

Golder Associates Inc.

6241 NW 23rd Street, Suite 500
Gainesville, FL USA 32653
Telephone (352) 336-5600
Fax (352) 336-6603
www.golder.com



June 5, 2006

RECEIVED 0637563

JUN 07 2006

BUREAU OF AIR REGULATION

Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Attention: Mr. Jeff Koerner, Air Permitting South

RE: UNITED STATES SUGAR CORPORATION, CLEWISTON MILL
BOILER NO. 8 PERMIT REVISION APPLICATION
PERMIT NO. 0510003-030-AC

Dear Mr. Jeff Koerner:

Please find enclosed four copies of the permit revision application for the Clewiston Mill Boiler No. 8. This application is to incorporate a higher steaming rate and a longer boiler startup time for Boiler No. 8, and to revise the controls utilized on the bagasse handling and conveying system. If you have any questions, please do not hesitate to call me at (352) 336-5600.

Sincerely,

GOLDER ASSOCIATES INC.

A handwritten signature in cursive script that reads 'David A. Buff'.

David A. Buff, P.E., Q.E.P.
Principal Engineer

Enclosures

DB/CB/all

cc: Ron Blackburn, FDEP South District
Don Griffin
Peter Briggs

0510003-030-AC

Y:\Projects\2006\0637563 USSC Boilers 1 & 2 and Boiler 8\Boiler #8\4.1\060506.doc

RECEIVED

JUN 07 2006

BUREAU OF AIR REGULATION

**BOILER NO. 8
PERMIT REVISION
U.S. SUGAR CORPORATION
CLEWISTON, FLORIDA**

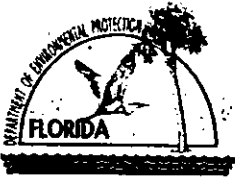
**Prepared For:
United States Sugar Corporation
111 Ponce de Leon Avenue
Clewiston, Florida 33440**

**Prepared By:
Golder Associates Inc.
6241 NW 23rd Street, Suite 500
Gainesville, Florida 32653-1500**

**June 2006
063-7563**

**DISTRIBUTION:
5 Copies – FDEP
2 Copies – U.S. Sugar Corporation
2 Copies – Golder Associates Inc.**

PERMIT APPLICATION LONG FORM



Department of Environmental Protection

Division of Air Resource Management

APPLICATION FOR AIR PERMIT - LONG FORM

I. APPLICATION INFORMATION

Air Construction Permit – Use this form to apply for an air construction permit at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air permit. Also use this form to apply for an air construction permit:

- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment area (NAA) new source review, or maximum achievable control technology (MACT) review; or
- Where the applicant proposes to assume a restriction on the potential emissions of one or more pollutants to escape a federal program requirement such as PSD review, NAA new source review, Title V, or MACT; or
- Where the applicant proposes to establish, revise, or renew a plantwide applicability limit (PAL).

Air Operation Permit – Use this form to apply for:

- an initial federally enforceable state air operation permit (FESOP); or
- an initial/revise/renewal Title V air operation permit.

Air Construction Permit & Title V Air Operation Permit (Concurrent Processing Option) – Use this form to apply for both an air construction permit and a revised or renewal Title V air operation permit incorporating the proposed project.

To ensure accuracy, please see form instructions.

Identification of Facility

1. Facility Owner/Company Name: United States Sugar Corporation	
2. Site Name: U.S. Sugar Clewiston Mill	
3. Facility Identification Number: 0510003	
4. Facility Location...: Street Address or Other Locator: W.C. Owens Ave. and S.R. 832 City: Clewiston County: Hendry Zip Code: 33440	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Title V Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Application Contact

1. Application Contact Name: Neil Smith, Vice President and General Manager, Sugar Processing Operations	
2. Application Contact Mailing Address... Organization/Firm: United States Sugar Corporation Street Address: 111 Ponce de Leon Avenue City: Clewiston State: FL Zip Code: 33440	
3. Application Contact Telephone Numbers... Telephone: (863) 902-2703 ext. Fax: (863) 902-2729	
4. Application Contact Email Address: nsmith@ussugar.com	

Application Processing Information (DEP Use)

1. Date of Receipt of Application: 6-7-06	3. PSD Number (if applicable):
2. Project Number(s): 0510003-037-4e	4. Siting Number (if applicable):

APPLICATION INFORMATION

Purpose of Application

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

Air Construction Permit

- Air construction permit.
- Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).
- Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.

Air Operation Permit

- Initial Title V air operation permit.
- Title V air operation permit revision.
- Title V air operation permit renewal.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)

- Air construction permit and Title V permit revision, incorporating the proposed project.
- Air construction permit and Title V permit renewal, incorporating the proposed project.

Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:

- I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.

Application Comment

Revision to Boiler No. 8 permit (Permit No. PSD-FL-333B/0510003-030-AC) to incorporate a higher steaming rate and a longer boiler startup time (8-12 hours), and to revise the controls utilized on the bagasse handling and conveying system.

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Proc. Fee
028	Boiler No. 8		
027	Biomass Handling System		

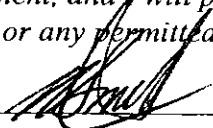
Application Processing Fee

Check one: Attached - Amount: \$ _____ Not Applicable

APPLICATION INFORMATION

Owner/Authorized Representative Statement

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

1. Owner/Authorized Representative Name :	
Neil Smith, Vice President and General Manager, Sugar Processing Operations	
2. Owner/Authorized Representative Mailing Address...	
Organization/Firm: United States Sugar Corporation	
Street Address: 111 Ponce de Leon Avenue	
City: Clewiston State: FL Zip Code: 33440	
3. Owner/Authorized Representative Telephone Numbers...	
Telephone: (863) 902-2703 ext. Fax: (863) 902-2729	
4. Owner/Authorized Representative Email Address: nsmith@ussugar.com	
5. Owner/Authorized Representative Statement:	
<i>I, the undersigned, am the owner or authorized representative of the facility addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other requirements identified in this application to which the facility is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit.</i>	
 Signature	<u>6/2/06</u> Date

APPLICATION INFORMATION

Application Responsible Official Certification

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

1. Application Responsible Official Name:
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.
3. Application Responsible Official Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
4. Application Responsible Official Telephone Numbers... Telephone: () - ext. Fax: () -
5. Application Responsible Official Email Address:
6. Application Responsible Official Certification: <i>I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.</i> _____ Signature Date

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: David A. Buff Registration Number: 19011
2. Professional Engineer Mailing Address... Organization/Firm: Golder Associates Inc.** Street Address: 6241 NW 23rd Street, Suite 500 City: Gainesville State: FL Zip Code: 32653
3. Professional Engineer Telephone Numbers... Telephone: (352) 336-5600 ext. 545 Fax: (352) 336-6603
4. Professional Engineer Email Address: dbuff@golder.com
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> <i>(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and</i> <i>(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.</i> <i>(3) If the purpose of this application is to obtain a Title V air operation permit (check here <input type="checkbox"/>, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.</i> <i>(4) If the purpose of this application is to obtain an air construction permit (check here <input checked="" type="checkbox"/>, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here <input type="checkbox"/>, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.</i> <i>(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here <input type="checkbox"/>, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.</i> Signature: <u>David A. Buff</u> Date: <u>6/5/06</u> (seal)

* Attach any exception to certification statement.

**Board of Professional Engineers Certificate of Authorization #00001670

FACILITY INFORMATION

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates... Zone 17 East (km) 506.1 North (km) 2956.9		2. Facility Latitude/Longitude... Latitude (DD/MM/SS) 26/44/06 Longitude (DD/MM/SS) 80/56/19	
3. Governmental Facility Code: 0	4. Facility Status Code: A	5. Facility Major Group SIC Code: 20	6. Facility SIC(s): 2061 2062
7. Facility Comment :			

Facility Contact

1. Facility Contact Name: Neil Smith, Vice President and General Manager, Sugar Processing Operations
2. Facility Contact Mailing Address... Organization/Firm: United States Sugar Corporation Street Address: 111 Ponce de Leon Avenue City: Clewiston State: FL Zip Code: 33440
3. Facility Contact Telephone Numbers: Telephone: (863) 902-2703 ext. Fax: (863) 902-2729
4. Facility Contact Email Address: nsmith@ussugar.com

Facility Primary Responsible Official

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

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

FACILITY INFORMATION

Facility Regulatory Classifications

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

1. <input type="checkbox"/> Small Business Stationary Source	<input type="checkbox"/> Unknown
2. <input type="checkbox"/> Synthetic Non-Title V Source	
3. <input checked="" type="checkbox"/> Title V Source	
4. <input checked="" type="checkbox"/> Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)	
5. <input type="checkbox"/> Synthetic Minor Source of Air Pollutants, Other than HAPs	
6. <input checked="" type="checkbox"/> Major Source of Hazardous Air Pollutants (HAPs)	
7. <input type="checkbox"/> Synthetic Minor Source of HAPs	
8. <input checked="" type="checkbox"/> One or More Emissions Units Subject to NSPS (40 CFR Part 60)	
9. <input type="checkbox"/> One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)	
10. <input checked="" type="checkbox"/> One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)	
11. <input type="checkbox"/> Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))	
12. Facility Regulatory Classifications Comment:	
<p>One or more emission units is potentially subject to NESHAP for asbestos removal in the event that the facility may wish to perform asbestos removal in the future. Boiler No. 8 is also subject to 40 CFR 63, Subpart DDDDD.</p>	

FACILITY INFORMATION

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
Particulate Matter Total – PM	A	N
Sulfur Dioxide – SO ₂	A	N
Nitrogen Oxides – NO _x	A	N
Carbon Monoxide – CO	A	N
Particulate Matter – PM ₁₀	A	N
Sulfuric Acid Mist – SAM	A	N
Total Hazardous Air Pollutants – HAPs	A	N
Volatile Organic Compounds – VOCs	A	N
Acetaldehyde – H001	A	N
Benzene – H017	A	N
Formaldehyde – H095	A	N
Hydrogen Chloride – H106	A	N
Mercury – H114	B	N
Phenol – H144	A	N
Polycyclic Organic Matter – H151	A	N
Styrene – H163	A	N
Toluene – H169	A	N
Naphthalene – H132	A	N
Dibenzofuran – H058	A	N
Ammonia – NH ₃	B	N

FACILITY INFORMATION

B. EMISSIONS CAPS

Facility-Wide or Multi-Unit Emissions Caps

1. Pollutant Subject to Emissions Cap	2. Facility Wide Cap [Y or N]? (all units)	3. Emissions Unit ID No.s Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap
<p>7. Facility-Wide or Multi-Unit Emissions Cap Comment:</p>					

FACILITY INFORMATION

C. FACILITY ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>February 2005</u>
2. Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>February 2005</u>
3. Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment A</u> <input type="checkbox"/> Previously Submitted, Date: _____

Additional Requirements for Air Construction Permit Applications

1. Area Map Showing Facility Location: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (existing permitted facility)
2. Description of Proposed Construction, Modification, or Plantwide Applicability Limit (PAL): <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment A</u>
3. Rule Applicability Analysis: <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment A</u>
4. List of Exempt Emissions Units (Rule 62-210.300(3), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (no exempt units at facility)
5. Fugitive Emissions Identification: <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment A</u> <input type="checkbox"/> Not Applicable
6. Air Quality Analysis (Rule 62-212.400(7), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
7. Source Impact Analysis (Rule 62-212.400(5), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
8. Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

FACILITY INFORMATION

Additional Requirements for FESOP Applications

1. List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.):
 Attached, Document ID: _____ Not Applicable (no exempt units at facility)

Additional Requirements for Title V Air Operation Permit Applications

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

Additional Requirements Comment

EMISSIONS UNIT INFORMATION

Section [1]

Boiler No. 8

III. EMISSIONS UNIT INFORMATION

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

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

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

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

EMISSIONS UNIT INFORMATION

Section [1]

Boiler No. 8

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)
- The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
 - The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

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

2. Description of Emissions Unit Addressed in this Section: **Boiler No. 8**

3. Emissions Unit Identification Number: **028**

4. Emissions Unit Status Code: A	5. Commence Construction Date: Nov. 2003	6. Initial Startup Date: March 2005	7. Emissions Unit Major Group SIC Code: 20	8. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
--	--	---	--	--

9. Package Unit:
Manufacturer: _____ Model Number: _____

10. Generator Nameplate Rating: _____ MW

11. Emissions Unit Comment:

Stoker boiler fired by carbonaceous fuel and low sulfur No. 2 fuel oil.

