
Nickel	6.30E-06	6.854	0.022	3.87E-05	1.354	0.026	0.048 a
Phenols	4.10E-05	6.854	0.14	--	1.354	--	0.14
Phosphorus	1.60E-06	6.854	0.0055	--	1.354	--	0.0055
POM (Polycyclic Org. Matter)	2.20E-07	6.854	0.0008	--	1.354	--	0.0008
Selenium	3.80E-06	6.854	0.013	6.77E-05	1.354	0.05	0.06 a
Styrene	1.50E-05	6.854	0.051	--	1.354	--	0.051
2, 3, 7, 8 TCDD (dioxin)	6.00E-12	6.854	2.1E-08	--	1.354	--	2.1E-08
Toluene	9.00E-05	6.854	0.31	--	1.354	--	0.31
1, 1, 1 Trichloroethane	1.70E-04	6.854	0.58	--	1.354	--	0.58
Trichloroethylene	7.60E-06	6.854	0.026	--	1.354	--	0.026
m & p Xylene	7.80E-06	6.854	0.027	--	1.354	--	0.027
o Xylene	2.60E-06	6.854	0.009	--	1.354	--	0.009
Total HAPs							103.190
112 (r) (non-HAPs)							
Ammonia	1.48E-02	6.854	50.72	4.80E-02	1.354	32.50	83.2
Bromine	4.59E-05	6.854	0.16	--	1.354	--	0.16
Flourine	--	6.854	--	6.50E-03	1.354	4.4005	4.40
Sulfuric acid	9.80E-04	6.854	3.36	3.40E-03	1.354	2.3018	5.66
Other Air Toxics							
Acetone	3.80E-04	6.854	1.30	--	1.354	--	1.30
Barium	5.20E-06	6.854	0.02	7.74E-06	1.354	0.0052	0.02
Benzo(a)anthracene	7.53E-07	6.854	2.58E-03	--	1.354	--	2.58E-03
Benzo(a)pyrene	3.53E-08	6.854	1.21E-04	--	1.354	--	1.21E-04
Chrysene	3.53E-05	6.854	0.12	--	1.354	--	0.12
Copper	8.02E-05	6.854	0.27	6.15E-04	1.354	0.42	0.69 a
Indium	1.27E-04	6.854	0.44	--	1.354	--	0.44
Iodine	2.12E-06	6.854	0.0073	--	1.354	--	0.0073
Isopropanol	9.20E-03	6.854	31.53	--	1.354	--	31.53
Molybdenum	2.24E-07	6.854	7.68E-04	4.52E-05	1.354	0.031	0.031 a
PAH	5.90E-10	6.854	2.02E-06	--	1.354	--	2.02E-06
Silver	1.40E-06	6.854	0.0048	--	1.354	--	0.0048
Thallium	UD	6.854	--	--	1.354	--	--
Tin	3.65E-08	6.854	1.3E-04	6.45E-09	1.354	4.37E-06	1.3E-04
Tungsten	1.29E-08	6.854	4.4E-05	--	1.354	--	4.4E-05
Uranium	--	6.854	--	2.58E-08	1.354	1.75E-05	1.7E-05 a
Vanadium	1.41E-07	6.854	4.8E-04	6.45E-07	1.354	0.00044	9.2E-04 a
Yttrium	6.59E-08	6.854	2.3E-04	--	1.354	--	2.3E-04
Zinc	4.24E-04	6.854	1.45	9.81E-03	1.354	6.64	8.09 a
Zirconium	4.12E-07	6.854	0.0014	--	1.354	--	0.0014

a Denotes maximum annual emissions for any fuel scenario.

Note: UD = undetectable levels in gas stream.

