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- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. William A. Raiola  
 V.P. of Sugar Processing Operations  
 United States Sugar Corporation  
 111 Ponce DeLeon Avenue  
 Clewiston, FL 33440

2. 7001 0320 0001 3692 5702

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by (Please Print Clearly) A. Socis B. Date of Delivery 6-25-03

C. Signature Audrea Socis  Agent  Addressee

D. Is delivery address different from item 1?  Yes  No  
 If YES, enter delivery address below:

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

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Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$</b>

Postmark  
Here

Sent To William A. Raiola  
 Street, Apt. No.,  
 or P.O. Box 111 Ponce DeLeon Avenue  
 City, State, ZIP+4  
Clewiston, FL 33440



**PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT**

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Draft Air Permit No. 0510003-018-AC

United States Sugar Corporation  
Clewiston Sugar Mill and Refinery  
Clewiston Boilers 4 and 7 - Modified Oil Firing Systems

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to the United States Sugar Corporation that authorizes modification of the oil firing systems for Boilers 4 and 7 at the existing Clewiston Sugar Mill and Refinery located at the intersection of W.C. Owens Avenue and State Road 832 in Hendry County, Florida. The applicant's authorized representative is Mr. William A. Raiola, V.P. of Sugar Processing Operations. The applicant's mailing address is: Clewiston Sugar Mill and Refinery, United States Sugar Corporation, 111, Ponce DeLeon Avenue, Clewiston, FL 33440.

The United States Sugar Corporation operates the existing Clewiston Sugar Mill and Refinery in Hendry County, Florida. Boilers 4 and 7 fire bagasse as the primary fuel to produce steam for the plant's operations. Bagasse is the fibrous vegetative matter remaining from sugarcane after the milling process. Fuel oil is fired as a supplemental and alternate fuel. The applicant proposes to modify the existing oil firing systems of Boilers 4 and 7: Boiler 4 will begin firing distillate oil containing less than 0.4% sulfur by weight. Boiler 7 will continue to fire distillate oil containing less than 0.05% sulfur by weight. The project will increase the maximum heat input rates from 225 to 326 MMBtu per hour for Boiler 4 and from 250 to 326 MMBtu per hour for Boiler 7. Oil firing will be restricted to 500,000 gallons per year for Boiler 4 and 4,500,000 for Boiler 7. Boiler 7 is subject to Subpart Db of 40 CFR 60, which is a federal New Source Performance Standard for boilers.

The applicant estimates that the project has the potential to result in the following increases in actual emissions: 16 tons of carbon monoxide per year; 39 tons of nitrogen oxides per year; 6.7 tons of particulate matter per year; 1.4 tons of sulfuric acid mist per year; 16.8 tons of sulfur dioxide per year; and 1 ton of volatile organic compounds per year. These levels are below the significant emission rates that would require a preconstruction review in accordance with the Prevention of Significant Deterioration of Air Quality (Rule 62-212.400, F.A.C.). Therefore, the resulting project requires a minor source air construction permit. The draft permit includes conditions limiting nitrogen oxide emissions, visible emissions from the stack, fuel oil sulfur content, and fuel oil usage. The draft permit will supplement all previously issued air construction and operation permits for these boilers.

The Department will issue the Final Permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions. The Department will accept written comments concerning the proposed permit issuance action for a period of fourteen (14) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen (14) days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S. must be filed within fourteen (14) days of publication of the public notice or within fourteen (14) days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Department for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Protection  
Bureau of Air Regulation  
(111 South Magnolia Drive, Suite 4)  
2600 Blair Stone Road, MS #5505  
Tallahassee, Florida 32399-2400  
Telephone: (850)488-0114

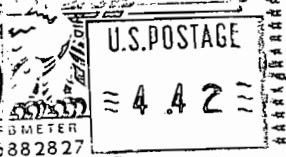
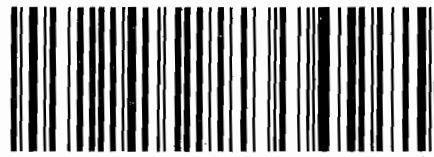
Department of Environmental Protection  
South District Office  
Air Resources Section  
2295 Victoria Avenue, Suite 364  
Fort Myers, Florida 33901-3381  
Telephone: (239)332-6975

The complete project file includes the application, Technical Evaluation and Preliminary Determination, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Department's reviewing engineer for this project for additional information at the address and phone numbers listed above.

376534-CN 5/8/03

**UNITED STATES SUGAR CORPORATION**  
POST OFFICE DRAWER 1207  
CLEWISTON, FLORIDA 33440

**CERTIFIED MAIL**

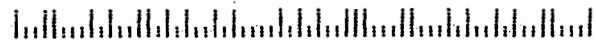


7001 1940 0006 6170 9216

**RETURN RECEIPT  
REQUESTED**

Department of Environmental Protection  
Bureau of Air Regulation  
(111 South Magnolia Drive, Suite 4)  
2600 Blair Stone Road, MS #5505  
Tallahassee, Florida 32399-2400

32399+2400 01



**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. William A. Raiola  
 V.P. of Sugar Processing Operations  
 Clewiston Sugar Mill and Refinery  
 United States Sugar Corporation  
 111 Ponce DeLeon Avenue  
 Clewiston, FL 33440

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  Agent  
 x *Audrea Sales*  Addressee

B. Received by (Printed Name) C. Date of Delivery  
*Audrea Sales* *4/7/13*

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

7001 0320 0001 3692 6617

**U.S. Postal Service  
 CERTIFIED MAIL RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

**OFFICIAL USE**

7001 0320 0001 3692 6617

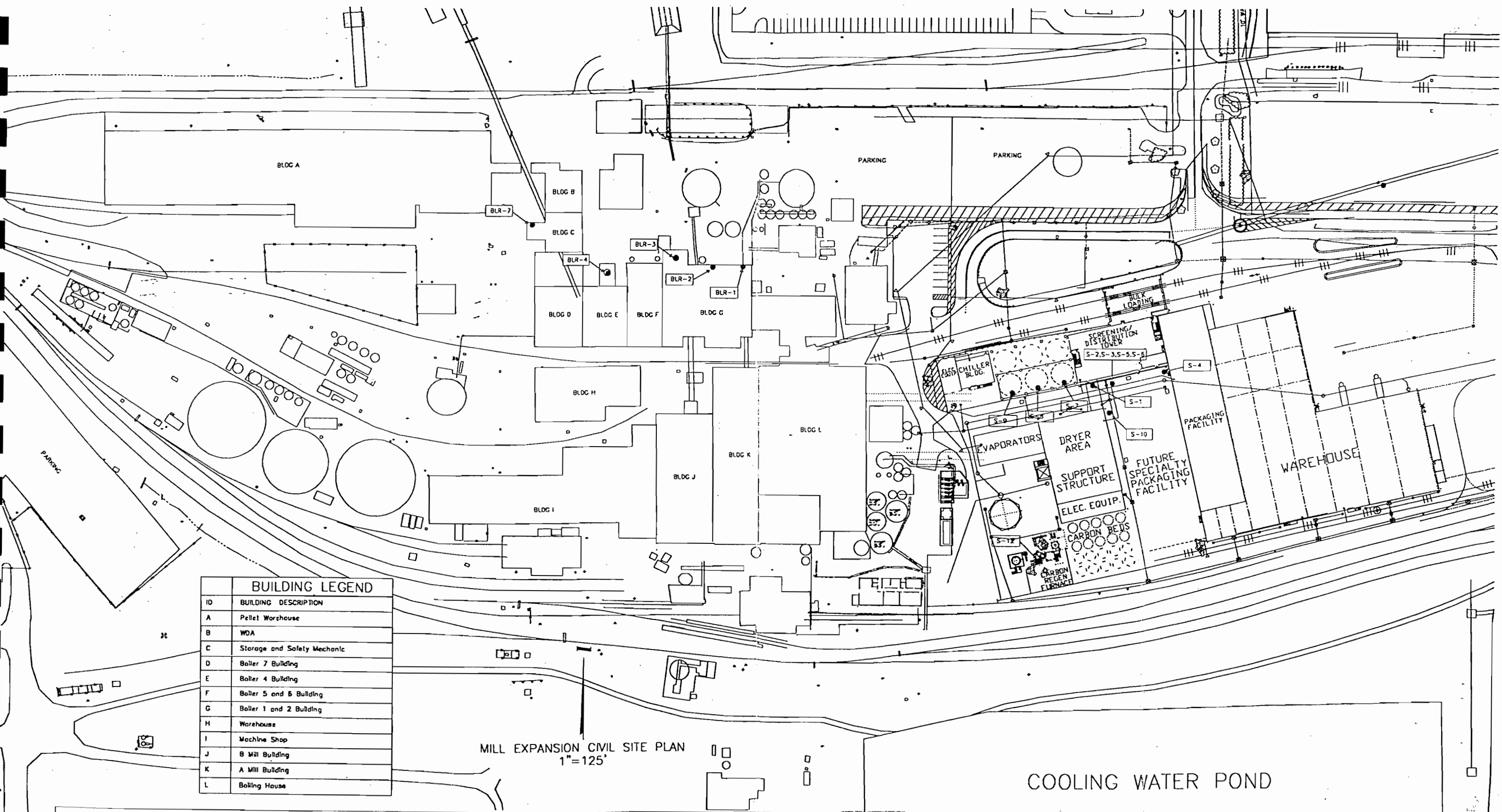
Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$</b>

Postmark  
 Here

Sent To  
 William A. Raiola  
 Street, Apt. No.  
 or P.O. Box No.  
 111 Ponce DeLeon Avenue  
 City, State, ZIP+4  
 Clewiston, FL 33440





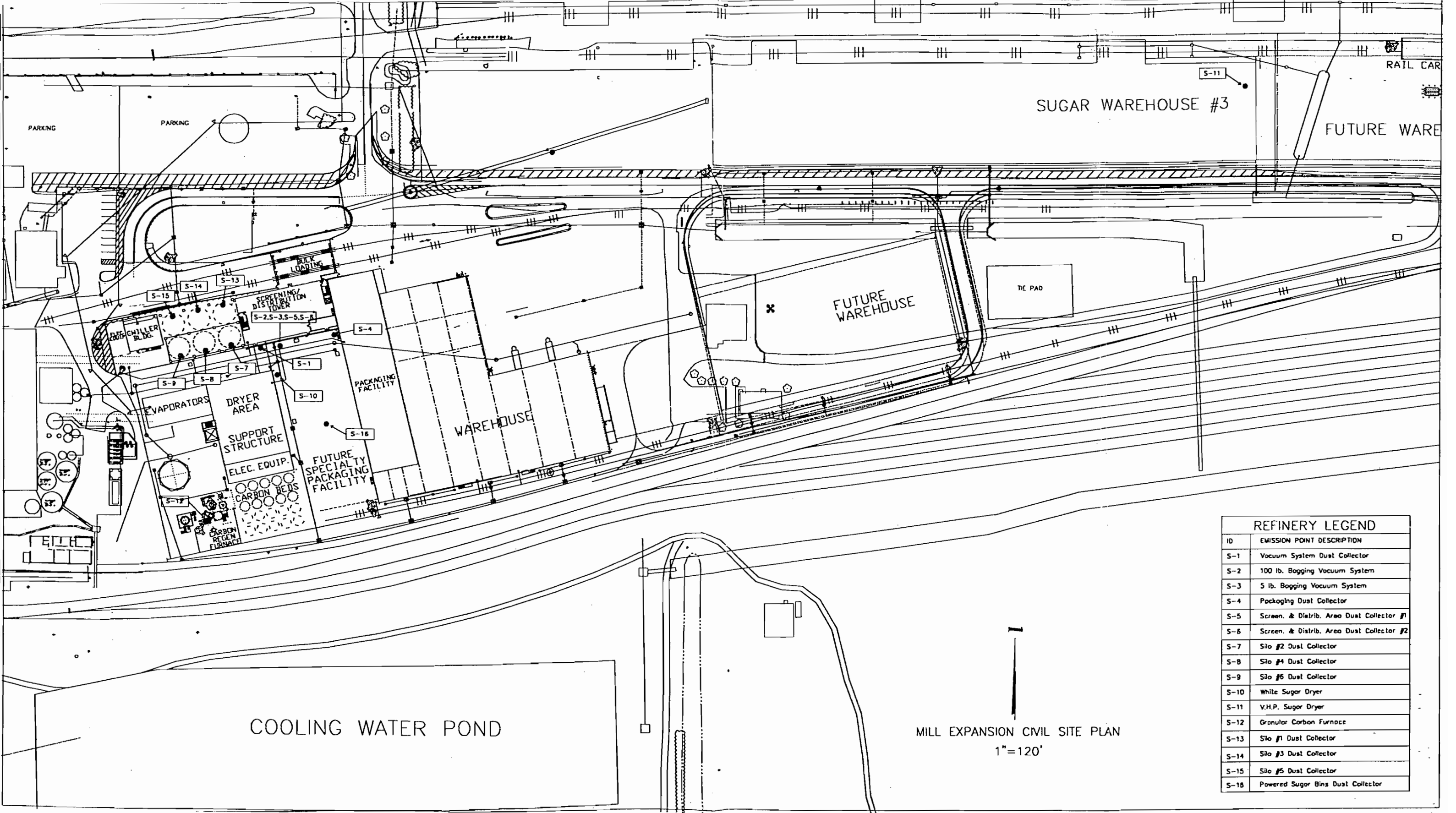


BUILDING LEGEND	
ID	BUILDING DESCRIPTION
A	Pellet Warehouse
B	WOA
C	Storage and Safety Mechanic
D	Boiler 7 Building
E	Boiler 4 Building
F	Boiler 5 and 6 Building
G	Boiler 1 and 2 Building
H	Warehouse
I	Machine Shop
J	B Mill Building
K	A Mill Building
L	Boiling House

MILL EXPANSION CIVIL SITE PLAN  
1"=125'





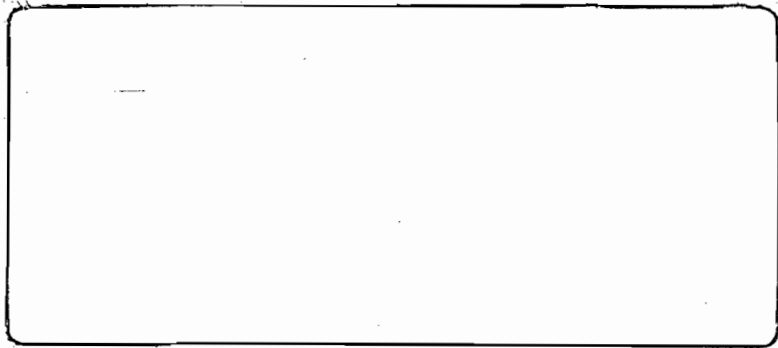


REFINERY LEGEND	
ID	EMISSION POINT DESCRIPTION
S-1	Vacuum System Dust Collector
S-2	100 lb. Bagging Vacuum System
S-3	5 lb. Bagging Vacuum System
S-4	Packaging Dust Collector
S-5	Screen. & Distrib. Area Dust Collector #1
S-6	Screen. & Distrib. Area Dust Collector #2
S-7	Silo #2 Dust Collector
S-8	Silo #4 Dust Collector
S-9	Silo #6 Dust Collector
S-10	White Sugar Dryer
S-11	V.H.P. Sugar Dryer
S-12	Granular Carbon Furnace
S-13	Silo #1 Dust Collector
S-14	Silo #3 Dust Collector
S-15	Silo #5 Dust Collector
S-18	Powered Sugar Bins Dust Collector

↑  
MILL EXPANSION CIVIL SITE PLAN  
1" = 120'

Attachment UC-FI-C2, Page 2. Location of Sugar Refinery Sources and Major Buildings





RECEIVED  
OCT 11 2002  
D.E.P. - South District

**AIR PERMIT APPLICATION  
TO INCREASE FUEL OIL FIRING RATE  
BOILER NO. 7  
U.S. SUGAR CORPORATION  
CLEWISTON, FLORIDA**

**Prepared For:  
United States Sugar Corporation  
111 Ponce DeLeon Ave.  
Clewiston, Florida 33440**

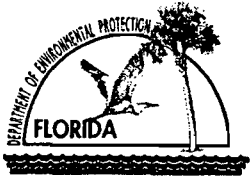
**Prepared By:  
Golder Associates Inc.  
6241 NW 23rd Street, Suite 500  
Gainesville, Florida 32653-1500**

**October 2002  
0237584**

**DISTRIBUTION:  
4 Copies – FDEP, Ft. Myers  
2 Copies – U.S. Sugar  
2 Copies – Golder Associates Inc.**

**AIR PERMIT APPLICATION**

RECEIVED  
 OCT 11 2002  
 D.E.P. - South District



# Department of Environmental Protection

## Division of Air Resources Management

### APPLICATION FOR AIR PERMIT - TITLE V SOURCE

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

#### I. APPLICATION INFORMATION

##### Identification of Facility

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

##### Application Contact

1. Name and Title of Application Contact: <b>William A. Raiola, Vice President, Sugar Processing Operations</b>	
2. Application Contact Mailing Address: Organization/Firm: <b>United States Sugar Corporation</b> Street Address: <b>111 Ponce DeLeon Ave.</b> City: <b>Clewiston</b> State: <b>FL</b> Zip Code: <b>33440</b>	
3. Application Contact Telephone Numbers: Telephone: <b>( 863 ) 983 - 8121</b> Fax: <b>( 863 ) 902 - 2729</b>	

##### Application Processing Information (DEP Use)

1. Date of Receipt of Application:	<i>10-11-02</i>
2. Permit Number:	<i>0510003-014-AC</i>
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

**Purpose of Application**

**Air Operation Permit Application**

This Application for Air Permit is submitted to obtain: (Check one)

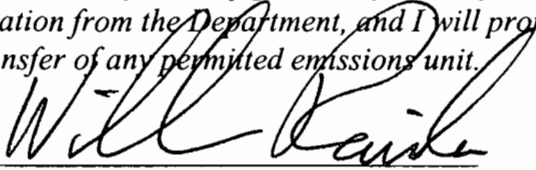
- Initial Title V air operation permit for an existing facility which is classified as a Title V source.
- Initial Title V air operation permit for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.  
Current construction permit number: \_\_\_\_\_
- Title V air operation permit revision to address one or more newly constructed or modified emissions units addressed in this application.  
Current construction permit number: \_\_\_\_\_  
Operation permit number to be revised: \_\_\_\_\_
- Title V air operation permit revision or administrative correction to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. (Also check Air Construction Permit Application below.)  
Operation permit number to be revised/corrected: \_\_\_\_\_
- Title V air operation permit revision for reasons other than construction or modification of an emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.  
Operation permit number to be revised: \_\_\_\_\_  
Reason for revision: \_\_\_\_\_

**Air Construction Permit Application**

This Application for Air Permit is submitted to obtain: (Check one)

- Air construction permit to construct or modify one or more emissions units.
- Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.
- Air construction permit for one or more existing, but unpermitted, emissions units.

**Owner/Authorized Representative or Responsible Official**

1. Name and Title of Owner/Authorized Representative or Responsible Official: <b>William A. Raiola, Vice President, Sugar Processing Operations</b>
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: <b>United States Sugar Corporation</b> Street Address: <b>111 Ponce DeLeon Ave.</b> City: <b>Clewiston</b> State: <b>FL</b> Zip Code: <b>33440</b>
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: <b>( 863 ) 983 - 8121</b> Fax: <b>( 863 ) 902 - 2729</b>
4. Owner/Authorized Representative or Responsible Official Statement: <i>I, the undersigned, am the owner or authorized representative*(check here [ ], if so) or the responsible official (check here [ ], if so) of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.</i>  Signature _____ Date <u>10/7/02</u>

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

**Professional Engineer Certification**

1. Professional Engineer Name: <b>David A. Buff</b> Registration Number: <b>19011</b>
2. Professional Engineer Mailing Address: Organization/Firm: <b>Golder Associates Inc.*</b> Street Address: <b>6241 NW 23rd Street, Suite 500</b> City: <b>Gainesville</b> State: <b>FL</b> Zip Code: <b>32653-1500</b>
3. Professional Engineer Telephone Numbers: Telephone: <b>( 352 ) 336 - 5600</b> Fax: <b>( 352 ) 336 - 6603</b>

\* Board of Professional Engineers Certificate of Authorization #00001670

4. Professional Engineer Statement:

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

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

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

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

*If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [  ], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

*If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [  ], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.*

Signature

*David A. Boff*

Date

*10/10/02*

(seal)

\* Attach any exception to certification statement.





**Construction/Modification Information**

1. Description of Proposed Project or Alterations:

United States Sugar Corp. is proposing to increase the maximum hourly heat input due to fuel oil combustion from 250 MMBtu/hr to 312 MMBtu/hr for Boiler No. 7. This increase will enable Boiler No. 7 to provide more steam to the refinery when bagasse is not available (i.e. due to bagasse conveyor breakdown, rainy conditions, etc.). See Attachment A for more details.

2. Projected or Actual Date of Commencement of Construction: **November 1, 2002**

3. Projected Date of Completion of Construction: **Jan 31, 2004**

**Application Comment**

[Empty box for Application Comment]



**Facility Regulatory Classifications**

**Check all that apply:**

1. <input type="checkbox"/> Small Business Stationary Source?	<input type="checkbox"/> Unknown
2. <input checked="" type="checkbox"/> Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?	
3. <input type="checkbox"/> Synthetic Minor Source of Pollutants Other than HAPs?	
4. <input checked="" type="checkbox"/> Major Source of Hazardous Air Pollutants (HAPs)?	
5. <input type="checkbox"/> Synthetic Minor Source of HAPs?	
6. <input checked="" type="checkbox"/> One or More Emissions Units Subject to NSPS?	
7. <input type="checkbox"/> One or More Emission Units Subject to NESHAP?	
8. <input type="checkbox"/> Title V Source by EPA Designation?	
9. Facility Regulatory Classifications Comment (limit to 200 characters):	
<p><b>One or more emission units potentially subject to NESHAP for asbestos removal in the event that the facility may wish to perform asbestos removal in the future.</b></p>	

**List of Applicable Regulations**

<b>Attachment UC-FI-A - Title V core list, effective date 3/02/02</b>	

## B. FACILITY POLLUTANTS

### List of Pollutants Emitted

1. Pollutant Emitted	2. Pollutant Classif.	3. Requested Emissions Cap		4. Basis for Emissions Cap	5. Pollutant Comment
		lb/hour	tons/year		
PM	A				Particulate Matter – Total
SO <sub>2</sub>	A				Sulfur Dioxide
NO <sub>x</sub>	A				Nitrogen Oxides
CO	A				Carbon Monoxide
PM <sub>10</sub>	A				Particulate Matter – PM <sub>10</sub>
SAM	A				Sulfuric Acid Mist
HAPs	A				Total Hazardous Air Pollutants
VOC	A				Volatile Organic Compounds
H001	A				Acetaldehyde
H017	A				Benzene
H095	A				Formaldehyde
H144	A				Phenol
H151	A				Polycyclic Organic Matter
H163	A				Styrene
H169	A				Toluene
H132	A				Naphthalene
H058	A				Dibenzofuran



**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

8. List of Proposed Insignificant Activities: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. List of Equipment/Activities Regulated under Title VI: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Equipment/Activities On site but Not Required to be Individually Listed <input checked="" type="checkbox"/> Not Applicable
10. Alternative Methods of Operation: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
11. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Identification of Additional Applicable Requirements: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Risk Management Plan Verification: <input type="checkbox"/> Plan previously submitted to Chemical Emergency Preparedness and Prevention Office (CEPPO). Verification of submittal attached (Document ID: _____) or previously submitted to DEP (Date and DEP Office: _____) <input type="checkbox"/> Plan to be submitted to CEPPO (Date required: _____) <input checked="" type="checkbox"/> Not Applicable
14. Compliance Report and Plan: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
15. Compliance Certification (Hard-copy Required): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**ATTACHMENT UC-FI-A**

**FACILITY REGULATIONS**



# Title V Core List

Effective: 03/01/02

[**Note:** The Title V Core List is meant to simplify the completion of the "List of Applicable Regulations" for DEP Form No. 62-210.900(1), Application for Air Permit - Long Form. The Title V Core List is a list of rules to which all Title V Sources are presumptively subject. The Title V Core List may be referenced in its entirety, or with specific exceptions. The Department may periodically update the Title V Core List.]

## ***Federal: (description)***

40 CFR 61, Subpart M: NESHAP for Asbestos.

40 CFR 82: Protection of Stratospheric Ozone.

40 CFR 82, Subpart B: Servicing of Motor Vehicle Air Conditioners (MVAC).

40 CFR 82, Subpart F: Recycling and Emissions Reduction.

## ***State: (description)***

### **CHAPTER 62-4, F.A.C.: PERMITS, effective 06-01-01**

62-4.030, F.A.C.: General Prohibition.

62-4.040, F.A.C.: Exemptions.

62-4.050, F.A.C.: Procedure to Obtain Permits; Application

62-4.060, F.A.C.: Consultation.

62-4.070, F.A.C.: Standards for Issuing or Denying Permits; Issuance; Denial.

62-4.080, F.A.C.: Modification of Permit Conditions.

62-4.090, F.A.C.: Renewals.

62-4.100, F.A.C.: Suspension and Revocation.

62-4.110, F.A.C.: Financial Responsibility.

62-4.120, F.A.C.: Transfer of Permits.

62-4.130, F.A.C.: Plant Operation - Problems.

62-4.150, F.A.C.: Review

62-4.160, F.A.C.: Permit Conditions.

62-4.210, F.A.C.: Construction Permits.

62-4.220, F.A.C.: Operation Permit for New Sources.

### **CHAPTER 62-210, F.A.C.: STATIONARY SOURCES - GENERAL REQUIREMENTS, effective 06-21-01**

62-210.300, F.A.C.: Permits Required.

62-210.300(1), F.A.C.: Air Construction Permits.

62-210.300(2), F.A.C.: Air Operation Permits.

62-210.300(3), F.A.C.: Exemptions.

62-210.300(5), F.A.C.: Notification of Startup.

62-210.300(6), F.A.C.: Emissions Unit Reclassification.

62-210.300(7), F.A.C.: Transfer of Air Permits.

## **Title V Core List**

Effective: 03/01/02

62-210.350, F.A.C.: Public Notice and Comment.  
62-210.350(1), F.A.C.: Public Notice of Proposed Agency Action.  
62-210.350(2), F.A.C.: Additional Public Notice Requirements for Emissions Units Subject to Prevention of Significant Deterioration or Nonattainment-Area Preconstruction Review.  
62-210.350(3), F.A.C.: Additional Public Notice Requirements for Sources Subject to Operation Permits for Title V Sources.

62-210.360, F.A.C.: Administrative Permit Corrections.  
62-210.370(3), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility.  
62-210.400, F.A.C.: Emission Estimates.  
62-210.650, F.A.C.: Circumvention.  
62-210.700, F.A.C.: Excess Emissions

62-210.900, F.A.C.: Forms and Instructions.  
62-210.900(1), F.A.C.: Application for Air Permit - Title V Source, Form and Instructions.  
62-210.900(5), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions.  
62-210.900(7), F.A.C.: Application for Transfer of Air Permit - Title V and Non-Title V Source.

**CHAPTER 62-212, F.A.C.: STATIONARY SOURCES- PRECONSTRUCTION REVIEW,**  
effective 08-17-00

**CHAPTER 62-213, F.A.C.: OPERATION PERMITS FOR MAJOR SOURCES OF AIR POLLUTION,**  
effective 04-16-01

62-213.205, F.A.C.: Annual Emissions Fee.  
62-213.400, F.A.C.: Permits and Permit Revisions Required.  
62-213.410, F.A.C.: Changes Without Permit Revision.  
62-213.412, F.A.C.: Immediate Implementation Pending Revision Process.  
62-213.415, F.A.C.: Trading of Emissions Within a Source.  
62-213.420, F.A.C.: Permit Applications.  
62-213.430, F.A.C.: Permit Issuance, Renewal, and Revision.  
62-213.440, F.A.C.: Permit Content.  
62-213.450, F.A.C.: Permit Review by EPA and Affected States  
62-213.460, F.A.C.: Permit Shield.