EMISSIONS UNIT INFORMATION

**Section [1]
Boiler No. 1**

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

**Electrostatic Precipitator
Wet Sand Separator
Selective Non-Catalytic Reduction System (SNCR)
Dry Cyclone**

2. Control Device or Method Code(s): **010, 099, 107, 075**

EMISSIONS UNIT INFORMATION

Section [1]

Boiler No. 8

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate:		
2. Maximum Production Rate: 633,000 lb/hr		
3. Maximum Heat Input Rate: 1,185 million Btu/hr		
4. Maximum Incineration Rate: pounds/hr tons/day		
5. Requested Maximum Operating Schedule:		
24 hours/day		7 days/week
52 weeks/year		8,760 hours/year
6. Operating Capacity/Schedule Comment:		
<p>Maximum heat input based on 1-hour maximum steam rate (above) for carbonaceous fuel firing. Maximum 24-hour average firing for carbonaceous fuel is 1,077 MMBtu/hr, based on a 24-hour steam rate of 575,000 lb/hr. Maximum for No. 2 fuel oil is 562 MMBtu/hr. Maximum annual heat input limited to 6,767,100 MMBtu/yr.</p> <p>See Attachments USSC-EU1-B6a and USSC-EU1-B6b.</p>		

EMISSIONS UNIT INFORMATION

Section [1]

Boiler No. 8

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: BLR-8		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: V	6. Stack Height: 199 feet	7. Exit Diameter: 13.0 feet	
8. Exit Temperature: 315 °F	9. Actual Volumetric Flow Rate: 395,000 acfm	10. Water Vapor: 24 %	
11. Maximum Dry Standard Flow Rate: 270,000 dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: Stack parameters are based on biomass firing at the maximum 24-hour heat input rate. Maximum standard flow rates are at 7-percent oxygen.			

EMISSIONS UNIT INFORMATION

Section [1]

Boiler No. 8

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 3

1. Segment Description (Process/Fuel Type): External combustion boilers; industrial; bagasse; all boiler sizes		
2. Source Classification Code (SCC): 1-02-011-01		3. SCC Units: Tons Burned
4. Maximum Hourly Rate: 164.58	5. Maximum Annual Rate: 939,875	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.1 (dry)	8. Maximum % Ash:	9. Million Btu per SCC Unit: 7.2
10. Segment Comment: Maximum hourly rate based on bagasse firing at 1,185 MMBtu/hr (1-hour max) and maximum annual rate based on 6,767,100 MMBtu/yr. See Attachment USSC-EU1-B6b.		

Segment Description and Rate: Segment 2 of 3

1. Segment Description (Process/Fuel Type): External combustion boilers; industrial; distillate oil; grades 1 and 2		
2. Source Classification Code (SCC): 1-02-005-01		3. SCC Units: 1000 Gallons
4. Maximum Hourly Rate: 4.161	5. Maximum Annual Rate: 6,073.6	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.05	8. Maximum % Ash:	9. Million Btu per SCC Unit: 135
10. Segment Comment: Maximum rates based on fuel oil firing at 562 MMBtu/hr and a maximum of 6,073,600 gallons of fuel oil per year.		

EMISSIONS UNIT INFORMATION

Section [1]
Boiler No. 8

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 3 of 3

1. Segment Description (Process/Fuel Type): External combustion boilers; industrial; wood/bark (>50,000 lb/hr steam)		
2. Source Classification Code (SCC): 1-02-009-02		3. SCC Units: Tons Burned.
4. Maximum Hourly Rate: 131.67	5. Maximum Annual Rate: 831,339	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.05 (dry)	8. Maximum % Ash:	9. Million Btu per SCC Unit: 8.14
10. Segment Comment: Maximum hourly rate based on 1,185 MMBtu/hr (1-hour max) and 4,070 Btu/lb (wet) for wood/bark. Maximum annual rate based on 6,767,100 MMBtu/yr.		

Segment Description and Rate: Segment of

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

EMISSIONS UNIT INFORMATION

Section [1]
Boiler No. 8

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	099	010	EL
PM ₁₀	099	010	EL
SO ₂			EL
NO _x	107		EL
CO			EL
VOC			EL
SAM			NS
PB	099	010	NS
H017 (Benzene)			NS
H095 (Formaldehyde)			NS
H106 (Hydrogen Chloride)	010		EL
H114 (Mercury)			EL
HAPs			NS
NH ₃ (Ammonia)			EL

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
Boiler No. 8

Page [1] of [12]
Particulate Matter Total - PM

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: PM		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 29.63 lb/hour 84.6 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.025 lb/MMBtu Reference: MACT Limit		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Maximum 1-hour rate: 1,185 MMBtu/hr x 0.025 lb/MMBtu = 29.63 lb/hr Maximum 24-hour rate: 1,077 MMBtu/hr x 0.025 lb/MMBtu = 26.93 lb/hr Maximum annual rate: 6,767,100 MMBtu/yr x 0.025 lb/MMBtu ÷ 2,000 lb/ton = 84.6 TPY			
11. Potential Fugitive and Actual Emissions Comment: Potential emissions representative of bagasse firing. Based on Permit No. 0510003-030-AC/PSD-FL-333B and 40 CFR 63, Subpart DDDDD, Table 1.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
Boiler No. 8

Page [1] of [12]
Particulate Matter Total - PM

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

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

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.025 lb/MMBtu	4. Equivalent Allowable Emissions: 29.63 lb/hour 84.6 tons/year
5. Method of Compliance: EPA Method 5	
6. Allowable Emissions Comment (Description of Operating Method): MACT Limit, 40 CFR 63, Subpart DDDDD, Table 1.	

Allowable Emissions Allowable Emissions ____ of ____

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

Allowable Emissions Allowable Emissions ____ of ____

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

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
Boiler No. 8

Page [2] of [12]
Particulate Matter – PM₁₀

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: PM₁₀		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 29.63 lb/hour 84.6 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.025 lb/MMBtu Reference: BACT Limit		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Maximum 1-hour rate: 1,185 MMBtu/hr x 0.025 lb/MMBtu = 29.63 lb/hr Maximum 24-hour rate: 1,077 MMBtu/hr x 0.025 lb/MMBtu = 26.93 lb/hr Maximum annual rate: 6,767,100 MMBtu/yr x 0.025 lb/MMBtu ÷ 2,000 lb/ton = 84.6 TPY			
11. Potential Fugitive and Actual Emissions Comment: Potential emissions representative of bagasse firing. Based on Permit No. 0510003-030-AC/PSD-FL-333B.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
Boiler No. 8

Page [2] of [12]
Particulate Matter – PM₁₀

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

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

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.025 lb/MMBtu	4. Equivalent Allowable Emissions: 29.63 lb/hour 84.6 tons/year
5. Method of Compliance: EPA Method 5	
6. Allowable Emissions Comment (Description of Operating Method): BACT Limit. Emissions representative of bagasse firing only.	

Allowable Emissions Allowable Emissions ____ of ____

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

Allowable Emissions Allowable Emissions ____ of ____

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

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
Boiler No. 8

Page [3] of [12]
Sulfur Dioxide – SO₂

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: SO₂		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 71.1 lb/hour 203.0 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.06 lb/MMBtu Reference: BACT Limit		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Maximum 1-hour rate: 1,185 MMBtu/hr x 0.06 lb/MMBtu = 71.1 lb/hr Maximum 24-hour rate: 1,077 MMBtu/hr x 0.06 lb/MMBtu = 64.62 lb/hr Maximum annual rate: 6,767,100 MMBtu/yr x 0.06 lb/MMBtu ÷ 2,000 lb/ton = 203.0 TPY			
11. Potential Fugitive and Actual Emissions Comment: Potential emissions representative of bagasse firing. Based on Permit No. 0510003-030-AC/PSD-FL-333B.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
Boiler No. 8

Page [3] of [12]
Sulfur Dioxide - SO₂

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

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

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.06 lb/MMBtu	4. Equivalent Allowable Emissions: 71.1 lb/hour 203.0 tons/year
5. Method of Compliance: EPA Method 6C	
6. Allowable Emissions Comment (Description of Operating Method): Emissions representative of bagasse firing only.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.05 lb/MMBtu	4. Equivalent Allowable Emissions: 28.1 lb/hour 20.5 tons/year
5. Method of Compliance: Fuel Analysis	
6. Allowable Emissions Comment (Description of Operating Method): Emissions representative of No. 2 fuel oil firing with 0.05 percent sulfur. Annual emissions based on proposed limit of 6,073,600 gal/yr.	

Allowable Emissions Allowable Emissions ____ of ____

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

EMISSIONS UNIT INFORMATION

Section [1]
Boiler No. 8

POLLUTANT DETAIL INFORMATION

Page [4] of [12]
Nitrogen Oxides - NO_x

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: NO_x		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 355.5 lb/hour 473.7 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.14 lb/MMBtu, 30-day rolling average Reference: Permit No. 0510003-030-AC/PSD-FL-333B		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Maximum 1-hour rate: 1,185 MMBtu/hr x 0.30 lb/MMBtu = 355.5 lb/hr Maximum 24-hour rate: 1,077 MMBtu/hr x 0.30 lb/MMBtu = 323.1 lb/hr Maximum annual rate: 6,767,100 MMBtu/yr x 0.14 lb/MMBtu ÷ 2,000 lb/ton = 473.7 TPY			
11. Potential Fugitive and Actual Emissions Comment: Maximum 1-hour and 24-hour rates represent worst-case uncontrolled emissions without the SNCR system. Annual average is 30-day rolling average limit, based on Permit No. 0510003-030-AC/PSD-FL-333B.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
Boiler No. 8

Page [4] of [12]
Nitrogen Oxides - NO_x

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

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

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.14 lb/MMBtu	4. Equivalent Allowable Emissions: lb/hour 473.7 tons/year
5. Method of Compliance: NO_x CEMS	
6. Allowable Emissions Comment (Description of Operating Method): BACT limit based on 30-day rolling average.	

Allowable Emissions Allowable Emissions ____ of ____

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

Allowable Emissions Allowable Emissions ____ of ____

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

EMISSIONS UNIT INFORMATION

Section [1]
Boiler No. 8

POLLUTANT DETAIL INFORMATION

Page [5] of [12]
Carbon Monoxide - CO

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: CO		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 7,702.5 lb/hour 1,285 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 400 ppmvd @ 7% O₂, 30-day rolling average Reference: MACT Limit		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Maximum 1-hour rate: 1,185 MMBtu/hr x 6.5 lb/MMBtu = 7,702.5 lb/hr Maximum 24-hour rate: 1,077 MMBtu/hr x 6.5 lb/MMBtu = 7,000.5 lb/hr 30-day rolling average based on 40 CFR 63, Subpart DDDDD: 400 ppmvd @ 7% O ₂ x 270,000 dscfm @ 7% O ₂ x 60 min/hr x 2,116.8 lb/ft ² ÷ (1,545.6/28) ft-lb _p /lb _m -°R ÷ 528°R = 470.6 lb/hr Annual based on 30-day rolling average: 470.6 lb/hr x 8,760 hr/yr ÷ 2,000 lb/ton = 2,061.2 TPY			
11. Potential Fugitive and Actual Emissions Comment: Annual limit based on 12-month rolling total from Permit No. 0510003-030-AC/PSD-FL-333B.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
Boiler No. 8

Page [5] of [12]
Carbon Monoxide - CO

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

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

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 400 ppmvd @ 7% O₂	4. Equivalent Allowable Emissions: 470.6 lb/hour 2,061.2 tons/year
5. Method of Compliance: CO CEMS	
6. Allowable Emissions Comment (Description of Operating Method): MACT Limit, 40 CFR 63, Subpart DDDDD, Table 1. Limit based on 30-day rolling average.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 1,285 TPY	4. Equivalent Allowable Emissions: lb/hour 1,285 tons/year
5. Method of Compliance: CO CEMS	
6. Allowable Emissions Comment (Description of Operating Method): Limit based on 12-month rolling total. Annual TPY includes periods of startup, shutdown, and malfunction (SSM).	