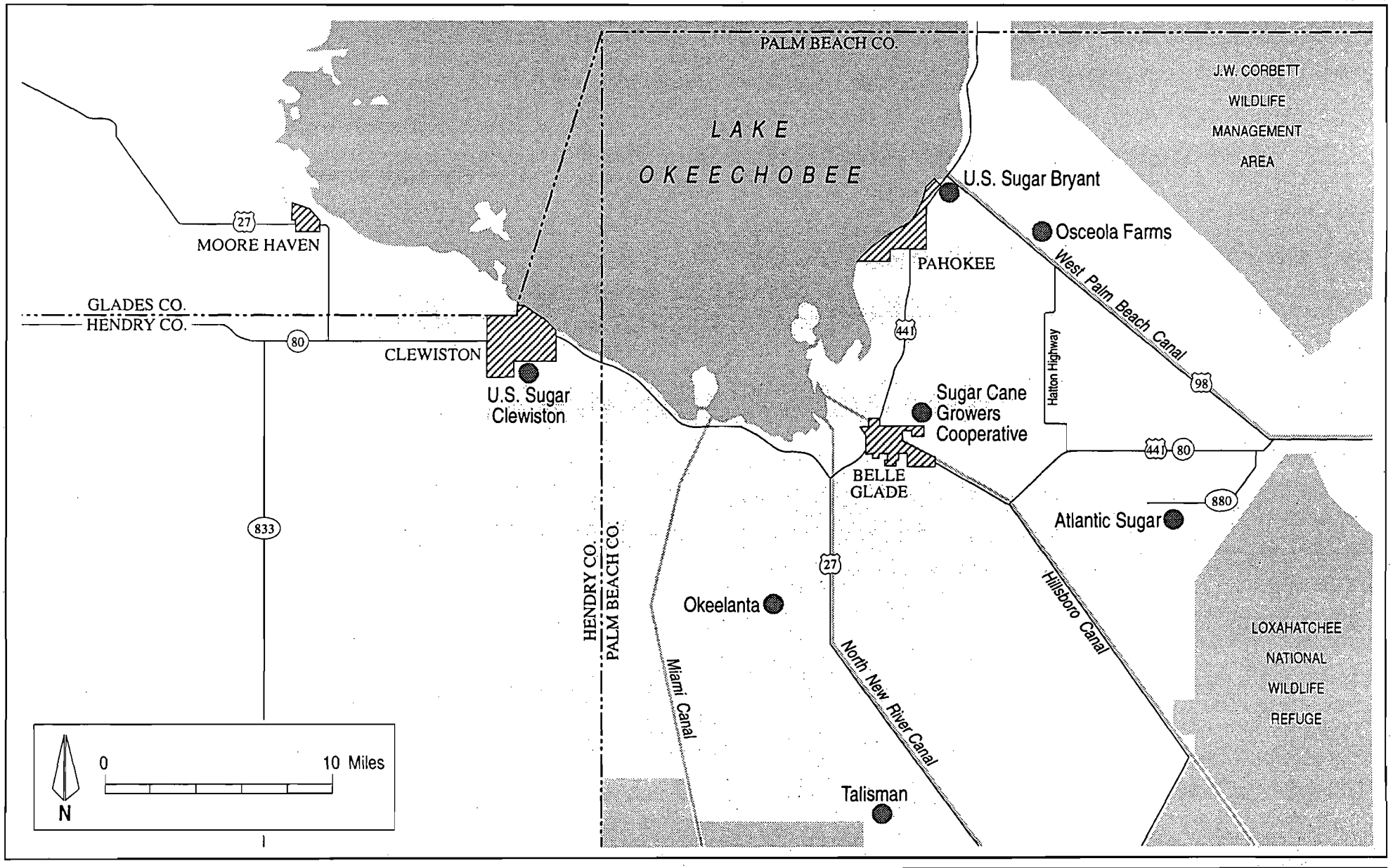

Figure 2-1
Regional Site Map

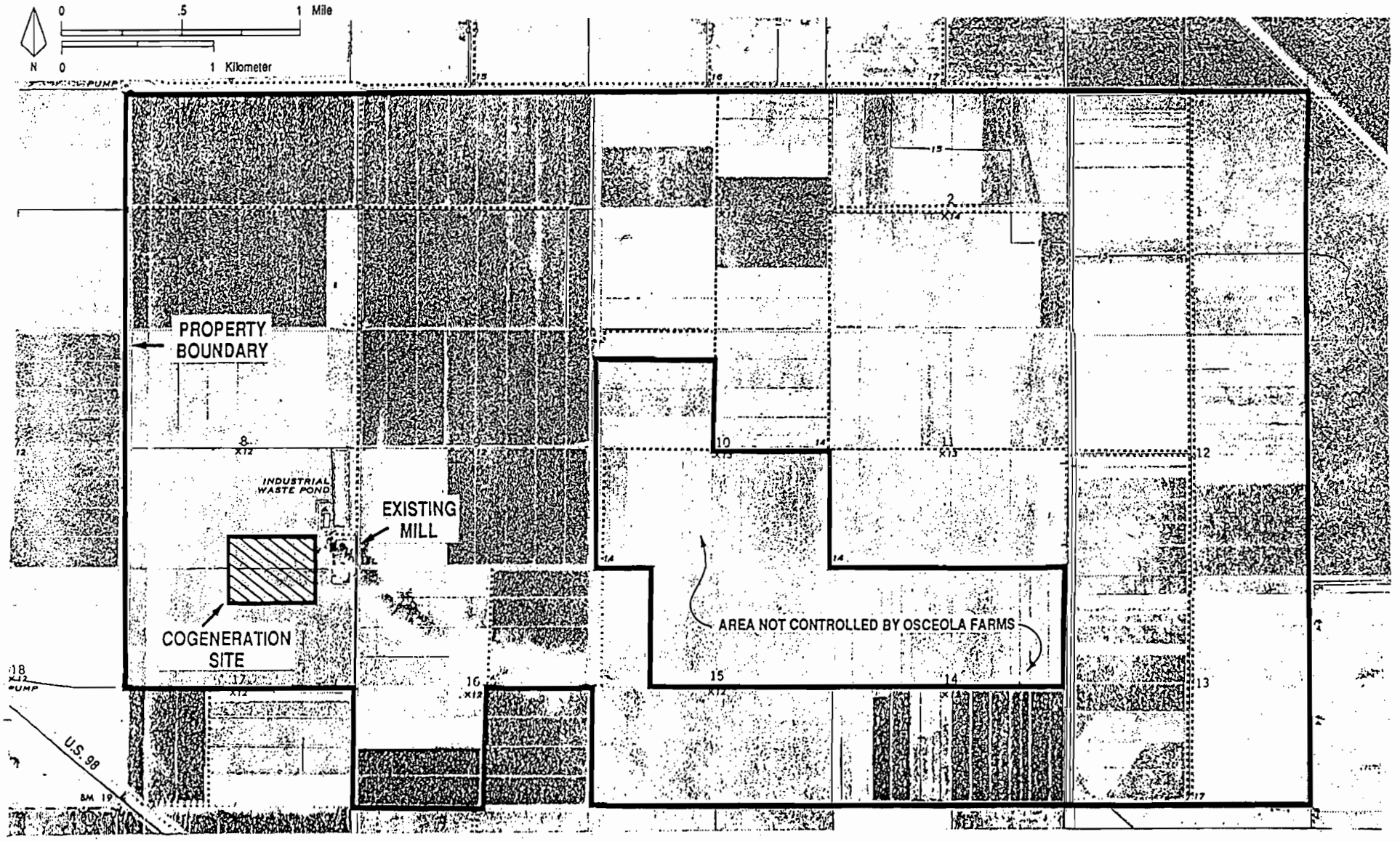

Figure 2-2
Site Location Map

Source: USGS, 1970.