62-213.900, F.A.C.: Forms and Instructions.  
62-213.900(1), F.A.C.: Major Air Pollution Source Annual Emissions Fee Form.  
62-213.900(7), F.A.C.: Statement of Compliance Form

## **Title V Core List**

Effective: 03/01/02

### **CHAPTER 62-296, F.A.C.: STATIONARY SOURCES - EMISSION STANDARDS, effective 03-02-99**

62-296.320(2), F.A.C.: Objectionable Odor Prohibited.

62-296.320(4)(c), F.A.C.: Unconfined Emissions of Particulate Matter

### **CHAPTER 62-297, F.A.C.: STATIONARY SOURCES - EMISSIONS MONITORING, effective 03-02-99**

62-297.310, F.A.C.: General Test Requirements.

62-297.330, F.A.C.: Applicable Test Procedures.

62-297.340, F.A.C.: Frequency of Compliance Tests.

62-297.345, F.A.C.: Stack Sampling Facilities Provided by the Owner of an Emissions Unit.

62-297.350, F.A.C.: Determination of Process Variables.

62-297.570, F.A.C.: Test Report.

62-297.620, F.A.C.: Exceptions and Approval of Alternate Procedures and Requirements.

#### **Miscellaneous:**

**CHAPTER 28-106, F.A.C.: Decisions Determining Substantial Interests**

**CHAPTER 62-110, F.A.C.: Exception to the Uniform Rules of Procedure, effective 07-01-98**

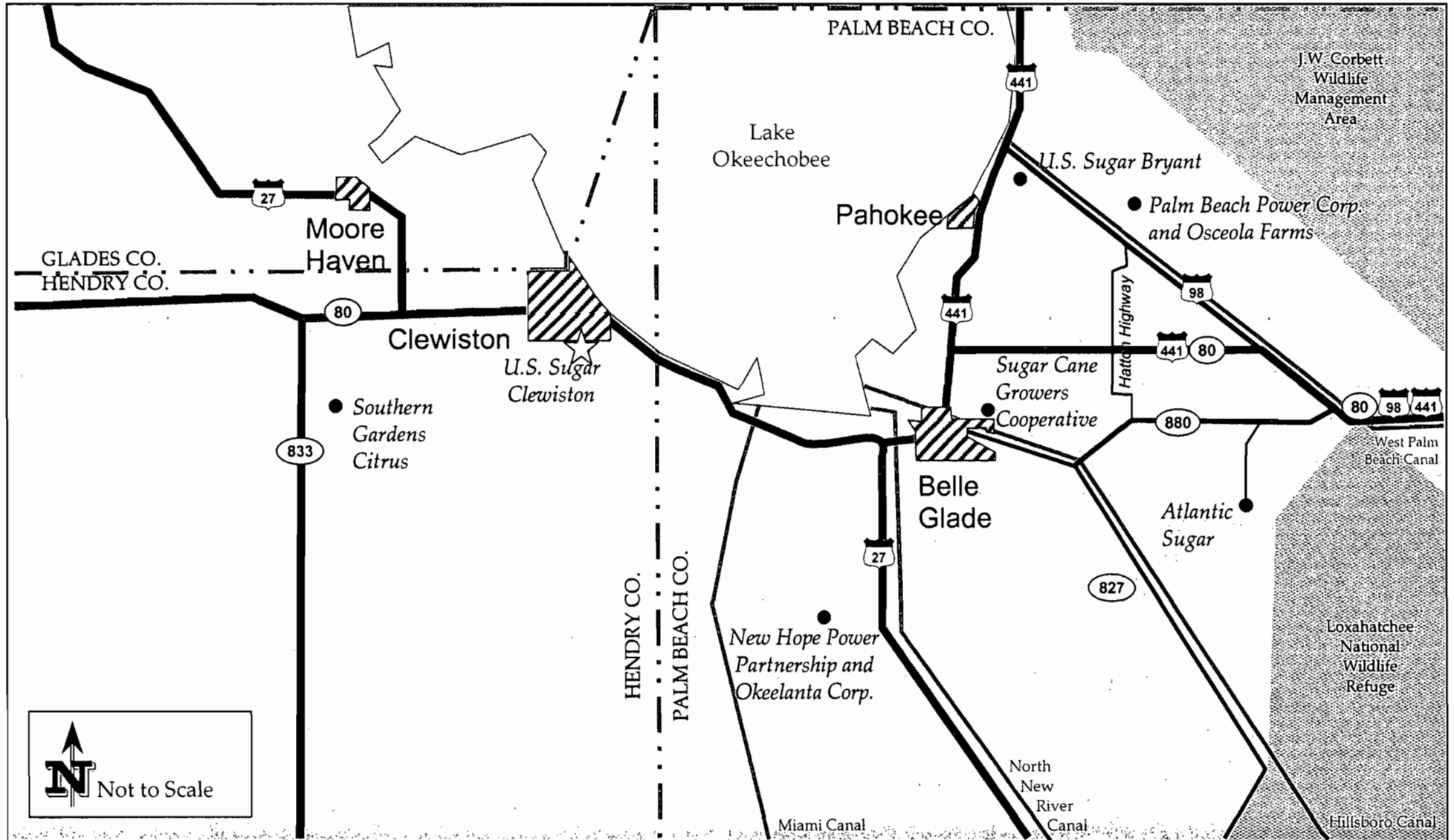
**CHAPTER 62-256, F.A.C.: Open Burning and Frost Protection Fires, effective 11-30-94**

**CHAPTER 62-257, F.A.C.: Asbestos Notification and Fee, effective 02-09-99**

**CHAPTER 62-281, F.A.C.: Motor Vehicle Air Conditioning Refrigerant Recovery and  
Recycling, effective 09-10-96**

**ATTACHMENT UC-FI-C1**

**AREA MAP SHOWING FACILITY LOCATION**



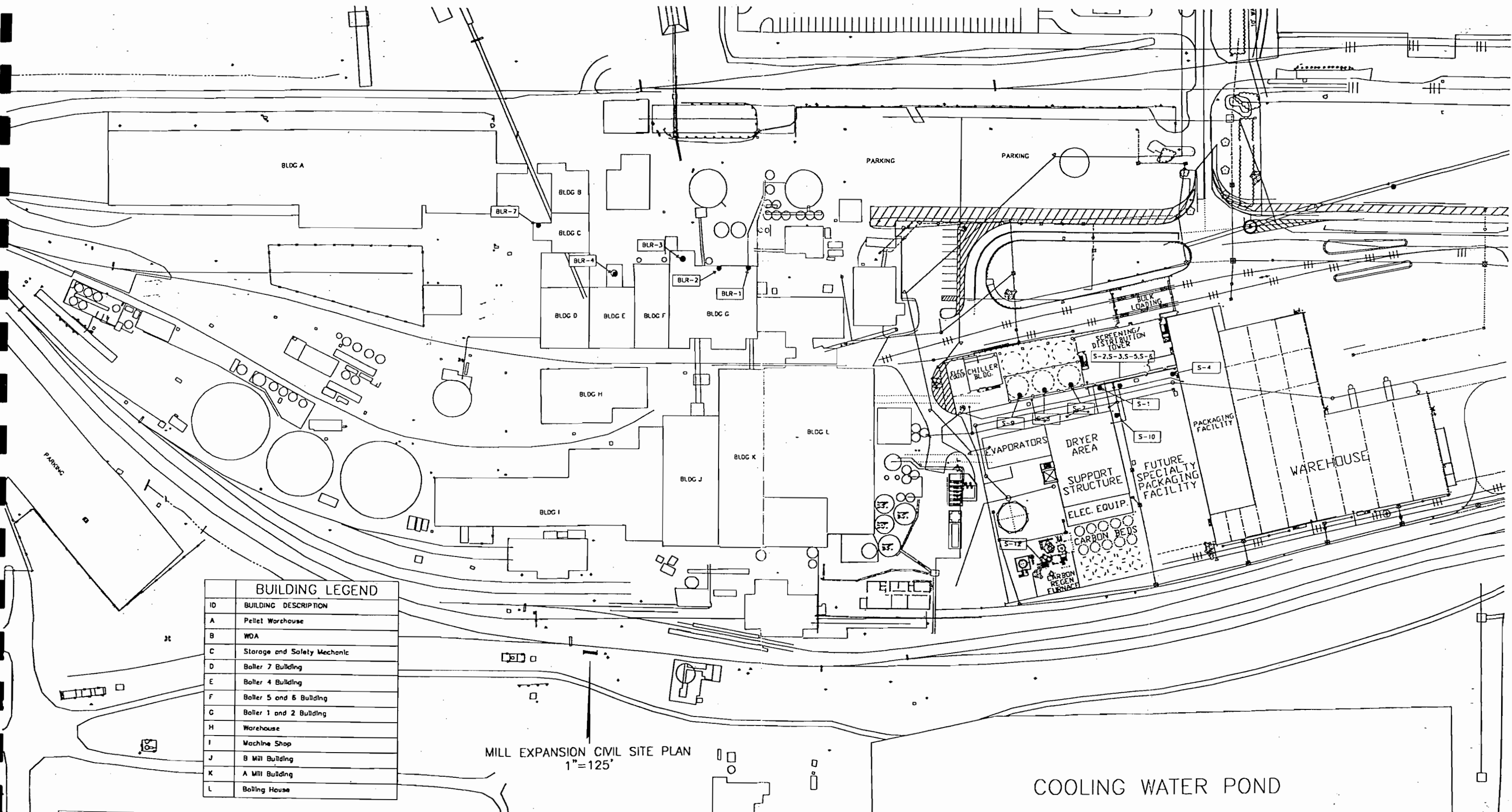
**Attachment UC-FI-C1**  
**Location of U.S. Sugar Corporation, Clewiston Mill**

Source: Golder Associates Inc., 2002.



**ATTACHMENT UC-FI-C2**

**FACILITY PLOT PLANS**

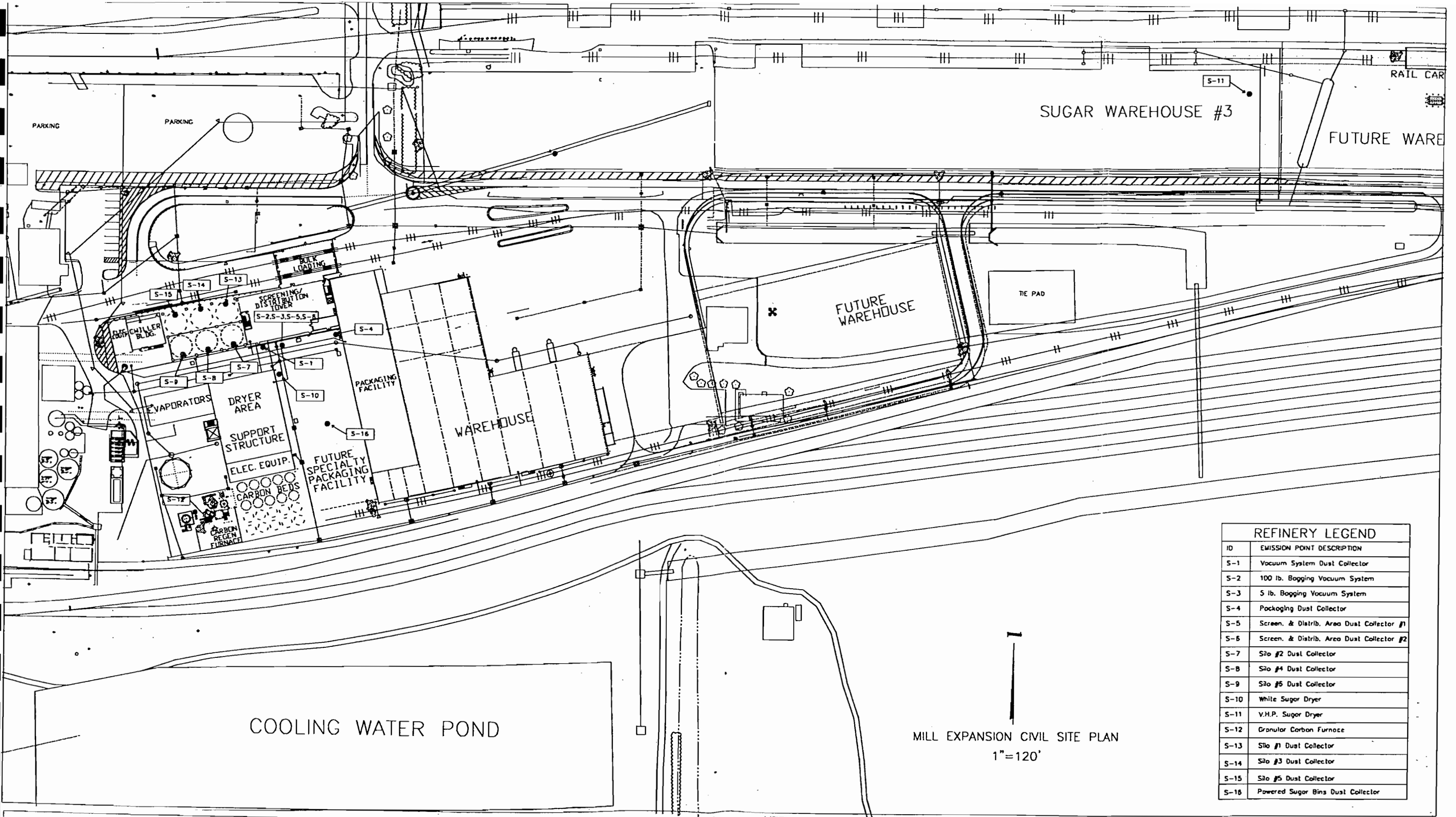


BUILDING LEGEND	
ID	BUILDING DESCRIPTION
A	Pellet Warehouse
B	WOA
C	Storage and Safety Mechanic
D	Boiler 7 Building
E	Boiler 4 Building
F	Boiler 5 and 6 Building
G	Boiler 1 and 2 Building
H	Warehouse
I	Machine Shop
J	B Mill Building
K	A Mill Building
L	Boiling House

MILL EXPANSION CIVIL SITE PLAN  
1"=125'

COOLING WATER POND





REFINERY LEGEND	
ID	EMISSION POINT DESCRIPTION
S-1	Vacuum System Dust Collector
S-2	100 lb. Bagging Vacuum System
S-3	5 lb. Bagging Vacuum System
S-4	Packaging Dust Collector
S-5	Screen. & Distrib. Area Dust Collector #1
S-6	Screen. & Distrib. Area Dust Collector #2
S-7	Silo #2 Dust Collector
S-8	Silo #4 Dust Collector
S-9	Silo #5 Dust Collector
S-10	White Sugar Dryer
S-11	V.H.P. Sugar Dryer
S-12	Granular Carbon Furnace
S-13	Silo #1 Dust Collector
S-14	Silo #3 Dust Collector
S-15	Silo #5 Dust Collector
S-16	Powered Sugar Bins Dust Collector

↑  
MILL EXPANSION CIVIL SITE PLAN  
1"=120'

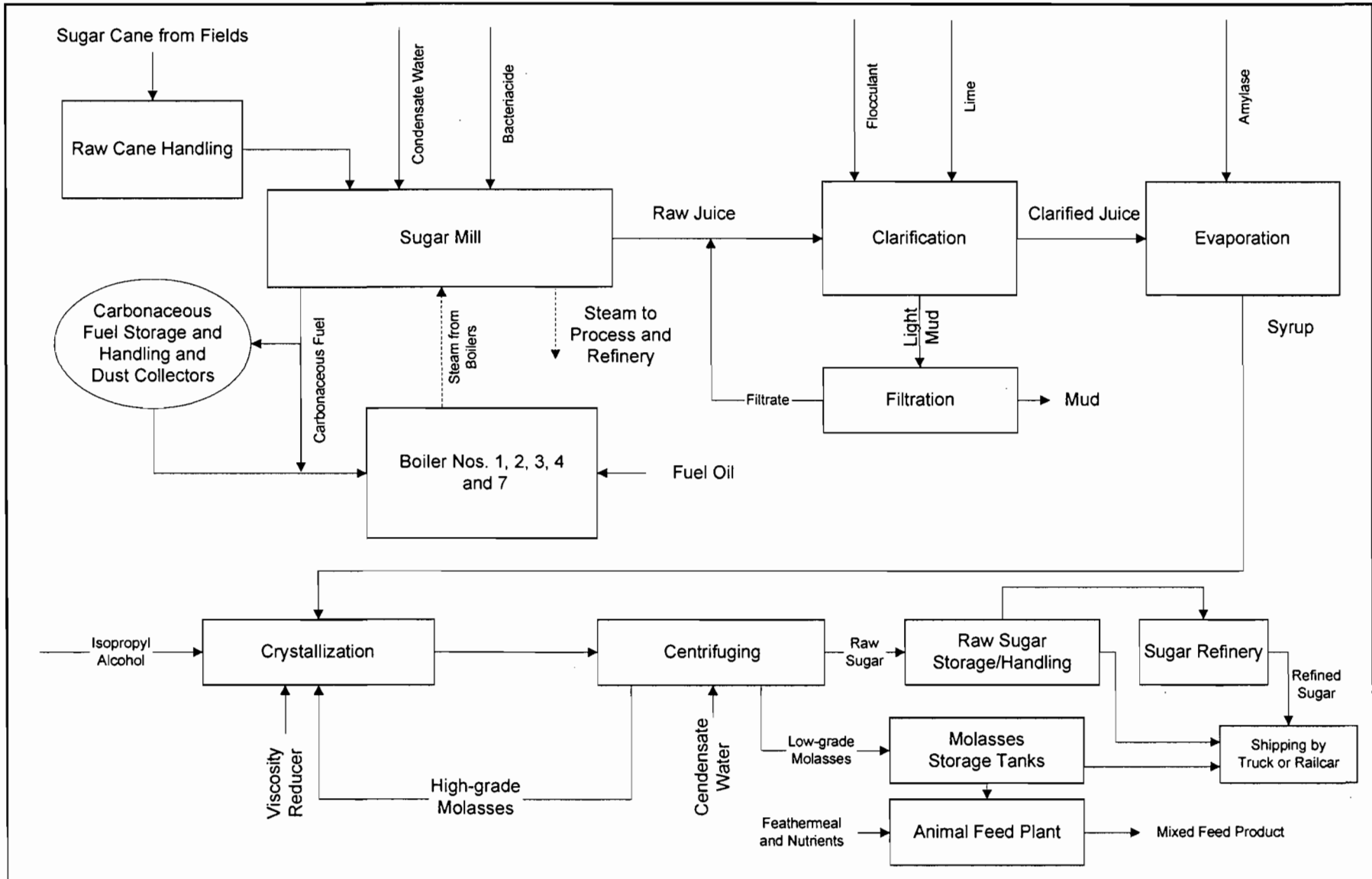
Attachment UC-FI-C2, Page 2. Location of Sugar Refinery Sources and Major Buildings






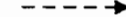
**ATTACHMENT UC-FI-C3**

**PROCESS FLOW DIAGRAM**



Attachment UC-FI-C3  
 Process Flow Diagram  
 U.S. Sugar Corporation  
 Clewiston Mill, Florida

**Process Flow Legend**

Solid/Liquid   
 Steam 

Clewiston Sugar Mill Facility

Filename: 02375841414.414.4.1UC-FI-C3.VSD

Date: 10/08/02



**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION**  
(All Emissions Units)

**Emissions Unit Description and Status**

1. Type of Emissions Unit Addressed in This Section: (Check one)			
<input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.			
2. Regulated or Unregulated Emissions Unit? (Check one)			
<input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.			
<input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.			
3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):			
Boiler No. 7			
4. Emissions Unit Identification Number: <span style="float:right">[ ] No ID</span>			
ID: 014 <span style="float:right">[ ] ID Unknown</span>			
5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A		20	[ ]
9. Emissions Unit Comment: (Limit to 500 Characters)			
Vibrating grate boiler fired by carbonaceous fuel and low sulfur No. 2 fuel oil.			

**Emissions Unit Control Equipment**

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

**Electrostatic Precipitator**

**Wet Sand Separator**

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

**Emissions Unit Details**

1. Package Unit:	
Manufacturer:	Model Number:
2. Generator Nameplate Rating: MW	
3. Incinerator Information:	
Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F

**B. EMISSIONS UNIT CAPACITY INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:	812	mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:	385,000	lb/hr steam
5. Requested Maximum Operating Schedule:		
	24	hours/day
	7	days/week
	52	weeks/year
	8,760	hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):		
<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 738 MMBtu/hr. Proposed maximum for No. 2 fuel oil is 312 MMBtu/hr.</p>		

**C. EMISSIONS UNIT REGULATIONS  
(Regulated Emissions Units Only)**

**List of Applicable Regulations**

40 CFR 60.40b(a): 40 CFR 63, Subpart Db Applicability
40 CFR 60.40b(j): 40 CFR 63, Subpart Db Applicability
40 CFR 60.42b(a): Standard for Sulfur Dioxide
40 CFR 60.42b(j)(2): Standard for Sulfur Dioxide
40 CFR 60.43b(e): Standard for Particulate Matter and Opacity
40 CFR 60.43b(f): Standard for Particulate Matter and Opacity
40 CFR 60.43b(g): Standard for Particulate Matter and Opacity
40 CFR 60.44b(c): Standard for Nitrogen Oxides
40 CFR 60.45b(j): Compliance and Performance Test Methods for Sulfur Dioxide
40 CFR 60.46b(a): Compliance and Performance Test Methods for PM
40 CFR 60.46b(d)7: Compliance and Performance Test Methods for PM
40 CFR 60.49b(a): Reporting and Recordkeeping Requirements
40 CFR 60.49b(d): Reporting and Recordkeeping Requirements
40 CFR 60.49b(f): Reporting and Recordkeeping Requirements
40 CFR 60.49b(h)(1): Reporting and Recordkeeping Requirements
40 CFR 60.49b(h)(3): Reporting and Recordkeeping Requirements
62.212.400, F.A.C.: Prevention of Significant Deterioration
62.296.405(2), F.A.C.: Steam Generating Units Greater than 250 MMBtu/hr
62.297.310(1), F.A.C.: General Compliance Test Requirements
62-297-310(2)(b), F.A.C.: General Compliance Test Requirements
62-297-310(3), F.A.C.: General Compliance Test Requirements
62-297-310(4), F.A.C.: General Compliance Test Requirements
62-297-310(5), F.A.C.: General Compliance Test Requirements
62-297-310(6), F.A.C.: General Compliance Test Requirements
62-297-310(7)(a)3., F.A.C.: General Compliance Test Requirements
62-297-310(7)(a)4., F.A.C.: General Compliance Test Requirements
62-297-310(7)(a)5., F.A.C.: General Compliance Test Requirements
62-297-310(7)(a)9., F.A.C.: General Compliance Test Requirements
62-297-310(7)(a)10., F.A.C.: General Compliance Test Requirements
62-297.310(8), F.A.C.: General Compliance Test Requirements
62-297.401(1), F.A.C.: EPA Test Method 1
62-297.401(2), F.A.C.: EPA Test Method 2



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

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? <b>BLR-7</b>		2. Emission Point Type Code: <b>1</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: <b>V</b>	6. Stack Height: <b>225</b> feet	7. Exit Diameter: <b>8.5</b> feet	
8. Exit Temperature: <b>335</b> °F	9. Actual Volumetric Flow Rate: <b>355,000</b> acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: East (km): North (km):			
14. Emission Point Comment (limit to 200 characters):  <b>Stack parameters based on January 2001 stack testing. Flow rate ratioed to maximum 24-hour steam rate of 350,000 lb/hr.</b>			



**E. SEGMENT (PROCESS/FUEL) INFORMATION  
(All Emissions Units)**

**Segment Description and Rate:** Segment  1  of  2

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>External combustion boilers; Industrial; Bagasse; All boiler sizes</b>		
2. Source Classification Code (SCC): <b>1-02-011-01</b>	3. SCC Units: <b>Tons Burned</b>	
4. Maximum Hourly Rate: <b>112.78</b>	5. Maximum Annual Rate: <b>897,800</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: <b>7.2</b>
10. Segment Comment (limit to 200 characters):  <b>Maximum hourly rate based on 812 MMBtu/hr (1-hr max) and maximum annual rate based on 738 MMBtu/hr (24-hr max).</b>		

**Segment Description and Rate:** Segment  2  of  2

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>External combustion boilers; Industrial; Distillate Oil; Grades 1 and 2</b>		
2. Source Classification Code (SCC): <b>1-02-005-01</b>	3. SCC Units: <b>Thousand Gallons Burned</b>	
4. Maximum Hourly Rate: <b>2.311</b>	5. Maximum Annual Rate: <b>4,500</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: <b>0.05</b>	8. Maximum % Ash:	9. Million Btu per SCC Unit: <b>135</b>
10. Segment Comment (limit to 200 characters):  <b>Rates based on proposed 312 MMBtu/hr and a maximum of 4,500,000 gallons of fuel oil per year.</b>		

**F. EMISSIONS UNIT POLLUTANTS  
(All Emissions Units)**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	099	010	EL
PM <sub>10</sub>	099	010	EL
SO <sub>2</sub>			EL
NO <sub>x</sub>			EL
CO			EL
VOC			EL
SAM			EL
PB	099	010	NS
H021	099	010	NS
H114			NS
H017			NS
H095			NS
HAPS			NS

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>PM</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>24.4 lb/hour</b>		4. Synthetically Limited? [ ] <b>97 tons/year</b>	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: <b>0.03 lb/MMBtu</b> Reference: <b>Permit No. 0510003-014-AV</b>		7. Emissions Method Code: <b>0</b>	
8. Calculation of Emissions (limit to 600 characters):  <b>812 MMBtu/hr x 0.03 lb/MMBtu = 24.4 lb/hr</b> <b>Annual limit from Permit No. 0510003-014-AV for bagasse firing.</b>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions representative of bagasse firing.</b>			

**Allowable Emissions** Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>0.03 lb/MMBtu</b>		4. Equivalent Allowable Emissions: <b>24.4 lb/hour 97 tons/year</b>	
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 5 or 17</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Permit No. 0510003-014-AV. Emissions representative of bagasse firing only.</b>			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>PM</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour		tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code:	
8. Calculation of Emissions (limit to 600 characters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>0.03 lb/MMBtu</b>	4. Equivalent Allowable Emissions: <b>9.4 lb/hour      9.1 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>EPA Method 5 or 17</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): <b>Emissions representative of No. 2 fuel oil firing only. Annual emissions based on proposed limit of 4,500,000 gal/yr. See Attachment UC-EU1-G8 for calculations.</b>	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>PM<sub>10</sub></b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>24.4 lb/hour</b>		4. Synthetically Limited? [ ]	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year		7. Emissions Method Code: <b>0</b>	
6. Emission Factor: <b>0.03 lb/MMBtu</b> Reference: <b>Permit No. 0510003-014-AV</b>		7. Emissions Method Code: <b>0</b>	
8. Calculation of Emissions (limit to 600 characters):  <b>812 MMBtu/hr x 0.03 lb/MMBtu = 24.4 lb/hr</b> <b>Annual limit from Permit No. 0510003-014-AV for bagasse firing.</b>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions representative of bagasse firing.</b>			

**Allowable Emissions** Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>0.03 lb/MMBtu</b>		4. Equivalent Allowable Emissions: <b>24.4 lb/hour</b> <b>97 tons/year</b>	
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 5 or 17</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Permit No. 0510003-014-AV. Emissions representative of bagasse firing only.</b>			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>PM<sub>10</sub></b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour		tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code:	
8. Calculation of Emissions (limit to 600 characters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>0.03 lb/MMBtu</b>	4. Equivalent Allowable Emissions: <b>9.4 lb/hour      9.1 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>EPA Method 5 or 17</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): <b>Emissions representative of No. 2 fuel oil firing only. Annual emissions based on proposed limit of 4,500,000 gal/yr. See Attachment UC-EU1-G8 for calculations.</b>	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