Allowable Emissions Allowable Emissions of

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

EMISSIONS UNIT INFORMATION

Section [1]
Boiler No. 8

POLLUTANT DETAIL INFORMATION

Page [6] of [12]
Volatile Organic Compounds - VOCs

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: VOC		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 59.25 lb/hour 169.2 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.05 lb/MMBtu Reference: BACT Limit		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Maximum 1-hour rate: 1,185 MMBtu/hr x 0.05 lb/MMBtu = 59.25 lb/hr Maximum 24-hour rate: 1,077 MMBtu/hr x 0.05 lb/MMBtu = 53.85 lb/hr Maximum annual rate: 6,767,100 MMBtu/yr x 0.05 lb/MMBtu ÷ 2,000 lb/ton = 169.2 TPY			
11. Potential Fugitive and Actual Emissions Comment: Potential emissions representative of bagasse firing. Based on Permit No. 0510003-030-AC/PSD-FL-333B.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
Boiler No. 8

Page [6] of [12]
Volatile Organic Compounds - VOCs

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

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

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.05 lb/MMBtu	4. Equivalent Allowable Emissions: 59.25 lb/hour 169.2 tons/year
5. Method of Compliance: EPA Methods 18 and 25A	
6. Allowable Emissions Comment (Description of Operating Method): BACT Limit. Emissions representative of bagasse firing only.	

Allowable Emissions Allowable Emissions ____ of ____

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

Allowable Emissions Allowable Emissions ____ of ____

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

EMISSIONS UNIT INFORMATION

Section [1]
Boiler No. 8

POLLUTANT DETAIL INFORMATION

Page [7] of [12]
Sulfuric Acid Mist - SAM

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: SAM		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 4.38 lb/hour 12.52 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.0037 lb/MMBtu Reference: AP-42		7. Emissions Method Code: 4	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Maximum 1-hour rate: 1,185 MMBtu/hr x 0.0037 lb/MMBtu = 4.38 lb/hr Maximum 24-hour rate: 1,077 MMBtu/hr x 0.0037 lb/MMBtu = 3.98 lb/hr Maximum annual rate: 6,767,100 MMBtu/yr x 0.0037 lb/MMBtu ÷ 2,000 lb/ton = 12.52 TPY			
11. Potential Fugitive and Actual Emissions Comment: Potential emissions representative of bagasse firing. Factor based on the SO ₂ emission factor and a 5% conversion of SO ₂ to SO ₃ , and taking into account the ratio of molecular weights (98/80).			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
Boiler No. 8

Page [7] of [12]
Sulfuric Acid Mist - SAM

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

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

Allowable Emissions Allowable Emissions 1 of 1

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

Allowable Emissions Allowable Emissions ____ of ____

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

Allowable Emissions Allowable Emissions ____ of ____

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

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
Boiler No. 8

Page [8] of [12]
Lead - Pb

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: Pb		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.018 lb/hour 0.052 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 1.55×10^{-5} lb/MMBtu Reference: Bagasse analysis and 50-percent removal		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Bagasse analysis: 3.09×10^{-5} lb/MMBtu x 0.50 = 1.55×10^{-5} lb/MMBtu Maximum 1-hour rate: 1,185 MMBtu/hr x 1.55×10^{-5} lb/MMBtu = 0.018 lb/hr Maximum 24-hour rate: 1,077 MMBtu/hr x 1.55×10^{-5} lb/MMBtu = 0.017 lb/hr Maximum annual rate: 6,767,100 MMBtu/yr x 1.55×10^{-5} lb/MMBtu ÷ 2,000 lb/ton = 0.052 TPY			
11. Potential Fugitive and Actual Emissions Comment: Potential emissions representative of bagasse firing. Based on bagasse analysis and assuming 50 percent removal in wet scrubber/ESP, based on stack testing.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
Boiler No. 8

Page [8] of [12]
Lead - Pb

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

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

Allowable Emissions Allowable Emissions 1 of 1

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

Allowable Emissions Allowable Emissions ____ of ____

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

Allowable Emissions Allowable Emissions ____ of ____

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

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
Boiler No. 8

Page [9] of [12]
Mercury - H114

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: H114 (Mercury)		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.0036 lb/hour 0.0102 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 3×10^{-6} lb/MMBtu Reference: 40 CFR 63, Subpart DDDDD, Table 1		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Maximum 1-hour rate: $1,185 \text{ MMBtu/hr} \times 3 \times 10^{-6} \text{ lb/MMBtu} = 0.0036 \text{ lb/hr}$ Maximum 24-hour rate: $1,077 \text{ MMBtu/hr} \times 3 \times 10^{-6} \text{ lb/MMBtu} = 0.0032 \text{ lb/hr}$ Maximum annual rate: $6,767,100 \text{ MMBtu/yr} \times 3 \times 10^{-6} \text{ lb/MMBtu} \div 2,000 \text{ lb/ton} = 0.0102 \text{ TPY}$			
11. Potential Fugitive and Actual Emissions Comment: Potential emissions representative of bagasse firing.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
Boiler No. 8

Page [9] of [12]
Mercury – H114

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

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

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 3x10⁻⁶ lb/MMBtu	4. Equivalent Allowable Emissions: 0.0036 lb/hour 0.0102 tons/year
5. Method of Compliance: Bagasse analysis	
6. Allowable Emissions Comment (Description of Operating Method): Based on 40 CFR 63, Subpart DDDDD, Table 1.	

Allowable Emissions Allowable Emissions ____ of ____

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

Allowable Emissions Allowable Emissions ____ of ____

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

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
Boiler No. 8

Page [10] of [12]
Fluorides

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: Fluorides		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.711 lb/hour 2.03 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 6×10^{-4} lb/MMBtu Reference: Stack test data from similar boiler		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Maximum 1-hour rate: $1,185 \text{ MMBtu/hr} \times 6 \times 10^{-4} \text{ lb/MMBtu} = 0.711 \text{ lb/hr}$ Maximum 24-hour rate: $1,077 \text{ MMBtu/hr} \times 6 \times 10^{-4} \text{ lb/MMBtu} = 0.646 \text{ lb/hr}$ Maximum annual rate: $6,767,100 \text{ MMBtu/yr} \times 6 \times 10^{-4} \text{ lb/MMBtu} \div 2,000 \text{ lb/ton} = 2.03 \text{ TPY}$			
11. Potential Fugitive and Actual Emissions Comment: Potential emissions representative of bagasse firing.			

EMISSIONS UNIT INFORMATION

Section [1]
Boiler No. 8

POLLUTANT DETAIL INFORMATION

Page [10] of [12]
Fluorides

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

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

Allowable Emissions Allowable Emissions ____ of ____

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

Allowable Emissions Allowable Emissions ____ of ____

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

Allowable Emissions Allowable Emissions ____ of ____

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

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
Boiler No. 8

Page [11] of [12]
Hydrogen Chloride - HCl

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: HCl		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 23.7 lb/hour 67.67 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.02 lb/MMBtu Reference: 40 CFR 63, Subpart DDDDD, Table 1		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Maximum 1-hour rate: 1,185 MMBtu/hr x 0.02 lb/MMBtu = 23.7 lb/hr Maximum 24-hour rate: 1,077 MMBtu/hr x 0.02 lb/MMBtu = 21.54 lb/hr Maximum annual rate: 6,767,100 MMBtu/yr x 0.02 lb/MMBtu ÷ 2,000 lb/ton = 67.67 TPY			
11. Potential Fugitive and Actual Emissions Comment: Potential emissions representative of bagasse firing.			

EMISSIONS UNIT INFORMATION

Section [1]
Boiler No. 8

POLLUTANT DETAIL INFORMATION

Page [11] of [12]
Hydrogen Chloride - HCl

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

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

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.02 lb/MMBtu	4. Equivalent Allowable Emissions: 23.7 lb/hour 67.67 tons/year
5. Method of Compliance: Annual stack testing using EPA Method 26A.	
6. Allowable Emissions Comment (Description of Operating Method): Based on 40 CFR 63, Subpart DDDDD, Table 1.	

Allowable Emissions Allowable Emissions ____ of ____

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

Allowable Emissions Allowable Emissions ____ of ____

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

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
Boiler No. 8

Page [12] of [12]
Ammonia - NH₃

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: NH ₃		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 14.3 lb/hour 62.6 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 20 ppmvd @ 7% O ₂ Reference: Permit No. 15003-030-AC/PSD-FL-333B		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: 20 ppmvd @ 7% O ₂ x 270,000 dscfm @ 7% O ₂ x 60 min/hr x 2,116.8 lb _f /ft ² ÷ (1,545.6/17) ft-lb _f /lb _m -°R ÷ 528°R = 14.3 lb/hr 14.3 lb/hr x 8,760 hr/yr ÷ 2,000 lb/ton = 62.6 TPY			
11. Potential Fugitive and Actual Emissions Comment: Based on Permit No. 0510003-030-AC/PSD-FL-333B.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
Boiler No. 8

Page [12] of [12]
Ammonia - NH₃

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

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

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 20 ppmvd @ 7% O₂	4. Equivalent Allowable Emissions: 14.3 lb/hour 62.6 tons/year
5. Method of Compliance: Annual stack test by method EPA CTM-027.	
6. Allowable Emissions Comment (Description of Operating Method): Based on Permit No. 0510003-030-AC/PSD-FL-333B.	

Allowable Emissions Allowable Emissions ____ of ____

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

Allowable Emissions Allowable Emissions ____ of ____

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

EMISSIONS UNIT INFORMATION

Section [1]
Boiler No. 8

G. VISIBLE EMISSIONS INFORMATION

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

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE20	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. 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: Rule 62-212.400(5), F.A.C., BACT and NSPS Subpart Db.	

Visible Emissions Limitation: Visible Emissions Limitation ____ of ____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

EMISSIONS UNIT INFORMATION

Section [1]
Boiler No. 8

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor 1 of 2

1. Parameter Code: EM	2. Pollutant(s): CO
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Based on 40 CFR 63, Subpart DDDDD and Permit No. 0510003-030-AC/PSD-FL-333B.	

Continuous Monitoring System: Continuous Monitor 2 of 2

1. Parameter Code: EM	2. Pollutant(s): NO_x
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Based on BACT and Permit No. 0510003-030-AC/PSD-FL-333B.	