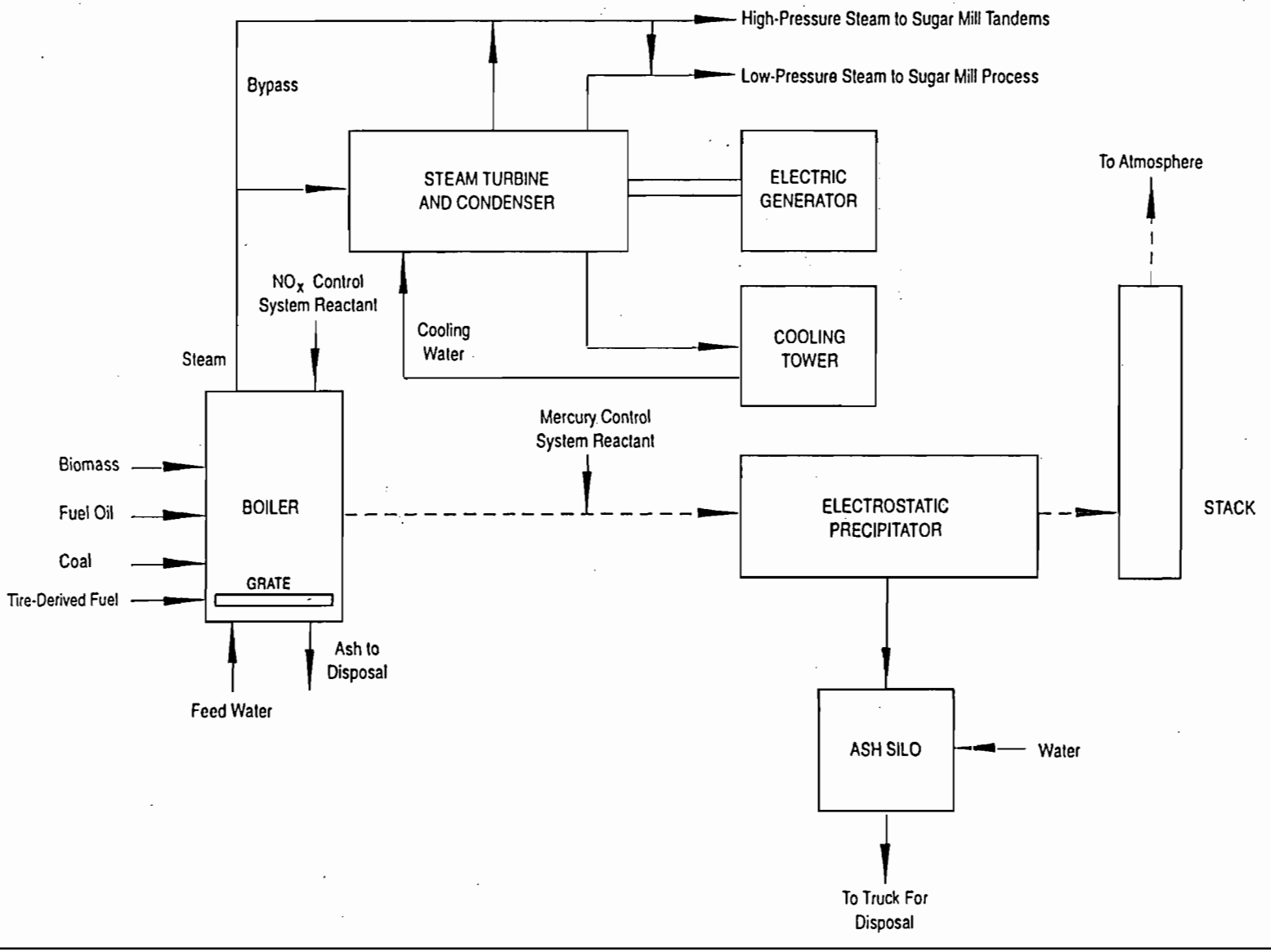

Figure 2-3
Simplified Flow Diagram for Osceola Power Cogeneration Facility

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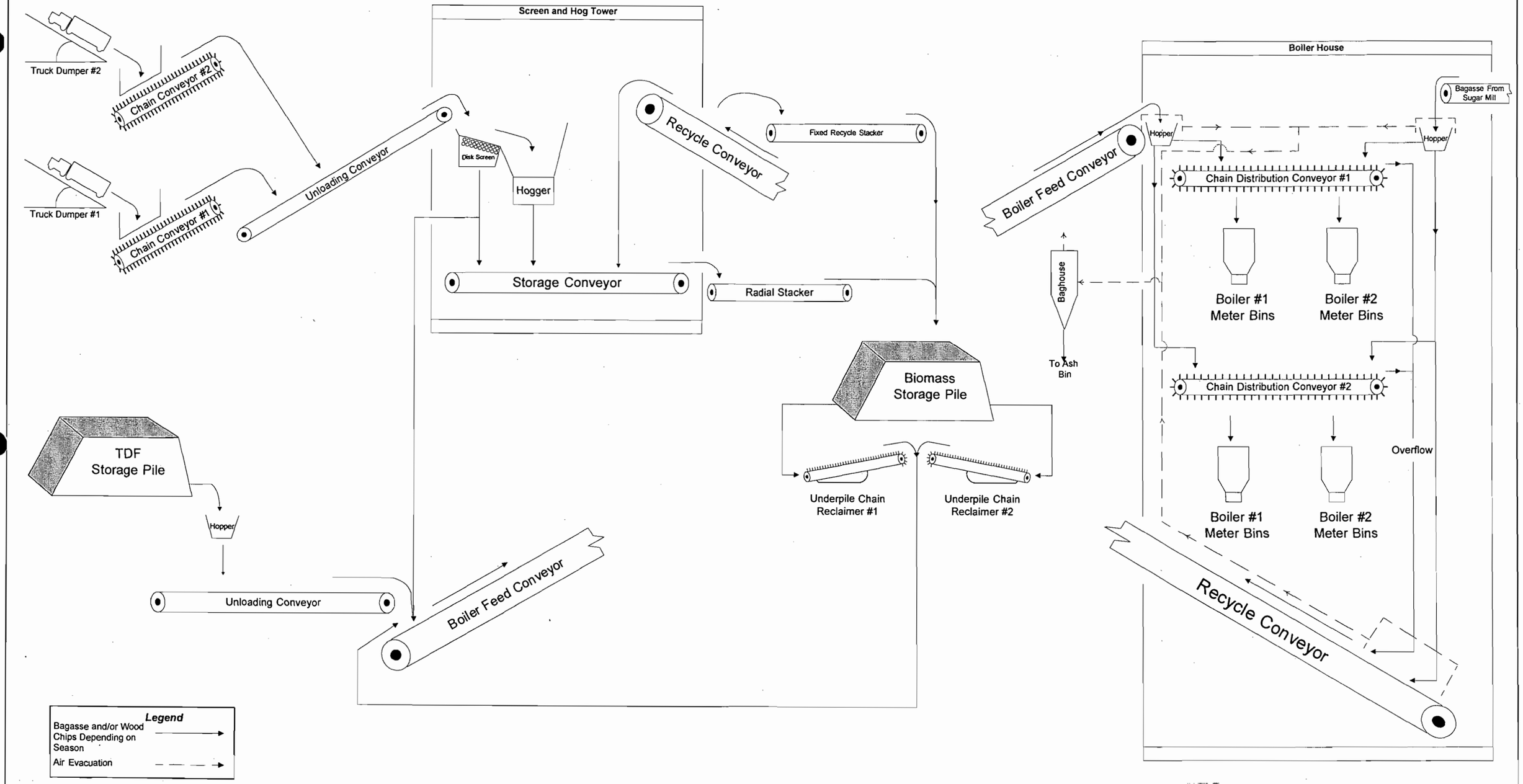

Figure 2-4 Osceola Power Fuel Handling System		*Emission Unit:* Fuel Handling System	KBN Engineering and Applied Sciences, Inc.
Osceola Power L.P.	Pahokee, Florida	*Filename:* 9651011Y/F1/FUELFLOW.VSD	
		Latest Revision Date: 3/25/96	