Potential/Fugitive Emissions

1. Pollutant Emitted: <b>SO<sub>2</sub></b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: <b>138.0 lb/hour</b> <b>550 tons/year</b>	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/year	
6. Emission Factor: <b>0.17 lb/MMBtu</b> Reference: <b>Permit No. 0510003-014-AV</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions (limit to 600 characters):  <b>812 MMBtu/hr x 0.17 lb/MMBtu = 138.0 lb/hr</b> <b>Annual limit from Permit No. 0510003-014-AV for bagasse firing.</b>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions representative of bagasse firing.</b>	

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>0.17 lb/MMBtu</b>	4. Equivalent Allowable Emissions: <b>138.0 lb/hour</b> <b>550 tons/year</b>
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 6</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Permit No. 0510003-014-AV. Emissions representative of bagasse firing only.</b>	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>SO<sub>2</sub></b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour		tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code:	
8. Calculation of Emissions (limit to 600 characters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>0.05 lb/MMBtu</b>		4. Equivalent Allowable Emissions: <b>15.6 lb/hour 15.2 tons/year</b>	
5. Method of Compliance (limit to 60 characters): <b>EPA Method 6</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): <b>Emissions representative of No. 2 fuel oil firing only. Annual emissions based on proposed limit of 4,500,000 gal/yr. See Attachment UC-EU1-G8 for calculations.</b>			



**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>NO<sub>x</sub></b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>203 lb/hour                      809 tons/year</b>		4. Synthetically Limited? [ ]	
5. Range of Estimated Fugitive Emissions: [ ] 1            [ ] 2            [ ] 3            _____ to _____ tons/year			
6. Emission Factor: <b>0.25 lb/MMBtu</b> Reference: <b>Permit No. 0510003-14-AV</b>		7. Emissions Method Code: <b>0</b>	
8. Calculation of Emissions (limit to 600 characters):  <b>812 MMBtu/hr x 0.25 lb/MMBtu = 203.0 lb/hr</b> <b>Annual limit from Permit No. 0510003-014-AV for bagasse firing.</b>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions representative of bagasse firing.</b>			

**Allowable Emissions** Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>0.25 lb/MMBtu</b>		4. Equivalent Allowable Emissions: <b>203 lb/hour                      809 tons/year</b>	
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 7 or 7E</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Permit No. 0510003-014-AV. Emissions representative of bagasse firing only.</b>			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted:		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour		tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code:	
8. Calculation of Emissions (limit to 600 characters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>0.2 lb/MMBtu</b>	4. Equivalent Allowable Emissions: <b>62.4 lb/hour      60.8 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>EPA Method 7 or 7E</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): <b>Emissions representative of No. 2 fuel oil firing only. Annual emissions based on proposed limit of 4,500,000 gal/yr. See Attachment UC-EU1-G8 for calculations.</b>	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>CO</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>568.4 lb/hour</b>		4. Synthetically Limited? [ ]	
		<b>2,262 tons/year</b>	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: <b>0.70 lb/MMBtu</b>		7. Emissions Method Code:	
Reference: <b>Permit No. 0510003-014-AV</b>		<b>0</b>	
8. Calculation of Emissions (limit to 600 characters):  <b>812 MMBtu/hr x 0.70 lb/MMBtu = 568.4 lb/hr</b> <b>Annual limit from in Permit No. 0510003-014-AV for bagasse firing.</b>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions representative of bagasse firing.</b>			

**Allowable Emissions** Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>0.70 lb/MMBtu</b>		4. Equivalent Allowable Emissions: <b>568.4 lb/hour</b> <b>2,262 tons/year</b>	
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 10</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Permit No. 0510003-014-AV. Emissions representative of bagasse firing only.</b>			



**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>VOC</b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: <b>172.1 lb/hour</b>	4. Synthetically Limited? [ ] <b>685 tons/year</b>
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: <b>0.212 lb/MMBtu</b> Reference: <b>Permit No. 0510003-014-AV</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions (limit to 600 characters):  <b>812 MMBtu/hr x 0.212 lb/MMBtu = 172.1 lb/hr</b> <b>Annual limit from Permit No. 0510003-014-AV for bagasse firing.</b>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions representative of bagasse firing.</b>	

**Allowable Emissions** Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>0.212 lb/MMBtu</b>	4. Equivalent Allowable Emissions: <b>172.1 lb/hour</b> <b>685 tons/year</b>
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 25 or 25A</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Permit No. 0510003-014-AV. Emissions representative of bagasse firing only.</b>	



**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>SAM</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>13.8 lb/hour</b>		4. Synthetically Limited? [ ] <b>55 tons/year</b>	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: <b>0.017 lb/MMBtu</b> Reference: <b>Permit No. 0510003-014-AV</b>		7. Emissions Method Code: <b>0</b>	
8. Calculation of Emissions (limit to 600 characters):  <b>812 MMBtu/hr x 0.017 lb/MMBtu = 13.8 lb/hr</b> <b>Annual limit from Permit No. 0510003-014-AV for bagasse firing.</b>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions representative of bagasse firing.</b>			

**Allowable Emissions** Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>0.017 lb/MMBtu</b>		4. Equivalent Allowable Emissions: <b>13.8 lb/hour</b> <b>55 tons/year</b>	
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 8 when required</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Permit No. 0510003-014-AV. Emissions representative of bagasse firing only.</b>			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>SAM</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour		4. Synthetically Limited? [ ] tons/year	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code:	
8. Calculation of Emissions (limit to 600 characters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>0.005 lb/MMBtu</b>		4. Equivalent Allowable Emissions: <b>1.6 lb/hour 1.5 tons/year</b>	
5. Method of Compliance (limit to 60 characters): <b>EPA Method 8 when required</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): <b>Emissions representative of No. 2 fuel oil firing only. Annual emissions based on proposed limit of 4,500,000 gal/yr. See Attachment UC-EU1-G8 for calculations.</b>			



**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>PB</b>		2. Total Percent Efficiency of Control: <b>99%</b>	
3. Potential Emissions: <b>3.9 x 10<sup>-4</sup> lb/hour</b>		4. Synthetically Limited? <input type="checkbox"/>	
		<b>1.6 x 10<sup>-3</sup> tons/year</b>	
5. Range of Estimated Fugitive Emissions: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3      _____ to _____ tons/year			
6. Emission Factor: <b>4.8 x 10<sup>-5</sup> lb/MMBtu</b>		7. Emissions Method Code: <b>3</b>	
Reference: <b>AP-42, Table 1.6-4 (3/02)</b>			
8. Calculation of Emissions (limit to 600 characters):  $4.8 \times 10^{-5} \text{ lb/MMBtu} \times 812 \text{ MMBtu/hr} \times (1-0.99) = 3.9 \times 10^{-4} \text{ lb/hr}$ $4.8 \times 10^{-5} \text{ lb/MMBtu} \times 6,464,880 \text{ MMBtu/yr} \times (1-0.99) \div 2,000 \text{ lb/ton} = 1.6 \times 10^{-3} \text{ ton/yr}$			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Emission factor based on wood firing, representative of bagasse firing only. See Attachment UC-EU1-G8 for potential emissions due to fuel oil firing.</b>			

**Allowable Emissions** Allowable Emissions \_\_\_\_\_ of \_\_\_\_\_

1. Basis for Allowable Emissions Code:		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:		4. Equivalent Allowable Emissions:  lb/hour                      tons/year	
5. Method of Compliance (limit to 60 characters):			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

Potential/Fugitive Emissions

1. Pollutant Emitted: <b>H021</b>		2. Total Percent Efficiency of Control: <b>99%</b>	
3. Potential Emissions: <b>8.9 x 10<sup>-6</sup> lb/hour</b> <b>3.6 x 10<sup>-5</sup> tons/year</b>		4. Synthetically Limited? [ ]	
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/year			
6. Emission Factor: <b>1.1 x 10<sup>-6</sup> lb/MMBtu</b> Reference: <b>AP-42, Table 1.6-4 (3/02)</b>		7. Emissions Method Code: <b>3</b>	
8. Calculation of Emissions (limit to 600 characters):  $1.1 \times 10^{-6} \text{ lb/MMBtu} \times 812 \text{ MMBtu/hr} \times (1-0.99) = 8.9 \times 10^{-6} \text{ lb/hr}$ $1.1 \times 10^{-6} \text{ lb/MMBtu} \times 6,464,880 \text{ MMBtu/yr} \times (1-0.99) \div 2,000 \text{ lb/ton} = 3.6 \times 10^{-5} \text{ ton/yr}$			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Emissions representative of bagasse firing only. See Attachment UC-EU1-G8 for potential emissions due to fuel oil firing.</b>			

Allowable Emissions Allowable Emissions \_\_\_\_\_ of \_\_\_\_\_

1. Basis for Allowable Emissions Code:		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:		4. Equivalent Allowable Emissions:  lb/hour      tons/year	
5. Method of Compliance (limit to 60 characters):			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  8			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>H114</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>6.5 x 10<sup>-3</sup> lb/hour      2.57 x 10<sup>-2</sup> tons/year</b>		4. Synthetically Limited? [ ]	
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/year			
6. Emission Factor: <b>7.95 x 10<sup>-6</sup> lb/MMBtu</b> Reference: <b>Based on industry stack testing (Cooper, 1999)</b>		7. Emissions Method Code: <b>5</b>	
8. Calculation of Emissions (limit to 600 characters):  $7.95 \times 10^{-6} \text{ lb/MMBtu} \times 812 \text{ MMBtu/hr} = 6.5 \times 10^{-3} \text{ lb/hr}$ $7.95 \times 10^{-6} \text{ lb/MMBtu} \times 6,464,880 \text{ MMBtu/yr} \div 2,000 \text{ lb/ton} = 2.57 \times 10^{-2} \text{ ton/yr}$			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Emissions representative of bagasse firing only. See Attachment UC-EU1-G8 for potential emissions due to fuel oil firing.</b>			

**Allowable Emissions** Allowable Emissions \_\_\_\_\_ of \_\_\_\_\_

1. Basis for Allowable Emissions Code:		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:		4. Equivalent Allowable Emissions:  lb/hour      tons/year	
5. Method of Compliance (limit to 60 characters):			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):			

**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE Limitation)**

**Visible Emissions Limitation:** Visible Emissions Limitation \_\_\_\_\_ of \_\_\_\_\_

1. Visible Emissions Subtype: <b>VE20</b>	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Requested Allowable Opacity: Normal Conditions: <b>20</b> %      Exceptional Conditions: <b>27</b> % Maximum Period of Excess Opacity Allowed: <b>6</b> min/hour	
4. Method of Compliance: <b>EPA Method 9</b>	
5. Visible Emissions Comment (limit to 200 characters):  <b>Rule 62-212.400(5), F.A.C.</b>	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units Subject to Continuous Monitoring)**

**Continuous Monitoring System:** Continuous Monitor 1 of 4

1. Parameter Code: <b>FLOW</b>	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information: Manufacturer: <b>ABB – Kent Taylor or equivalent</b> Model Number: <b>621D</b> Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):  <b>Current permit condition requires Boiler No. 7 be equipped with an oil flow measurement instrument.</b>	

**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE Limitation)**

**Visible Emissions Limitation:** Visible Emissions Limitation \_\_\_\_\_ of \_\_\_\_\_

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

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units Subject to Continuous Monitoring)**

**Continuous Monitoring System:** Continuous Monitor 2 of 4

1. Parameter Code: <b>FLOW</b>	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [ <b>X</b> ] Other
4. Monitor Information: Manufacturer: <b>ABB – Kent Taylor or equivalent</b> Model Number: <b>621D</b> Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):  <b>Current permit condition requires Boiler No. 7 be equipped with a steam production measurement instrument.</b>	



**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE Limitation)**

**Visible Emissions Limitation:** Visible Emissions Limitation \_\_\_\_\_ of \_\_\_\_\_

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

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units Subject to Continuous Monitoring)**

**Continuous Monitoring System:** Continuous Monitor  4  of  4

1. Parameter Code: <b>TEMP</b>	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [ <b>X</b> ] Other
4. Monitor Information: Manufacturer: <b>ABB – Kent Taylor or equivalent</b> Model Number: <b>600T</b> Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):  <b>Current permit condition requires Boiler No. 7 be equipped with a steam temperature measurement instrument.</b>	

**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)****Supplemental Requirements**

1. Process Flow Diagram <input checked="" type="checkbox"/> Attached, Document ID: <u>UC-EU1-J1</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input checked="" type="checkbox"/> Attached, Document ID: <u>UC-EU1-J2</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input checked="" type="checkbox"/> Attached, Document ID: <u>UC-EU1-J3</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Compliance Test Report <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
8. Supplemental Information for Construction Permit Application <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment A</u> <input type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Supplemental Requirements Comment:



**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

11. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
15. Acid Rain Part Application (Hard-copy Required) <input type="checkbox"/> Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ <input type="checkbox"/> Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**ATTACHMENT UC-EU1-G8**

**EMISSIONS CALCULATIONS**

## Attachment UC-EU1-G8. Future Maximum Emissions due to Fuel Oil, Boiler No. 7, US Sugar Corporation Clewiston

Regulated Pollutant	No. 2 Fuel Oil Combustion					Hourly Emissions (lb/hr)	Annual Emissions (TPY)
	Emission Factor (lb/MMBtu)	Ref.	Activity Factor <sup>a</sup>				
			MMBtu/hr	MMBtu/yr <sup>b</sup>			
Particulate Matter (PM)	0.03	1	312	607,500	9.4	9.1	
Particulate Matter (PM <sub>10</sub> )	0.03	1	312	607,500	9.4	9.1	
Sulfur dioxide (SO <sub>2</sub> )	0.05	1	312	607,500	15.6	15.2	
Nitrogen oxides (NO <sub>x</sub> )	0.2	1	312	607,500	62.4	60.8	
Carbon monoxide (CO)	0.066	1	312	607,500	20.6	20.0	
Volatile Organic Compound (VOC)	0.004	1	312	607,500	1.2	1.2	
Lead (Pb)	9.0E-06	2	312	607,500	2.8E-05	2.7E-05	
Sulfuric acid mist (SAM)	0.005	1	312	607,500	1.6	1.5	
Beryllium (Be)	3.0E-06	2	312	607,500	9.4E-06	9.1E-06	
Mercury (Hg)	3.0E-06	2	312	607,500	9.4E-04	9.1E-04	

<sup>a</sup> Based on proposed maximum heat input due to fuel oil combustion.

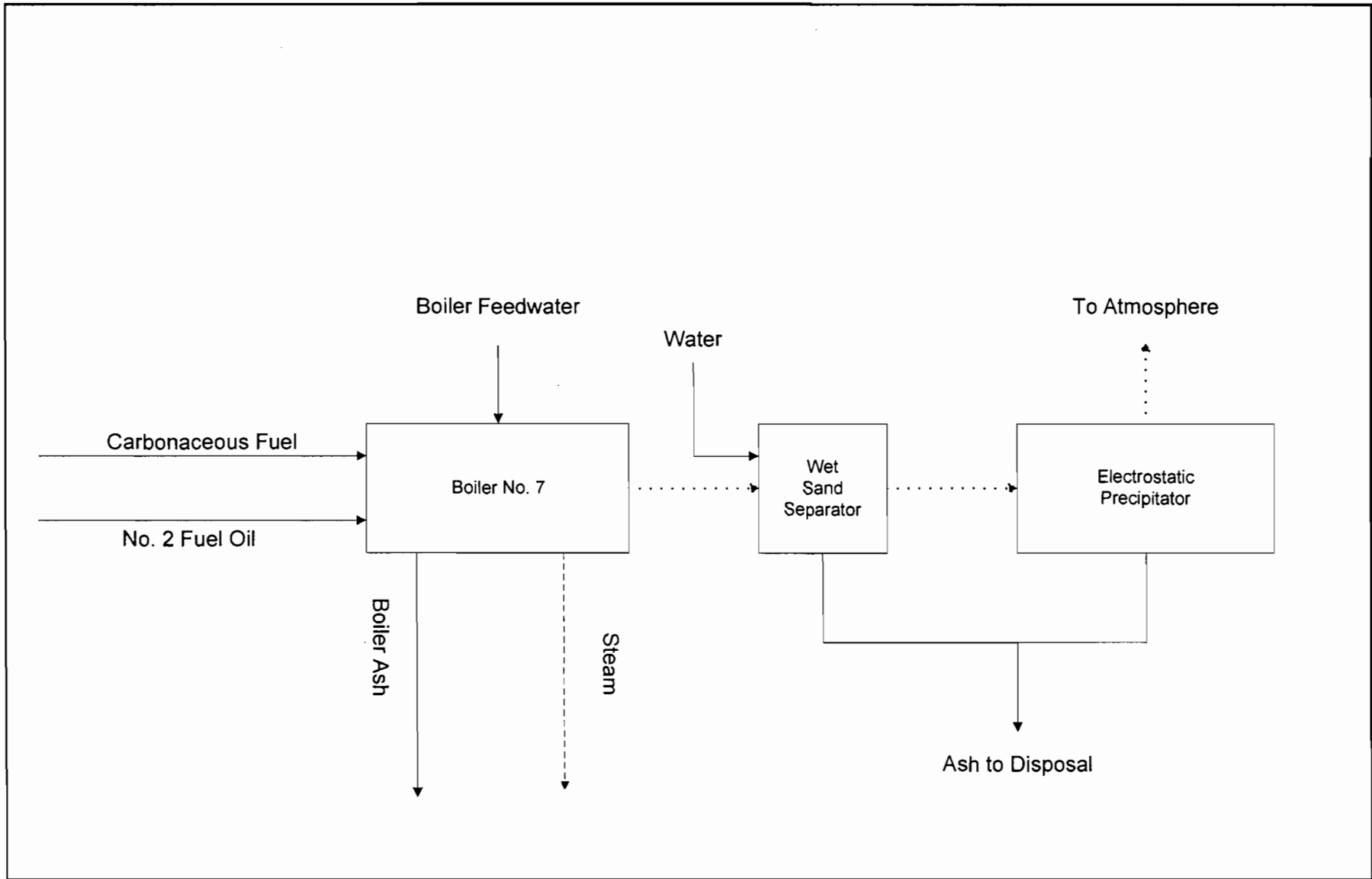
<sup>b</sup> Based on proposed maximum allowable fuel usage of 4,500,000 gallons per year and 135,000 Btu/gal.

## References:

1. Based on Permit No. 0510003-14-AV.
2. Factors for No. 2 fuel oil combustion, AP-42 Table 1.3-10, "Emission Factors for Trace Elements from Distillate Fuel Oil Combustion Sources" (9/98). Assumes a 99% removal efficiency for lead and beryllium due to ESP control.

**ATTACHMENT UC-EU1-J1**

**PROCESS FLOW DIAGRAM**



Attachment UC-EU1-J1  
 Process Flow Diagram  
 U.S. Sugar Corporation  
 Clewiston Mill, Florida

**Process Flow Legend**  
 Solid/Liquid ———→  
 Air .....→  
 Steam - - - - -→

Boiler No. 7  
 Project Number: 0237584\4\4.4\4.1  
 Filename: UC-EU1-J1.VSD  
 Date: 10/8/02



**ATTACHMENT UC-EU1-J2**

**FUEL ANALYSIS**

**ATTACHMENT UC-EU1-J2**

**Boiler No. 7 Fuel Analysis**

Parameter	Fuel	
	Carbonaceous Fuel <sup>a</sup>	No. 2 Fuel Oil (0.05% S max)
Density (lb/gal)	--	6.83
Approximate Heating Value (Btu/lb)	3,600 <sup>b</sup>	19,910
Approximate Heating Value (Btu/gal)	--	135,000
<u>Ultimate Analysis (dry basis):</u>		
Carbon	48.48%	84.7%
Hydrogen	6.01%	15.3%
Nitrogen	0.33%	0.015% <sup>c</sup>
Oxygen	43.65%	0.38%
Sulfur	0.01% - 0.40%	0.05% <sup>c</sup>
Ash/Inorganic	0.2% - 8.6%	0.06% <sup>d</sup>
Moisture	50% - 55%	0.51% <sup>d</sup>

Represents typical values.

<sup>a</sup> Source: sugar industry fuel analysis averages.

<sup>b</sup> Wet basis for bagasse.

<sup>c</sup> Permit limits, Permit No. 0510003-014-AV.

<sup>d</sup> Source: Perry's Chemical Engineer's Handbook. Sixth Edition, 1984.  
Represents average fuel characteristics.

**ATTACHMENT UC-EU1-J3**

**DETAILED DESCRIPTION OF CONTROL EQUIPMENT**



Attachment UC-EU1-J3a  
Control Equipment Parameters for Boiler No. 7  
at U. S. Sugar Clewiston Mill

WET SAND SEPARATOR

Control Device Type Manufacturer and Model No.	Wet Cyclone Custom Design
Flue Gas Temp (°F)	350
Flue Gas Flow Rate (acfm)	355,000
Moisture (% Volume)	28.1
Cyclone Diameter (ft)	19
Cyclone Height (ft)	32
No. of Spray Nozzles (Cyclone)	3
No. of Spray Nozzles (Inlet Duct)	15
Total Water Flow to Nozzles (gpm)	40

**Attachment UC-EU1-J3b**  
**Control Equipment Parameters and Particulate Removal Efficiency Derivation for Boiler No. 7**  
**Electrostatic Precipitator; U. S. Sugar Clewiston Mill**

Manufacturer and Model No.	ABB ESP Model 1 Only FTA 3X30.0 M-104-120		
Flue Gas Temp (°F)	350		
Flue Gas Flow Rate (acfm)	355,000		
Moisture (% Volume)	28.1		
No. of Precipitators	1		
No. of Chambers	1		
No. of Cells per Chamber	1		
Number of Fields	3		
Field Height (ft)	39.37		
Field Depth, each (ft)	9.84		
Total Treatment Length (ft)	29.62		
Number Gas Passages (total)	26		
Spacing Gas Passages (inches)	15.75		
Total Installed Collection Area per Precipitator (ft <sup>2</sup> )	60,456		
Pollutants	Inlet Loading (lb/hr)	Outlet Loading (lb/hr)	Control Efficiency %
Particulate Matter	1,379	20.299	98.52

Note: ESP parameters represent supplier design specifications.

Sample calculations:

$$\text{Control efficiency (\%)} = [(\text{inlet loading} - \text{outlet loading}) / \text{inlet loading}] \times 100$$

**ATTACHMENT A**

**SUPPLEMENTAL INFORMATION FOR  
CONSTRUCTION PERMIT APPLICATION**

## 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 Title V operating permit No. 0510003-014-AV. The location of the mill in relation to the surrounding area is shown in Attachment UC-FI-C1. U.S. Sugar harvests sugar cane and transports it to the Clewiston Mill, where the cane is processed into raw sugar in the mill. U.S. Sugar sells some of the raw sugar, but the majority of the raw sugar is refined into white sugar.

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, 3, and 4 operate primarily during the crop season, which is typically October through June, to provide steam to the sugar mill April. Boiler No. 7 operates year-around to provide steam to the sugar mill during the crop season and steam to the sugar refinery during the off-season. Boiler No. 7 is the primary boiler used to meet the steam demands of the refinery during the off-crop season. Boiler Nos. 1 through 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.

Boiler No. 7 is permitted to burn bagasse and low-sulfur fuel oil. U. S. Sugar is proposing to increase the maximum steaming rate due to oil burning in Boiler No. 7 from 175,000 pounds per hour (lb/hr) steam to 225,000 lb/hr steam. The maximum heat input due to oil will increase from 250 million British thermal units per hour (MMBtu/hr) to 321 MMBtu/hr. To implement this increase, U.S. Sugar will need to make certain physical changes to the fuel oil burner system. The permitted steam rate from bagasse firing, bagasse firing rates, and bagasse heat input rates will not change as a result of the changes to the fuel oil system.

The primary reason for increasing the steaming rate on oil for Boiler No. 7 is to more reliably supply the sugar refinery with adequate steam in the event that bagasse becomes unavailable during the off-season. Typically, if Boiler No. 7 is operating during the off-season, the other mill boilers are shut down. In this case, if the bagasse supply is temporarily interrupted, it is not possible to immediately use one of these other mill boilers because of the extended time required to start up a bagasse boiler. Maintaining steam production under conditions when the bagasse supply is interrupted is critical to the reliable and efficient operation of the sugar refinery.

The remainder of this report is divided into two sections. Section 2.0 describes the proposed project in further detail, including air emissions. Section 3.0 provides a review of regulatory requirements applicable to the project.

## 2.0 PROJECT DESCRIPTION

### 2.1 PROPOSED PROJECT

U.S. Sugar is proposing to increase the maximum steam generating rate from fuel oil firing for Boiler No. 7. The current maximum steam generation rate from fuel oil firing is 175,000 lb/hr steam. This will be increased to 225,000 lb/hr steam by increasing the heat input from fuel oil from 250 MMBtu/hr to 321 MMBtu/hr. U.S. Sugar is also proposing to reduce the annual fuel oil firing limit from 4,600,000 gallons per year (gal/yr) to 4,500,000 gal/yr.

The increased steam generation from fuel oil will primarily be utilized during the off-crop season. During the off-season, Boiler No. 7 is the primary unit that meets the steam demands of the refinery. Boiler Nos. 1 through 4 are used as backup units when Boiler No. 7 is down for maintenance, repair or during periods of unusually low steam demand. Therefore, Boiler No. 7 is often the only boiler operating during the off-season.

Under such conditions, when bagasse becomes unavailable due to bagasse conveyor breakdown, rainy conditions, etc., steam production may have to be reduced. Boiler No. 7 may be able to continue to operate utilizing fuel oil, but may not be able to meet the steam demands of the refinery at the current permitted fuel oil firing rate. At times like this, typically U.S. Sugar cannot automatically switch to another boiler because the other boilers are shut down. Cold startup of another boiler would take 12 to 24 hours. With the increase in fuel oil firing, Boiler No. 7 can continue to provide sufficient steam to the refinery without significant interruption.

Interruption of steam supply to the refinery results in operating inefficiencies in the refinery. Equipment must be throttled back and refined sugar production is reduced. The refinery must then be operated longer hours to make up for the lost production. This results in increased labor and operating costs for the refinery.

To implement the increased fuel oil burning capability, U.S. Sugar will need to make certain physical changes to Boiler No. 7. Two new No. 2 fuel oil pumps will be installed. Each fuel oil pump will be capable of providing sufficient fuel oil flow and pressure to provide 225,000 lb/hr steam. The existing burners will be modified as well. The burners will be configured as modern burner registers, which are designed with significant reduction in register draft loss (RDL) for the same required combustion air flow. The modified burners coupled with the new fuel pumps will allow the boiler to

produce 225,000 lb/hr steam at 600 pounds per square inch gauge (psig) and 750 degrees Fahrenheit (°F).

Bagasse firing rates or steam production for Boiler No. 7 will not be affected by the increase in fuel oil firing rate. The increased heat input from fuel oil will primarily be used when the bagasse supply is interrupted. U.S. Sugar intends to burn bagasse when it is available because it is much cheaper than No. 2 fuel oil. Typically, No. 2 fuel oil is burned out of necessity.

## **2.2 PROJECT EMISSIONS**

The estimated maximum hourly and annual emissions for the increased fuel oil firing in Boiler No. 7 are presented in Attachment UC-EU1-G8. Emissions due to bagasse firing are not presented in this application since they will not increase as a result of this project.