EMISSIONS UNIT INFORMATION

Section [1]

Boiler No. 8

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date February 2005
2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: USSC-EU1-I2 <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date February 2005
4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: USSC-EU1-I4 <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute <input checked="" type="checkbox"/> Attached, Document ID: Attachment A <input type="checkbox"/> Not Applicable

EMISSIONS UNIT INFORMATION

Section [1]

Boiler No. 8

Additional Requirements for Air Construction Permit Applications

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

Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Not Applicable

EMISSIONS UNIT INFORMATION

Section [1]

Boiler No. 8

Additional Requirements Comment

[Empty rectangular box for additional requirements comment]

ATTACHMENT USSC-EU1-B6a

BOILER LOAD DATA

ATTACHMENT USSC-EU1-B6a**BOILER LOAD DATA****1. Boiler No. 8 – Annual Steam Production Basis:**

Based on 75 percent capacity factor for originally permitted 1-hour steam rate of 550,000 lb/hr.

$$550,000 \text{ lb/hr steam} \times 8,760 \text{ hr/yr} \times 0.75 = 3.6135 \times 10^9 \text{ lb steam per year}$$

2. Steam Enthalpy Calculation

A. Steam conditions: 600 psig, 750°F
= 615 psia, 750°F
Enthalpy = 1,379 Btu/lb

B. Feedwater condition: 800 psig, 250°F
= 815 psia, 250°F
Enthalpy = 218 Btu/lb

C. Net Enthalpy: $1,379 - 218 = 1,161$ Btu/lb steam

3. Heat Input Calculation (based on 62 percent thermal efficiency)

A. Maximum 1-hour:
 $633,000 \text{ lb/hr steam} \times 1,161 \text{ Btu/lb} \div 0.62 = 1,185 \text{ MMBtu/hr}$

B. Maximum 24-hour:
 $575,000 \text{ lb/hr steam} \times 1,161 \text{ Btu/lb} \div 0.62 = 1,077 \text{ MMBtu/hr}$

C. Annual rate:
 $3.6135 \times 10^9 \text{ lb steam/yr} \times 1,161 \text{ Btu/lb} \div 0.62 = 6,767,100 \text{ MMBtu/yr}$

4. Furnace Data

Furnace Type = Membrane Wall

Furnace Volume = 50,520 ft³

Heat Release Rate (Bagasse) = $1,185 \text{ MMBtu/hr} \div 50,520 \text{ ft}^3 = 23,456 \text{ Btu/ft}^3\text{-hr}$

Heat Release Rate (No. 2 Fuel Oil) = $562 \text{ MMBtu/hr} \div 50,520 \text{ ft}^3 = 11,124 \text{ Btu/ft}^3\text{-hr}$

ATTACHMENT USSC-EU1-B6b

HEAT INPUT RATES AND MAXIMUM FUEL USAGE

**ATTACHMENT USSC-EU1-B6b
BOILER NO. 8 MAXIMUM FUEL USAGE AND HEAT INPUT RATES, U.S. SUGAR CLEWISTON**

Fuel	Heat Input	Heat Transfer Efficiency (%)	Fuel Firing Rate
<u>Maximum Short-Term</u>			
	(MMBtu/hr)		
Bagasse (1-hour max) ^a	1,185	62	329,167 lb/hr
Bagasse (24-hour max) ^b	1,077	62	299,167 lb/hr
Wood Chips (1-hour max) ^a	1,185	62	291,155 lb/hr
Wood Chips (24-hour max) ^b	1,077	62	264,619 lb/hr
No. 2 Fuel Oil ^c	562	62	4,161 gal/hr
<u>Annual Average</u>			
	(MMBtu/yr)		
<u>NORMAL OPERATION (100% BAGASSE)</u>			
Bagasse	6,767,100	62	939,875 TPY
Wood Chips	0	62	0 TPY
No. 2 Fuel Oil	0	62	0 gal/yr
TOTAL	6,767,100		
<u>100% WOOD CHIPS</u>			
Bagasse	0	62	0 TPY
Wood Chips	6,767,100	62	831,339 TPY
No. 2 Fuel Oil	0	62	0 gal/yr
TOTAL	6,767,100		
<u>10% FUEL OIL FIRING^d</u>			
Biomass	5,823,648	62	808,840 TPY
No. 2 Fuel Oil	943,452	62	6,073,600 gal/yr
TOTAL	6,767,100		

^a Based on 633,000 lb/hr steam and 1,161 Btu/lb net enthalpy.

^b Based on 575,000 lb/hr steam and 1,161 Btu/lb net enthalpy.

^c Based on 300,000 lb/hr steam and 1,161 Btu/lb net enthalpy.

^d Less than 10 percent of potential annual heat input to boiler, based on boiler design capacity (24-hr).

Notes:

Annual heat input based on 75% capacity factor (3.6135E+09 lbs steam/yr).

Fuels may be burned in combination, not to exceed total heat input.

Based on fuel heating values as follows:

Bagasse - 3,600 Btu/lb

Wood chips - 4,070 Btu/lb

No. 2 Fuel Oil - 135,000 Btu/gal

ATTACHMENT USSC-EU1-I2

FUEL ANALYSIS OR SPECIFICATION

ATTACHMENT USSC-EU1-I2
BOILER NO. 8 FUEL ANALYSIS

Parameter	Carbonaceous Fuel ^a		No. 2 Fuel Oil
	Bagasse	Wood Chips	(0.05% S max)
Density (lb/gal)	--	--	6.83
Approximate Heating Value (Btu/l)	3,600 ^b	4,070 ^b	19,910
Approximate Heating Value (Btu/;	--	--	135,000
<u>Ultimate Analysis (dry basis):</u>			
Carbon	47.6%	40.70%	84.7%
Hydrogen	6.0%	4.90%	15.3%
Nitrogen	0.38%	0.37%	0.015%
Oxygen	42.1%	33.20%	0.38%
Sulfur	0.03% - 0.07%	0.05%	0.05%
Ash/Inorganic	2.6% - 5.3%	20.80%	0.06% ^c
Moisture	49% - 55%	38.50%	0.51% ^c

Represents typical values.

^a Source: U.S. Sugar fuel analysis averages.

^b Wet basis.

^c Source: Perry's Chemical Engineer's Handbook. Sixth Edition, 1984. Represents average fuel characteristics.

ATTACHMENT USSC-EU1-14

PROCEDURES FOR STARTUP AND SHUTDOWN

**ATTACHMENT USSC-EU1-I4
CLEWISTON BOILER NO. 8**

PROCEDURES FOR STARTUP AND SHUTDOWN

Pursuant to Rule 62-210.700(1), F.A.C., the following procedures and precautions will be taken to minimize the magnitude and duration of excess emissions during startup and shutdown of Boiler No. 8. Boiler room foreman and operating personnel will receive proper training on emissions control procedures.

Cold Startup (approximately 8 to 12 hours)

1. Turn on wet cyclone.
2. Feed clean wood into boiler combustion chamber.
3. Start fire in combustion chamber using a propane torch designed for that purpose, or light a fuel oil or natural gas burner at the lowest rate.
4. Observe the stack plume and adjust if necessary, by adjusting fuel, atomizing air, and combustion air to obtain proper combustion.
5. Feed carbonaceous fuel from the mill to the boiler slowly.
6. Energize electrostatic precipitator (ESP).
7. Activate SNCR system.
8. As the furnace gets hotter and the carbonaceous fuel is burning better, decrease fossil fuel until burners can be turned off.
9. Continue to observe the stack plume, the cyclone water level, and the carbonaceous fuel level, making adjustments to drafts, fuel, cyclone and ESP to maintain optimum operating conditions.
10. Normally, a cold startup will require 8 to 12 hours from the first fire to normal working pressure.

Hot Startup (approximately 1 to 5 hours)

1. This type of startup is applicable when the boiler has been shutdown for a short period of time and is still hot.
2. Turn on wet cyclone
3. Check the boiler and cyclone water levels, and make sure they are functioning properly.

4. Light a fossil fuel burner, continue to observe the stack plume, cyclone water levels, and burners.
5. Feed carbonaceous fuel from the mill to the boiler slowly at first.
6. Energize ESP.
7. Activate SNCR system.
8. As the furnace gets hotter and the carbonaceous fuel is burning better, decrease fossil fuel until burners can be turned off. As the carbonaceous fuel fire gets hot enough to meet steam demand, reduce the fossil fuel supply until it can be turned off. Adjust the dampers to get optimum carbonaceous fuel firing.
9. Continue to observe the stack plume, cyclone water level, and carbonaceous fuel level, making adjustments to drafts, fuel, cyclone and ESP to maintain optimum operating conditions.
10. Normally, a warm startup requires 1 to 5 hours, depending on boiler operating conditions.

Shutdown

1. Stop fuel flow to the boiler, reduce forced draft, distributor air, overfire air, and induced draft.
2. Continue to observe the stack plume and cyclone water levels and make adjustments to maintain safe and optimum operating conditions.
3. After fuel flow is stopped, deactivate ESP, wet cyclone, and SNCR system.

EMISSIONS UNIT INFORMATION

Section [2]

Biomass Handling System

III. EMISSIONS UNIT INFORMATION

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

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

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

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

EMISSIONS UNIT INFORMATION

Section [2]

Biomass Handling System

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

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

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

Emissions Unit Description and Status

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

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

2. Description of Emissions Unit Addressed in this Section:

Biomass Handling System

3. Emissions Unit Identification Number: **027**

4. Emissions Unit Status Code:
A

5. Commence Construction Date:

6. Initial Startup Date:

7. Emissions Unit Major Group SIC Code:
20

8. Acid Rain Unit?
 Yes
 No

9. Package Unit:
Manufacturer:

Model Number:

10. Generator Nameplate Rating: **MW**

11. Emissions Unit Comment:

EMISSIONS UNIT INFORMATION

Section [2]

Biomass Handling System

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

Enclosures

2. Control Device or Method Code(s): **054**

EMISSIONS UNIT INFORMATION

Section [2]

Biomass Handling System

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: 3,282,050 tons
2. Maximum Production Rate:
3. Maximum Heat Input Rate: million Btu/hr
4. Maximum Incineration Rate: pounds/hr tons/day
5. Requested Maximum Operating Schedule: 24 hours/day 7 days/week 52 weeks/year 8,760 hours/year
6. Operating Capacity/Schedule Comment: <p>Maximum bagasse throughput rate is based on the maximum 24-hour steam rates for Boiler Nos. 1, 2, 4, 7, and 8 in the crop season and maximum 24-hour steam rates for Boiler Nos. 1, 2, 4, and 8 in the off-crop season. See Attachment USSC-EU2-B6.</p>

EMISSIONS UNIT INFORMATION

Section [2]

Biomass Handling System

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram:		2. Emission Point Type Code: 3	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: F	6. Stack Height: feet		7. Exit Diameter: feet
8. Exit Temperature: 77°F	9. Actual Volumetric Flow Rate: acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: 20 feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: <p>Nonstack Emission Point Height represents the approximate height of the lowest transfer point associated with the bagasse handling and conveying system. Exit Temperature represents an average ambient temperature.</p>			

EMISSIONS UNIT INFORMATION

**Section [2]
Biomass Handling System**

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): Food and agriculture: fugitive emissions		
2. Source Classification Code (SCC): 3-02-888-1	3. SCC Units: Tons Product	
4. Maximum Hourly Rate: 496.1	5. Maximum Annual Rate: 3,282,050	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: Segment refers to bagasse throughput for entire bagasse handling system. Hourly rate refers to maximum hourly rate during the crop season. Annual rate is based on maximum bagasse usage during the crop season by Boiler Nos. 1, 2, 4, 7, and 8 and maximum bagasse usage during the off-crop season by Boiler Nos. 1, 2, 4, and 8.		