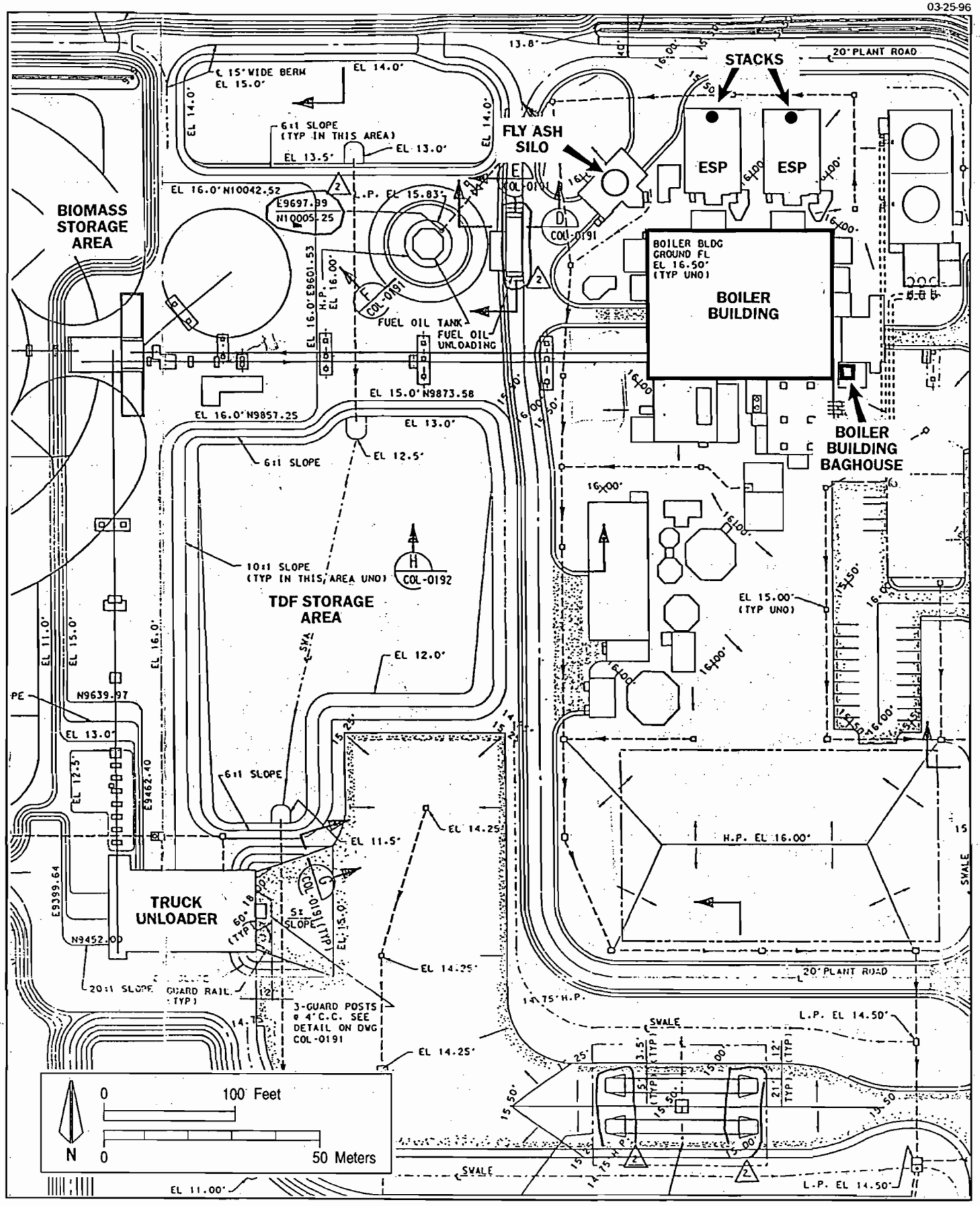

Figure 2-5
Plot Plan of Osceola Power Facility

KBN
A GOLDER ASSOCIATES COMPANY

3.0 AIR QUALITY REVIEW REQUIREMENTS AND SOURCE APPLICABILITY

Osceola Power received a state and federal PSD construction permit in 1993, and a revised PSD permit in 1995. The facility is now in the startup period, and has not yet started commercial operations. Osceola Power is now proposing to utilize TDF as a supplemental fuel, and desires to amend the PSD construction permit.

For the PSD pollutants, no increase over the current permitted annual emissions is being requested except in the case of lead. Proposed lead emissions are 0.038 TPY. The PSD significant emission rate for lead is 0.60 TPY. Therefore, PSD review will not be triggered as a result of the proposed modification.

Although PSD review is not being triggered by the proposed modification, changes are occurring in emission rates for some hazardous/toxic air pollutants. As a result, the previous modeling analysis for these pollutants has been updated. This analysis is presented in Section 4.0.

4.0 AIR TOXIC IMPACT ANALYSIS

An air toxic air modeling analysis was performed for the Osceola Cogeneration facility in April 1995. Due to changes in some emissions for some of the HAPs and the promulgation of Version 4.0 of the Air Toxic guidelines, the air toxic modeling analysis is being updated in this section.

4.1 METHODOLOGY

The procedure used in the analysis followed the recommendations in the U.S. Environmental Protection Agency's (EPA's) modeling guidelines, which are approved by the Florida Department of Environmental Protection (FDEP) for general use. The recommendations are related to specific models and options that are preferred for use in particular situations. The guidelines provide recommendations for predicting impacts in both flat or gently rolling terrain by the use of simple terrain models (i.e., terrain less than stack height). These models are applicable to the Osceola Cogeneration facility.

The Industrial Source Complex Short-Term Dispersion Model, Version 95250, (ISCST3; EPA, 1995) is preferred because EPA and FDEP have specifically recommended this model to provide refined air quality impacts in simple terrain. The ISCST3 model is a Gaussian plume model that can be used to assess the air quality impact of emissions from a wide variety of sources associated with an industrial facility.

The ISCST3 model is designed to calculate hour-by-hour concentrations or deposition values and to provide averages for time periods of 2, 3, 4, 6, 8, 12, and 24 hours and 1 year. The ISCST3 model has rural and urban options that affect the wind speed profile exponent law, dispersion rates, and mixing-height formulations used in calculating ground-level concentrations. Concentrations are readily obtainable from the model output for comparison to the Florida ambient reference concentrations (FARCs), developed by the FDEP. A list of ISCST3 model features is presented in Table 4-1.

For the application of the ISCST3 model, the general modeling approach followed EPA and FDEP modeling guidelines for determining compliance with regulatory standards, such as FARCs.

One source, representing the Osceola cogeneration facility's two boilers, was modeled in the ISCST3 model with a generic emission rate of 10.0 grams per second (g/sec) (i.e., 79.365 lb/hr). The selected averaging times were for the 8-hour, 24-hour and annual averaging times. The highest predicted 8- and 24-hour and highest annual concentration in 5 years were selected for comparison to the FARCs.

Short-term (i.e. maximum pound per hour) and annual averaged (i.e., tons per year) emission rates were determined for the Osceola Cogeneration facility for each HAP and air toxic pollutant emitted. The calculations for these emitted compounds are provided in Section 2.0. The short-term emission rates for each pollutant were used for determining compliance with the 8- and 24-hour FARCs, while the annual averaged emissions were used for determining compliance with the annual FARC. Maximum pollutant-specific impacts for each averaging time were determined by multiplying the maximum predicted generic concentrations by the pollutant-specific emission rate and dividing the product by the generic emission rate.

Meteorological data used in the ISCST3 model to determine air quality impacts consisted of 5 years of coincident hourly surface weather observations and twice-daily upper-air soundings from the National Weather Service (NEWS) station at the West Palm Beach International Airport.. The 5-year period of meteorological data was from 1982 through 1986. These data have been recommended by FDEP for projects in the sugar mill area.

For the screening analysis, 36 receptors were located at 10 degree increments along the plant property boundary. A listing of these receptors is presented in Table 4-2. Additional screening analysis receptors were located at off-site distances of 2.0 and 4.0 km. Modeling refinements were performed by using a 2 degree angular spacing. The refined receptor grid was centered on the screening analysis receptor that produced the highest impact and extended to and included the adjacent screening grid receptors.

Direction-specific building heights and widths that were used for these sources in the PSD Application modeling analysis for the cogeneration facility were also used in the toxic model analysis. The only significant structure near the cogeneration facility stacks is the cogeneration facility boiler structure. The dimensions of this structure are 120 ft high, 138 ft long and 75 ft wide.

4.2 MODELING RESULTS

The maximum predicted concentrations for the 8-hour, 24-hour, and annual averaging periods for each HAP and air toxic pollutant is presented in Table 4-3. Table 4-3 indicates the maximum short and annual emission rates, and the maximum impacts for each compound emitted. As shown, all compounds emitted except arsenic have maximum impacts that are below the FARC for the 8-, 24-hour, and annual averaging times, respectively. The maximum predicted annual averaged arsenic concentration marginally exceed the annual FARC, while the maximum predicted 8- and 24-hour arsenic concentrations comply with the respective FARCS. In any event, the predicted arsenic impacts are identical to those predicted in the April 1995, permit application. Therefore, there is no change from the current construction permit.

Table 4-1. Major Features of the ISCST3 Model

ISCST3 Model Features
• Polar or Cartesian coordinate systems for receptor locations
• Rural or one of three urban options which affect wind speed profile exponent, dispersion rates, and mixing height calculations
• Plume rise due to momentum and buoyancy as a function of downwind distance for stack emissions (Briggs, 1969, 1971, 1972, and 1975; Bowers, et al., 1979).
• Procedures suggested by Huber and Snyder (1976); Huber (1977); and Schulman and Scire (1980) for evaluating building wake effects
• Procedures suggested by Briggs (1974) for evaluating stack-tip downwash
• Separation of multiple emission sources
• Consideration of the effects of gravitational settling and dry deposition on ambient particulate concentrations
• Capability of simulating point, line, volume, area, and open pit sources
• Capability to calculate dry and wet deposition, including both gaseous and particulate precipitation scavenging for wet deposition
• Variation of wind speed with height (wind speed-profile exponent law)
• Concentration estimates for 1-hour to annual average times
• Terrain-adjustment procedures for elevated terrain including a terrain truncation algorithm for ISCST3; a built-in algorithm for predicting concentrations in complex terrain
• Consideration of time-dependent exponential decay of pollutants
• The method of Pasquill (1976) to account for buoyancy-induced dispersion
• A regulatory default option to set various model options and parameters to EPA recommended values (see text for regulatory options used)
• Procedure for calm-wind processing including setting wind speeds less than 1 m/s to 1 m/s.