The emission factors used for particulate matter [both PM and particulate matter less than 10 microns (PM<sub>10</sub>)], sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), volatile organic compounds (VOC), and sulfuric acid mist (SAM) are based on current emission limits for Boiler No. 7 as presented in Permit No. 0510003-014-AV. The emission factors for lead, mercury, and beryllium are from the U.S. Environmental Protection Agency's (EPA's) AP-42, Table 1.3-10, "Emission Factors for Trace Elements from Distillate Fuel Oil Combustion Services" (see Appendix A). A removal efficiency of 99 percent for lead and beryllium is assumed due to control by the wet sand separator and the electrostatic precipitator (ESP). The activity factors are based on the proposed maximum fuel oil heat input of 312 MMBtu/hr and proposed fuel oil usage limit of 4,500,000 gal/yr of fuel oil.

The current actual emissions from Boiler No. 7 due to fuel oil firing are presented in Table 1. The current actual emissions are based on the average emissions from 2000 and 2001. The emissions from 2000 and 2001 are from U.S. Sugar's annual operating reports (AORs) for each respective year. Lead, beryllium, and mercury have not been required to be reported in the AORs, so these emissions were calculated using AP-42 factors for distillate oil combustion and the activity factors for each respective year. As with the future potential emissions, a removal efficiency of 99 percent for lead and beryllium is assumed due to wet sand separator/ESP control.

### 3.0 AIR QUALITY REVIEW REQUIREMENTS AND APPLICABILITY

The following discussion pertains to the federal and state air regulatory requirements and their applicability to the proposed increase in fuel oil firing rate for Boiler No. 7.

#### 3.1 PSD REVIEW

Under federal and State of Florida Prevention of Significant Deterioration (PSD) review requirements, all major new or modified sources of air pollutants regulated under the Clean Air Act (CAA) must be reviewed and a pre-construction permit issued. Florida's State Implementation Plan, which contains PSD regulations, has been approved by EPA; therefore, PSD approval authority has been granted to the Florida Department of Environmental Protection (FDEP).

A "major facility" is defined as any one of 28 named source categories that have the potential to emit 100 tons per year (TPY) or more or any other stationary facility that has the potential to emit 250 TPY or more of any pollutant regulated under the CAA. "Potential to emit" means the capability, at maximum design capacity, to emit a pollutant after the application of control equipment. A "major modification" is defined under PSD regulations as a change at an existing major facility that increases emissions by greater than significant amounts.

The net change in emissions due to the proposed project is presented in Table 2. The net increase due to the project is determined by subtracting Boiler No. 7's current actual emissions due to fuel oil burning from the future potential emissions resulting from fuel oil burning. The future emissions reflect the proposed annual usage cap of 4,500,000 gal/yr of fuel oil.

The net increase due to the project is compared to PSD significant emission rates in Table 2. As shown in Table 2, the increases due to this project do not exceed any PSD significant emission rates, and therefore PSD review is not applicable. PSD review is also not applicable for the following reasons:

- Steam rates, heat input rates and firing rates for bagasse will not be affected by these changes;
- The increased fuel oil firing rate will occur when the bagasse has been interrupted and sufficient steam is not available to meet the demands of the sugar refinery;
- U.S. Sugar intends to burn bagasse when it is available because it is cheaper than fuel oil;



- Emission factors in terms of lb/MMBtu are lower for No. 2 fuel oil compared to bagasse burning, so emissions will not increase due to the increased firing of No. 2 fuel oil; and
- The increased fuel oil firing rate will primarily occur during the off-crop season when the other boilers are shutdown.

### **3.2 NEW SOURCE PERFORMANCE STANDARDS**

The New Source Performance Standards (NSPS) are a set of national emission standards that apply to specific categories of new sources. Boiler No. 7 is already subject to NSPS Subpart Db for Industrial Steam Generating Units. Subpart Db regulates SO<sub>2</sub>, NO<sub>x</sub>, and PM emissions from steam generating units. Boiler No. 7 is in compliance with the standards established in Subpart Db.

Review of Subpart Db indicates that no further restrictions or requirements would be placed on Boiler No. 7 by increasing the fuel oil firing rate to 225,000 lb/hr steam (312 MMBtu/hr). Boiler No. 7 will comply with the NSPS for SO<sub>2</sub> and PM burning very low sulfur fuel oil (i.e., fuel oil with a sulfur content of 0.5 percent or less). The boiler will continue to be exempt from the NO<sub>x</sub> emission standards by maintaining a cap on annual fuel oil usage, not to exceed the 10 percent annual capacity factor (40 CFR 60.44b(d)).

Table 1. Current Actual Emissions Due to Fuel Oil Consumption,  
 Boiler No. 7, U.S. Sugar Corporation Clewiston

Regulated Pollutant	Actual Emissions <sup>a</sup> (TPY)		
	2000	2001	Average
Particulate Matter (PM)	1.49	2.44	1.97
Particulate Matter (PM <sub>10</sub> )	1.27	2.07	1.67
Sulfur Dioxide (SO <sub>2</sub> )	5.86	8.66	7.26
Nitrogen Oxides (NO <sub>x</sub> )	17.92	29.29	23.60
Carbon Monoxide (CO)	3.73	6.10	4.92
Volatile Organic Compound (VOC)	0.15	0.24	0.20
Lead - Total	9.0E-06	1.5E-05	1.2E-05
Sulfuric Acid Mist (SAM)	0.21	0.35	0.28
Beryllium (Be)	3.0E-06	4.9E-06	4.0E-06
Mercury (Hg)	3.0E-04	4.9E-04	4.0E-04

<sup>a</sup> Based on emissions due to fuel oil from calendar years 2000 and 2001.

Table 2. Net Change in Emissions Due to Increase in Fuel Oil Firing Rate, Boiler No. 7, U.S. Sugar Corporation Clewiston

Regulated Pollutant	Actual Emissions <sup>a</sup> (TPY)	Future Potential Emissions <sup>b</sup> (TPY)	Net Change in Emissions (TPY)	PSD Significant Emission Rate (TPY)	PSD Review Applies?
Particulate Matter (PM)	1.97	9.1	7.1	25	NO
Particulate Matter (PM <sub>10</sub> )	1.67	9.1	7.4	15	NO
Sulfur Dioxide (SO <sub>2</sub> )	7.26	15.2	7.9	40	NO
Nitrogen Oxides (NO <sub>x</sub> )	23.60	60.8	37.1	40	NO
Carbon Monoxide (CO)	4.92	20.0	15.1	100	NO
Volatile Organic Compound (VOC)	0.20	1.2	1.0	40	NO
Lead - Total	1.2E-05	2.7E-05	1.6E-05	0.6	NO
Sulfuric Acid Mist (SAM)	0.28	1.5	1.2	7	NO
Beryllium (Be)	4.0E-06	9.1E-06	5.1E-06	4.0E-04	NO
Mercury (Hg)	4.0E-04	9.1E-04	5.1E-04	0.1	NO

<sup>a</sup> Based on emissions due to fuel oil from calendar years 2000 and 2001.

<sup>b</sup> Based on proposed fuel oil firing rate. See Attachment UC-EU1-G8 for calculations.

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1. Article Addressed to:

Mr. William A. Raiola  
 Vice President of Sugar Processing Operations  
 United States Sugar Corp./ Clewiston Sugar Mill and Refinery  
 111 Ponce DeLeon Avenue  
 Clewiston, FL 33440

2. Article Number (Copy from service label)

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PS Form 3811, July 1999

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*Lynda Hammond* *1/10/00*

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*Lynda Hammond*  Agent  
 Addressee

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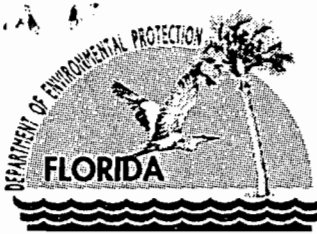
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 City, State, ZIP+4  
 Clewiston, FL 33440

PS Form 3800, May 2000

See Reverse for Instructions



Jeb Bush  
Governor

# Department of Environmental Protection

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

David B. Struhs  
Secretary

November 6, 2003

## CERTIFIED MAIL

Mr. William A. Raiola, V.P. of Sugar Processing Operations  
United States Sugar Corporation, Clewiston Sugar Mill and Refinery  
111 Ponce DeLeon Avenue  
Clewiston, FL 33440

Re: Unites States Sugar Corporation, Clewiston Sugar Mill and Refinery  
Boiler 4, Modified Fuel Oil System  
Air Permit No. 0510003-018-AC

Dear Mr. Raiola:

On November 3, 2003, the Department received a letter from Golder Associates Inc. requesting approval for the addition of an 80,000 acfm auxiliary fan to provide sufficient combustion air for the modified fuel oil firing system being added to Boiler 4. On November 5, 2003, the Department received by fax a copy of the manufacturer's specification sheets for the proposed fan. The addition of this fan will allow the system to achieve the target steam production of 225,000 lb/hour when firing oil. This will not affect the maximum emission rates, which the Department relied upon in issuing the permit. Although not specifically proposed in the original project, the Department agrees that the addition of this fan is within the scope of work authorized by Air Permit No. 0510003-018-AC. Therefore, the Department does not believe it is necessary to modify the permit to perform this work. If you have any questions regarding this matter, please contact Jeff Koerner at 850/921-9536.

Sincerely,

Trina Vielhauer, Chief  
Bureau of Air Regulation

cc: Mr. Don Griffin, U.S. Sugar Corp.  
Mr. Peter Briggs, U.S. Sugar Corp.  
Mr. David Buff, Golder Associates Inc.  
Mr. Ron Blackburn, SD Office

"More Protection, Less Process"

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Golder Associates Inc.

6241 NW 23rd Street, Suite 500  
Gainesville, FL 32653-1500  
Telephone (352) 336-5600  
Fax (352) 336-6603

October 25, 2003

RECEIVED



Golder  
Associates

NOV 03 2003

0337546

Florida Department of Environmental Protection BUREAU OF AIR REGULATION  
Department of Air Resources Management  
2600 Blair Stone Road, MS 5500  
Tallahassee, FL 32399-2400

Attention: Mr. Jeffery Koerner, P. E.

RE: UNITED STATES SUGAR CORPORATION (U.S. SUGAR) – CLEWISTON MILL  
BOILER NO. 4 FUEL OIL BURNING INCREASE  
AIR PERMIT NO. 0510003-018-AC

Dear Mr. Koerner:

U. S. Sugar was granted an air construction permit No. 0510003-018-AC on June 6, 2003, for the upgrading of the fuel oil burning system on Boiler No. 4 at the Clewiston Mill. The permit authorized the installation of two multi-stage fuel oil burners each with a flame scanner, fuel/steam valve train, oil gun with ignitor and flame proving rod, windbox, pump set, and a burner management system.

U. S. Sugar has installed the authorized equipment and has entered the shakedown period for the equipment. Based on oil-firing performance tests, the maximum desired steam rate when firing fuel oil only (225,200 lb/hr steam) could not be achieved. Through further investigation, it was determined that insufficient combustion air was being provided at the two burner windboxes to support the maximum firing rate. As installed, the two windboxes do not have air fans. Combustion air is pulled in through the windboxes based on the negative pressure in the boiler created by the ID fan.

In order to correct this problem, an air fan must be installed to provide combustion air to the windboxes. The manufacturer has proposed a single auxiliary fan of approximately 80,000 cfm capacity (i.e., 40,000 cfm per windbox at maximum capacity). During operations, the fan speed will be adjusted appropriately to provide the correct amount of combustion air, based on load and oil firing rate.

This change will not affect any of the other specifications provided in the construction permit application for this project. The proposed maximum fuel oil firing rate and heat input rate will not be affected. Further, the estimated emissions for the fuel oil burning project will not be affected.

We request that the Department approve the request to add the auxiliary fan and appurtenances, in order to achieve the design steaming rate for fuel oil firing in Boiler No. 4. Please call or e-mail me if you have any questions concerning this request.

Sincerely,

GOLDER ASSOCIATES INC.

*David A. Buff*

David A. Buff, P.E., Q.E.P.  
Principal Engineer  
Florida P. E. # 19011

DB/jkw  
Enclosure

cc: Don Griffin  
Ron Blackburn, DEP  
Y:\Projects\2003\0337546 US Sugar Blr 7-4-4.1\1.103103.doc

# Golder Associates Fax

To: Jeffery Koerner, P. E.

Fax Number: 850-921-9533

Company: FDEP, Tallahassee

Date: November 5, 2003

From: David Buff

e-mail: @golder.com

Our ref: 003-7653-0100

Voice Mail:

RE: Twin City Fan & Blower

Total pages (including cover): 5

Hard copy to follow

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## MESSAGE

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U.S.A.  
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Customer: United States Sugar Corp.  
 Job Name: US Sugar Unit 4 Fan  
 Job ID: US Sugar Unit 4

October 20, 2003  
 Page: 1

Fan Description	Fan Performance	Motor Data
Tag ..... Unit # 4 Fan	CFM ..... 81,250	HP ..... 200
Quantity ..... 1	Operating SP (in.wg) ..... 6	RPM ..... 1200
Type ..... BCS	Standard SP (in.wg) ..... 6.34	Voltage ..... 480V
Size ..... 542	RPM ..... 1184	Phase ..... 3
Width ..... SWSI	Tip Speed (fpm) ..... 16,816	Hz ..... 60
Arrangement ..... 8	Oper. BHP ..... 144.46	Enclosure ..... TEFC
Class ..... 17	Standard BHP ..... 152.64	Efficiency ..... Prm.Eff.
Rotation ..... W/A	Outlet area (sq. ft) ..... 16.4	Frame ..... 449T
Discharge ..... W/A	Outlet Velocity (fpm) ..... 4,953	
Wheel diameter (in.) ..... 54.25	Temperature (°F) ..... 100	
Drive method . . . 60 Hz direct drive	Altitude (ft) ..... 0	
Percentage width ..... 91%	Density (lb/ft³) ..... 0.071	
Percentage diameter ..... 100%	Max RPM for Class ..... 1335	
	Static Efficiency ..... 53.04	
	Mechanical Efficiency ..... 65.84	

**Modifiers**

Compressibility, % width: 91%, Nested Vane

**Sound**

Sound Power Levels in dB re. 10<sup>-12</sup> Watts:

Octave Bands	1	2	3	4	5	6	7	8	LWA
Level at Inlet	110	106	107	106	105	103	96	88	109

Estimated sound pressure level in dBA (re: 0.0002 microbar) based on a single\* ducted installation:

Distance in ft	1	3	5
dBA at Inlet	109	99	95

\*To estimate dBA level for ducted inlet and ducted outlet (into and out of the room) type installation, deduct 20 from the LWA value shown.

Using a directivity factor of 1.

Estimated Sound Pressure based on free field, spherical (Q = 1) radiation at the stated distance.

**Definitions:**

LWA The overall (single value) fan sound power level, 'A' weighted.

dBA The environment for each fan installation influences its measured sound value, therefore dBA levels cannot be guaranteed. Consult AMCA Publication 303 for further details. A fan's dBA is influenced by nearby reflective surfaces.





Customer: United States Sugar Corp.

Fan Tag: Unit # 4 Fan

CFM: 81,250

Job ID: US Sugar Unit 4

Model: 542 BCS

SP: 8 in.wg

Represented By: Derek Embody & Company (813) 960-2270

RPM: 1184

BHP: 144.46

Outlet Velocity: 4,953

Density: 0.071

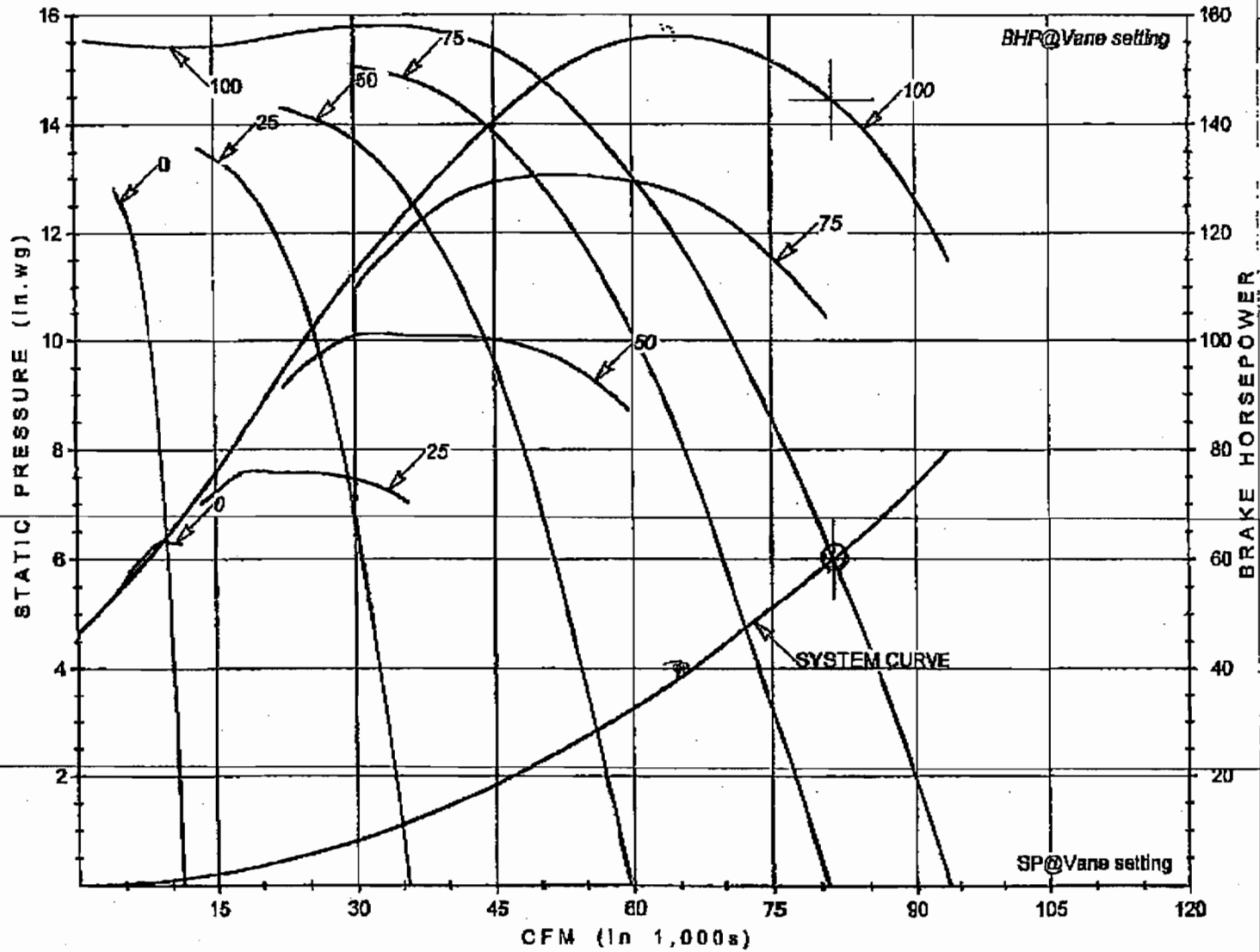
Corrected for:  
Compressibility

% width: 91%

Nested Vane

Temperature 100°F

TWIN CITY FAN AND BLOWER PERFORMANCE CURVE



10/20/03 17:20



Customer: United States Sugar Corp.

Fan Tag: Unit # 4 Fan

CFM:        81,250

Job ID: US Sugar Unit 4

Model: 542 BCS

SP:        8 in.wg

Represented By: Derek Embody & Company (813) 980-2270

RPM:        1184

BHP:        144.46

Outlet Velocity:        4,953

Density:        0.071

Corrected for:  
Compressibility

% width: 91%

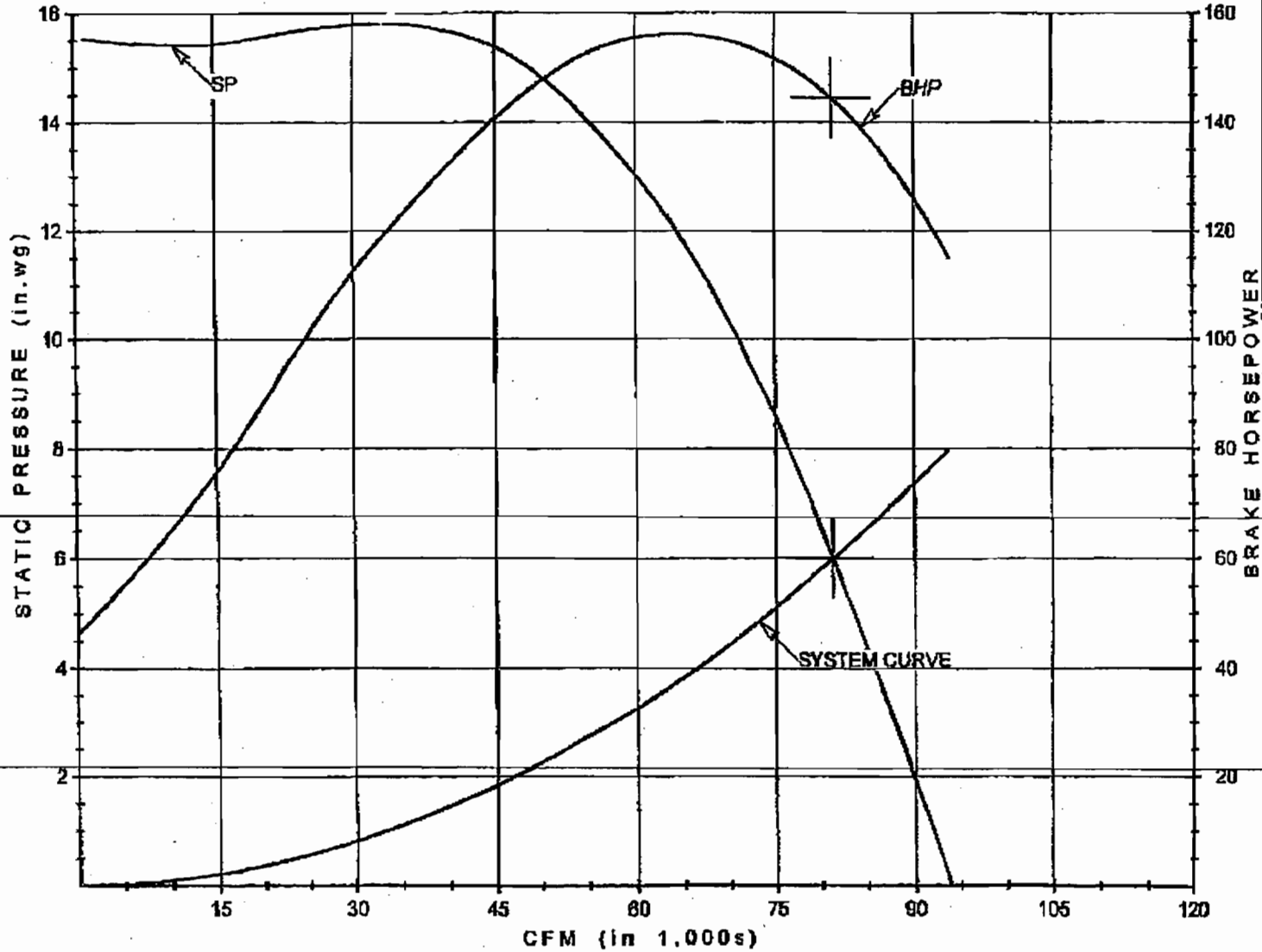
Nested Vane

Temperature 100°F

Inlet Sound Power		
Octave	Level	
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2	108	
3	107	
4	108	
5	105	
6	103	
7	98	
8	88	

10/20/03 17:20

TWIN CITY FAN AND BLOWER PERFORMANCE CURVE



P. 5/6

NO. 369

USSS/SUGAR PROC. ADM.

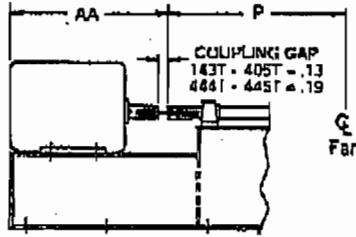
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109

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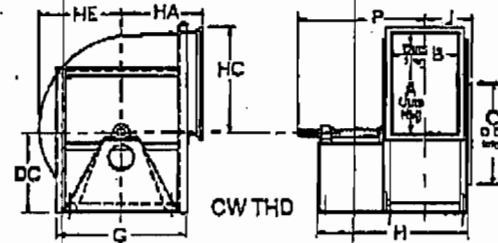
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# Type BCS

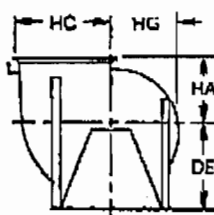


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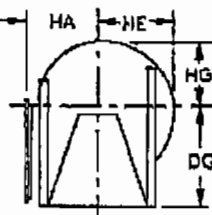
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182T-184T	14.75	16.38
213T-215T	17.38	20.38
264T-266T	22.63	25.88
284T-286T	25.50	29.00
324T-326T	28.63	32.13
384T-386T	29.88	34.50
404T-406T	34.38	41.38
444T-446T	40.18	49.19



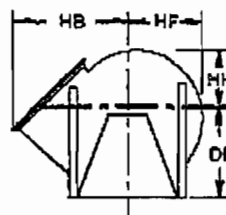
ARRANGEMENT 1



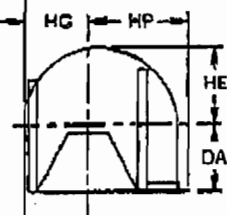
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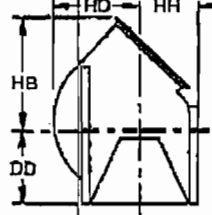
CW BHD



CW BAU



CW DBD



CW TAU

SIZE	A	B	C	DA	DC	DD	DE	DF	DI	DJ	DK	GL	HA
270	28.88	21.58	28.80	21.66	22.00	23.50	24.75	26.25	31.50	38.00	44.63	21.44	
300	32.00	23.94	31.83	23.81	24.50	26.00	27.50	29.50	34.75	42.00	51.50	23.81	
330	35.44	26.31	34.75	26.25	27.00	28.50	30.00	32.25	37.75	45.00	55.88	26.25	
385	39.00	28.13	38.50	29.50	29.50	31.50	33.50	35.50	41.50	49.00	60.13	29.00	
402	42.94	32.08	42.44	32.00	33.00	35.25	37.00	39.50	46.00	52.50	66.13	32.00	
445	47.44	35.44	46.88	35.38	35.50	38.60	40.00	42.25	50.50	57.50	74.50	35.38	
490	52.25	38.88	51.63	38.00	39.00	42.25	44.00	47.50	55.75	62.50	79.88	38.00	
542	57.69	43.13	57.13	43.00	43.50	46.50	49.00	52.25	61.25	68.00	84.13	43.00	
600	63.81	47.58	63.13	47.68	48.00	51.25	54.00	57.50	67.25	74.00	91.63	47.68	
660	70.00	52.41	69.38	52.44	52.60	56.75	60.00	63.00	73.75	81.00	99.50	52.44	
730	77.60	57.81	76.75	58.00	57.00	61.75	64.50	69.50	81.25	89.00	106.88	58.00	
807	85.89	63.88	84.88	64.18	63.00	67.50	72.00	76.50	89.50	96.50	113.88	64.18	
890	94.38	70.25	93.38	70.00	69.25	73.75	78.25	85.00	96.25	107.50	123.25	70.00	

SIZE	HE	HC	HD	HE	HF	HG	HI	HP	J	ARR. 1	ARR. 8
270	38.88	20.88	24.81	23.31	21.94	20.56	19.19	31.69	14.81	40.06	37.31
300	40.75	23.81	27.50	25.81	24.31	22.81	21.31	33.81	17.00	44.25	40.50
330	44.88	27.18	30.25	28.50	26.81	25.13	23.44	39.19	18.19	48.44	43.89
385	49.31	30.75	33.89	31.83	29.75	27.88	26.00	42.75	19.56	51.56	47.56
402	54.25	34.88	37.13	34.81	32.75	30.69	28.63	47.69	22.05	56.05	51.56
445	59.81	39.19	41.06	38.38	36.13	33.88	31.63	53.19	24.75	61.75	57.25
490	65.75	44.00	45.00	42.31	39.81	37.31	34.81	58.00	26.44	66.44	62.94
542	72.81	49.84	49.84	46.81	44.06	41.31	38.56	63.44	28.56	71.56	68.08
600	80.44	56.08	53.13	51.81	48.75	45.89	42.83	69.66	30.81	74.81	74.81
660	88.19	62.25	60.56	58.94	53.50	50.06	46.63	76.75	33.25	79.25	79.50
730	97.38	70.75	67.06	65.00	59.25	55.50	51.75	83.25	35.94	86.44	83.19
807	107.66	80.94	74.19	72.63	66.50	61.38	57.25	91.44	38.94	92.44	88.44
890	117.81	90.63	81.69	78.75	72.18	67.88	63.06	100.13	42.13	99.13	92.83

- NOTES:
1. CW rotation shown, CCW rotation similar but opposite.
  2. Punched outlet flange is standard on all sizes.
  3. Maximum dimensions are shown.
  4. Dimensions are not to be used for construction. Certified drawings available upon request.
  5. Please use the Twin City Fan Selector Program or contact your Twin City Fan & Blower sales representative for standard drawings for fans in Arrangement 1 and Arrangement 9F.