Segment Description and Rate: Segment of

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

EMISSIONS UNIT INFORMATION

Section [2]

Biomass Handling System

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	054		NS
PM ₁₀	054		NS

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [2]
Biomass Handling System

Page [1] of [2]
Particulate Matter Total - PM

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: PM		2. Total Percent Efficiency of Control: 90	
3. Potential Emissions: 1.3 lb/hour 5.25 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: Continuous Drop Equation Reference: AP-42, Section 13.2.4		7. Emissions Method Code: 3	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: See Attachment USSC-EU2-F10.			
11. Potential Fugitive and Actual Emissions Comment: Hourly emissions based on maximum annual emissions during the off-crop season and 153 days per crop season. Annual emissions based on total of emissions during the crop and off-crop seasons.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [2]
Biomass Handling System

Page [1] of [2]
Particulate Matter Total - PM

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

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

Allowable Emissions Allowable Emissions ____ of ____

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

Allowable Emissions Allowable Emissions ____ of ____

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

Allowable Emissions Allowable Emissions ____ of ____

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

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [2]
Biomass Handling System

Page [2] of [2]
Particulate Matter – PM₁₀

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: PM₁₀		2. Total Percent Efficiency of Control: 90	
3. Potential Emissions: 0.90 lb/hour 3.42 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: Continuous Drop Equation Reference: AP-42, Section 13.2.4		7. Emissions Method Code: 3	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: See Attachment USSC-EU2-F10.			
11. Potential Fugitive and Actual Emissions Comment: Hourly emissions based on maximum annual emissions during the crop season and 212 days per crop season. Annual emissions based on total of emissions during the crop and off-crop seasons.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [2]
Biomass Handling System

Page [2] of [2]
Particulate Matter – PM₁₀

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

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

Allowable Emissions Allowable Emissions ____ of ____

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

Allowable Emissions Allowable Emissions ____ of ____

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

Allowable Emissions Allowable Emissions ____ of ____

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

EMISSIONS UNIT INFORMATION

Section [2]

Biomass Handling System

G. VISIBLE EMISSIONS INFORMATION

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

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE20	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 20 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment: 62.296.320(4)(b), F.A.C. – General Visible Emissions Standard	

Visible Emissions Limitation: Visible Emissions Limitation ____ of ____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

EMISSIONS UNIT INFORMATION

Section [2]

Biomass Handling System

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor ____ of ____

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

Continuous Monitoring System: Continuous Monitor ____ of ____

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

EMISSIONS UNIT INFORMATION

Section [2]

Biomass Handling System

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: USSC-EU2-11 <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute <input checked="" type="checkbox"/> Attached, Document ID: Attachment A <input type="checkbox"/> Not Applicable

EMISSIONS UNIT INFORMATION

Section [2]

Biomass Handling System

Additional Requirements for Air Construction Permit Applications

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

Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Not Applicable

EMISSIONS UNIT INFORMATION

Section [2]

Biomass Handling System

Additional Requirements Comment

[Empty rectangular box for additional requirements comment]

ATTACHMENT USSC-EU2-B6

MAXIMUM BAGASSE USAGE

**ATTACHMENT USSC-EU2-B6
FUTURE MAXIMUM BAGASSE USAGE IN BOILERS, U.S. SUGAR, CLEWISTON MILL**

Boiler No.	Maximum Heat Input Rate ^a (MMBtu/hr)	Crop Season			Off-Crop Season			Maximum Bagasse Usage (TPY)
		Maximum Steam Production ^a	Maximum Bagasse Usage TPH ^b	Maximum Bagasse Usage tons/season ^c	Maximum Steam Production ^d	Maximum Bagasse Usage TPH ^b	Maximum Bagasse Usage tons/season ^c	
1	495	245,000 lb/hr	68.75	349,800	840,000 lb/day ^e	9.82	36,064	385,864
2	447	215,000 lb/hr	62.08	315,880	3,120,000 lb/day ^e	37.54	137,842	453,722
4	600	285,000 lb/hr	83.33	424,000	6,840,000 lb/day ^e	83.33	306,000	730,000
7	738	350,000 lb/hr	102.50	521,520	8,400,000 lb/day ^e	102.50	0	521,520
8	1,077	575,000 lb/hr	149.58	761,080	450,000 lb/hr	117.07	429,863	1,190,943
TOTAL			466.25	2,372,280			909,770	3,282,050

Footnotes:

^a Based on 24-hr maximum for Boiler No. 8 and the allowables in Permit No. 0510003-017-AV for the remaining boilers. The 24-hr average limit is shown, where applicable.

^b Based on heat inputs rates and steam production and assuming 3,600 Btu/lb for bagasse (wet):

^c Based on 212 days during the crop season and 153 days during the off-crop season.

^d Based on the maximum allowable steam production rates for the off-crop season as presented in Permit No. 0510003-017-AV.

Total from Boiler Nos. 1-4: 10,800,000 lb/24 hr

Boiler No. 7: 8,400,000 lb/24 hr

^e During the off-crop season, Boiler Nos. 1, 2 and 4 may act as backup units to the primary unit, Boiler No. 7. Operating Boiler Nos. 1, 2, and 4 simultaneously will use more bagasse than operating Boiler No. 7 alone, and so this scenario was used to determine maximum bagasse usage during the off-crop season. The total maximum allowable steam production for Boiler Nos. 1, 2 and 4 is limited to 10,800,000 pounds per day during the off-crop season.

Boiler No. 1: 1,941.2 Btu/lb steam

Boiler No. 8: 1,161 Btu/lb steam

Boiler No. 2: 1,943.5 Btu/lb steam

Boiler No. 7: 2,109.1 Btu/lb steam

Boiler No. 4: 2,110.0 Btu/lb steam

ATTACHMENT USSC-EU2-F10

MAXIMUM FUGITIVE DUST EMISSIONS

**ATTACHMENT USSC-EU2-F18a
MAXIMUM FUTURE CROP SEASON FUGITIVE DUST EMISSIONS FROM THE BIOMASS HANDLING SYSTEM, U.S. SUGAR, CLEWISTON**

SOURCE	TYPE OF OPERATION	M MOISTURE CONTENT (a) (%)	U WIND SPEED (b) (MPH)	UNCONTROLLED PM EMISSION FACTOR (c) (LB/TON)	UNCONTROLLED PM ₁₀ EMISSION FACTOR (c) (LB/TON)	CONTROL	CONTROL EFFICIENCY (%)	CONTROLLED PM EMISSION FACTOR (LB/TON)	CONTROLLED PM ₁₀ EMISSION FACTOR (LB/TON)	ACTIVITY FACTOR	MAXIMUM ANNUAL PM EMISSIONS (TONS/YR)	MAXIMUM ANNUAL PM ₁₀ EMISSIONS (TONS/YR)
BAGASSE HANDLING												
MILL NO 6C to C BAGASSE BELT CONVEYOR	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	ENCLOSURE	90	0.00020	0.00009	1,423,368 TPY (h)	0.141	0.067
MILL NO 7B to B BAGASSE BELT CONVEYOR	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	ENCLOSURE	90	0.00020	0.00009	948,912 TPY (h)	0.094	0.045
UPPER LEVEL CONVEYOR C1 TO LOWER LEVEL CONVEYOR C1	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	ENCLOSURE	90	0.00020	0.00009	665,680 TPY (d)	0.066	0.031
UPPER LEVEL CONVEYOR C5 TO LOWER LEVEL CONVEYOR C5	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	ENCLOSURE	90	0.00020	0.00009	521,520 TPY ^a (f)	0.052	0.024
UPPER LEVEL CONVEYOR C12 TO LOWER LEVEL CONVEYOR C12	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	ENCLOSURE	90	0.00020	0.00009	761,080 TPY (g)	0.075	0.036
FRONT-END LOADER TO CONVEYOR C8N	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	NONE	0	0.00198	0.00094	0 TPY	0.000	0.000
FRONT-END LOADER TO CONVEYOR C8S	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	NONE	0	0.00198	0.00094	0 TPY	0.000	0.000
CONVEYOR C8N TO CONVEYOR C9	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	NONE	0	0.00198	0.00094	0 TPY	0.000	0.000
CONVEYOR C8S TO CONVEYOR C9	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	NONE	0	0.00198	0.00094	0 TPY	0.000	0.000
CONVEYOR C9 TO CONVEYOR C10	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	ENCLOSURE	90	0.00020	0.00009	0 TPY	0.000	0.000
CONVEYOR C9 TO CONVEYOR C9A (DRY MILL)	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	ENCLOSURE	90	0.00020	0.00009	0 TPY	0.000	0.000
DRY MILL TO CONVEYOR C9B (DRY MILL)	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	NONE	0	0.00198	0.00094	0 TPY	0.000	0.000
CONVEYOR C9B TO CONVEYOR C9C (DRY MILL)	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	ENCLOSURE	90	0.00020	0.00009	0 TPY	0.000	0.000
CONVEYOR C9C TO CONVEYOR C10	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	ENCLOSURE	90	0.00020	0.00009	0 TPY	0.000	0.000
CONVEYOR C10 TO CONVEYOR C1	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	ENCLOSURE	90	0.00020	0.00009	0 TPY	0.000	0.000
CONVEYOR C10 TO CONVEYOR C4	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	ENCLOSURE	90	0.00020	0.00009	0 TPY	0.000	0.000
TANDEM B TO CONVEYOR C1	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	ENCLOSURE	90	0.00020	0.00009	948,912 TPY (h)	0.094	0.045
CONVEYOR C1 TO CONVEYOR C4	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	ENCLOSURE	90	0.00020	0.00009	0 TPY	0.000	0.000
CONVEYOR C1 TO CONVEYOR C2	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	ENCLOSURE	90	0.00020	0.00009	283,232 TPY (i)	0.028	0.013
TANDEM C TO CONVEYOR C4	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	ENCLOSURE	90	0.00020	0.00009	1,423,368 TPY (h)	0.141	0.067
CONVEYOR C2 TO CONVEYOR C3	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	ENCLOSURE	90	0.00020	0.00009	0 TPY	0.000	0.000
CONVEYOR C3 TO CONVEYOR C7	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	ENCLOSURE	90	0.00020	0.00009	0 TPY	0.000	0.000
CONVEYOR C4 TO CONVEYOR C4B	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	ENCLOSURE	90	0.00020	0.00009	0 TPY	0.000	0.000
CONVEYOR C4 TO CONVEYOR C4A	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	ENCLOSURE	90	0.00020	0.00009	1,423,368 TPY (h)	0.141	0.067
CONVEYOR 4A TO CONVEYOR C12	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	ENCLOSURE	90	0.00020	0.00009	1,423,368 TPY (h)	0.141	0.067
CONVEYOR C12 TO CONVEYOR C7	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	ENCLOSURE	90	0.00020	0.00009	140,768 TPY (j)	0.014	0.007
CONVEYOR C12 TO CONVEYOR C5	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	ENCLOSURE	90	0.00020	0.00009	521,520 TPY (f)	0.052	0.024
CONVEYOR C4B TO CONVEYOR C5	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	ENCLOSURE	90	0.00020	0.00009	0 TPY	0.000	0.000
CONVEYOR 10A TO CONVEYOR C4	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	ENCLOSURE	90	0.00020	0.00009	0 TPY	0.000	0.000
CONVEYOR C7 TO CONVEYOR C7A	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	ENCLOSURE	90	0.00020	0.00009	140,768 TPY (j)	0.014	0.007
CONVEYOR C7A TO CONVEYOR C10A	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	ENCLOSURE	90	0.00020	0.00009	140,768 TPY (j)	0.014	0.007
CONVEYOR 10A TO CONVEYOR C2	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	ENCLOSURE	90	0.00020	0.00009	140,768 TPY (j)	0.014	0.007
CONVEYOR C7 TO BAGASSE PILE	CONTINUOUS DROP	4.8	11.2	0.00198	0.00094	NONE	0	0.00198	0.00094	0 TPY	0.000	0.000
BAGACILLO SYSTEM												
BAGACILLO CYCLONE	POINT SOURCE	--	--	--	--	--	99.999	--	--	178,080 TPY (k)	1.781	1.781
TOTAL											2.862	2.292

Notes/References

- (a) Based on the upper value of the range presented in AP-42 that is applicable for the drop equation (Section 13.2.4).
- (b) Based on the average of meteorological data from Palm Beach International Airport, 1991-1995. Only data for crop season months were used (November-April).
- (c) Batch Drop and Continuous Drop Emission Factors are computed from AP-42 (USEPA, 1995) Section 13.2.4:

$$E = k \times 0.0032 \times (U/5)^{1.37} (M/2)^{1.4} \text{ lb/ton, where } k = 0.74 \text{ for PM and } 0.35 \text{ for PM}_{10}.$$
- (d) Based on maximum bagasse consumption during the crop season for Boiler Nos. 1 and 2. See Attachment USSC-EU2-B6 for maximum bagasse consumption calculations.
- (e) Based on maximum bagasse consumption during the crop season for Boiler No. 4. See Attachment USSC-EU2-B6 for maximum bagasse consumption calculations.
- (f) Based on maximum bagasse consumption during the crop season for Boiler No. 7. See Attachment USSC-EU2-B6 for maximum bagasse consumption calculations.
- (g) Based on maximum bagasse consumption during the crop season for Boiler No. 8. See Attachment USSC-EU2-B6 for maximum bagasse consumption calculations.
- (h) Based on maximum bagasse consumption during the crop season for Boiler Nos. 1, 2, 4, 7, and 8. See Attachment USSC-EU2-B6 for maximum bagasse consumption calculations. The ratio of cane through B tandem to C tandem is 2.3.
- (i) Based on excess bagasse from Boiler Nos. 1 and 2.
- (j) Based on excess bagasse from Boiler Nos. 7 and 8.
- (k) Based on 40 lbs of bagacillo per ton of ground sugar cane and 42,000 tons of cane per day for 212 days per crop season.