Note: ISCST3 = Industrial Source Complex Short-Term.

Source: EPA, 1995.

Table 4-2. Property Boundary Receptors Used in the Modeling Analysis

Direction (deg)	Distance (m)	Direction (deg)	Distance (m)
10	3033.	190	1040.
20	3179.	200	1090.
30	3449.	210	1183.
40	3899.	220	1337.
50	4647.	230	1592.
60	2252.	240	1408.
70	2076.	250	1297.
80	1981.	260	1238.
90	1951.	270	1219.
100	2352.	280	1238.
110	2465.	290	1297.
120	3536.	300	1408.
130	1631.	310	1592.
140	1944.	320	1897.
150	2041.	330	2438.
160	1881.	340	3179.
170	1040.	350	3033.
180	1024.	360	2987.

Note: Distances are relative to centroid of cogeneration facility stacks locations.

Table 4-3. Maximum Impacts of HAPs and Air Toxic Pollutants for Osceola Power Cogeneration Facility (total both boilers)

	Emission Rates Total Both Boilers		Concentrations (µg/m³)						Compound
	Maximum	Annual	8-Hour		24-Hour		Annual		Complies With
Pollutant	(lb/hr)	(TPY)	Impact	FARC	Impact	FARC	Impact	FARC	FARCs?
1, 1, 1 trichloroethane	0.26	0.70	0.0271	19000	0.0149	4524	6.4E-04	NA	YES
2,3,7,8 -TCDD (dioxin)	9.12E-09	2.5E-08	9.6E-10	NA	5.3E-10	NA	2.3E-11	2.2E-08	YES
acetaldehyde	1.19	3.20	0.1242	450	0.0684	107	0.0029	0.5	YES
acetone	0.578	1.56	0.0605	17800	0.0333	4238	1.4E-03	NA	YES
acetophenone	0.0056	0.015	0.0006	490	0.0003	117	1.4E-05	100	YES
acrolein	0.099	0.27	0.0104	2.3	0.0057	0.5	2.4E-04	0.02	YES
ammonia	72.96	196.99	7.6458	170	4.2085	41	0.180	100	YES
antimony	0.037	0.0076	0.0039	5	0.0021	1.2	7.0E-06	0.3	YES
arsenic	0.20	0.28	0.0207	0.1	0.0114	0.02	0.00025	0.00023	NO
barium	0.079	0.04	0.0083	5	0.0046	1.2	3.7E-05	50	YES
benzene	1.98	5.34	0.2071	30	0.1140	7	0.0049	0.12	YES
benzo (a) anthracene (POM)	0.0011	0.04	0.0001	NA	0.0001	NA	0.0000	0.0011	YES
benzo (a) pyrene	5.37E-05	1.45E-04	0.0000	NA	0.0000	NA	0.0000	0.0003	YES
beryllium	0.0063	0.00034	6.6E-04	0.02	3.6E-04	0.005	3.1E-07	0.00042	YES
bromine	0.84	0.35	0.0878	6.6	0.0483	1.6	3.2E-04	NA	YES
cadmium	0.0035	0.0055	3.7E-04	0.02	2.0E-04	0.005	5.0E-06	0.00056	YES
carbon disulfide	0.198	0.53	0.0207	310	0.0114	74	4.9E-04	200	YES
carbon tetrachloride	0.0091	0.025	0.0010	310	0.0005	74	2.3E-05	0.067	YES
chlorine	1.40	3.78	0.1465	15	0.0807	3.6	0.0035	0.4	YES
chloroform	0.071	0.19	0.0075	490	0.0041	117	1.8E-04	0.043	YES
chromium	0.24	0.34	0.0252	5	0.0139	1.2	3.1E-04	1000	YES
chromium +6	0.048	0.068	0.0050	0.5	0.0028	0.1	6.2E-05	0.000083	YES
chrysene	0.054	0.14	0.0056	2	0.0031	0.5	1.3E-04	NA	YES
cobalt	0.239	0.22	0.0250	0.5	0.0138	0.1	2.0E-04	NA	YES
copper	0.57	0.69	0.0597	10	0.0329	2.4	6.3E-04	NA	YES
cumene	0.027	0.07	0.0029	2460	0.0016	586	6.8E-05	1	YES
dibutyl phthalate	0.088	0.24	0.0092	50	0.0051	12	2.2E-04	100	YES
ethylbenzene	0.0059	0.016	0.0006	4340	0.0003	1033	1.5E-05	1000	YES
fluorine (as fluorides)	25.44	5.25	2.6660	25	1.4675	6	4.8E-03	NA	YES
formaldehyde	1.98	5.34	0.2071	3.7	0.1140	0.9	0.0049	0.077	YES
hexane	0.84	2.26	0.0876	1760	0.0482	419	0.0021	200	YES
hydrogen chloride	83.74	66.98	8.7755	70	4.8304	17	0.0613	7	YES
indium	0.193	0.52	0.0202	1	0.0111	0.2	4.8E-04	NA	YES
iodine	0.0032	0.0087	0.0003	10	0.0002	2.4	8.0E-06	NA	YES
isopropanol	13.98	37.76	1.4654	9800	0.8066	2333	3.5E-02	NA	YES
lead	0.0331	0.038	0.0035	0.5	0.0019	0.1	3.4E-05	0.09	YES
manganese	0.55	0.76	0.0576	50	0.0317	12	7.0E-04	0.05	YES
mercury	0.0089	0.026	0.0009	0.5	0.0005	0.1	2.4E-05	0.3	YES
methanol	2.28	6.16	0.2389	2600	0.1315	619	5.6E-03	NA	YES
methyl ethyl ketone	0.018	0.049	0.0019	5900	0.0011	1405	4.5E-05	1000	YES
methyl isobutyl ketone	1.31	3.53	0.1370	2050	0.0754	488	3.2E-03	NA	YES
methylene chloride	2.28	6.16	0.2389	1740	0.1315	414	5.6E-03	2	YES
molybdenum	0.034	0.031	0.0036	50	0.0020	12	2.9E-05	NA	YES
m&p xylene	0.0119	0.032	0.0012	4340	0.0007	1033	2.9E-05	80	YES
napthalene	0.90	2.42	0.0940	500	0.0517	119	2.2E-03	NA	YES
nickel	0.0336	0.048	0.0035	10	0.0019	2.4	4.4E-05	0.0042	YES
o xylene	0.0040	0.011	0.0004	4340	0.0002	1033	9.8E-06	80	YES
PAH	8.97E-07	2.42E-06	0.0000	2	0.0000	0.5	2.2E-09	0	YES
phenols	0.062	0.17	0.0065	190	0.0036	45	1.5E-04	30	YES
phosphorus	0.91	0.194	0.0955	1	0.0526	0.2	1.8E-04	NA	YES
pom (polycyclic organic matter)	0.010	0.0087	0.0011	NA	0.0006	NA	8.0E-06	NA	YES
selenium	0.057	0.059	0.0059	2	0.0033	0.5	5.4E-05	NA	YES
silver	0.0021	0.0057	2.2E-04	0.1	1.2E-04	0.02	5.3E-06	NA	YES
styrene	0.023	0.062	0.0024	2130	0.0013	507	5.6E-05	1000	YES
sulfuric acid mist	11.22	5.94	1.2E+00	10	6.5E-01	2.4	5.4E-03	NA	YES
tin	0.0094	0.0033	9.8E-04	1	5.4E-04	0.2	3.0E-06	NA	YES
toluene	0.137	0.37	0.0143	1880	0.0079	448	3.4E-04	400	YES
trichloroethylene	0.0116	0.031	0.0012	2690	0.0007	640	2.9E-05	0.77	YES
tungsten	1.96E-05	5.3E-05	2.05E-06	50	1.13E-06	12	4.8E-08	NA	YES
uranium	1.9E-05	1.7E-05	2.0E-06	0.5	1.1E-06	0.1	1.6E-08	NA	YES
vanadium	5.9E-04	9.2E-04	6.2E-05	0.5	3.4E-05	0.1	8.4E-07	20	YES
yttrium	1.0E-04	2.7E-04	1.0E-05	10	5.8E-06	2.4	2.5E-07	NA	YES
zinc	7.59	8.09	0.7954	10	0.4378	2.4	7.4E-03	NA	YES
zirconium	6.3E-04	0.0017	6.6E-05	50	3.6E-05	12	1.5E-06	NA	YES