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> <li>Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	A. Received by (Please Print Clearly) <i>Diyonda Hammond</i> B. Date of Delivery <i>11-10-07</i>
1. Article Addressed to:  Mr. William A. Raiola Vice President of Sugar Processing Operations United States Sugar Corp./ Clewiston Sugar Mill and Refinery 111 Ponce DeLeon Avenue Clewiston, FL 33440	C. Signature <i>X LiFonda Hammond</i> <input type="checkbox"/> Agent <input checked="" type="checkbox"/> Addressee
2. Article Number (Copy from service label) 7000 2870 0000 7028 3376	D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No
PS Form 3811, July 1999	3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.
Domestic Return Receipt	4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes
102595-99-M-1789	

**U.S. Postal Service**  
**CERTIFIED MAIL RECEIPT**  
*(Domestic Mail Only; No Insurance Coverage Provided)*

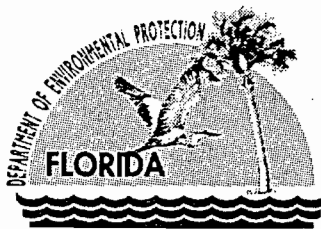
**OFFICIAL USE**

<table border="1"> <tr> <td>Postage</td> <td>\$</td> </tr> <tr> <td>Certified Fee</td> <td></td> </tr> <tr> <td>Return Receipt Fee (Endorsement Required)</td> <td></td> </tr> <tr> <td>Restricted Delivery Fee (Endorsement Required)</td> <td></td> </tr> <tr> <td><b>Total Postage &amp; Fees</b></td> <td><b>\$</b></td> </tr> </table>	Postage	\$	Certified Fee		Return Receipt Fee (Endorsement Required)		Restricted Delivery Fee (Endorsement Required)		<b>Total Postage &amp; Fees</b>	<b>\$</b>	Postmark Here
Postage	\$										
Certified Fee											
Return Receipt Fee (Endorsement Required)											
Restricted Delivery Fee (Endorsement Required)											
<b>Total Postage &amp; Fees</b>	<b>\$</b>										

**Sent To**  
 William A. Raiola  
 Street, Apt. No.; or PO Box No.  
 111 Ponce DeLeon Ave.  
 City, State, ZIP+ 4  
 Clewiston, FL 33440

PS: Form 3800, May 2000 See Reverse for Instructions

7000 2870 0000 7028 3376



Jeb Bush  
Governor

# Department of Environmental Protection

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

David B. Struhs  
Secretary

## NOTICE OF ADMINISTRATIVE PERMIT CORRECTION

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. William A. Raiola, V.P. of Sugar Processing Operations  
United States Sugar Corporation  
111 Ponce DeLeon Avenue  
Clewiston, FL 33440

Re: U.S. Sugar Corporation, Clewiston Sugar Mill and Refinery  
Air Permit No. 0510003-018-AC  
Boilers 4/7, Modified Oil Firing Systems  
Administrative Permit Correction

Dear Mr. Raiola:

On June 6, 2003, the Department issued an air construction permit authorizing an upgrade to the oil firing systems for Boilers 4 and 7. On June 19, 2003, the Department received a letter from the engineer of record, David Buff, requesting an amendment of this permit. The final permit specifies the maximum oil firing rate for Boiler 7 as 2311 gallons per hour, which is consistent with the original application. However, U.S. Sugar later modified this information in a letter dated December 18, 2002. The correct maximum oil firing rate for Boiler 7 should be the same as Boiler 4, which is 2417 gallons per hour. The Department reviewed the file and agrees that the permit should be amended to reflect the slightly higher oil firing rate. Permit No. 0510003-018-AC is hereby amended as follows:

### Final Permit, Page 7 of 9, Performance Restrictions:

- Oil Firing Restrictions: No more than ~~2417~~<sup>2311</sup> gallons of distillate oil shall be fired per hour and no more than 4,500,000 gallons of distillate oil shall be fired during any consecutive 12-month period. The permittee shall install, calibrate, operate, and maintain an individual fuel oil flow meter with integrator. *{Permitting Note: The annual oil firing limit ensures that the annual capacity factor (as defined in 40 CFR 60.41b) remains below 10% and avoids applicability of the NOx standard in accordance with 40 CFR 60.44b(l)(1). The hourly firing rate was amended from 2311 to 2417 gallons per hour on June 20, 2003.}* [Design; Permit No. PSD-FL-208; Rule 62-212.400, F.A.C.; and 40 CFR 60.44b(l)(1)]

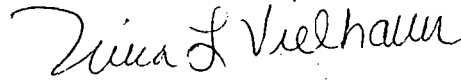
The change is considered a correction that is necessary to properly reflect information provided during the application process. In accordance with Rule 62-210.360, F.A.C., the Department determines that an administrative permit correction is appropriate. Also attached is a revised Page 7 that incorporates the amendment. Please replace the original page in your final permit with the corrected version. If you have any questions regarding this matter, please contact Jeff Koerner at 850/921-9536.

Any party to this order (permit correction) has the right to seek judicial review of it under section 120.68 of the Florida Statutes, by filing a notice of appeal under rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

"More Protection, Less Process"

Printed on recycled paper.

Executed in Tallahassee, Florida.



Trina Vielhauer, Chief  
Bureau of Air Regulation

**CERTIFICATE OF SERVICE**

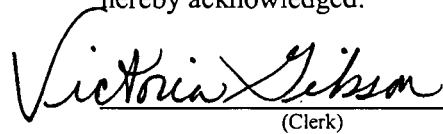
The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Administrative Permit Correction was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on

6/23/03 to the persons listed:

- Mr. William A. Raiola, USSC\*
- Mr. David Buff, Golder Associates Inc.
- Mr. Ron Blackburn, SD Office
- Mr. Gregg Worley, EPA Region 4
- Mr. John Bunyak, NPS

Clerk Stamp

**FILING AND ACKNOWLEDGMENT FILED**, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

 June 23, 2003  
(Clerk) (Date)

Enclosures

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> <li>Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	<p>A. Received by (Please Print Clearly) <i>A. Socis</i>      B. Date of Delivery <i>6-25-03</i></p>
<p>1. Article Addressed to:</p> <p>Mr. William A. Raiola V.P. of Sugar Processing Operations United States Sugar Corporation 111 Ponce DeLeon Avenue Clewiston, FL 33440</p>	<p>C. Signature <i>Audrea Socis</i>      <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>D. Is delivery address different from item 1?      <input type="checkbox"/> Yes If YES, enter delivery address below:      <input type="checkbox"/> No</p>
<p>2. <u>7001 0320 0001 3692 5702</u></p>	<p>3. Service Type  <input checked="" type="checkbox"/> Certified Mail      <input type="checkbox"/> Express Mail  <input type="checkbox"/> Registered      <input type="checkbox"/> Return Receipt for Merchandise  <input type="checkbox"/> Insured Mail      <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee)      <input type="checkbox"/> Yes</p>
<p>PS Form 3811, July 1999</p>	<p>Domestic Return Receipt      102595-00-M-0952</p>

**U.S. Postal Service**  
**CERTIFIED MAIL RECEIPT**  
*(Domestic Mail Only; No Insurance Coverage Provided)*

7001 0320 0001 3692 5702

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee <small>(Endorsement Required)</small>		
Restricted Delivery Fee <small>(Endorsement Required)</small>		
<b>Total Postage &amp; Fees</b>	<b>\$</b>	

Sent To  
William A. Raiola

Street, Apt. No.,  
or P.O. Box Ponce DeLeon Avenue

City, State, ZIP+4  
Clewiston, FL 33440

PS Form 3800, January 2001

See Reverse for Instructions

## SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

### B. Boiler No. 7

This section of the permit addresses the following emissions unit.

EU No.	Emission Unit Description
014	Boiler 7 is an Alpha Conal Model No. ATT-203-18 spreader-stoker, vibrating-grate boiler with a maximum 1-hour steam production rate of 385,000 pounds per hour at 750° F and 600 psig. It fires primarily bagasse with distillate oil as a supplemental and alternate fuel. Particulate matter emissions are controlled by a wet sand separator followed by an ABB electrostatic precipitator. Exhaust gases exit a 225 feet tall stack at 335° F with an average flow rate of 355,000 acfm.

#### EQUIPMENT

5. Oil Firing Upgrade: The permittee is authorized to modify the existing oil firing system as follows: modify existing oil burners and configure as multi-stage combustion low-NOx burners; modify the fuel/steam valve train to incorporate a constant differential pressure valve; and replace two existing oil pumps. [Design]

#### PERFORMANCE RESTRICTIONS

6. Oil Specification: Any fuel oil fired in this boiler shall be No. 2 distillate oil (or a superior grade) containing no more than 0.05% sulfur by weight as determined by ASTM Methods D-129, D-1552, D-2622, D-4294, or equivalent methods approved by the Department. The nitrogen content of the distillate oil shall not exceed 0.015% nitrogen by weight as determined by ASTM Method D4629 or equivalent methods approved by the Department. [Permit No. PSD-FL-208; Rules 62-212.400 and 62-296.405, F.A.C.; and 40 CFR 60.42b(j)]
7. Permitted Capacity, Oil Firing: The maximum heat input rate is 326 MMBtu per hour of heat input from distillate oil firing. *{Permitting Note: The maximum steam production rate from firing 100% distillate oil is approximately 225,000 lb/hour.}* [Design; Rule 62-120.200(PTE), F.A.C.]
8. Oil Firing Restrictions: No more than 2417 gallons of distillate oil shall be fired per hour and no more than 4,500,000 gallons of distillate oil shall be fired during any consecutive 12-month period. The permittee shall install, calibrate, operate, and maintain an individual fuel oil flow meter with integrator. *{Permitting Note: The annual oil firing limit ensures that the annual capacity factor (as defined in 40 CFR 60.41b) remains below 10% and avoids applicability of the NOx standard in accordance with 40 CFR 60.44b(l)(1). The hourly firing rate was amended from 2311 to 2417 gallons per hour on June 20, 2003.}* [Design; Permit No. PSD-FL-208; Rule 62-212.400, F.A.C.; and 40 CFR 60.44b(l)(1)]

#### EMISSIONS STANDARDS

9. PM Emissions: Emissions of particulate matter (PM) shall not exceed 0.03 lb/MMBtu of heat input from the firing of distillate oil as determined by EPA Methods 5 or 17. [Permit No. PSD-FL-208(BACT); Rules 62-296.405, and 62-296.410, F.A.C.]
10. Visible Emissions: When firing distillate oil, visible emissions shall not exceed 20% opacity based on a 6-minute average except for one 6-minute period per hour that shall not exceed 27% opacity, as determined by EPA Method 9. [40 CFR 60.43b(f); Permit No. PSD-FL-208(BACT)]
11. NOx Emissions: Emissions of nitrogen oxides shall not exceed 0.20 lb/MMBtu of heat input from the firing of distillate oil as determined by EPA Method 7E. *{Note: Compliance with the standard ensures that the project does not result in a PSD significant increase for NOx emissions.}* [Rule 62-4.070(3), F.A.C.; Permit No. PSD-FL-208(BACT)]

*{Permitting Note: The following table summarizes revised maximum emission rates based on the original BACT determinations of Permit No. PSD-FL-208, the limits of this permit, and a heating value of 135,000 Btu per gallon of distillate oil.*



**Golder Associates Inc.**

6241 NW 23rd Street, Suite 500  
Gainesville, FL 32653-1500  
Telephone (352) 336-5600  
Fax (352) 336-6603



JUN 19 2003

June 16, 2003

0337546

BUREAU OF AIR REGULATION

Florida Department of Environmental Protection  
Department of Air Resources Management  
2600 Blair Stone Road, MS 5500  
Tallahassee, FL 32399-2400

Attention : Mr. Jeffery Koerner, P. E.

RE: United States Sugar Corporation (U.S. Sugar) – Clewiston Mill  
Boiler No. 4 and Boiler No. 7 Fuel Oil Burning Increase  
Air Permit No. 0510003-018-AC

Dear Mr. Koerner:

U.S. Sugar is in receipt of the Department's final permit for the above-referenced project. Our review of the final permit revealed there may have been a minor typographical error regarding Boiler No. 7. In Section 3.B., Condition 4, it is stated that the maximum oil firing rate shall be no more than 2,311 gallons per hour (gal/hr). In the original application for Boiler No. 7, this was the correct figure. However, in Golder's letter to the Department dated December 18, 2002, the oil usage figure was revised to 2,416.7 gal/hr. This corresponded to a maximum heat input rate of 326 million British thermal units per hour (MMBtu/hr). This maximum heat input rate is correctly reflected in the final permit, but it appears that the maximum oil usage rate was not updated.

We request that a minor amendment to the construction permit be issued to address this request. Please call or e-mail me if you have any questions concerning this request.

Sincerely,

GOLDER ASSOCIATES INC.

A handwritten signature in black ink that reads "David A. Buff".

David A. Buff, P.E., Q.E.P.  
Principal Engineer  
Florida P. E. # 19011

DB/nav

cc: Don Griffin  
Ron Blackburn, DEP

L061603

# Florida Department of Environmental Protection

## Memorandum

---

TO: Trina Vielhauer, BAR  
THRU: Al Linero, NSR  
FROM: Jeff Koerner, NSR  
DATE: June 20, 2003  
SUBJECT: Final Air Permit No. 0510003-018-AC  
U.S. Sugar Corporation, Clewiston Sugar Mill and Refinery  
Boilers 4/7, Modified Oil Firing Systems  
Administrative Permit Correction

On June 6, 2003, the Department issued an air construction permit authorizing an upgrade to the oil firing systems for Boilers 4 and 7. On June 19, 2003, the Department received a letter from the engineer of record, David Buff, requesting an amendment of this permit. The final permit specifies the maximum oil firing rate for Boiler 7 as 2311 gallons per hour, which is consistent with the original application. However, U.S. Sugar later modified this information in a letter dated December 18, 2002. The correct maximum oil firing rate for Boiler 7 should be the same as Boiler 4, which is 2417 gallons per hour. The Department reviewed the file and agrees that the permit should be amended to reflect the slightly higher oil firing rate. The change is considered a correction that is necessary to properly reflect information provided during the application process. In accordance with Rule 62-210.360, F.A.C., an administrative permit correction is appropriate.

I recommend your approval of the attached Administrative Permit Correction.

Attachments

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

NOTICE OF FINAL PERMIT

In the Matter of an  
Application for Permit by:

United States Sugar Corporation  
111 Ponce DeLeon Avenue  
Clewiston, FL 33440

Air Permit No. 0510003-018-AC  
Clewiston Sugar Mill and Refinery  
Boilers 4/7, Modified Oil Firing Systems

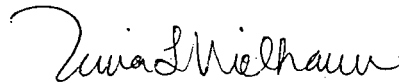
*Authorized Representative:*

Mr. William A. Raiola, V.P. of Sugar Processing Operations

Enclosed is Final Air Permit No. 0510003-018-AC, which authorizes modification of the oil firing systems for Boilers 4 and 7 at the existing Clewiston Sugar Mill and Refinery located at the intersection of W.C. Owens Avenue and State Road 832 in Hendry County, Florida. As noted in the Final Determination (attached), only minor changes were made. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes, by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty (30) days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.



Trina Vielhauer, Chief  
Bureau of Air Regulation

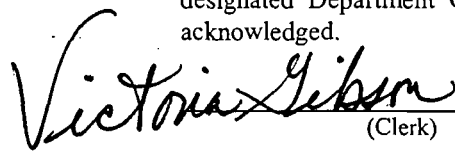
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Permit (including the Final Permit) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 6/6/03 to the persons listed:

Mr. William A. Raiola, USSC\*  
Mr. David Buff, Golder Associates Inc.  
Mr. Ron Blackburn, SD Office  
Mr. Gregg Worley, EPA Region 4  
Mr. John Bunyak, NPS

Clerk Stamp

**FILING AND ACKNOWLEDGMENT FILED**, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

 June 6, 2003  
(Clerk) (Date)



## FINAL DETERMINATION

### PERMITTEE

United States Sugar Corporation  
111 Ponce DeLeon Avenue  
Clewiston, FL 33440

### PROJECT

Air Permit No. 0510003-018-AC  
Clewiston Sugar Mill and Refinery  
Boilers 4/7, Modified Oil Firing Systems

This permit authorizes modification of the oil firing systems for Boilers 4 and 7 at the existing Clewiston Sugar Mill and Refinery located at the intersection of W.C. Owens Avenue and State Road 832 in Hendry County, Florida.

### NOTICE AND PUBLICATION

The Department distributed an "Intent to Issue Permit" package on April 3, 2003. The applicant published the "Public Notice of Intent to Issue" in The Clewiston News on May 8, 2003. The Department received the proof of publication on May 15, 2003. No requests for administrative hearings were filed.

### COMMENTS

No comments on the Draft Permit were received from the public, the Department's South District Office, EPA Region 4, or the NPS. The Department did receive the following comments from the applicant.

1. *Comment:* Boiler 4 should not be subject to NSPS Subpart Db because the firing of distillate oil ( $\leq 0.40\%$  sulfur by weight) is a new physical restriction of the burner system. The applicant provided letters from the proposed burner vendors indicating that the system was being designed to accommodate only No. 2 distillate oil only and would not support No. 4 or No. 6 oils. The applicant asked the Department to discuss this issue with EPA Region 4 since this was a federal NSPS issue.

*Response:* The Department contacted EPA Region 4 and discussed the use of a fuel sulfur limit on Boiler 4 for determining future actual emissions. EPA Region 4 indicated that this could be considered a "physical restriction" if the burner vendor specifies that the new system would not accommodate other fuel oils such as No. 4 and No. 6. The applicant provided this information from the vendor. Therefore, there would be no increase in the hourly SO<sub>2</sub> emissions rate and NSPS Subpart Db does not apply to Boiler 4. The references to this NSPS Subpart Db were removed from the final permit.

2. *Comment:* The applicant noted both Boilers 4 and 7 rarely fire fuel oil alone (without bagasse). This presents an operational hardship in conducting regular tests solely on oil to determine the NO<sub>x</sub> emission rate. Information from the burner vendors indicates that the NO<sub>x</sub> emission rates will be less than 0.19 lb/MMBtu for Boiler 4 and 0.16 lb/MMBtu for Boiler 7, which are below the permit standard of 0.20 lb/MMBtu. After further discussion with the Department, the applicant agreed to conduct initial testing on oil alone.

*Response:* The final permit includes a requirement to conduct initial tests within 90 days of first firing oil while firing only oil. The requirements for subsequent tests were removed because the boilers rarely fire oil without also firing bagasse. This is consistent with the previous PSD air permits. In addition, Rule 62-297.310(7)(b), F.A.C. was added, "Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department."

### CONCLUSION

The final action of the Department is to issue the permit with the changes described above. The Department does not consider these changes to be substantial.



# Department of Environmental Protection

Jeb Bush  
Governor

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

David B. Struhs  
Secretary

## PERMITTEE:

United States Sugar Corporation  
111 Ponce DeLeon Avenue  
Clewiston, FL 33440

### Authorized Representative:

Mr. William A. Raiola, V.P. of Sugar Processing Operations

Clewiston Sugar Mill and Refinery  
Air Permit No. 0510003-018-AC  
Facility ID No. 0510003  
SIC Nos. 2061, 2062  
Permit Expires: May 1, 2004

## PROJECT AND LOCATION

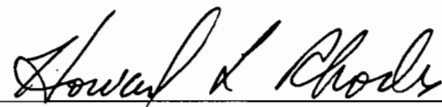
This permit authorizes modification of the oil firing systems for Boilers 4 and 7 at the existing Clewiston Sugar Mill and Refinery located at the intersection of W.C. Owens Avenue and State Road 832 in Hendry County, Florida.

## STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to perform the work in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department. This permit supplements all previously issued air construction and operation permits for this emissions unit.

## SPECIFIC CONDITIONS

- Section 1. General Information
- Section 2. Administrative Requirements
- Section 3. Emissions Units Specific Conditions
- Section 4. General Conditions



Howard L. Rhodes, Director  
Division of Air Resources Management



(Date)

## SECTION 1. GENERAL INFORMATION

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### FACILITY AND PROJECT DESCRIPTION

The United States Sugar Corporation (USSC) operates the existing Clewiston sugar mill and refinery in Hendry County, Florida. Sugarcane is harvested from nearby fields and transported to the mill by train. In the mill, sugarcane is cut into small pieces and passed through a series of presses to squeeze juice from the cane. The juice undergoes clarification, separation, evaporation, and crystallization to produce raw, unrefined sugar. In the refinery, raw sugar is decolorized, concentrated, crystallized, dried, conditioned, screened, packaged, stored, and distributed as refined sugar. The fibrous byproduct remaining from the sugarcane is called bagasse and is burned as boiler fuel to provide steam and heating requirements for the mill and refinery.

The primary air pollution sources are the five existing boilers firing bagasse and fuel oil. Particulate matter emissions are controlled with wet scrubbers for Boilers 1 through 4 and with an electrostatic precipitator for Boiler 7. Other air pollution sources in the refinery include a fluidized bed dryer/cooler, a granular carbon regeneration furnace, conditioning silos with dust collectors, vacuum systems, sugar/starch bins, conveyors, and a packaging system. This permit authorizes modification of the oil firing systems for Boilers 4 and 7 (Emissions Units 009 and 014), which will increase the maximum heat input rates and provide greater operational reliability. It supplements all previously issued air construction and operation permits for these emissions units.

### REGULATORY CLASSIFICATION

Title III: The facility is a potential major source of hazardous air pollutants (HAP).

Title IV: The facility has no units subject to the acid rain provisions of the Clean Air Act.

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.

PSD: The facility is a PSD-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The facility operates some units subject to the New Source Performance Standards in 40 CFR 60.

### RELEVANT DOCUMENTS

The permit application and additional information received to make it complete are not a part of this permit; however, the information is specifically related to this permitting action and is on file with the Department.

## SECTION 2. ADMINISTRATIVE REQUIREMENTS

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1. Permitting Authority: All documents related to PSD applications for permits to construct or modify emissions units shall be submitted to the Bureau of Air Regulation of the Florida Department of Environmental Protection (DEP) at 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400. All documents related to applications for permits to construct minor sources of air pollution or to operate the facility shall be submitted to the Department's South District Office at 2295 Victoria Avenue, Suite 364, Fort Myers, Florida, 33901-3381.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Department's South District Office at the above address.
3. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403 of the Florida Statutes, the Florida Administrative Code, the Code of Federal Regulations, and any previously issued valid air permits. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
4. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
5. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
6. Relaxations of Restrictions on Pollutant Emitting Capacity: If a previously permitted facility or modification becomes a facility or modification which would be subject to the preconstruction review requirements of this rule if it were a proposed new facility or modification solely by virtue of a relaxation in any federally enforceable limitation on the capacity of the facility or modification to emit a pollutant (such as a restriction on hours of operation), which limitation was established after August 7, 1980, then at the time of such relaxation the preconstruction review requirements of this rule shall apply to the facility or modification as though construction had not yet commenced on it. [Rule 62-212.400(2)(g), F.A.C.]
7. Title V Permit: This permit authorizes modification of the permitted emissions units and initial operation to determine compliance with Department rules and conditions of the permit. A Title V operation permit is required for regular operation. The permittee shall apply for a Title V operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may require by law. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]



## SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

### A. Boiler No. 4

This section of the permit addresses the following emissions unit.

EU No.	Emission Unit Description
009	Boiler 4 is a traveling grate boiler manufactured by Foster Wheeler with a maximum steam production rate of 300,000 pounds per hour at 750° F and 600 psig. It fires primarily bagasse with distillate oil as a supplemental and alternate fuel. Particulate matter emissions are controlled by a Type D, Size 200 Joy Turbulaire wet impingement scrubber. Exhaust gases exit a 150 feet tall stack at 160° F with an approximate flow rate of 281,000 acfm.

#### EQUIPMENT

1. Oil Firing Upgrade: The permittee is authorized to replace the existing oil firing system with the following general equipment: two multi-stage combustion low-NOx burners with flame scanner, fuel/steam valve train, steam-atomized center-fired oil gun with ignitor and flame proving rod; a multi-burner windbox; a fuel oil pump set; and a burner management control system. [Design]

#### PERFORMANCE RESTRICTIONS

2. Oil Specification: Any fuel oil fired in this boiler shall be No. 2 distillate oil (or a superior grade) containing no more than 0.40% sulfur by weight as determined by ASTM Methods D-129, D-1552, D-2622, D-4294, or equivalent methods approved by the Department. [Applicant Request; Rules 62-212.400 and 62-296.405, F.A.C.]
3. Permitted Capacity, Oil Firing: The maximum heat input rate is 326 MMBtu per hour of heat input from distillate oil firing. *{Permitting Note: The maximum steam production rate from firing 100% distillate oil is approximately 225,000 lb/hour.}* [Design; Rule 62-120.200(PTE), F.A.C.]
4. Oil Firing Restrictions: No more than 2417 gallons of distillate oil shall be fired during any hour and no more than 500,000 gallons of distillate oil shall be fired during any consecutive 12-month period. The permittee shall install, calibrate, operate, and maintain an individual fuel oil flow meter with integrator. *{Permitting Note: The annual oil firing limit is based on a previous SO<sub>2</sub> BACT determination.}* [Design; Permit No. PSD-FL-272A; Rule 62-212.400, F.A.C.]

#### EMISSIONS STANDARDS

5. PM Emissions: Emissions of particulate matter (PM) shall not exceed 0.10 lb/MMBtu of heat input from the firing of distillate oil as determined by EPA Method 5. [Permit No. PSD-FL-272A; Rules 62-296.405 and 62-296.410, F.A.C.]
6. Visible Emissions: When firing distillate oil, visible emissions shall not exceed 20% opacity based on a 6-minute average except for one 6-minute period per hour that shall not exceed 27% opacity as determined by EPA Method 9. [Permit No. PSD-FL-272A; Rules 62-296.406 and 62-296.410]
7. NOx Emissions: Emissions of nitrogen oxides (NOx) shall not exceed 0.20 lb/MMBtu of heat input from the firing of distillate oil as determined by EPA Method 7E. *{Note: Compliance with the standard ensures that the project does not result in a PSD significant increase for NOx emissions.}* [Rules 62-4.070(3) and 62-212.400, F.A.C.]