**ATTACHMENT USSC-EU2-F10b
MAXIMUM FUTURE OFF-CROP SEASON FUGITIVE DUST EMISSIONS FROM THE BIOMASS HANDLING SYSTEM, U.S. SUGAR, CLEWISTON**

SOURCE	TYPE OF OPERATION	M MOISTURE CONTENT (a) (%)	U WIND SPEED (b) (MPH)	UNCONTROLLED PM EMISSION FACTOR (c) (LB/TON)	UNCONTROLLED PM ₁₀ EMISSION FACTOR (c) (LB/TON)	CONTROL	CONTROL EFFICIENCY (%)	CONTROLLED PM EMISSION FACTOR (LB/TON)	CONTROLLED PM ₁₀ EMISSION FACTOR (LB/TON)	ACTIVITY FACTOR	MAXIMUM ANNUAL PM EMISSIONS (TONS/YR)	MAXIMUM ANNUAL PM ₁₀ EMISSIONS (TONS/YR)
BAGASSE HANDLING												
MILL, NO. 6C to C BAGASSE BELT CONVEYOR	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	ENCLOSURE	90	0.00015	0.00007	0 TPY	0.000	0.000
MILL, NO. 7B to B BAGASSE BELT CONVEYOR	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	ENCLOSURE	90	0.00015	0.00007	0 TPY	0.000	0.000
UPPER LEVEL CONVEYOR C1 TO LOWER LEVEL CONVEYOR C1	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	ENCLOSURE	90	0.00015	0.00007	173,907 TPY (d)	0.013	0.006
UPPER LEVEL CONVEYOR C3 TO LOWER LEVEL CONVEYOR C5	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	ENCLOSURE	90	0.00015	0.00007	0 TPY	0.000	0.000
UPPER LEVEL CONVEYOR C12 TO LOWER LEVEL CONVEYOR C12	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	ENCLOSURE	90	0.00015	0.00007	429,863 TPY (e)	0.032	0.015
FRONT-END LOADER TO CONVEYOR C8N	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	NONE	0	0.00147	0.00070	454,885 TPY (g)	0.335	0.158
FRONT-END LOADER TO CONVEYOR C8S	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	NONE	0	0.00147	0.00070	454,885 TPY (g)	0.335	0.158
CONVEYOR C8N TO CONVEYOR C9	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	NONE	0	0.00147	0.00070	454,885 TPY (g)	0.335	0.158
CONVEYOR C8S TO CONVEYOR C9	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	NONE	0	0.00147	0.00070	454,885 TPY (g)	0.335	0.158
CONVEYOR C9 TO CONVEYOR C10	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	ENCLOSURE	90	0.00015	0.00007	0 TPY	0.000	0.000
CONVEYOR C9 TO CONVEYOR C9A (DRY MILL)	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	ENCLOSURE	90	0.00015	0.00007	909,770 TPY (f)	0.067	0.032
DRY MILL TO CONVEYOR C9B (DRY MILL)	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	NONE	0	0.00147	0.00070	909,770 TPY (f)	0.669	0.316
CONVEYOR C9B TO CONVEYOR C9C (DRY MILL)	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	ENCLOSURE	90	0.00015	0.00007	909,770 TPY (f)	0.067	0.032
CONVEYOR C9C TO CONVEYOR C10	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	ENCLOSURE	90	0.00015	0.00007	909,770 TPY (f)	0.067	0.032
CONVEYOR C10 TO CONVEYOR C1	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	ENCLOSURE	90	0.00015	0.00007	173,907 TPY (d)	0.013	0.006
CONVEYOR C10 TO CONVEYOR C4	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	ENCLOSURE	90	0.00015	0.00007	735,863 TPY (h)	0.054	0.026
TANDEM B TO CONVEYOR C1	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	ENCLOSURE	90	0.00015	0.00007	0 TPY	0.000	0.000
CONVEYOR C1 TO CONVEYOR C4	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	ENCLOSURE	90	0.00015	0.00007	0 TPY	0.000	0.000
CONVEYOR C1 TO CONVEYOR C2	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	ENCLOSURE	90	0.00015	0.00007	0 TPY	0.000	0.000
TANDEM C TO CONVEYOR C4	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	ENCLOSURE	90	0.00015	0.00007	0 TPY	0.000	0.000
CONVEYOR C2 TO CONVEYOR C3	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	ENCLOSURE	90	0.00015	0.00007	0 TPY	0.000	0.000
CONVEYOR C3 TO CONVEYOR C7	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	ENCLOSURE	90	0.00015	0.00007	0 TPY	0.000	0.000
CONVEYOR C4 TO CONVEYOR C4B	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	ENCLOSURE	90	0.00015	0.00007	0 TPY	0.000	0.000
CONVEYOR C4 TO CONVEYOR C4A	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	ENCLOSURE	90	0.00015	0.00007	429,863 TPY (e)	0.032	0.015
CONVEYOR 4A TO CONVEYOR C12	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	ENCLOSURE	90	0.00015	0.00007	429,863 TPY (e)	0.032	0.015
CONVEYOR C12 TO CONVEYOR C7	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	ENCLOSURE	90	0.00015	0.00007	0 TPY	0.000	0.000
CONVEYOR C12 TO CONVEYOR C5	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	ENCLOSURE	90	0.00015	0.00007	0 TPY	0.000	0.000
CONVEYOR C4B TO CONVEYOR C5	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	ENCLOSURE	90	0.00015	0.00007	0 TPY	0.000	0.000
CONVEYOR 10A TO CONVEYOR C4	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	ENCLOSURE	90	0.00015	0.00007	0 TPY	0.000	0.000
CONVEYOR C7 TO CONVEYOR C7A	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	ENCLOSURE	90	0.00015	0.00007	0 TPY	0.000	0.000
CONVEYOR C7A TO CONVEYOR C10A	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	ENCLOSURE	90	0.00015	0.00007	0 TPY	0.000	0.000
CONVEYOR 10A TO CONVEYOR C2	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	ENCLOSURE	90	0.00015	0.00007	0 TPY	0.000	0.000
CONVEYOR C7 TO BAGASSE PILE	CONTINUOUS DROP	4.8	8.9	0.00147	0.00070	NONE	0	0.00147	0.00070	0 TPY	0.000	0.000
BAGACILLO SYSTEM												
BAGACILLO CYCLONE	POINT SOURCE	-	-	-	-	-	99.999	-	-	0 TPY	0.000	0.000
TOTAL											2.383	1.127

Notes/References

- (a) Based on the upper value of the range presented in AP-42 that is applicable for the drop equation (Section 13.2.4).
- (b) Based on the average of meteorological data from Palm Beach International Airport, 1991-1995. Only data for off-crop season months were used (May-October).
- (c) Batch Drop and Continuous Drop Emission Factors are computed from AP-42 (USEPA, 1995) Section 13.2.4.
 $E = k \times 0.0032 \times (U/5)^{1.3} / (M/2)^{1.4}$ lb/ton, where $k = 0.74$ for PM and 0.35 for PM₁₀.
- (d) Based on maximum bagasse consumption during the off crop season for Boiler Nos. 1 and 2. See Attachment USSC-EU2-B6 for maximum bagasse consumption calculations.
- (e) Based on maximum bagasse consumption during the off crop season for Boiler No. 8. See Attachment USSC-EU2-B6 for maximum bagasse consumption calculations.
- (f) Based on bagasse being able to travel either through the drying mill to conveyor C10 or directly from conveyor C9 to conveyor C10. Worst-case emissions results from bagasse traveling through the drying mill. Even though the drying mill is only used about 50-percent of the off-crop season, it is assumed that the drying mill is used the entire off-crop season to determine worst-case emissions.
- (g) Based on maximum bagasse consumption during the off crop season for Boiler Nos. 1, 2, 4, and 8. Based on assuming 50% of bagasse goes to C8N and 50% of bagasse goes to C8S. See Attachment USSC-EU2-B6 for maximum bagasse consumption calculations.
- (h) Based on maximum bagasse consumption during the off-crop season for Boiler Nos. 4 and 8. See Attachment USSC-EU2-B6 for maximum bagasse consumption calculations.

**ATTACHMENT USSC-EU2-F10c
FUTURE FUGITIVE DUST EMISSIONS FROM THE BIOMASS HANDLING SYSTEM
U.S. SUGAR, CLEWISTON**

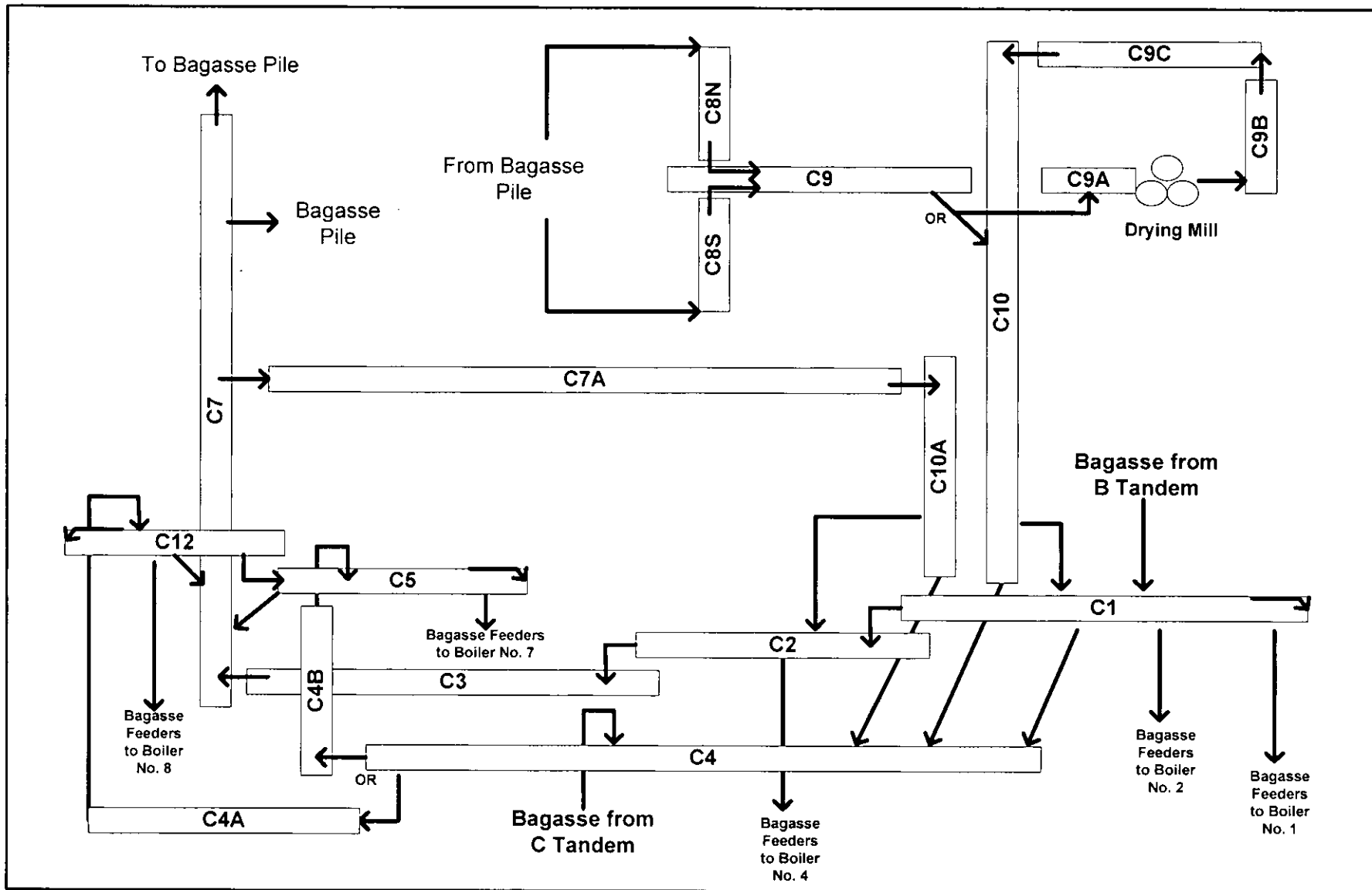
Pollutant	Future Annual Emissions (TPY)		
	Crop Season ^a	Off-Crop Season ^b	Total
<u>BAGASSE HANDLING SYSTEM</u>			
PM	2.862	2.383	5.245
PM ₁₀	2.292	1.127	3.419

^a Emissions from Attachment USSC-EU2-F10a.