Notes: FARC= Florida Ambient Reference Concentrations, Version 4.0.
Maximum concentrations determined with ISCST3 model and West Palm Beach meteorological data for 1982 to 1986.
Highest predicted concentrations (µg/m³) for a generic emission rate of 10 g/s (79.365 lb/hr) are :

8-hour=	8.317
24-hour=	4.578
Annual=	0.318

APPENDIX A

EMISSION FACTORS

Table A-1. Emission Factors for Criteria/Designated Pollutants, Osceola Power L. P. Cogeneration Facility

Regulated Pollutant	Biomass Emission Factor (lb/MMBtu	Biomass Reference	No. 2 Fuel Emission Factor (lb/MMBtu	No. 2 Fuel Reference	Coal Emission Factor (lb/MMBtu	Coal Reference	Tire-Derived Fuel Emission Factor (lb/MMBtu	Tire-Derived Fuel Reference
Particulate (TSP)	0.03	NSPS, Current permit limit	0.03	NSPS, Current permit limit	0.03	NSPS, Current permit limit	0.03	NSPS, Current permit limit
Particulate (PM10)	0.03	NSPS, Current permit limit	0.03	NSPS, Current permit limit	0.03	NSPS, Current permit limit	0.03	NSPS, Current permit limit
Sulfur dioxide: 24-hr Annual average	0.10 0.02	Current permit limit Current permit limit	0.05	Current permit limit	1.2	NSPS, Current permit limit	1.2 0.4	NSPS, Current permit limit Burning TDF with biomass
Nitrogen oxides	0.116	SNCR system	0.12	Current permit limit	0.15	Current permit limit	0.116	Current permit limit for biomass
Carbon monoxide	0.35	Current permit limit	0.20	Current permit limit	0.20	Current permit limit	0.35	Current permit limit for biomass
VOC- Bagasse Wood waste	0.060 0.040	Vendor information Vendor information	0.03	Current permit limit	0.03	Current permit limit	0.04	Current permit limit for wood wast
Lead	2.7E-06	Current permit limit	8.9E-07	Current permit limit	5.1E-06	AP-42, Table 1.1-13, 99% eff.	4.2E-05	TDF analysis; 99% removal
Mercury- Bagasse Wood waste	5.7E-06 2.9E-07	Mercury control system Mercury control system	2.4E-06	Current permit limit	8.4E-06	Current permit limit	6.5E-06	TDF analysis
Beryllium	--		3.5E-07	Current permit limit	5.9E-06	Current permit limit	4.5E-07	TDF analysis; 99% removal
Fluorides	--		6.27E-06	Current permit limit	0.024	Current permit limit	6.5E-04	TDF analysis
Sulfuric acid mist: 24-hr Annual average	0.0049 0.00098	AP-42; 4% of SO2 is SO3 AP-42; 4% of SO2 is SO3	0.0025	AP-42; 4% of SO2 is SO3	0.010	AP-42; 0.7% of SO2 is SO3	0.010 0.0034	Based on factor for coal AP-42; 0.7% of SO2 is SO3
Total reduced sulfur	--		--		--	--	--	--
Asbestos	--		--		--	--	--	--
Vinyl Chloride	--		--		--	--	--	--

References:
1. Emission Assessment of Conventional Stationary Combustion Systems: Volume III. EPA-600/7-81-003a (1981); bolers equipped with ESP: 4.1 ng/J.