#### EMISSIONS PERFORMANCE TESTING

8. Initial Capacity Tests: Within 90 days of first fire on oil with the modified system, the permittee shall conduct a 1-hour performance test to validate the designed maximum heat input rate. The test shall be conducted when firing only oil. The oil firing rate (gallons) and steam production rate (lb/hour) shall be recorded for the 1-hour test. The heat input rate shall be calculated based on the recorded oil firing rate and

### SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

#### A. Boiler No. 4

an actual fuel analysis. If the maximum heat input rate for the initial test is less than 90% of the maximum rate specified in this permit, the Department will modify this permit accordingly. The design capacity test may be conducted during one of the other required initial tests. Results of the test shall be submitted to the Department within 45 days of completion. [Rule 62-4.070(3), F.A.C.]

9. **Test Methods:** Required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content <i>{Note: Performed as necessary to support other required methods.}</i>
5	Determination of Particulate Matter Emissions
7E	Determination of Nitrogen Oxides Emissions
9	Visual Determination of the Opacity of Emissions
19	Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates <i>{Note: Performed as necessary to support other required methods.}</i>

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used for testing without prior written approval from the Department. Tests shall also be conducted in accordance with the requirements specified in Appendix SC of Section 4 of this permit. [Rules 62-204.800 and 62-297.100, F.A.C.; 40 CFR 60, Appendix A]

10. **Initial Compliance Tests:** Within 60 days of achieving permitted capacity on oil, but no later than 180 days after first firing oil in the modified system, the permittee shall conduct initial performance tests to demonstrate compliance with the standards for nitrogen oxides and visible emissions. The tests shall be conducted when firing only oil at the permitted capacity. Because this unit fires very low sulfur distillate oil with considerably restricted oil usage, an initial test for particulate matter when firing only oil is not required. [Permit No. PSD-FL-272A; and Rules 62-4.070(3) and 62-297.310(7)(a), F.A.C.]
11. **Annual Tests:** During each federal fiscal year (October 1 - September 30), the permittee shall conduct performance tests to demonstrate compliance with the standards for visible emissions. The test may be conducted when firing bagasse, oil, or a combination of these fuels. If oil is co-fired with bagasse during the required annual compliance test, the particulate matter standard shall be prorated based on heat input from each fuel and the corresponding particulate matter standards. [Rule 62-297.310(7)(a), F.A.C.]
12. **Special Compliance Tests:** When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]

#### RECORDS AND REPORTS

13. **Test Notification:** The permittee shall notify the Compliance Authority in writing at least fifteen (15) days prior to any other required tests. [Rule 62-297.310(7)(a)9, F.A.C.]
14. **Test Reports:** The permittee shall submit reports for all required tests in accordance with the requirements specified in Appendix SC of Section 4 of this permit. For each test run, the report shall also indicate the actual total heat input rate (MMBtu/hour), the actual oil firing rate (gallons/hour), the actual heat input rate from oil (MMBtu/hour), and the steam production rate (lb/hour). [Rule 62-297.310(8), F.A.C.]

### SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

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#### A. Boiler No. 4

##### 15. Oil Firing Records:

- a. *Methods:* The sulfur content of the fuel oil shall be determined by ASTM Methods D-129, D-1552, D-2622, D-4294, or equivalent methods approved by the Department.
- b. *Vendor Analysis:* For each fuel oil delivery, the permittee shall record and retain the following information: the date; gallons delivered; and a fuel oil analysis including the heat content in MMBtu/gallon, the density in pounds/gallon, the sulfur content in percent by weight, and the name of the test method used. A certified analysis supplied by the fuel oil vendor is acceptable.
- c. *Actual Sampling:* At least once during each federal fiscal year, the permittee shall have a representative sample analyzed in accordance with the specified methods. Results of the analysis shall be submitted to the Compliance Authority within 45 days of sampling.
- d. *Fuel Consumption:* At the end of each month, the permittee shall read and record the amount indicated by the integrator on the fuel oil flow meter. The permittee shall calculate and record the amount of fuel oil fired during each month and during each consecutive 12-month period. Records shall be available for inspection within ten days following each month.

[Rule 62-4.070(3), F.A.C.]

#### OTHER APPLICABLE REQUIREMENTS

16. Previous Permits: This permit supplements all previously issued air construction and operation permits for this emissions unit. Except for differences with the above conditions, the unit remains subject to the conditions of all other valid air construction and operations permits. [Rule 62-4.070, F.A.C.]

### SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

#### B. Boiler No. 7

This section of the permit addresses the following emissions unit.

EU No.	Emission Unit Description
014	Boiler 7 is an Alpha Conal Model No. ATT-203-18 spreader-stoker, vibrating-grate boiler with a maximum 1-hour steam production rate of 385,000 pounds per hour at 750° F and 600 psig. It fires primarily bagasse with distillate oil as a supplemental and alternate fuel. Particulate matter emissions are controlled by a wet sand separator followed by an ABB electrostatic precipitator. Exhaust gases exit a 225 feet tall stack at 335° F with an average flow rate of 355,000 acfm.

#### EQUIPMENT

1. Oil Firing Upgrade: The permittee is authorized to modify the existing oil firing system as follows: modify existing oil burners and configure as multi-stage combustion low-NOx burners; modify the fuel/steam valve train to incorporate a constant differential pressure valve; and replace two existing oil pumps. [Design]

#### PERFORMANCE RESTRICTIONS

2. Oil Specification: Any fuel oil fired in this boiler shall be No. 2 distillate oil (or a superior grade) containing no more than 0.05% sulfur by weight as determined by ASTM Methods D-129, D-1552, D-2622, D-4294, or equivalent methods approved by the Department. The nitrogen content of the distillate oil shall not exceed 0.015% nitrogen by weight as determined by ASTM Method D4629 or equivalent methods approved by the Department. [Permit No. PSD-FL-208; Rules 62-212.400 and 62-296.405, F.A.C.; and 40 CFR 60.42b(j)]
3. Permitted Capacity, Oil Firing: The maximum heat input rate is 326 MMBtu per hour of heat input from distillate oil firing. *{Permitting Note: The maximum steam production rate from firing 100% distillate oil is approximately 225,000 lb/hour.}* [Design; Rule 62-120.200(PTE), F.A.C.]
4. Oil Firing Restrictions: No more than 2311 gallons of distillate oil shall be fired per hour and no more than 4,500,000 gallons of distillate oil shall be fired during any consecutive 12-month period. The permittee shall install, calibrate, operate, and maintain an individual fuel oil flow meter with integrator. *{Permitting Note: The annual oil firing limit ensures that the annual capacity factor (as defined in 40 CFR 60.41b) remains below 10% and avoids applicability of the NOx standard in accordance with 40 CFR 60.44b(l)(1).}* [Design; Permit No. PSD-FL-208; Rule 62-212.400, F.A.C.; and 40 CFR 60.44b(l)(1)]

#### EMISSIONS STANDARDS

5. PM Emissions: Emissions of particulate matter (PM) shall not exceed 0.03 lb/MMBtu of heat input from the firing of distillate oil as determined by EPA Methods 5 or 17. [Permit No. PSD-FL-208(BACT); Rules 62-296.405, and 62-296.410, F.A.C.]
6. Visible Emissions: When firing distillate oil, visible emissions shall not exceed 20% opacity based on a 6-minute average except for one 6-minute period per hour that shall not exceed 27% opacity, as determined by EPA Method 9. [40 CFR 60.43b(f); Permit No. PSD-FL-208(BACT)]
7. NOx Emissions: Emissions of nitrogen oxides shall not exceed 0.20 lb/MMBtu of heat input from the firing of distillate oil as determined by EPA Method 7E. *{Note: Compliance with the standard ensures that the project does not result in a PSD significant increase for NOx emissions.}* [Rule 62-4.070(3), F.A.C.; Permit No. PSD-FL-208(BACT)]

*{Permitting Note: The following table summarizes revised maximum emission rates based on the original BACT determinations of Permit No. PSD-FL-208, the limits of this permit, and a heating value of 135,000 Btu per gallon of distillate oil.}*

**SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS**

**B. Boiler No. 7**

*Table A. Estimated Maximum Emission Rates – Oil Firing*

Pollutant	Original BACT lb/MMBtu*	Maximum Emission Rates	
		lb/hour	tons/year
CO	0.066	21.5	20.05
NOx	0.20	65.2	60.75
PM	0.03	9.8	9.11
SAM	0.005	1.6	1.52
SO2	0.05	16.3	15.19
VOC	0.004	1.3	1.22

**EMISSIONS PERFORMANCE TESTING**

8. **Design Capacity Tests:** Within 90 days of first fire on oil with the modified system, the permittee shall conduct a 1-hour performance test to validate the designed maximum heat input rate. The test shall be conducted when firing only oil. The oil firing rate (gallons) and steam production rate (lb/hour) shall be recorded for the 1-hour test. The heat input rate shall be calculated based on the recorded oil firing rate and an actual fuel analysis. If the maximum heat input rate for the initial test is less than 90% of the maximum rate specified in this permit, the Department will modify this permit accordingly. The design capacity test may be conducted during one of the other required initial tests. Results of the test shall be submitted to the Department within 45 days of completion. [Rule 62-4.070(3), F.A.C.]

9. **Test Methods:** Required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content <i>{Note: Performed as necessary to support other required methods.}</i>
5 or 17	Determination of Particulate Matter Emissions
7E	Determination of Nitrogen Oxides Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
19	Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates <i>{Note: Performed as necessary to support other required methods.}</i>

The above methods are described in Appendix A of 40 CFR 60 and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used for compliance testing without prior written approval from the Department. Tests shall also be conducted in accordance with the requirements specified in Section 4, Appendix SC of this permit. [Rules 62-204.800 and 62-297.100, F.A.C.; 40 CFR 60, Appendix A]

10. **Initial Compliance Tests:** Within 60 days of achieving permitted capacity on oil, but no later than 180 days after first firing oil in the modified system, the permittee shall conduct initial performance tests to demonstrate compliance with the standards for nitrogen oxides and visible emissions. The tests shall be conducted when firing only oil at the permitted capacity. Because this unit fires ultra-low sulfur distillate oil, a separate test for particulate matter when firing only oil is not required. If oil is co-fired with bagasse during the required annual compliance test, the particulate standard shall be prorated based on heat input from each fuel and the corresponding particulate matter standards. [Permit No. PSD-FL-208; Rules 62-4.070(3) and 62-297.310(7)(a)1, F.A.C.]

11. **Annual Tests:** During each federal fiscal year (October 1 - September 30), the permittee shall conduct performance tests to demonstrate compliance with the standards for visible emissions. The test may be conducted when firing bagasse, oil, or a combination of these fuels. [Rule 62-297.310(7)(a), F.A.C.]

## SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

### B. Boiler No. 7

12. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]
13. Opacity Monitoring: Appendix ASP specifies an Alternate Sampling Procedure for monitoring opacity in lieu of the NSPS Subpart Db requirements for continuous opacity monitoring. [Permit No. PSD-FL-208; Alternate Sampling Procedure No. 95-B-01 dated April 1, 1996]

#### RECORDS AND REPORTS

14. Test Notification: The permittee shall notify the Compliance Authority in writing at least thirty (30) days prior to any initial NSPS performance tests and at least fifteen (15) days prior to any other required tests. [Rule 62-297.310(7)(a)9, F.A.C.; 40 CFR 60.7 and 60.8]
15. Test Reports: The permittee shall submit reports for all required tests in accordance with the requirements specified in Appendix SC of Section 4 of this permit. For each test run, the report shall also indicate the actual total heat input rate (MMBtu/hour), the actual oil firing rate (gallons/hour), the actual heat input rate from oil (MMBtu/hour), and the steam production rate (lb/hour). [Rule 62-297.310(8), F.A.C.]
16. Oil Firing Records:
  - a. *Methods*: The sulfur content of the fuel oil shall be determined by ASTM Methods D-129, D-1552, D-2622, D-4294, or equivalent methods approved by the Department.
  - b. *Vendor Analysis*: For each fuel oil delivery, the permittee shall record and retain the following information: the date; the gallons delivered; and a fuel oil analysis including the heat content in MMBtu/gallon, the density in pounds/gallon, the sulfur content in percent by weight, and the name of the test method used. A certified analysis supplied by the fuel oil vendor is acceptable.
  - c. *Actual Sampling*: At least once during each federal fiscal year, the permittee shall have a representative sample analyzed in accordance with the specified methods. Results of the analysis shall be submitted to the Compliance Authority within 45 days of sampling.
  - d. *Fuel Consumption*: At the end of each month, the permittee shall read and record the amount indicated by the integrator on the fuel oil flow meter. The permittee shall calculate and record the amount of fuel oil fired during each month and during each consecutive 12-month period. Records shall be available for inspection within ten days following each month.

[Rule 62-4.070(3), F.A.C.; 40 CFR 60.49b]

#### OTHER APPLICABLE REQUIREMENTS

17. Previous Permits: This permit supplements all previously issued air construction and operation permits for this emissions unit. Except for differences with the above conditions, the unit remains subject to the conditions of all other valid air construction and operations permits. [Rule 62-4.070, F.A.C.]
18. NSPS Provisions: Boiler 7 is subject to the applicable portions of Subpart Db of the New Source Performance Standards in 40 CFR 60. A summary of the NSPS Subpart Db requirements is provided in Appendix Db. [40 CFR 60, Subpart Db; Rule 62-204.800, F.A.C.]

## SECTION 4. APPENDICES

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### CONTENTS

- Appendix ASP. Alternate Sampling Procedure for Opacity, Boiler 7
- Appendix CF. Citation Format
- Appendix Db. NSPS Subpart Db Requirements for Boiler 7
- Appendix GC. General Conditions
- Appendix SC. Standard Conditions

**SECTION 4. APPENDIX ASP**

**ALTERNATE SAMPLING PROCEDURE FOR OPACITY, BOILER 7**

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In accordance with Alternate Sampling Procedure No. 95-B-01 dated April 1, 1996, the following conditions are specified in lieu of the requirement for continuous opacity monitoring.

1. Visible Emissions: In lieu of continuous opacity monitoring, the permittee may use the following procedure in order to determine the opacity of emissions when Boiler No. 7 burns No. 2 fuel oil:
    - a. An individual who is trained in the use of EPA Reference Method 9 and is currently certified as a visible emissions observer by the State of Florida shall perform a twelve-minute opacity test once per daylight shift during the period that the highest oil firing rate occurs;
    - b. An individual who is trained in the use of EPA Reference Method 9 and is currently certified as a visible emissions observer by the State of Florida shall perform a twelve-minute opacity test when the boiler achieves the normal operational load after a cold boiler startup with No. 2 fuel oil;
    - c. Required observations shall be made in accordance with the provisions of EPA Reference Method 9;
    - d. The observer shall maintain a log, which includes all of the information required by EPA Reference Method 9 for each set of observations and the quantity of No. 2 fuel oil being burned at the time of the observations;
    - e. A copy of the observation log shall be submitted to the South District Office of the Department once per calendar quarter if distillate oil was fired during that quarter. Information regarding fuel usage and fuel analysis shall also be submitted to the South district Office on a quarterly basis to verify that the 10 percent annual capacity factor limit is not exceeded;
    - f. The permittee shall follow the boiler manufacturer's maintenance schedule and procedures to assure that serviceable components are well maintained, and;
    - g. Permittee shall install and operate a continuous opacity monitor if either the annual capacity factor limit of 10 percent for combustion of No. 2 fuel oil is exceeded, or the applicable visible emission limiting standard in 40 CFR 60.43(f) is not regularly complied with when Boiler No. 7 is operated on No. 2 fuel oil.
- [Rules 62-297.401(9), 62-212.400(5), F.A.C., 62-212.400(6), F.A.C., Construction Permit AC26-238006/BACT/PSD-FL-208 dated January 31, 1995, and ASP No. 95-B-01; Administrative Order dated April 1, 1996]
2. COMS: The Department reserves the right to require the permittee to install and operate a continuous opacity monitor pursuant to 40 CFR 60.48b(a), if after investigation, if it is believed that a continuous opacity monitoring system is necessary to more accurately assess the compliance status of the affected source.

[Permit No. PSD-FL-208 dated January 31, 1995; Alternate Sampling Procedure No. 95-B-01 dated April 1, 1996]



**SECTION 4. APPENDIX CF**  
**CITATION FORMAT**

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*The following examples illustrate the format used in the permit to identify applicable permitting actions and regulations.*

**REFERENCES TO PREVIOUS PERMITTING ACTIONS**

Old Permit Numbers

*Example:* Permit No. AC50-123456 or Air Permit No. AO50-123456

*Where:* “AC” identifies the permit as an Air Construction Permit  
“AO” identifies the permit as an Air Operation Permit  
“123456” identifies the specific permit project number

New Permit Numbers

*Example:* Permit Nos. 099-2222-001-AC, 099-2222-001-AF, 099-2222-001-AO, or 099-2222-001-AV

*Where:* “099” represents the specific county ID number in which the project is located  
“2222” represents the specific facility ID number  
“001” identifies the specific permit project  
“AC” identifies the permit as an air construction permit  
“AF” identifies the permit as a minor federally enforceable state operation permit  
“AO” identifies the permit as a minor source air operation permit  
“AV” identifies the permit as a Title V Major Source Air Operation Permit

PSD Permit Numbers

*Example:* Permit No. PSD-FL-317

*Where:* “PSD” means issued pursuant to the Prevention of Significant Deterioration of Air Quality  
“FL” means that the permit was issued by the State of Florida  
“317” identifies the specific permit project

**RULE CITATION FORMATS**

Florida Administrative Code (F.A.C.)

*Example:* [Rule 62-213.205, F.A.C.]

*Means:* Title 62, Chapter 213, Rule 205 of the Florida Administrative Code

Code of Federal Regulations (CFR)

*Example:* [40 CFR 60.7]

*Means:* Title 40, Part 60, Section 7

## SECTION 4. APPENDIX Db

### NSPS SUBPART Db REQUIREMENTS FOR BOILER 7

Boiler 7 (EU 014) is subject to all applicable portions of the federal New Source Performance Standards specified in Subpart Db of 40 CFR 60. The following is a summary of these requirements supplemented with Department notes.

#### 60.40b Applicability and Delegation of Authority

- (a) The affected facility to which this subpart applies is each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 29 MW (100 million Btu/hour).
- (j) Any affected facility meeting the applicability requirements under paragraph (a) of this section and commencing construction, modification, or reconstruction after June 19, 1986 is not subject to Subpart D (Standards of Performance for Fossil-Fuel-Fired Steam Generators, §60.40).

#### 60.41b Definitions

*Annual capacity factor* means the ratio between the actual heat input to a steam generating unit from the fuels listed in §60.42b(a), §60.43b(a), or §60.44b(a), as applicable, during a calendar year and the potential heat input to the steam generating unit had it been operated for 8760 hours during a calendar year at the maximum steady state design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility in a calendar year.

*Conventional technology* means wet flue gas desulfurization (FGD) technology, dry FGD technology, atmospheric fluidized bed combustion technology, and oil hydro-desulfurization technology.

*Distillate oil* means fuel oils that contain 0.05 weight percent nitrogen or less and comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society of Testing and Materials in ASTM D396-78, Standard Specifications for Fuel Oils (incorporated by reference - see §60.17).

*Emerging technology* means any sulfur dioxide control system that is not defined as a conventional technology under this section, and for which the owner or operator of the facility has applied to the Administrator and received approval to operate as an emerging technology under §60.49b(a)(4).

*Federally enforceable* means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State Implementation Plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

*Full capacity* means operation of the steam generating unit at 90 percent or more of the maximum steady-state design heat input capacity.

*Heat input* means heat derived from combustion of fuel in a steam generating unit and does not include the heat input from preheated combustion air, recirculated flue gases, or exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

*Heat release rate* means the steam generating unit design heat input capacity (in MW or Btu/hour) divided by the furnace volume (in cubic meters or cubic feet); the furnace volume is that volume bounded by the front furnace wall where the burner is located, the furnace side waterwall, and extending to the level just below or in front of the first row of convection pass tubes.

*Heat transfer medium* means any material that is used to transfer heat from one point to another point.

*High heat release rate* means a heat release rate greater than 730,000 J/sec-m<sup>3</sup> (70,000 Btu/hour-ft<sup>3</sup>).

*Low heat release rate* means a heat release rate of 730,000 J/sec-m<sup>3</sup> (70,000 Btu/hour-ft<sup>3</sup>) or less.

*Maximum heat input capacity* means the ability of a steam generating unit to combust a stated maximum amount of fuel on a steady state basis, as determined by the physical design and characteristics of the steam generating unit.

*Oil* means crude oil or petroleum or a liquid fuel derived from crude oil or petroleum, including distillate and residual oil.

*Potential sulfur dioxide emission rate* means the theoretical sulfur dioxide emissions (ng/J, lb/million Btu heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

*Steam generating unit* means a device that combusts any fuel or byproduct/waste to produce steam or to heat water or any

**SECTION 4. APPENDIX Db**  
**NSPS SUBPART Db REQUIREMENTS FOR BOILER 7**

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other heat transfer medium. This term includes any municipal-type solid waste incinerator with a heat recovery steam generating unit or any steam generating unit that combusts fuel and is part of a cogeneration system or a combined cycle system. This term does not include process heaters as they are defined in this subpart.

*Steam generating unit operating day* means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

*Very low sulfur oil* means an oil that contains no more than 0.5 weight percent sulfur or that, when combusted without sulfur dioxide emission control, has a sulfur dioxide emission rate equal to or less than 0.5 lb/million BTU heat input.

**60.42b Standard for Sulfur Dioxide**

- (j) Percent reduction requirements are not applicable to affected facilities combusting only very low sulfur oil. The owner or operator of an affected facility combusting very low sulfur oil shall demonstrate that the oil meets the definition of very low sulfur oil by: (2) maintaining fuel receipts as described in §60.49b(r).

*{Permitting Note: The permit limits distillate oil for Boiler 7 to  $\leq 0.05\%$  sulfur by weight and requires the permittee to maintain fuel receipts.}*

**60.43b Standard for Particulate Matter**

- (b) On and after the date on which the performance test is completed or required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts oil (or mixtures of oil with other fuels) and uses a conventional or emerging technology to reduce sulfur dioxide emissions shall cause to be discharged into the atmosphere from that affected facility any gases that contain particulate matter in excess of 0.10 lb/million Btu heat input.

*{Permitting Note: The particulate matter standard for oil does not apply because Boiler 7 does not use "conventional technology" or "emerging technology" to reduce sulfur dioxide emissions as defined in the Subpart.}*

- (f) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, wood, or mixtures of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

*{Permitting Note: The permit includes an equivalent limit for oil firing.}*

**60.44b Standard for Nitrogen Oxides**

- (l) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility which commenced construction, modification, or reconstruction after July 9, 1997 shall cause to be discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides (expressed as NO<sub>2</sub>) in excess of the following limits:

- (1) If the affected facility combusts coal, oil, or natural gas, or a mixture of these fuels, or with any other fuels: A limit of 86 ng/J (0.20 lb/million Btu) heat input unless the affected facility has an annual capacity factor for coal, oil, and natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the facility to an annual capacity factor of 10 percent (0.10) or less for coal, oil, and natural gas.

*{Permitting Note: The permit contains enforceable conditions for Boiler 7 limiting the annual capacity factor for firing distillate oil to less than 10%.}*

**60.45b Compliance and Performance Test Methods and Procedures for Sulfur Dioxide**

- (j) The owner or operator of an affected facility that combusts very low sulfur oil is not subject to the compliance and performance testing requirements of this section if the owner or operator obtains fuel receipts as described in §60.49b(r).

*{Permitting Note: The permit contains enforceable conditions for maintaining fuel receipts.}*

**60.46b Compliance and Performance Test Methods and Procedures for Particulate Matter and Nitrogen Oxides**

- (a) The opacity limits under §60.43b apply at all times except during periods of startup, shutdown, or malfunction.

**SECTION 4. APPENDIX Db**  
**NSPS SUBPART Db REQUIREMENTS FOR BOILER 7**

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(d) To determine compliance with the opacity limits under §60.43b, the owner or operator of an affected facility shall conduct an initial performance test as required under §60.8 using the following procedures and reference methods:

(7) Method 9 is used for determining the opacity of stack emissions.

*{Permitting Note: The permit conditions are consistent with these requirements.}*

**60.47b Emission Monitoring for Sulfur Dioxide**

(f) The owner or operator of an affected facility that combusts very low sulfur oil is not subject to the emission monitoring requirements of this section if the owner or operator obtains fuel receipts as described in §60.49b(r).

*{Permitting Note: The permit contains enforceable conditions for maintaining fuel receipts.}*

**60.48b Emission Monitoring for Particulate Matter and Nitrogen Oxides**

(a) The owner or operator of an affected facility subject to the opacity standard under §60.43b shall install, calibrate, maintain, and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere and record the output of the system.

(e) The procedures under §60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems.

*{Permitting Note: In lieu of continuous opacity monitoring, an Alternate Sampling Procedure (ASP) was previously approved after construction of Boiler 7. The ASP is specified in the permit.}*

**60.49b Reporting and Recordkeeping Requirements**

(a) The owner or operator of each affected facility shall submit notification of the date of initial startup, as provided by §60.7. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of the fuels to be combusted in the affected facility,

(3) The annual capacity factor at which the owner or operator anticipates operating the facility based on all fuels fired and based on each individual fuel fired.

(b) The owner or operator of each affected facility subject to the sulfur dioxide, particulate matter, and/or nitrogen oxides emission limits under §60.42b, §60.43b, and §60.44b shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in Appendix B.

(f) For facilities subject to the opacity standard under §60.43b, the owner or operator shall maintain records of opacity.

(h) The owner or operator of any affected facility in any category listed in paragraphs (h)(1) or (2) of this section is required to submit excess emission reports for any calendar quarter during which there are excess emissions from the affected facility. If there are no excess emissions during the calendar quarter, the owner or operator shall submit a report semiannually stating that no excess emissions occurred during the semiannual reporting period.

(1) Any affected facility subject to the opacity standards under §60.43b(e) or to the operating parameter monitoring requirements under §60.13(i)(1).

(3) For the purpose of §60.43b, excess emissions are defined as all 6-minute periods during which the average opacity exceeds the opacity standards under §60.43b(f).

(r) The owner or operator of an affected facility who elects to demonstrate that the affected facility combusts only very low sulfur oil under §60.42b(j)(2) shall obtain and maintain at the affected facility fuel receipts from the fuel supplier which certify that the oil meets the definition of distillate oil as defined in §60.41b. For the purposes of this section, the oil need not meet the fuel nitrogen content specification in the definition of distillate oil. Quarterly reports shall be submitted to the Administrator certifying that only very low sulfur oil meeting this definition was combusted in the affected facility during the preceding quarter.