^b Emissions from Attachment USSC-EU2-F10b.

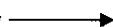
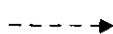
ATTACHMENT USSC-EU2-11

PROCESS FLOW DIAGRAM



Attachment USSC-EU2-I1
 Bagasse Conveying and Handling System
 Flow Diagram
 U.S. Sugar Clewiston

Process Flow Legend

Solid/Liquid Flow 
 Gas Flow 

Filename: 0637563/Boiler #8/4.4/USSC-EU2-I1.vsd

Date: 6/6/06



ATTACHMENT A

**SUPPLEMENTAL INFORMATION FOR
CONSTRUCTION PERMIT APPLICATION**

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
1.0 INTRODUCTION.....	1
2.0 PROJECT DESCRIPTION.....	2
2.1 Increased Boiler Steam Rate.....	3
2.2 Increased Boiler Startup Time.....	3
2.3 Bagasse Conveying and Handling System.....	5

1.0 INTRODUCTION

United States Sugar Corporation (U.S. Sugar) owns and operates a sugar mill and refinery located in Clewiston, Hendry County, Florida. The mill and refinery currently operate under Permit No. 0510003-017-AV. U.S. Sugar harvests sugarcane and transports it to the Clewiston Mill, where the cane is processed into raw sugar in the mill. U.S. Sugar processes most of the raw sugar into refined white sugar in an onsite sugar refinery, while the remaining raw sugar is shipped to customers.

U.S. Sugar operates five sugar mill boilers at the Clewiston Mill. The five boilers provide steam to the sugar mill as well as to the sugar refinery. Boiler Nos. 1, 2, and 4 operate primarily during the crop season, which is typically November through May, to provide steam to the sugar mill and refinery. Boiler Nos. 7 and 8 can operate year-round to provide steam to the sugar mill during the crop season and steam to the sugar refinery during the off-crop season. Boiler Nos. 1, 2, and 4 can operate as backup units during the off-season when Boiler No. 7 is down for maintenance, repair, or during periods of unusually low steam demand.

2.0 PROJECT DESCRIPTION

U.S. Sugar was issued Permit No. 0510003-021-AC/PSD-FL-333 on November 21, 2003 for the construction of Boiler No. 8. Construction on the boiler commenced shortly thereafter, and has since been completed. On November 4, 2004, U.S. Sugar was issued a revised construction permit (Permit No. 0510003-024-AC/PSD-FL-333A), which revised the shakedown period for the boiler, included the selective non-catalytic reduction (SNCR) control system and authorized periods of uncontrolled NO_x emissions. On April 7, 2006, a new revised permit was issued for Boiler No. 8 (Permit No. 0510003-030-AC/PSD-FL-333B) that incorporated the applicable NESHAP Subpart DDDDD provisions, included EPA-approved alternate pH monitoring methods, revised the CO emission standard, and authorized wood chips as an approved fuel.

The purpose of this application is to increase the 1-hour and 24-hour steaming rate on bagasse burning for Boiler No. 8, increase the cold startup time to 8-12 hours, and modify the biomass handling system. The maximum annual heat input rate to the boiler will not change.

The primary reason for increasing the steaming rate for bagasse burning is because the original steaming rates of 550,000 pound per hour (lb/hr) (1-hour) and 500,000 lb/hr (24-hour) were based on vendor design data. The initial startup of the boiler was March 2005. Since boiler startup, steam production and heat input data, as well as nitrogen oxide (NO_x) and carbon monoxide (CO) emissions data, has been collected by the continuous emissions monitoring system (CEMS), and it has been determined that the boiler is capable of a higher steaming rate than originally thought. Through this application, U.S. Sugar is requesting to increase the steam rate to 633,000 lb/hr (1-hour) and 575,000 lb/hr (24-hour), which is equivalent to a maximum heat input of 1,185 million British thermal units per hour (MMBtu/hr) (1-hour) and 1,077 MMBtu/hr (24-hour), respectively.

U.S. Sugar is also requesting that the startup time for the Boiler be increased to 8-12 hours. The original startup time for the boiler was assumed to be 6 hours, which was not based on actual boiler operation. Through the CEMS data, it has become apparent that boiler startup lasts approximately 8-12 hours. The significance of the startup time is reflected in the NO_x limit, which is based on excluding all data corresponding to startups, shutdowns, and malfunctions. The CEMS data has shown that a minimum startup time of 6 hours does not allow the boiler to reach normal operating levels. Therefore, the NO_x 30-day rolling averages, as defined in Permit No. 0510003-030-AC/PSD-

FL-333B, are being overestimated and are not reflecting actual boiler emissions as compared to the permit limit.

U.S. Sugar is also modifying the bagasse handling system, which will result in reduced fugitive particulate matter emissions. The modified system, which includes enclosing most all of the transfer points, installing new conveyors, and upgrading the current conveyor design, will reduce the spillage of bagasse and the amount of windblown bagasse particles.

2.1 Increased Boiler Steam Rate

Boiler No. 8 is currently permitted for a maximum 1-hour steam production rate of 550,000 lb/hr based on a maximum 1-hour heat input rate of 1,030 MMBtu/hr. The maximum continuous steam production capacity is 500,000 lb/hr (24-hour) based on a maximum heat input rate of 936 MMBtu/hr (24-hour). The total maximum heat input from the oil burners is 562 MMBtu/hr.

An analysis of the data generated by the CEMS during the 2005 crop season (November 2005 to mid-April 2006) has revealed that the boiler experiences higher operating loads during the crop season than originally thought. Because of this, we are requesting that the steam production rates be increased to reflect actual operation of the boiler. The revised maximum 1-hour steam production rate is 633,000 lb/hr and the revised maximum 24-hour steam production rate is 575,000 lb/hr. The corresponding revised 1-hour heat input value is 1,185 MMBtu/hr and the revised 24-hour heat input value is 1,077 MMBtu/hr (refer to Attachment USSC-EU1-B6). These short-term heat and steam production increases will not affect the annual capacity of the boiler.

The maximum short-term emissions for Boiler No. 8 will increase as a result of the highest steaming rate of the boiler. Refer to Table 2-1 for the maximum short-term emissions. The maximum annual emissions will not change. In addition, actual operation of the boiler will not change, so therefore, no other units at the Clewiston Mill will be affected as a result of the increased steaming rate.

2.2 Increased Boiler Startup Time

U.S. Sugar is also requesting that the startup time for the boiler be increased to 8-12 hours. Originally, a cold startup was thought to last 6 hours, but the CEMS data has revealed that the boiler does not reach normal operating conditions and is still experiencing startup conditions up to 12 hours

after the burner in the boiler is lit. The worst-case emissions occur when the boiler transitions from burning fuel oil to burning bagasse, which usually occurs in the last 1-3 hours of startup.

Boiler startup is defined by the amount of time it takes the boiler to reach its full steaming rate. During a normal startup, Boiler No. 8 will fire distillate oil to gradually warm up the boiler components. At a target steam temperature rise of 100°F to 120°F per hour, it takes approximately 6 to 7 hours to reach the desired superheater steam temperature of 650°F. At this temperature, the Boiler is brought online (i.e.: steam is sent to the steam header) for another 1 to 2 hours while burning fuel oil. Once the Boiler is online and the temperature is stable, bagasse (and/or wood chips) is fed to the boiler until a fire is established across the entire grate. The full steaming rate can be reached about 1 to 3 hours after first feeding bagasse (and/or wood chips) to the boiler.

U.S. Sugar is concerned about the emissions encountered during the transition to bagasse being counted as normal operation. Because it can take approximately 1 to 3 hours to transition from oil to bagasse, startup should cover at least 1 hour of this transition time. The sum of the minimum amount of time for the boiler to reach each stage in startup is equivalent to 8 hours, but could last up to 12 hours. This will allow the boiler to reach normal operating conditions and will allow the correct amount of data due to startups be excluded from the 30-day rolling averages for NO_x and from control device parameter limits

Additionally, the CEMS data has shown that a minimum startup time of 6 hours does not cover the increased emissions due to the transition from burning oil to burning bagasse. The CEMS data indicates that 8-12 hours of startup time is adequate to accurately represent normal boiler operation. Table 2-2 shows two examples of the oxygen measured at the stack, the first occurring in January 2006 and the second in March 2006. These tables show that startup conditions are lasting longer than originally expected (i.e., greater than 6 hours). The higher oxygen represents unstable boiler operation due to a low flame temperature. Currently, the NO_x 30-day rolling averages, as defined in Permit No. 0510003-030-AC/PSD-FL-333B, are being overestimated due to the exclusion of only 6 hours of emissions due to startup. In addition, startup conditions are excluded from compliance with control device parameter limits set under the Boiler MACT rule. Proposed revised wording for boiler startup, as contained in the PSD permit, Section 4, Appendix F, is as follows:

Boiler Startup: During a normal startup, Boiler 8 will first fire distillate oil to gradually warm up the boiler components. At a target steam temperature rise of 100°F to 120° F per hour, it will take approximately 6 to 7 hours to reach the desired

superheater steam temperature of 650°F. Once this temperature is reached, the Boiler will continue to warm up and be brought on-line by burning fuel oil for another 1 to 2 hours. Bagasse and/or wood chips will then be fed to the Boiler until a fire is established across the entire grate. The full steaming rate can be reached within 1 to 3 hours after first feeding bagasse and/or wood chips. The entire startup period may last as long as 8 to 12 hours.

2.3 Bagasse Conveying and Handling System

The bagasse conveying and handling system handles the bagasse fuel resulting from the processing of the raw sugar cane at the mill. The bagasse is used as a primary fuel for combustion in Boiler Nos. 1, 2, 4, 7, and 8. Bagasse is conveyed from the sugar cane grinding mills directly to the boilers, or to the bagasse storage pile. Bagasse can also be backfed from the storage pile. Currently, emission controls for the bagasse handling system consist of covered conveyors and enclosed transfer points. Fugitive dust emissions may occur from these bagasse conveying and handling activities. As part of the existing system, bagacillo is pneumatically collected from several transfer points and sent directly to the existing bagacillo cyclone. The cyclone is an unregulated permitted air emissions source.