Table A-2. Emission Factors for Hazardous Air Pollutants

	Biomass				No. 2 Fuel Oil				Coal			
	Ref	Published Emission Factor		Converted Emission Factor (lb/MMBtu)	Ref.	Published Emission Factor		Converted Emission Factor (lb/MMBtu)	Ref.	Published Emission Factor		Converted Emission Factor (lb/MMBtu)
Acetaldehyde	1	7.8E-04	lb/MMBtu	7.8E-04								
Acetophenone	1	3.7E-06	lb/MMBtu	3.7E-06								
Acrolein	1	6.5E-05	lb/MMBtu	6.5E-05								
Antimony	1	ND		--	3	24	lb/10_{12} Btu[a]	2.4E-07	5	0.15	ng/J	3.5E-05
Arsenic - Maximum	10	1.33E-04	lb/MMBtu	1.33E-04	8	4.2	lb/10_{12} Btu[a]	4.2E-08	9	542	lb/10_{12} Btu[a]	5.4E-06
- Annual	10	6.79E-05	lb/MMBtu	6.79E-05								
Benzene	1	1.3E-03	lb/MMBtu	1.3E-03								
Cadmium	1	0.84	lb/10_{12} Btu	8.4E-07	8	11	lb/10_{12} Btu[a]	1.1E-07	9	43	lb/10_{12} Btu[a]	4.3E-07
Carbon Disulfide	1	1.3E-04	lb/MMBtu	1.3E-04								
Carbon Tetrachloride	1	6E-06	lb/MMBtu	6.0E-06								
Chlorine	2	0.0078	lb/ton	9.2E-04								
Chloroform	1	4.7E-05	lb/MMBtu	4.7E-05								
Chromium - Maximum	10	1.58E-04	lb/MMBtu	1.58E-04	8	67	lb/10_{12} Btu[a]	6.7E-07	9	1570	lb/10_{12} Btu[a]	1.6E-05
- Annual	10	8.27E-05	lb/MMBtu	8.27E-05								
Chromium (VI) - Maximum	10	3.17E-05	lb/MMBtu	3.17E-05	7		20% of Cr	1.3E-07	7		20% of Cr	3.1E-06
- Annual	10	1.65E-05	lb/MMBtu	1.65E-05								
Cobalt	2	1.3E-04	lb/ton[a]	1.3E-04	5	50.5	pg/J	1.2E-05	5	0.31	ng/J	7.2E-05
Cumene	1	1.8E-05	lb/MMBtu	1.8E-05								
Di - n - Butyl Phthalate	1	5.8E-05	lb/MMBtu	5.8E-05								
Ethyl Benzene	1	3.9E-06	lb/MMBtu	3.9E-06								
Formaldehyde	1	1.3E-03	lb/MMBtu	1.3E-03	8	405	lb/10_{12} Btu	4.1E-04	9	221	lb/10_{12} Btu	2.2E-04
n Hexane	1	5.5E-04	lb/MMBtu	5.5E-04								
Hydrogen Chloride	1	5.6E-04	lb/MMBtu	5.6E-04	6	274	pg/J	6.4E-04	6	33.9	ng/J	7.9E-02
Manganese	1	95	lb/10_{12} Btu	9.5E-05	8	14	lb/10_{12} Btu[a]	1.4E-07	4	31	lb/10_{12} Btu[a]	3.1E-07
Methanol	1	1.5E-03	lb/MMBtu	1.5E-03								
Methyl Ethyl Ketone	1	1.2E-05	lb/MMBtu	1.2E-05								
Methyl Isobutyl Ketone	1	8.6E-04	lb/MMBtu	8.6E-04								
Methylene Chloride	1	1.5E-03	lb/MMBtu	1.5E-03								
Napthalene	1	5.9E-04	lb/MMBtu	5.9E-04								
Nickel	1	6.3	lb/10_{12} Btu	6.3E-06	8	170	lb/10_{12} Btu[a]	1.7E-06	4	1020	lb/10_{12} Btu[a]	1.0E-05
Phenols	1	4.1E-05	lb/MMBtu	4.1E-05								
Phosphorous	1	160	lb/10_{12} Btu	1.6E-06	5	25	pg/J	5.8E-05	5	3.7	ng/J	8.6E-04
Polycyclic Organic Matter	2	22	lb/10_{12} Btu	2.2E-07	8	8	lb/10_{12} Btu	8.4E-06				
Selenium	1	3.8	lb/10_{12} Btu	3.8E-06	2	38	lb/10_{12} Btu[a]	3.8E-07	5	0.23	ng/J	5.3E-05
Styrene	1	1.5E-05	lb/MMBtu	1.5E-05								
2,3,7,8 Tetrachlorodibenzo -p-dioxin	2	5.1E-11	lb/ton	6.0E-12								
Toluene	1	9.0E-05	lb/MMBtu	9.0E-05								
1,1,1 Trichlorethane	1	1.7E-04	lb/MMBtu	1.7E-04								
Trichloroethylene	1	7.6E-06	lb/MMBtu	7.6E-06								
m & p Xylene	1	7.8E-06	lb/MMBtu	7.8E-06								
o Xylene	1	2.6E-06	lb/MMBtu	2.6E-06								

[a] Uncontrolled emission factor; 99% control with ESP is assumed to calculate controlled emission factor.

Conversions:
lb/10_{12} Btu x 10_{12} Btu/1,000,000 MMBtu = lb/MMBtu
lb/ton x ton/2000 lb x lb/4250 BTU x 10_6 Btu/MMBtu = lb/MMBtu
ng/J x 2.324×10^{-3} = lb/MMBtu (uncontrolled)
ng/J x 2.324×10^{-4} = lb/MMBtu (90% controll)
pg/J x 2.324×10^{-6} = lb/MMBtu (uncontrolled)
ng/J x 2.324×10^{-4} = lb/MMBtu (90% controll)

Note: UD = undetectable levels in gas stream.
References
1: Based on NCASI Compilation of Air Toxic Emission Data for Boilers, Pulp Mills, and Bleach Plants, Technical Bulletin No. 650, June 1993, Tables 5A an
2: AP-42, Tables 1.6-5 and 1.6-7.
3. AP-42, Table 1.3-11, low value for No. 6 fuel oil.
4: Estimating Emissions from Oil and Coal Combustion Sources EPA-450/2-89-001 (1989).
5: Emissions Assessment of Conventional Stationary Combustion Systems Volume V, 1981. Based on an uncontrolled spreader stoker design and then assuming 90% control from ESP.
6: Emissions Assessment of Conventional Stationary Combustion Systems Volume V, 1981. Based on an uncontrolled spreader stoker design.
7: Based upon stack test data at Dade County RRF, 1992, which indicated less than 20% of total chromium was chromium +6.
8. AP-42, Tables 1.3-9 and 1.3-11.
9. AP-42, Table 1.1-13.
10. Based on 2.4% treated wood burning.

Source: KBN, 1996.

Table A-3. Emission Factors for Additional Florida Air Toxics

	Biomass				No.2 Fuel Oil				Coal			
Pollutant	Ref.	Published Emission Factor		Converted Emission Factor (lb/MMBtu)	Reference	Published Emission Factor		Converted Emission Factor (lb/MMBtu)	Ref.	Published Emission Factor		Converted Emission Factor (lb/MMBtu)
Acetone	1	3.8E-04	lb/MMBtu									
Ammonia	2	0.015	lb/MMBtu		2	0.015	lb/MMBtu	1.50E-02	2	4.80E-02	lb/MMBtu	4.80E-02
Barium	3	0.0044	lb/ton[a]	5.20E-06	6	28.8	pg/J	6.69E-07	6	3.2	ng/J	7.44E-05
Benzo(a)anthracene	3	6.4E-06	lb/ton	7.53E-07								
Benzo(a)pyrene	3	3.0E-07	lb/ton	3.53E-08								
Bromine	3	0.00039	lb/ton	4.59E-05	6	3.0	pg/J	6.97E-07	6	0.34	ng/J	7.90E-04
Chrysene	3	3.0E-04	lb/ton	3.53E-05								
Copper - Maximum	4	1.25E-04	lb/MMBtu		7	4.20E-05	lb/MMBtu	4.20E-05	8	1.71E-04	lb/MMBtu	1.71E-04
Copper - Annual	4	8.02E-05	lb/MMBtu									
Indium	5	1.27E-04	lb/MMBtu									
Iodine	2	1.8E-05	lb/ton	2.12E-06								
Isopropanol	1	9.2E-03	lb/MMBtu									
Molybdenum	2	1.9E-04	lb/ton[a]	2.24E-07	6	21	pg/J	4.88E-07	6	0.38	ng/J	8.83E-06
PAH	1	5.9E-04	lb/MMBtu	5.90E-10								
Silver	1	140	lb/10^{12} Btu[a]	1.40E-06								
Thallium	1	ND										
Tin	2	3.1E-05	lb/ton[a]	3.65E-08	6	142	pg/J	3.3E-06	6	0.38	ng/J	8.83E-06
Tungsten	2	1.1E-05	lb/ton[a]	1.29E-08								
Vanadium	2	1.2E-04	lb/ton[a]	1.41E-07								
Yttrium	2	5.6E-05	lb/ton[a]	6.59E-08								
Zirconium	2	3.5E-04	lb/ton[a]	4.12E-07								
Zinc	9	14,130	ppm	4.24E-04	6	28.8	pg/J	6.69E-07	6	1.5	ng/J	3.49E-05

[a] Uncontrolled emission factor; 99% control with ESP is assumed to calculate controlled emission factor.
ND = Non-detectable

References

1. NCASI Technical Bulletin No. 650, June 1993.
2. Based on 25ppm NH3 in exhaust gases for biomass and No. 2 Fuel Oil; 65 ppm NH3 for coal.
3. AP-42, Tables 1.6-5 and 1.6-7.
4. Based on 2.4 % treated wood burning.
5. EPA PM/VOC Database updated October, 1989.
6. Emissions Assessment of Conventional Stationary Combustion Systems, Volume V, 1981. Based on uncontrolled spreader stoker design and then assuming 99% control from ESP if emitted as a particulate.
7. Toxic Air Pollutant Emission FActors - A Compilation for Selected Air Toxic Compounds and Sources, Second Edition EPA-450/2-90-011 (1990).
8. Estimating Emissions from Oil and Coal Combustion Sources EPA-450/2-89-001 (1989).
9. Air Toxics Emissions From Wood-Fired Boilers. C. Sassenrath, 1991 TAPPI Proceedings.