*{Permitting Note: In lieu of continuous opacity monitoring, an Alternate Sampling Procedure (ASP) was previously approved after construction of Boiler 7. The ASP is specified in the permit.}*

**SECTION 4. APPENDIX GC**  
**GENERAL CONDITIONS**

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The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
  - a. Have access to and copy and records that must be kept under the conditions of the permit;
  - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
  - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
  - a. A description of and cause of non-compliance; and
  - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida

**SECTION 4. APPENDIX GC**  
**GENERAL CONDITIONS**

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Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
  - a. Determination of Best Available Control Technology (NA);
  - b. Determination of Prevention of Significant Deterioration (NA); and
  - c. Compliance with New Source Performance Standards (X).
14. The permittee shall comply with the following:
  - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
  - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
  - c. Records of monitoring information shall include:
    - 1) The date, exact place, and time of sampling or measurements;
    - 2) The person responsible for performing the sampling or measurements;
    - 3) The dates analyses were performed;
    - 4) The person responsible for performing the analyses;
    - 5) The analytical techniques or methods used; and
    - 6) The results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

**SECTION 4. APPENDIX SC**  
**STANDARD CONDITIONS**

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*{Permitting Note: Unless otherwise specified by permit, the following conditions apply to all emissions units and activities.}*

**EMISSIONS AND CONTROLS**

1. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]
2. Circumvention: The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]
3. Excess Emissions Allowed: Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]
4. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
5. Excess Emissions - Notification: In case of excess emissions resulting from malfunctions, the permittee shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(6), F.A.C.]
6. VOC or OS Emissions: No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]
7. Objectionable Odor Prohibited: No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. [Rule 62-296.320(2), F.A.C.]
8. General Visible Emissions: No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20 percent opacity. [Rule 62-296.320(4)(b)1, F.A.C.]
9. Unconfined Particulate Emissions: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

**TESTING REQUIREMENTS**

10. Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]

**SECTION 4. APPENDIX SC**  
**STANDARD CONDITIONS**

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11. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2), F.A.C.]
12. Calculation of Emission Rate: For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
13. Test Procedures: Tests shall be conducted in accordance with all applicable requirements of Chapter 62-297, F.A.C.
  - a. Required Sampling Time. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes. The minimum observation period for a visible emissions compliance test shall be thirty (30) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur.
  - b. Minimum Sample Volume. Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet.
  - c. Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C.[Rule 62-297.310(4), F.A.C.]
14. Determination of Process Variables
  - a. Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
  - b. Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.[Rule 62-297.310(5), F.A.C.]
15. Sampling Facilities: The permittee shall install permanent stack sampling ports and provide sampling facilities that meet the requirements of Rule 62-297.310(6), F.A.C.
16. Test Notification: The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [Rule 62-297.310(7)(a)9, F.A.C.]
17. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]
18. Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide



**SECTION 4. APPENDIX SC**  
**STANDARD CONDITIONS**

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sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

- a. The type, location, and designation of the emissions unit tested.
- b. The facility at which the emissions unit is located.
- c. The owner or operator of the emissions unit.
- d. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
- e. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
- f. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
- g. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
- h. The date, starting time and duration of each sampling run.
- i. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
- j. The number of points sampled and configuration and location of the sampling plane.
- k. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
- l. The type, manufacturer and configuration of the sampling equipment used.
- m. Data related to the required calibration of the test equipment.
- n. Data on the identification, processing and weights of all filters used.
- o. Data on the types and amounts of any chemical solutions used.
- p. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
- q. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
- r. All measured and calculated data required to be determined by each applicable test procedure for each run.
- s. The detailed calculations for one run that relate the collected data to the calculated emission rate.
- t. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
- u. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

**RECORDS AND REPORTS**

19. **Records Retention:** All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2, F.A.C.]
20. **Annual Operating Report:** The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by March 1st of each year. [Rule 62-210.370(2), F.A.C.]

Florida Department of  
Environmental Protection

Memorandum

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TO: Howard Rhodes, DARM  
THRU: Trina Vielhauer, BAR  
Al Linero, NSR *ayl*  
FROM: Jeff Koerner, NSR *JK*  
DATE: June 2, 2003  
SUBJECT: Final Air Permit No. 0510003-018-AC  
U.S. Sugar Corporation  
Clewiston Sugar Mill and Refinery  
Boilers 4/7, Modified Oil Firing Systems

The Final Permit for this project is attached for your approval and signature. The permit authorizes modification of the oil firing systems for Boilers 4 and 7 at the existing Clewiston Sugar Mill and Refinery located at the intersection of W.C. Owens Avenue and State Road 832 in Hendry County, Florida. The Department distributed an "Intent to Issue Permit" package on April 3, 2003. The applicant published the "Public Notice of Intent to Issue" in The Clewiston News on May 8, 2003. The Department received the proof of publication on May 15, 2003. No requests for administrative hearings were filed. Minor changes were made as a result of comments submitted by the applicant.

Day #90 is July 1, 2003. I recommend your approval of the attached Final Permit for this project.

Attachments

# UNITED STATES SUGAR CORPORATION

Post Office Box 1207 • Clewiston, Florida 33440-1207  
Telephone 941/983-8121

May 13, 2003

RECEIVED

MAY 15 2003

BUREAU OF AIR REGULATION

Florida Department of Environmental Protection  
Bureau of Air Regulation  
(111 S. Magnolia Drive, Suite 4)  
2600 Blair Stone Road, MS #5505  
Tallahassee, Florida 32301

RE: United States Sugar Corporation, Clewiston Sugar Mill and Refinery, Hendry County  
Draft Air Permit No. 0510003-018-AC  
Clewiston Boilers 4 and 7 – Modified Oil Firing Systems

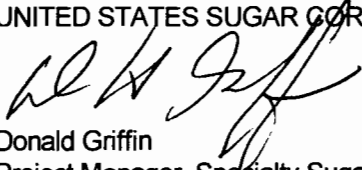
Attention: Trina L. Vielhauer  
Chief, Bureau of Air Regulation

Gentlemen:

We are enclosing the Affidavit of Publication certifying that the "Public Notice of Intent to Issue Air Construction Permit" was duly published in the legal section of the May 8, 2003 issue of *THE CLEWISTON NEWS*.

Sincerely,

UNITED STATES SUGAR CORPORATION

  
Donald Griffin  
Project Manager, Specialty Sugar

DG: kcb  
Enclosure  
cc:

Phil Barbaccia – SD-DEP  
David Buff, Golder Associates  
William A. Raiola, USSC  
Michael Low, USSC  
Arthur Jacquelin, USSC  
Peter Briggs, USSC

THE CLEWISTON NEWS

Published Weekly

Clewiston, Florida

AFFIDAVIT OF PUBLICATION

State of Florida  
County of Hendry

Before the undersigned authority, personally appeared Debra Miller, who on oath says she is the Editor of the Clewiston News, a weekly newspaper published at Clewiston in Hendry County, Florida, that the attached

copy of advertisement being a Public Notice of Intent to Issue Air Construction Permit  
in the matter State of Florida Department of Environmental Protection


in the \_\_\_\_\_ court, was published in said newspaper in the issue(s)  
of May 8<sup>th</sup>, 2003

Affiant further says that the said Clewiston News is a newspaper published at Clewiston, in said Hendry County, continuously published in said Hendry County, Florida, each week, and has been entered as periodicals matter at the post office in Clewiston, in said Hendry County, Florida, for a period of one year next preceding the first publication says that she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Debra Miller

Sworn to and subscribed before me this 8<sup>th</sup> day of May, 2003

Tracy L. Rounds  
Notary Public

 Tracy L. Rounds  
Commission #DD161434  
Expires: Oct 28, 2006  
Bonded Thru  
Atlantic Bonding Co., Inc.

RECEIVED

MAY 15 2003

BUREAU OF AIR REGULATION

**PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT**

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Draft Air Permit No. 0510003-018-AC

United States Sugar Corporation  
Clewiston Sugar Mill and Refinery  
Clewiston Boilers 4 and 7 - Modified Oil Firing Systems

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to the United States Sugar Corporation that authorizes modification of the oil firing systems for Boilers 4 and 7 at the existing Clewiston Sugar Mill and Refinery located at the intersection of W.C. Owens Avenue and State Road 832 in Hendry County, Florida. The applicant's authorized representative is Mr. William A. Raiola, V.P. of Sugar Processing Operations. The applicant's mailing address is: Clewiston Sugar Mill and Refinery, United States Sugar Corporation, 111, Ponce DeLeon Avenue, Clewiston, FL 33440.

The United States Sugar Corporation operates the existing Clewiston Sugar Mill and Refinery in Hendry County, Florida. Boilers 4 and 7 fire bagasse as the primary fuel to produce steam for the plant's operations. Bagasse is the fibrous vegetative matter remaining from sugarcane after the milling process. Fuel oil is fired as a supplemental and alternate fuel. The applicant proposes to modify the existing oil firing systems of Boilers 4 and 7. Boiler 4 will begin firing distillate oil containing less than 0.4% sulfur by weight. Boiler 7 will continue to fire distillate oil containing less than 0.05% sulfur by weight. The project will increase the maximum heat input rates from 225 to 326 MMBtu per hour for Boiler 4 and from 250 to 326 MMBtu per hour for Boiler 7. Oil firing will be restricted to 500,000 gallons per year for Boiler 4 and 4,500,000 for Boiler 7. Boiler 7 is subject to Subpart D of 40 CFR 60, which is a federal New Source Performance Standard for boilers.

The applicant estimates that the project has the potential to result in the following increases in actual emissions: 16 tons of carbon monoxide per year; 39 tons of nitrogen oxides per year; 6.7 tons of particulate matter per year; 1.4 tons of sulfuric acid mist per year; 16.8 tons of sulfur dioxide per year; and 1 ton of volatile organic compounds per year. These levels are below the significant emission rates that would require a preconstruction review in accordance with the Prevention of Significant Deterioration of Air Quality (Rule 62-212.400, F.A.C.). Therefore, the resulting project requires a minor source air construction permit. The draft permit includes conditions limiting nitrogen oxide emissions, visible emissions from the stack, fuel oil sulfur content, and fuel oil usage. The draft permit will supplement all previously issued air construction and operation permits for these boilers.

The Department will issue the Final Permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms, or conditions. The Department will accept written comments concerning the proposed permit issuance action for a period of fourteen (14) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen (14) days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S. must be filed within fourteen (14) days of publication of the public notice or within fourteen (14) days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Department for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Protection  
Bureau of Air Regulation  
111 South Magnolia Drive, Suite 4  
2600 Blair Stone Road, MS #5505  
Tallahassee, Florida 32399-2400  
Telephone: (850)488-0114

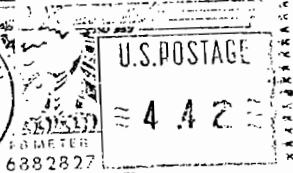
Department of Environmental Protection  
South District Office  
Air Resources Section  
2295 Victoria Avenue, Suite 364  
Fort Myers, Florida 33901-3381  
Telephone: (239)332-6975

The complete project file includes the application, Technical Evaluation and Preliminary Determination, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Department's reviewing engineer for this project for additional information at the address and phone numbers listed above.

376534-CN 5/8/03

**UNITED STATES SUGAR CORPORATION**  
POST OFFICE DRAWER 1207  
CLEWISTON, FLORIDA 33440

**CERTIFIED MAIL**

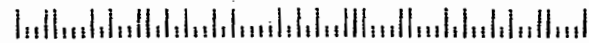


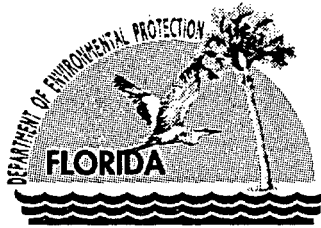
7001 1940 0006 6170 9216

**RETURN RECEIPT  
REQUESTED**

Department of Environmental Protection  
Bureau of Air Regulation  
(111 South Magnolia Drive, Suite 4)  
2600 Blair Stone Road, MS #5505  
Tallahassee, Florida 32399-2400

32399+2400 01





Jeb Bush  
Governor

# Department of Environmental Protection

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

David B. Struhs  
Secretary

April 1, 2003

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. William A. Raiola, V.P. of Sugar Processing Operations  
Clewiston Sugar Mill and Refinery  
United States Sugar Corporation  
111 Ponce DeLeon Avenue  
Clewiston, FL 33440

Re: Draft Air Permit No. 0510003-018-AC  
United States Sugar Corporation, Clewiston Sugar Mill and Refinery  
Boilers 4 and 7, Modified Oil Firing Systems

Dear Mr. Raiola:

Enclosed is one copy of the draft permit to modify the oil firing systems of existing Clewiston Boilers 4 and 7. The Department's "Technical Evaluation and Preliminary Determination", "Intent to Issue Permit", and the "Public Notice of Intent to Issue Permit" are also included.

The "Public Notice of Intent to Issue Permit" must be published one time only, as soon as possible, in the legal advertisement section of a newspaper of general circulation in the area affected, pursuant to the requirements of Chapter 50, Florida Statutes. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within seven days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, Administrator of the New Source Review Section, at the above letterhead address. If you have any other questions, please contact Jeff Koerner at 850/921-9536.

Sincerely,

  
for Trina Vielhauer, Chief  
Bureau of Air Regulation

Enclosures

"More Protection, Less Process"

Printed on recycled paper.

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none"> <li>■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>■ Print your name and address on the reverse so that we can return the card to you.</li> <li>■ Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	<p>A. Signature  <input checked="" type="checkbox"/> <i>Andrea Ferris</i> <input type="checkbox"/> Agent  <input type="checkbox"/> Addressee</p>	
<p>1. Article Addressed to:</p> <p>Mr. William A. Raiola  V.P. of Sugar Processing Operations  Clewiston Sugar Mill and Refinery  United States Sugar Corporation  111 Ponce DeLeon Avenue  Clewiston, FL 33440</p>	<p>B. Received by (Printed Name) <i>Andrea Ferris</i> C. Date of Delivery <i>4/7/13</i></p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes  If YES, enter delivery address below: <input type="checkbox"/> No</p>	
	<p>3. Service Type</p> <p><input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail  <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise  <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p>	
	<p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>	
<p>7001 0320 0001 3692 6617</p>		
PS Form 3811, August 2001	Domestic Return Receipt	102595-02-M-1540

<b>U.S. Postal Service</b> <b>CERTIFIED MAIL RECEIPT</b> <i>(Domestic Mail Only; No Insurance Coverage Provided)</i>											
<p>OFFICIAL USE</p>											
<table border="1"> <tr> <td>Postage</td> <td>\$</td> </tr> <tr> <td>Certified Fee</td> <td></td> </tr> <tr> <td>Return Receipt Fee (Endorsement Required)</td> <td></td> </tr> <tr> <td>Restricted Delivery Fee (Endorsement Required)</td> <td></td> </tr> <tr> <td><b>Total Postage &amp; Fees</b></td> <td><b>\$</b></td> </tr> </table>	Postage	\$	Certified Fee		Return Receipt Fee (Endorsement Required)		Restricted Delivery Fee (Endorsement Required)		<b>Total Postage &amp; Fees</b>	<b>\$</b>	<p>Postmark Here</p>
Postage	\$										
Certified Fee											
Return Receipt Fee (Endorsement Required)											
Restricted Delivery Fee (Endorsement Required)											
<b>Total Postage &amp; Fees</b>	<b>\$</b>										
<p>Sent To  <b>William A. Raiola</b>  Street, Apt. No.  or P.O. Box No. <b>Ponce DeLeon Avenue</b>  City, State, ZIP+4  <b>Clewiston, FL 33440</b></p>											
PS Form 3800, January 2001	See Reverse for Instructions										

7001 0320 0001 3692 6617



In the Matter of an  
Application for Air Permit by:

United States Sugar Corporation  
111 Ponce DeLeon Avenue  
Clewiston, FL 33440

Air Permit No. 0510003-018-AC  
Clewiston Sugar Mill and Refinery  
Boilers 4/7, Modified Oil Firing Systems  
Hendry County, Florida

*Authorized Representative:*

Mr. William A. Raiola, V.P. of Sugar Processing Operations

### INTENT TO ISSUE AIR CONSTRUCTION PERMIT

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit (copy of Draft Permit attached) for the proposed project as detailed in the application and the enclosed Technical Evaluation and Preliminary Determination, for the reasons stated below. The applicant, United States Sugar Corporation, applied on October 11, 2002 (Boiler 7) and December 20, 2002 (Boiler 4) to the Department for permits to modify the oil firing systems for these existing units. The existing Clewiston plant is located at the intersection of W.C. Owens Avenue and State Road 832 in Hendry County, Florida.

The Department has permitting jurisdiction under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). The above actions are not exempt from permitting procedures. The Department has determined that an air construction permit is required to perform proposed work. The Department intends to issue this air construction permit based on the belief that the applicant has provided reasonable assurances to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Construction Permit. The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the applicant cause the notice to be published as soon as possible after notification by the Department of its intended action. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in Section 50.051, F.S. to the office of the Department issuing the permit. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rules 62-110.106(9) and (11), F.A.C.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of fourteen (14) days from the date of publication of the Public Notice of Intent to Issue Air Permit. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen (14) days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S. must be filed within fourteen (14) days of publication of the public notice or within fourteen (14) days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S. however, any person who asked the Department for notice of agency action may file a petition within fourteen (14) days of

receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542, F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Mediation is not available in this proceeding. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2), F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.

  
Prina Vielhauer, Chief  
Bureau of Air Regulation

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this Intent to Issue Air Construction Permit package (including the Public Notice of Intent to Issue Air Construction Permit, Technical Evaluation and Preliminary Determination, and the Draft Permit) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 4/3/03 to the persons listed:

Mr. William A. Raiola, USSC\*  
Mr. David Buff, Golder Associates  
Mr. Ron Blackburn, SD  
Ms. Jeanneane Gettle, EPA Region 4

Clerk Stamp

**FILING AND ACKNOWLEDGMENT FILED**, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

*Victoria Gibson* / *April 3, 2003*  
(Clerk) (Date)

**PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT**

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Draft Air Permit No. 0510003-018-AC

United States Sugar Corporation  
Clewiston Sugar Mill and Refinery  
Clewiston Boilers 4 and 7 – Modified Oil Firing Systems

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to the United States Sugar Corporation that authorizes modification of the oil firing systems for Boilers 4 and 7 at the existing Clewiston Sugar Mill and Refinery located at the intersection of W.C. Owens Avenue and State Road 832 in Hendry County, Florida. The applicant's authorized representative is Mr. William A. Raiola, V.P. of Sugar Processing Operations. The applicant's mailing address is: Clewiston Sugar Mill and Refinery, United States Sugar Corporation, 111 Ponce DeLeon Avenue, Clewiston, FL 33440.

The United States Sugar Corporation operates the existing Clewiston Sugar Mill and Refinery in Hendry County, Florida. Boilers 4 and 7 fire bagasse as the primary fuel to produce steam for the plant's operations. Bagasse is the fibrous vegetative matter remaining from sugarcane after the milling process. Fuel oil is fired as a supplemental and alternate fuel. The applicant proposes to modify the existing oil firing systems of Boilers 4 and 7. Boiler 4 will begin firing distillate oil containing less than 0.4% sulfur by weight. Boiler 7 will continue to fire distillate oil containing less than 0.05% sulfur by weight. The project will increase the maximum heat input rates from 225 to 326 MMBtu per hour for Boiler 4 and from 250 to 326 MMBtu per hour for Boiler 7. Oil firing will be restricted to 500,000 gallons per year for Boiler 4 and 4,500,000 for Boiler 7. Both boilers are subject to Subpart Db of 40 CFR 60, which is a federal New Source Performance Standard for boilers.

The applicant estimates that the project has the potential to result in the following increases in actual emissions: 16 tons of carbon monoxide per year; 39 tons of nitrogen oxides per year; 6.7 tons of particulate matter per year; 1.4 tons of sulfuric acid mist per year; 16.8 tons of sulfur dioxide per year; and 1 ton of volatile organic compounds per year. These levels are below the significant emission rates that would require a preconstruction review in accordance with the Prevention of Significant Deterioration of Air Quality (Rule 62-212.400, F.A.C.). Therefore, the resulting project requires a minor source air construction permit. The draft permit includes conditions limiting nitrogen oxide emissions, visible emissions from the stack, fuel oil sulfur content, and fuel oil usage. The draft permit will supplement all previously issued air construction and operation permits for these boilers.

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**NOTICE TO BE PUBLISHED IN THE NEWSPAPER**

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Department of Environmental Protection  
Bureau of Air Regulation  
(111 S. Magnolia Drive, Suite 4)  
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Tallahassee, Florida, 32399-2400  
Telephone: 850/488-0114

Department of Environmental Protection  
South District Office  
Air Resources Section  
2295 Victoria Avenue, Suite 364  
Fort Myers, Florida, 33901-3381  
Telephone: 239/332-6975

The complete project file includes the application, Technical Evaluation and Preliminary Determination, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Department's reviewing engineer for this project for additional information at the address and phone numbers listed above.

NOTICE TO BE PUBLISHED IN THE NEWSPAPER

**TECHNICAL EVALUATION  
&  
PRELIMINARY DETERMINATION**

**PROJECT**

Draft Air Construction Permit No. 0510003-018-AC  
Clewiston Boiler Nos. 4/7 – Modified Oil Firing Systems

**COUNTY**

Hendry County

**APPLICANT**

United States Sugar Corporation  
Clewiston Sugar Mill and Refinery  
ARMS Facility ID No. 0510003

**PERMITTING  
AUTHORITY**

Florida Department of Environmental Protection  
Division of Air Resources Management  
Bureau of Air Regulation  
New Source Review Section



April 1, 2003

*{Filename: TEPD 0510003-018-AC.doc}*

## 1. GENERAL PROJECT INFORMATION

### Applicant Name and Address

United States Sugar Corporation  
Clewiston Sugar Mill and Refinery  
111 Ponce DeLeon Avenue  
Clewiston, FL 33440

### Authorized Representative:

Mr. William A. Raiola, V.P. of Sugar Processing Operations

### Processing Schedule

Over a three-month period, the Department received separate applications for Boiler 7 (initial Project No. 0510003-018-AC) and Boiler 4 (initial Project No. 0510003-019-AC). Due to the timing of these applications, the Department considers the requests to be a single project. The proposals will be merged into Project No. 0510003-018-AC and processed as a single permit request. The following summarizes the processing schedule.

10/11/02 BAR received an application to modify Boiler 7.  
10/22/02 BAR requested additional information.  
12/20/02 BAR received application to modify Boiler 4 and the requested information for the Boiler 7.  
01/15/03 BAR requested additional information on both boilers and combined the projects.  
02/24/03 BAR received the requested information; application complete.

### Facility Description and Location

The United States Sugar Corporation (USSC) operates the existing Clewiston Sugar Mill and Refinery at the intersection of W.C. Owens Avenue and State Road 832 in Hendry County, Florida. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to a National Ambient Air Quality Standard (NAAQS).

### Standard Industrial Classification Code (SIC)

SIC Nos. 2061, 2062 – Sugarcane processing and refining

### Regulatory Categories

Title III: The existing facility is a potential major source of hazardous air pollutants (HAP).

Title IV: The existing facility has no units subject to the acid rain provisions of the Clean Air Act.

Title V: The existing facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.

PSD: The existing facility is a PSD-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The existing facility operates units subject to the New Source Performance Standards of 40 CFR 60.

### Project Description

The applicant proposes the following changes to the existing boilers:

- *Boiler No. 4*: The applicant proposes to replace the existing oil firing system with a new system consisting of the following equipment: two multi-stage combustion low-NOx burners with flame scanner, fuel/steam valve train, steam-atomized center-fired oil gun, ignitor and flame proving rod; multi-burner windbox; fuel oil pump set; and burner management control system. The purpose of the project is to improve operational reliability during the cane-milling season should there be an interruption of the primary fuel, which is bagasse. Boiler No. 4 is also a backup boiler during the off-crop season. The modification would increase the short-term maximum oil-firing rate from 1500 to 2417 gallons per hour (225 to 326 MMBtu per hour).

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

The current long-term oil-firing limit will remain at 500,000 gallons per year. The steam rate due only to oil firing would increase from approximately 150,000 to 225,000 lb/hr. The proposal would also lower the fuel sulfur content from 0.70% to 0.40% sulfur by weight. The modification will not affect the firing of bagasse.

- *Boiler No. 7:* The applicant proposes the following changes to the existing oil firing system: modify existing oil burners and configure as multi-stage combustion low-NOx burners; modify the fuel/steam valve train to incorporate a constant differential pressure valve; and replace existing two oil pumps. The modified system will perform more like modern register burners, which are designed with significant reduction in register draft loss for the same required combustion air flow. The two new fuel oil pumps will provide sufficient fuel flow and pressure to increase the oil firing rate from 1839 to 2311 gallons per hour (approximately 250 to 326 MMBtu per hour). This will result in an increase in steam production due to oil firing from 175,000 to 225,000 lb/hour. Finally, the applicant proposes to reduce the maximum annual fuel consumption limit from 4,788,800 to 4,500,000 gallons per year, which results in an annual capacity factor of less than 10% and continues to exempt this unit from the NOx emission limits specified in 40CFR 60.44b(d).

## 2. APPLICABLE REGULATIONS

### State Regulations

This project is subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The Florida Statutes authorize the Department of Environmental Protection to establish rules and regulations regarding air quality as part of the Florida Administrative Code (F.A.C.). This project is subject to the applicable rules and regulations defined in the following Chapters of the Florida Administrative Code.

<u>Chapter</u>	<u>Description</u>
62-4	Permitting Requirements
62-204	Ambient Air Quality Requirements, PSD Increments, and Federal Regulations Adopted by Reference
62-210	Required Permits, Public Notice, Reports, Circumvention, Excess Emissions, and Forms
62-212	Preconstruction Review, PSD Requirements, and BACT Determinations Rule 62-212.300. General Preconstruction Review Requirements Rule 62-212.400. Prevention of Significant Deterioration (PSD)
62-213	Operation Permits for Major Sources of Air Pollution
62-296	Emission Limiting Standards Rule 62-296.405. Fossil Fuel Fired Steam Generators With > 250 MMBtu Per Hour Heat Input Rate Rule 62-296.406. Fossil Fuel Fired Steam Generators With < 250 MMBtu Per Hour Heat Input Rate Rule 62-296.410. Carbonaceous Fuel Burning Equipment
62-297	Test Methods and Procedures, Continuous Monitoring Specifications, and Alternate Sampling Procedures

Rule 62-296.405, F.A.C. applies to new and existing fossil fuel fired steam generators with a maximum heat input rate greater than 250 MMBtu per hour. An existing emissions unit is defined as a unit that was in existence, in operation, or under construction, or had received a permit to begin construction prior to January 18, 1972. All other units are considered new units and are subject to the applicable federal New Source Performance Standards (NSPS Subparts D or Da) for such boilers.

Rule 62-296.406, F.A.C. applies to new and existing fossil fuel fired steam generators with a maximum heat input rate of less than 250 MMBtu per hour unless exempt from permitting (Rule 62-210.300(3), F.A.C.) or considered insignificant (Rule 62-213.300(2)(a)1 or 62-213.430(6)(b), F.A.C.). The standards apply unless otherwise specified by rule, or by order or permit issued prior to July 15, 1989. This rule requires BACT determinations for particulate matter and sulfur dioxide.



## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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Rule 62-296.410, F.A.C. applies to new and existing carbonaceous fuel burning equipment. An existing emissions unit is defined a unit for which a valid Department operation or construction permit was issued prior to July 1, 1974. All other units are considered new units.

### Boiler No. 4 – Applicability of State Emissions Standards

Based on the application, Boiler No. 4 was originally constructed at an out-of-state power plant prior to 1970. It was refurbished and initially installed at the Clewiston Mill as specified by air construction Permit No. AC26-80930 (PSD-FL-100), which was issued on January 14, 1985. This permit was issued in accordance with Rule 62-212.400, F.A.C., which made BACT determinations for carbon monoxide, nitrogen oxides, particulate matter, sulfur dioxide, and volatile organic compounds. Rule 62-296.405, F.A.C. did not apply because the maximum heat input rate (225 MMBtu per hour) did not exceed 250 MMBtu per hour. Although the maximum heat input rate from oil firing is currently less than 250 MMBtu per hour, Rule 62-296.406, F.A.C. does not apply because the unit was permitted before July 15, 1989. Nevertheless, BACT determinations were made for emissions of particulate matter and sulfur dioxide during the original permitting of this unit.

Based on the requested modification, the maximum heat input rate will increase to 326 MMBtu per hour and this unit will now be subject to Rule 62-296.405, F.A.C. Rule 62-210.200(120), F.A.C. defines an *existing emissions unit* as, “An emissions unit which was in existence, in operation, or under construction, or had received a permit to begin construction prior to January 18, 1972.” Therefore, Boiler No. 4 is subject to the standards for nitrogen oxides, particulate matter, sulfur dioxide, and visible emissions specified for existing emissions units in Rule 62-296.405, F.A.C. Boiler No. 4 remains subject to Rule 62-296.410, F.A.C. for carbonaceous fuel burning equipment.