In 2000, U.S. Sugar applied for a construction permit for the addition of six (6) dust collectors to the bagasse handling system. On June 12, 2000, the Florida Department of Environmental Protection (FDEP) issued a construction permit (Permit No. 0510003-11-AC). This permit was later amended on March 7, 2002 (Permit No. 0510003-015-AC) for the installation of only five (5) dust collectors. As of 2004, only two of the five dust collectors have been installed.

The bagasse conveying and handling system is currently undergoing modifications that will result in reduced fugitive particulate matter emissions. The modified system will reduce spillage of bagasse, and is expected to result in a reduction in actual particulate matter (PM) emissions. Two of the five dust collectors were installed on the bagasse conveying and handling system in 2004 to help control fugitive particulate emissions. However, due to maintenance issues, U.S. Sugar is requesting the removal of the dust collectors in addition to making alternative improvements to the bagasse system. These improvements include enclosing almost all of the transfer points, installing new conveyors, and upgrading the current conveyor design.

Enclosing the transfer points greatly reduces the amount of fugitive emissions by reducing the amount of bagasse particles that are exposed to wind and containing the bagasse particles that are suspended during a drop. The only transfer points that are not enclosed include the transfers to and from the bagasse pile and the transfer point associated with conveying bagasse from conveyor C9A to C9B in the drying mill.

In addition, upgrading the existing conveyor design will help reduce fugitive emissions. As bagasse is transferred from one conveyor to another, the force from the dropped bagasse causes the belt to become loose and move up and down. The up and down motion keeps the bagasse suspended in the air instead of allowing it to settle onto the belt. To combat this issue, U.S. Sugar is installing new landing zones for each conveyor that will prevent the belt from moving vertically and create a better enclosure for the conveyors.

The greatest reduction in fugitive emissions will come from the removal of the dust collectors. The estimated decrease is due to assumptions made for the dust collectors (i.e., PM emissions are 0.02 grains/acfm). Due to the nature of the dust collector and the way in which fugitive emissions are calculated from these devices, each dust collector was estimated to emit approximately 1.5 TPY of PM and 1.5 TPY of particulate matter less than 10 microns in diameter (PM₁₀). Emissions based on the current modifications, which include eliminating the dust collectors, enclosing almost all the transfer points, and installing new landing zones on the conveyor belts, are much lower. Maximum crop season fugitive dust emissions for PM are 2.86 TPY and for PM₁₀ are 2.29 TPY. Maximum off-crop season fugitive dust emissions for PM are 1.99 TPY and for PM₁₀ are 0.94 TPY. The basis of these emissions is described below in more detail.

The factors for determining emissions from the bagasse conveying and handling system are based on the equation for fugitive dust emissions from EPA's AP-42 section on aggregate handling and storage piles (Section 13.2.4, 1/95). The moisture content is based on the upper value of the range presented in AP-42 that is applicable to this equation (4.8 percent). The moisture content in bagasse is typically 50 percent; therefore, using a lower moisture content will result in a more conservative estimate of actual emissions. The average annual wind speed is based on 5 years of meteorological data from the Palm Beach International Airport. This meteorological data is typically used to represent the meteorology at the Clewiston Mill site. The average wind speed for the crop season (November through April) was used to quantify emissions from continuous drop and batch drop

operations. Most of the transfer points are enclosed to control fugitive dust emissions. The control efficiency for the enclosures is assumed to be 90 percent

Individual activity factors were derived as follows:

- 60 percent of total bagasse produced will come from Tandem C (Mill No. 6C) during the crop season (Tandem C will be in operation for the 2007 crop season),
- 40 percent of total bagasse produced will come from Tandem B (Mill No. 7B) during the crop season,
- Bagasse from the storage pile to conveyors C8N and C8S is split 50/50,
- 100 percent of bagasse goes through the drying mill during the off-crop season (a conservative assumption since the drying mill only operates 50 percent during the off-crop season),
- Estimated bagacillo cyclone efficiency of 99.999 percent,
- The amount of bagasse fed to each boiler is based on the maximum bagasse usage during the crop and off-crop seasons,
- All boilers operate during the crop season, and
- Worst-case emissions are generated by operating Boiler Nos. 1, 2, 4, and 8 during the off-crop season.

The outside bagasse storage pile and associated front-end loaders will not be affected by the changes proposed in this application, so emissions were not estimated for these sources.

The crop season emissions are presented in the application form as Attachment USSC-EU2-F10a. The total PM emissions for the crop-season are estimated at 2.86 TPY and PM₁₀ emissions are estimated at 2.29 TPY.

The off-crop season emissions are presented in the application form as Attachment USSC-EU2-F10b. The average wind speed for the off-crop season (May through October) was used. The equation, moisture content and control efficiencies used in the off-crop calculations are the same as the values used for crop season emissions. The activity factors were based on the maximum bagasse consumption for the off-crop season. The maximum off-crop season bagasse consumption was based on steam rate and heat input limits established in Permit No. 0500013-017-AV and the Title V Renewal Application (submitted May 2005). The PM emissions are estimated at 1.99 TPY and the PM₁₀ emissions are estimated at 0.94 TPY.

**TABLE 2-1
MAXIMUM SHORT-TERM EMISSIONS FOR BOILER NO. 8, U.S. SUGAR CLEWISTON**

Regulated Pollutant	Bagasse			No. 2 Fuel Oil			Maximum Emissions for any fuel (lb/hr)		
	Emission Factor (lb/MMBtu)	Ref.	Activity Factor (MMBtu/hr)	Maximum Emissions (lb/hr)	Emission Factor (lb/MMBtu)	Ref.		Activity Factor (MMBtu/hr)	Maximum Emissions (lb/hr)
Particulate Matter (PM)									
1-hr Average	0.025	(1)	1,185	29.6	0.03	(1)	562	16.86	29.6
24-hr Average	0.025	(1)	1,077	26.9	--	--	--	--	26.9
Particulate Matter (PM₁₀)									
1-hr Average	0.025	(2)	1,185	29.6	0.03	(1)	562	16.86	29.6
24-hr Average	0.025	(2)	1,077	26.9	--	--	--	--	26.9
Sulfur Dioxide (SO₂)									
1-hr Average	0.06	(2)	1,185	71.1	0.05	(7)	562	28.10	71.1
24-hr Average	0.06	(2)	1,077	64.6	--	--	--	--	64.6
Nitrogen Oxides (NO_x)									
1-hr Average	0.30	(3)	1,185	355.5	0.14	(2)	562	78.68	355.5
24-hr Average	0.30	(3)	1,077	323.1	--	--	--	--	323.1
Carbon Monoxide (CO)									
1-hr Average	6.5	(4)	1,185	7,702.5	0.036	(8)	562	20.2	7,702.5
24-hr Average	6.5	(4)	1,077	7,000.5	--	--	--	--	7,000.5
Volatile Organic Compounds (VOC)									
1-hr Average	0.05	(2)	1,185	59.3	0.0014	(8)	562	0.79	59.3
24-hr Average	0.05	(2)	1,077	53.9	--	--	--	--	53.9
Sulfuric Acid Mist (SAM)									
1-hr Average	0.0037	(5)	1,185	4.35	0.0015	(5)	562	0.8430	4.4
24-hr Average	0.0037	(5)	1,077	3.96	--	--	--	--	4.0
Lead (Pb)									
1-hr Average	1.6E-05	(6)	1,185	0.018	9.0E-06	(8)	562	5.1E-03	0.018
24-hr Average	1.6E-05	(6)	1,077	0.017	--	--	--	--	0.017
Mercury (Hg)									
1-hr Average	3.0E-06	(1)	1,185	0.0036	3.0E-06	(8)	562	1.7E-03	0.004
24-hr Average	3.0E-06	(1)	1,077	0.0032	--	--	--	--	0.003
Fluorides (F)									
1-hr Average	6.0E-04	(7)	1,185	0.711	--	--	--	--	0.7
24-hr Average	6.0E-04	(7)	1,077	0.646	--	--	--	--	0.6

References:

1. MACT limit, 40 CFR 63, Subpart DDDDD, Table 1.
2. BACT limit. BACT limit for PM₁₀ set equal to the MACT limit for simplicity. BACT limit for NO_x based on a 30-day rolling average.
3. Based on worst-case uncontrolled emissions without the SNCR system
4. Represents startup or wet fuel conditions (i.e., worst-case emissions).
5. Based on the SO₂ emission factor and a 5% of conversion of SO₂ to SO₃, and taking into account the ratio of molecular weights (98/80).
6. Based on worst-case bagasse analysis for Clewiston mill and assuming 50 percent removal in wet scrubber/ESP, based on stack testing (3.09E-5 lb/MMBtu x 0.50 = 1.55E-5 lb/MMBtu).
7. Based on stack test data from a similar boiler.
8. From AP-42, Section 1.3 for fuel oil combustion.

CO:	5	lb/1,000 gal	Mercury:	3	lb/10 ¹² Btu
VOC:	0.2	lb/1,000 gal	Lead:	9	lb/10 ¹² Btu

**TABLE 2-2
BOILER NO. 8 STARTUP PROCESS STATUS DATA, PERCENT OXYGEN
U.S. SUGAR CLEWISTON**

Hour	O ₂ %	Process Status	Hour	O ₂ %	Process Status
1/1/06 12:00 AM	Down	Down	3/14/06 1:00 PM	Down	Down
1/1/06 1:00 AM	Down	Down	3/14/06 2:00 PM	Down	Down
1/1/06 2:00 AM	Down	Down	3/14/06 3:00 PM	Down	Down
1/1/06 3:00 AM	Down	Down	3/14/06 4:00 PM	Down	Down
1/1/06 4:00 AM	Down	Down	3/14/06 5:00 PM	Down	Down
1/1/06 5:00 AM	Down	Down	3/14/06 6:00 PM	Down	Down
1/1/06 6:00 AM	Down	Down	3/14/06 7:00 PM	Down	Down
1/1/06 7:00 AM	Down	Down	3/14/06 8:00 PM	Down	Down
1/1/06 8:00 AM	Down	Down	3/14/06 9:00 PM	Down	Down
1/1/06 9:00 AM	Down	Down	3/14/06 10:00 PM	Down	Down
1/1/06 10:00 AM	Down	Down	3/14/06 11:00 PM	Down	Down
1/1/06 11:00 AM	Down	Down	3/15/06 12:00 AM	Down	Down
1/1/06 12:00 PM	19.6	Startup	3/15/06 1:00 AM	20.0	Startup
1/1/06 1:00 PM	19.1	Startup	3/15/06 2:00 AM	20.5	Startup
1/1/06 2:00 PM	19.4	Startup	3/15/06 3:00 AM	19.6	Startup
1/1/06 3:00 PM	18.8	Startup	3/15/06 4:00 AM	20.0	Startup
1/1/06 4:00 PM	19.3	Startup	3/15/06 5:00 AM	17.7	Startup
1/1/06 5:00 PM	17.4	Startup	3/15/06 6:00 AM	17.5	Startup
1/1/06 6:00 PM	17.0	Normal	3/15/06 7:00 AM	19.2	Normal
1/1/06 7:00 PM	14.5	Normal	3/15/06 8:00 AM	15.5	Normal
1/1/06 8:00 PM	8.6	Normal	3/15/06 9:00 AM	7.9	Normal
1/1/06 9:00 PM	4.7	Normal	3/15/06 10:00 AM	5.2	Normal
1/1/06 10:00 PM	3.7	Normal	3/15/06 11:00 AM	5.5	Normal
1/1/06 11:00 PM	3.7	Normal	3/15/06 12:00 PM	4.9	Normal
1/2/06 12:00 AM	3.2	Normal	3/15/06 1:00 PM	4.4	Normal
1/2/06 1:00 AM	3.1	Normal	3/15/06 2:00 PM	4.9	Normal
1/2/06 2:00 AM	3.6	Normal	3/15/06 3:00 PM	4.3	Normal
1/2/06 3:00 AM	4.0	Normal	3/15/06 4:00 PM	4.7	Normal