Conversions:
lb/10^{12} Btu x 10^{12} Btu/1,000,000 MMBtu = lb/MMBtu
lb/ton x ton/2000 lb x lb/4,250 BTU x 10^{6} Btu/MMBtu = lb/MMBtu
pg/J x 2.324x10^{-6} (lb/MMBtu)/(pg/J)x (1 - 0.99) = 2.324-^{8} lb/MMBtu
ng/J x 2.324x10^{-3} (lb/MMBtu)/(ng/J)x (1 - 0.99) = 2.324-^{5} lb/MMBtu

APPENDIX B

BASIS FOR SO_2 REMOVAL WHEN FIRING BIOMASS AND TDF IN COMBINATION

APPENDIX B

OSCEOLA POWER COGENERATION FACILITY
BASIS FOR SULFUR CAPTURE WHEN BURNING TDF/BIOMASS

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1. WORST-CASE, SHORT-TERM CONDITION
   25% TDF, 75% biomass, weight basis
   Tons wood burned = 390 MMBtu/hr ÷ 5,500 Btu/lb = 35.45 TPH

   Sulfur in fuel:
   Biomass = 390 MMBtu/hr x 0.10 lb/MMBtu = 39.0 lb/hr
   TDF = 370 MMBtu/hr ÷ 15,500 Btu/lb = 23,871 lb/hr
   = 23,871 lb/hr x 1.23% S = 293.6 lb/hr
   Total = 39.0 + 293.6 = 332.6 lb/hr

   Tons wood/lb S in fuel = 35.45 ÷ 332.6 = 0.11

   Sulfur Capture = 122.34 x $(0.11)^{0.5}$ = 41%

2. ANNUAL AVERAGE CONDITIONS
   6.6% TDF, 93.4% biomass, weight basis
   Assume all biomass utilized is wood waste.

   From Table 2-2:
   Wood waste = 623,055 TPY; 6.854 x 10^{12} Btu/yr
   TDF = 43,687 TPY

   Sulfur in fuel:
   Wood waste = 6.854 x 10^{12} Btu/yr x 0.02 lb/MMBtu = 137,080 lb/yr
   TDF = 43,687 TPY x 2,000 lb/ton x 1.23% = 1,074,700 lb/yr
   Total = 137,080 + 1,074,700 = 1,211,780 lb/yr

   Tons wood/lb S in fuel = 623,055 ÷ 1,211,780 = 0.51

   Sulfur Capture = 122.34 x $(0.51)^{0.5}$ = 87%

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SULFUR CAPTURE IN COMBINATION BARK BOILERS

TECHNICAL BULLETIN NO. 640

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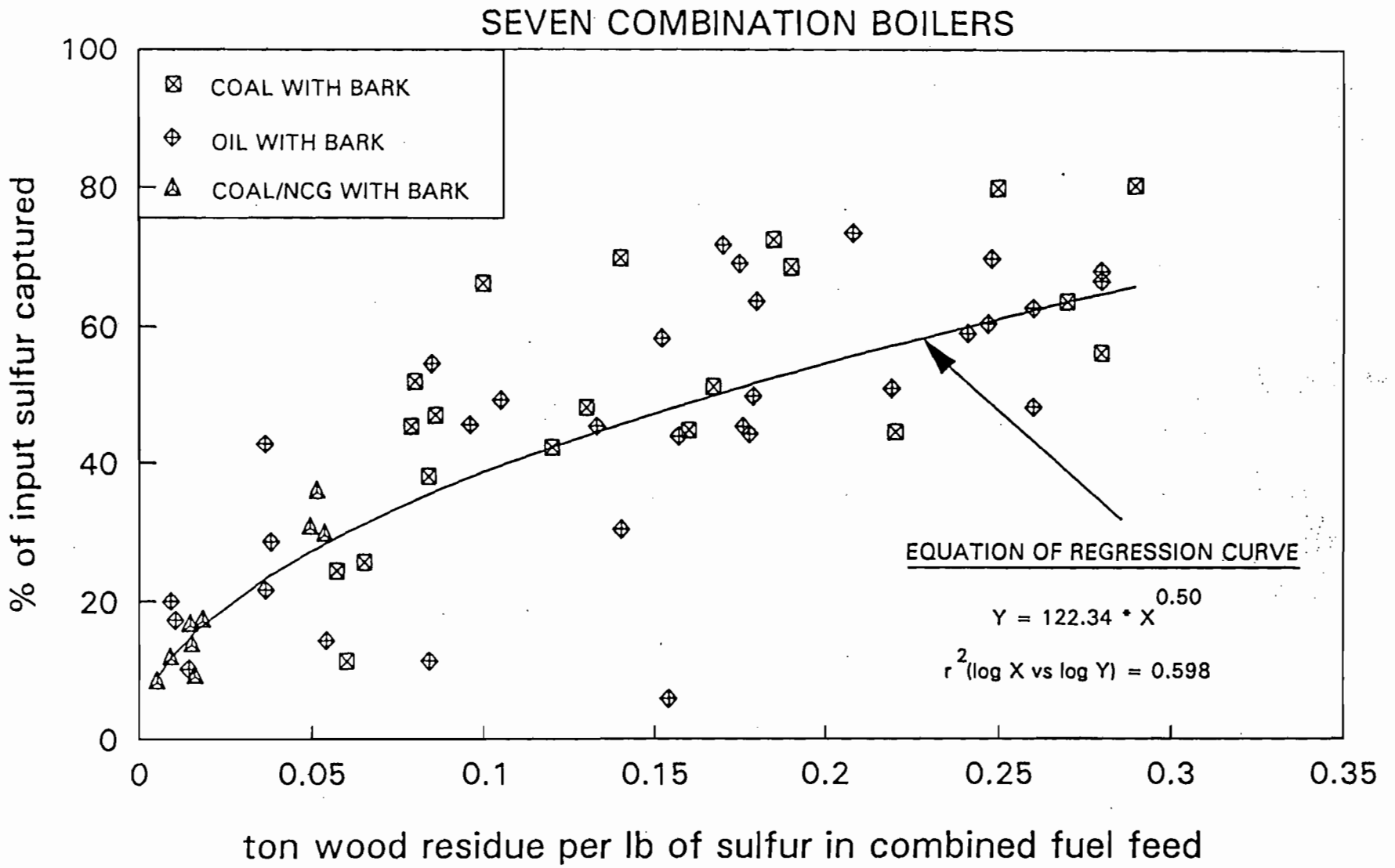

FIGURE 11 SUMMARY OF GAS-SOLID SULFUR CAPTURE IN COMBINATION BOILERS