### Boiler No. 7 – Applicability of State Emissions Standards

Boiler No. 7 was originally constructed at the Clewiston Mill as a new unit pursuant to Permit No. PSD-FL-208 issued on February 2, 1995. This permit was issued in accordance with Rule 62-212.400, F.A.C., which made BACT determinations for carbon monoxide, nitrogen oxides, particulate matter, sulfur dioxide, sulfuric acid mist, and volatile organic compounds. Rule 62-296.405, F.A.C. did not apply because the maximum heat input rate did not exceed 250 MMBtu per hour. Rule 62-296.406, F.A.C. did apply and BACT determinations were made for emissions of particulate matter and sulfur dioxide. Based on the requested modification, the maximum heat input rate will increase to 326 MMBtu per hour and this unit will now be subject to Rule 62-296.406, F.A.C. as a new unit, which requires compliance with NSPS Subpart D. Boiler No. 7 remains subject to Rule 62-296.410, F.A.C. for carbonaceous fuel burning equipment.

### **Federal Regulations**

This project is also subject to the applicable federal air quality regulations as established by the EPA in the following sections of the Code of Federal Regulations (CFR).

#### Title 40, CFR    Description

Part 60	Subpart A. General Provisions for NSPS Sources NSPS Subpart D. Fossil-Fuel-Fired Steam Generators (After August 17, 1971) NSPS Subpart Db. Industrial-Commercial-Institutional Steam Generating Units (After June 19, 1984) Applicable Appendices
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NSPS Subpart D applies to each fossil fuel fired steam generator with a maximum heat input rate greater than 250 MMBtu per hour and for which construction commenced after August 17, 1971.

NSPS Subpart Db applies to each steam generator that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity greater than 100 MMBtu per hour.

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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### Boiler No. 4 – Applicability of Federal NSPS Standards

As mentioned previously, the application states that Boiler No. 4 was originally constructed at an out-of-state power plant prior to 1970 with four oil guns. For initial installation at the Clewiston Mill in 1985, the boiler was refurbished and the heat input rate from oil physically reduced to 225 MMBtu per hour. The BACT determination for that project states that, "... the steam generator to be installed by the applicant was constructed prior to the NSPS applicability date of June 19, 1984, and therefore, the proposed emission standards of Subpart Db would not apply." The request to modify the unit will increase the heat input rate to 326 MMBtu per hour and lower the maximum fuel sulfur content. Due to the new burner system and lower fuel sulfur, the applicant maintains that the project is not an NSPS modification because there will be no increase in emissions.

The Department notes the following two excerpts from EPA guidance concerning physical changes and the NSPS regulations:

"... The change in emission rate associated with a physical or operational change is determined by comparing the hourly emissions at maximum capacity prior to the change with the hourly emissions at maximum capacity after the change. As required in 40 C.F.R. § 60.14(b)(2), when determining whether a physical or operational change will result in an increase in emission rate, all operating parameters which may affect emissions must be held constant to the maximum feasible degree. Therefore, any prospective changes in fuel or raw materials accompanying the physical or operational change are not considered in determining the maximum capacity after the change occurs."<sup>[1]</sup>

And

"... Restrictions of this nature are acceptable for netting transactions under the Act's PSD provisions. However, ... because the will of Congress is so clear that lower-sulfur fuels alone will not suffice to comply with NSPS, it would be inconsistent with the legislative intent for EPA to allow sources to use lower sulfur fuel to avoid coverage of NSPS ..."<sup>[2]</sup>

Given EPA's interpretation of the federal regulations, the project constitutes a modification because hourly emissions of sulfur dioxide will increase along with the increased oil firing rate. Therefore, Boiler No. 4 will become subject to NSPS Subpart Db.

### Boiler No. 7 – Applicability of Federal NSPS Standards

Increasing the heat input to 326 MMBtu per hour subjects this unit to Rule 62-296.405, F.A.C., which requires compliance with NSPS Subpart D. Potential emissions from Boiler No. 7 will also increase along with the increased fuel firing rate. This is considered a modification as defined by 40 CFR 60.14 and subjects this unit to Subpart Db. However, Boiler No. 7 was originally constructed in accordance with NSPS Subpart Db, which regulates boilers with a heat input greater than 100 MMBtu per hour and that were constructed, reconstructed, or modified after June 19, 1984. Paragraph (f) of 40 CFR 60.40b states that any unit subject to NSPS Subpart Db and commencing construction, modification, or reconstruction after June 19, 1986 is not also subject to NSPS Subpart D. Therefore, Boiler No. 7 remains subject only to the requirements of NSPS subpart Db.

### **General PSD Applicability**

The Department regulates major air pollution sources in accordance with Florida's Prevention of Significant Deterioration (PSD) program, as defined in Rule 62-212.400, F.A.C. A PSD review is required only for areas currently in attainment with the National Ambient Air Quality Standard (AAQS) or for areas designated as "unclassifiable" for a given pollutant. A facility is considered "major" with respect to PSD if it emits or has the potential to emit:

- 250 tons per year or more of any regulated air pollutant, or
- 100 tons per year or more of any regulated air pollutant and the facility belongs to one of the 28 PSD Major Facility Categories (Table 62-212.400-1, F.A.C.), or
- 5 tons per year of lead.

**TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION**

For new projects at PSD-major sources, each regulated pollutant is reviewed for PSD applicability based on emissions thresholds known as the Significant Emission Rates listed in Table 62-212.400-2, F.A.C. Pollutant emissions from the project exceeding these rates are considered “significant” and the applicant must employ the Best Available Control Technology (BACT) to minimize emissions of each such pollutant and evaluate the air quality impacts. Although a facility may be “major” with respect to PSD for only one regulated pollutant, it may be required to install BACT controls for several “significant” regulated pollutants.

**PSD Applicability for Project**

The facility is a PSD major source of air pollution located in an area that is currently in attainment (or designated as “unclassifiable”) for all pollutants with a corresponding National Ambient Air Quality Standard (NAAQS). Boiler No. 4 was constructed at the Clewiston Mill in accordance with PSD Permit No. PSD-FL-100 issued in 1985 and was subject to BACT determinations for carbon monoxide, nitrogen oxides, particulate matter, sulfur dioxide, and volatile organic compounds. Boiler No. 4 underwent a PSD modification in 2000/2001 subject to Permit No. PSD-FL-272. Boiler No. 7 was constructed at the Clewiston Mill in accordance with PSD Permit No. PSD-FL-208 issued in 1995 and was subject to BACT determinations for carbon monoxide, nitrogen oxides, particulate matter, sulfur dioxide, sulfuric acid mist, and volatile organic compounds.

The following table shows the applicant’s estimated maximum emissions increases that will result from this project.

Table 2A. Emissions Increases Resulting from the Project

Pollutant*	Boiler No. 4			Boiler No. 7			Project		
	Past Actual TPY	Future Potential TPY	Increase TPY	Past Actual TPY	Future Potential TPY	Increase TPY	Total Increase TPY	PSD SER TPY	PSD?
CO	0.5	1.3	0.9	4.9	20.0	15.1	16	100	No
NOx	4.2	6.0	1.8	23.6	60.8	37.2	39	40	No
PM	0.9	0.5	-0.4	2.0	9.1	7.1	6.7	25	No
PM10	0.8	0.3	-0.5	1.7	9.1	7.4	6.9	15	No
SAM	0.4	0.6	0.2	0.3	1.5	1.2	1.4	7	No
SO2	5.3	14.2	8.9	7.3	15.2	7.9	16.8	40	No
VOC	0.03	0.05	0.02	0.2	1.2	1.0	1	40	No

\* The applicant estimates that total potential emissions of mercury and lead would be less than 1 pound per year for Boiler No. 4 and less than 2 pounds per year for Boiler No. 7.

The above analysis considers only the oil firing capacity of each boiler. The capacity to fire bagasse will not be affected by the project. Based on the applicant’s estimated emissions increases, the project to modify the oil firing systems of Boilers 4 and 7 do not trigger PSD preconstruction review.

**3. DRAFT PERMIT CONDITIONS**

Boiler 4(Emission Unit No. 009)

The following table summarizes the rule applicability and current emissions standards related to oil firing for this unit.

**TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION**

Table 3A. Applicable Emissions Standards for Boiler 4, Oil Firing

Pollutant	Regulation	Emission Standard
NOx	40 CFR 60.44b(l)(1)	NOx standard of 0.20 lb/MMBtu is not applicable because the annual capacity factor for oil from this unit is restricted to less than 10%.
PM	Permit No. PSD-FL-272A (BACT)	0.10 lb/MMBtu
	Rule 62-296.405, F.A.C.	0.10 lb/MMBtu
	Rule 62-296.410, F.A.C.	0.10 lb/MMBtu
	40 CFR 60.43b(c)	PM standard of 0.10 lb/MMBtu is not applicable because unit does not use "conventional" or "emerging" technologies to reduce SO <sub>2</sub> emissions as defined in 40 CFR 60.41b.
SO <sub>2</sub>	Current AC permit request	Fuel oil ≤ 0.40% sulfur by weight
	Rule 62-296.405, F.A.C.	2.75 lb/MMBtu
	40 CFR 60.42b(j)	0.50 lb/MMBtu (oil ≤ 0.50% sulfur by weight)
Opacity	Permit No. PSD-FL-272A (BACT)	Opacity ≤ 20%, except for one 2-minute period per hour ≤ 40%
	Rule 62-296.405, F.A.C.	Opacity ≤ 20%, except for one 2-minute period per hour ≤ 40%
	Rule 62-296.410, F.A.C.	Opacity ≤ 30%, except for one 2-minute period per hour ≤ 40%
	40 CFR 60.43b(f)	Opacity ≤ 20%, except for one 6-minute period per hour ≤ 27%

Note that previous permits did not limit emissions of carbon monoxide, nitrogen oxides or volatile organic compounds when firing oil. As restricted by the existing permits, oil firing contributes little to these emissions compared to firing the primary fuel of bagasse. Currently, Boiler 4 is limited to a maximum 24-hour average heat input rate of 600 MMBtu per hour and a maximum annual oil-firing rate of 500,000 gallons per year. This would be a maximum annual heat input rate from distillate oil of:

$$\text{Annual HI}_{(oil)} = 500,000 \text{ gal/year} \times 135,000 \text{ Btu/gal} \times 1 \text{ MMBtu}/10^{+06} \text{ Btu} = 67,500 \text{ MMBtu/year}$$

This represents less than 2% of the annual maximum capacity on oil. So, the restriction on oil firing ensures that the boiler will not exceed a 10% annual capacity factor limitation. In accordance with 40 CFR 60.44b(l)(1), this limitation allows this boiler to avoid the potential Subpart Db NOx limit of 0.20 lb/MMBtu.

Based on these rule requirements, the following conditions will be included in the Draft Permit.

- The permittee is authorized to replace the existing oil firing system with the following: two multi-stage combustion low-NOx burners with flame scanner, fuel/steam valve train, steam-atomized center-fired oil gun with ignitor, and flame proving rod; a multi-burner windbox; a fuel oil pump set; and a burner management control system. The maximum heat input rate shall not exceed 326 MMBtu per hour of heat input from distillate oil firing. The permittee shall conduct a performance test to validate the designed maximum heat input rate when firing only oil. *{Note: The maximum steam production rate from firing 100% distillate oil is approximately 225,000 lb/hour.}* [Design]
- Any fuel oil fired in this boiler shall be No. 2 distillate oil (or a superior grade) containing no more than 0.40% sulfur by weight as determined by ASTM Methods D-129, D-1552, D-2622, D-4294, or equivalent methods approved by the Department. [Applicant Request; Rule 62-296.405, F.A.C.; 40 CFR 60.42b(j)]
- No more than 2417 gallons of distillate oil shall be fired per hour and no more than 500,000 gallons of distillate oil shall be fired during any consecutive 12-month period. The permittee shall install, calibrate, operate, and maintain an individual fuel oil flow meter with integrator. *{Note: Compliance with the annual oil firing limit ensures that the annual capacity factor (as defined in 40 CFR 60.41b) remains below 10% and avoids applicability of the NOx standard in accordance with 40 CFR 60.44b(l)(1).}* [Design; Permit No. PSD-FL-272A; Rule 62-212.400, F.A.C.; 40 CFR 60.44b(l)(1)]

**TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION**

- Emissions of particulate matter shall not exceed 0.10 lb/MMBtu of heat input from the firing of distillate oil as determined by EPA Method 5. Because this unit fires very low sulfur distillate oil with considerably restricted oil usage, a separate test for particulate matter when firing oil is not required. If oil is co-fired with bagasse during the required annual compliance test, the particulate standard shall be prorated based on heat input from each fuel and the corresponding particulate matter standards. *{Note: This boiler fires very low sulfur ( $\leq 0.5\%$  sulfur by weight) distillate oil. For such low sulfur fuels, the particulate matter standard of 40 CFR 60.43b(b) does not apply because this unit does not use “conventional” or “emerging” technology to control sulfur dioxide emissions. The BACT determination in Permit No. PSD-FL-272A did not require initial or subsequent testing for particulate matter when firing only distillate oil.}* [Permit No. PSD-FL-272A; Rules 62-296.405 and 62-296.410, F.A.C.]
- Emissions of nitrogen oxides shall not exceed 0.20 lb/MMBtu of heat input from the firing of distillate oil as determined by EPA Method 7E. *{Note: The standard is necessary to ensure that the project does not result in a PSD significant increase for NOx emissions.}* [Rules 62-4.070(3) and 62-212.400, F.A.C.]
- Visible emissions shall not exceed 20% opacity (6-minute average) except for one 6-minute period per hour of not more than 27% opacity as determined by EPA Method 9. This standard applies at all times except during periods of startup, shutdown, or malfunction. *{Note: This standard is equivalent to 20% opacity except for one 2-minute period per hour of not more than 40% opacity.}* [Permit No. PSD-FL-272A; Rule 62-296.405, F.A.C.; Rule 62-296.410, F.A.C.; 40 CFR 60.43b(f)]
- The permittee shall comply with the continuous opacity monitoring requirements of §60.48b and §60.49b in 40 CFR 60. *{Note: In lieu of continuous opacity monitoring for Boiler No. 7, an Alternate Sampling Procedure was previously approved after construction of Boiler 7. The permittee has indicated that a similar request will be made for Boiler 4 prior to commercial startup.}*
- The permittee shall conduct initial tests to demonstrate compliance with the nitrogen oxides and opacity standards. Thereafter, annual compliance tests are required for opacity and prior to permit renewal for nitrogen oxides. [Rule 62-297.310(7)(a), F.A.C.]
- The permit conditions supplement all other conditions in valid air construction and operation permits.

Boiler 7 (Emission Unit No. 014)

The following table summarizes rule applicability and current emissions standards related to oil firing.

Table 3B. Applicable Emissions Standards for Boiler 7, Oil Firing

Pollutant	Regulation	Emission Standard
CO	Permit No. PSD-FL-208(BACT)	0.066 lb/MMBtu
NOx	Permit No. PSD-FL-208(BACT)	0.20 lb/MMBtu Distillate oil $\leq 0.015\%$ nitrogen by weight (ASTM D4629)
	40 CFR 60.44b(1)(1)	NOx standard of 0.20 lb/MMBtu is not applicable because the annual capacity factor for oil from this unit is restricted to less than 10%.
Opacity	Permit No. PSD-FL-208(BACT) ASP No. 95-B-01 dated 04/11/96	Opacity $\leq 20\%$ , except for one 6-minute period per hour $\leq 27\%$
	Rule 62-296.405, F.A.C.	Opacity $\leq 20\%$ , except for one 2-minute period per hour $\leq 40\%$
	Rule 62-296.410, F.A.C.	Opacity $\leq 30\%$ , except for one 2-minute period per hour $\leq 40\%$
	40 CFR 60.43b	Opacity $\leq 20\%$ , except for one 6-minute period per hour $\leq 27\%$
PM	Permit No. PSD-FL-208(BACT)	0.03 lb/MMBtu
	Rule 62-296.405, F.A.C.	0.10 lb/MMBtu
	Rule 62-296.410, F.A.C.	0.10 lb/MMBtu
	40 CFR 60.43b	0.10 lb/MMBtu

**TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION**

SAM	Permit No. PSD-FL-208(BACT)	0.005 lb/MMBtu
SO <sub>2</sub>	Permit No. PSD-FL-208(BACT)	0.05 lb/MMBtu Oil ≤ 0.05% sulfur by weight
	Rule 62-296.405, F.A.C.	Oil ≤ 0.5% sulfur by weight (0.5 lb/MMBtu)
	40 CFR 60.42b(j)	Oil ≤ 0.5% sulfur by weight (0.5 lb/MMBtu)
VOC	Permit No. PSD-FL-208(BACT)	0.004 lb/MMBtu

Boiler 7 is limited to a maximum 24-hour average heat input rate of 738 MMBtu per hour. This unit is currently limited to an annual capacity factor of 10% or less. This would be a maximum annual heat input rate from distillate oil of:

$$\text{Annual HI} = 738 \text{ MMBtu/hour} \times 8760 \text{ hours} \times 0.10 = 646,488 \text{ MMBtu/year}$$

Based on a fuel heating value of 135 MMBtu/1000 gallons, the maximum annual fuel consumption would be:

$$\text{Annual FC} = 646,488 \text{ MMBtu/year} \times 1000 \text{ gallons/135 MMBtu} = 4,788,800 \text{ gallons per year}$$

So, the requested limit of 4,500,000 gallons in any consecutive 12-month period ensures that the boiler will not exceed the 10% annual capacity factor limitation. In accordance with 40 CFR 60.44b(l)(1), this limitation allows this boiler to avoid the potential Subpart Db NO<sub>x</sub> limit of 0.20 lb/MMBtu.

Based on these rule requirements, the following conditions will be included in the Draft Permit.

- The permittee is authorized to modify the existing oil firing system as follows: modify existing oil burners and configure as multi-stage combustion low-NO<sub>x</sub> burners; modify the fuel/steam valve train to incorporate a constant differential pressure valve; and replace existing two oil pumps. The maximum heat input rate shall not exceed 326 MMBtu per hour of heat input from distillate oil firing. The permittee shall conduct a performance test to validate the designed maximum heat input rate when firing only oil. *{Permitting Note: The maximum steam production rate from firing 100% distillate oil is approximately 225,000 lb/hour.}* [Design]
- Any fuel oil fired in this boiler shall be No. 2 distillate oil (or a superior grade) containing no more than 0.05% sulfur by weight as determined by ASTM Methods D-129, D-1552, D-2622, D-4294, or equivalent methods approved by the Department. The nitrogen content of the distillate oil shall not exceed 0.015% nitrogen by weight as determined by ASTM Method D4629 or equivalent methods approved by the Department. [Permit No. PSD-FL-208; Rule 62-296.405, F.A.C.; 40 CFR 60.42b(j)]
- No more than 2311 gallons of distillate oil shall be fired per hour and no more than 4,500,000 gallons of distillate oil shall be fired during any consecutive 12-month period. The permittee shall install, calibrate, operate, and maintain an individual fuel oil flow meter with integrator. *{Permitting Note: The annual oil firing limit ensures that the annual capacity factor (as defined in 40 CFR 60.41b) remains below 10% and avoids applicability of the NO<sub>x</sub> standard in accordance with 40 CFR 60.44b(l)(1).}* [Design; Permit No. PSD-FL-208; Rule 62-212.400, F.A.C.; 40 CFR 60.44b(l)(1)]
- Emissions of particulate matter (PM/PM<sub>10</sub>) shall not exceed 0.03 lb/MMBtu of heat input from the firing of distillate oil as determined by EPA Methods 5 or 17. Because this unit fires ultra-low sulfur distillate oil, a separate test for particulate matter when firing oil is not required. If oil is co-fired with bagasse during the required annual compliance test, the particulate standard shall be prorated based on heat input from each fuel and the corresponding particulate matter standards. *{Note: This boiler fires very low sulfur distillate oil (≤ 0.5% sulfur by weight). For such low sulfur fuels, the particulate matter standard of 40 CFR 60.43b(b) does not apply because this unit does not use “conventional” or “emerging” technology to control sulfur dioxide emissions. The BACT determination in Permit No. PSD-FL-208 did not require initial or subsequent testing for particulate matter when firing distillate oil.}* [Permit No. PSD-FL-208; Rules 62-296.405 and 62-296.410, F.A.C.]

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

- Emissions of nitrogen oxides shall not exceed 0.20 lb/MMBtu of heat input from the firing of distillate oil as determined by EPA Method 7E. *{Note: The standard is necessary to ensure that the project does not result in a PSD significant increase for NOx emissions.}* [Permit No. PSD-FL-208; Rule 62-4.070(3), F.A.C.]
- Visible emissions shall not exceed 20% opacity (6-minute average), except for one 6-minute period per hour of not more than 27% opacity, as determined by EPA Method 9. This standard applies at all times except during periods of startup, shutdown, or malfunction. *{Note: This standard is equivalent to 20% opacity except for one 2-minute period per hour of not more than 40% opacity.}* [Permit No. PSD-FL-272A; Rule 62-296.405, F.A.C.; Rule 62-296.410, F.A.C.; 40 CFR 60.43b(f)]
- Due to the increased hourly oil firing rate and requested restriction on annual oil usage, it will be necessary to revise the maximum emission rates.

Pollutant	BACT Standard lb/MMBtu	Maximum Emission Rates	
		lb/hour	tons/year
Carbon Monoxide (CO)	0.066	21.5	20.05
Nitrogen Oxides (NOx)	0.20	65.2	60.75
Particulate Matter (PM/PM10)	0.03	9.8	9.11
Sulfuric Acid Mist (SAM)	0.005	1.6	1.52
Sulfur Dioxide (SO <sub>2</sub> )	0.05	16.3	15.19
Volatile Organic Compounds (VOC)	0.004	1.3	1.22

- The permittee shall conduct initial tests to demonstrate compliance with the nitrogen oxides and opacity standards. Thereafter, annual compliance tests are required for opacity and prior to permit renewal for nitrogen oxides.
- The permit conditions supplement all other conditions in valid air construction and operation permits.

#### 4. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the draft permit. No air quality modeling analysis is required because the project does not result in a significant increase in emissions. Jeff Koerner is the project engineer responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting the project engineer at the Department's Bureau of Air Regulation at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

#### 5. REFERENCES

1. EPA Region 4 letter to the North Carolina Department of Environment and Natural Resources dated August 8, 2002 regarding PPG Industries in Lexington, North Carolina; page 6
2. Letter from EPA to the Wisconsin Electric Power Company dated February 15, 1989 regarding PSD and NSPS issues related to the proposed life extension project; pages 10-11

# DRAFT PERMIT

## PERMITTEE:

United States Sugar Corporation  
111 Ponce DeLeon Avenue  
Clewiston, FL 33440

### *Authorized Representative:*

Mr. William A. Raiola, V.P. of Sugar Processing Operations

Clewiston Sugar Mill and Refinery Air Permit No. 0510003-018-AC Facility ID No. 0510003 SIC Nos. 2061, 2062 Permit Expires: December 31, 2003
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## PROJECT AND LOCATION

This permit authorizes modification of the oil firing systems for Boilers 4 and 7 at the existing Clewiston Sugar Mill and Refinery located at the intersection of W.C. Owens Avenue and State Road 832 in Hendry County, Florida. The UTM coordinates are Zone 17, 506.1 km East, and 2956.9 km North.

## STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to perform the work in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department. This permit supplements all previously issued air construction and operation permits for this emissions unit.

## SPECIFIC CONDITIONS

- Section 1. General Information
- Section 2. Administrative Requirements
- Section 3. Emissions Units Specific Conditions
- Section 4. General Conditions

(DRAFT)

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Howard L. Rhodes, Director  
Division of Air Resources Management

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(Date)



## SECTION 1. GENERAL INFORMATION (DRAFT)

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### FACILITY AND PROJECT DESCRIPTION

The United States Sugar Corporation (USSC) operates the existing Clewiston sugar mill and refinery in Hendry County, Florida. Sugarcane is harvested from nearby fields and transported to the mill by truck. In the mill, sugarcane is cut into small pieces and passed through a series of presses to squeeze juice from the cane. The juice undergoes clarification, separation, evaporation, and crystallization to produce raw, unrefined sugar. In the refinery, raw sugar is decolorized, concentrated, crystallized, dried, conditioned, screened, packaged, stored, and distributed as refined sugar. The fibrous byproduct remaining from the sugarcane is called bagasse and is burned as boiler fuel to provide steam and heating requirements for the mill and refinery.

The primary air pollution sources are the five existing boilers firing bagasse and fuel oil. Particulate matter emissions are controlled with wet scrubbers for Boilers 1 through 4 and with an electrostatic precipitator for Boiler 7. Other air pollution sources in the refinery include a fluidized bed dryer/cooler, a granular carbon regeneration furnace, conditioning silos with dust collectors, vacuum systems, sugar/starch bins, conveyors, and a packaging system. This permit authorizes modification of the oil firing systems for Boilers 4 and 7, which will increase the maximum heat input rates and provide greater operational reliability. It supplements all previously issued air construction and operation permits for these emissions units.

### REGULATORY CLASSIFICATION

Title III: The facility is a potential major source of hazardous air pollutants (HAP).

Title IV: The facility has no units subject to the acid rain provisions of the Clean Air Act.

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.

PSD: The facility is a PSD-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The facility operates some units subject to the New Source Performance Standards in 40 CFR 60.

### RELEVANT DOCUMENTS

The permit application and additional information received to make it complete are not a part of this permit; however, the information is specifically related to this permitting action and is on file with the Department.

## SECTION 2. ADMINISTRATIVE REQUIREMENTS (DRAFT)

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1. Permitting Authority: All documents related to PSD applications for permits to construct or modify emissions units shall be submitted to the Bureau of Air Regulation of the Florida Department of Environmental Protection (DEP) at 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400. All documents related to applications for permits to construct minor sources of air pollution or to operate the facility shall be submitted to the Department's South District Office at 2295 Victoria Avenue, Suite 364, Fort Myers, Florida, 33901-3381.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Department's South District Office at the above address.
3. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403 of the Florida Statutes, the Florida Administrative Code, the Code of Federal Regulations, and any previously issued valid air permits. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
4. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
5. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
6. Relaxations of Restrictions on Pollutant Emitting Capacity: If a previously permitted facility or modification becomes a facility or modification which would be subject to the preconstruction review requirements of this rule if it were a proposed new facility or modification solely by virtue of a relaxation in any federally enforceable limitation on the capacity of the facility or modification to emit a pollutant (such as a restriction on hours of operation), which limitation was established after August 7, 1980, then at the time of such relaxation the preconstruction review requirements of this rule shall apply to the facility or modification as though construction had not yet commenced on it. [Rule 62-212.400(2)(g), F.A.C.]
7. Title V Permit: This permit authorizes modification of the permitted emissions units and initial operation to determine compliance with Department rules and conditions of the permit. A Title V operation permit is required for regular operation. The permittee shall apply for a Title V operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may require by law. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

## SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

### A. Boiler No. 4

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
009	Boiler 4 is a traveling grate boiler manufactured by Foster Wheeler with a maximum steam production rate of 300,000 pounds per hour at 750° F and 600 psig. It fires primarily bagasse with distillate oil as a supplemental and alternate fuel. Particulate matter emissions are controlled by a Type D, Size 200 Joy Turbulaire wet impingement scrubber. Exhaust gases exit a 150 feet tall stack at 160° F with an approximate flow rate of 281,000 acfm.

#### EQUIPMENT

1. Oil Firing Upgrade: The permittee is authorized to replace the existing oil firing system with the following general equipment: two multi-stage combustion low-NOx burners with flame scanner, fuel/steam valve train, steam-atomized center-fired oil gun with ignitor and flame proving rod; a multi-burner windbox; a fuel oil pump set; and a burner management control system. [Design]

#### PERFORMANCE RESTRICTIONS

2. Oil Specification: Any fuel oil fired in this boiler shall be No. 2 distillate oil (or a superior grade) containing no more than 0.40% sulfur by weight as determined by ASTM Methods D-129, D-1552, D-2622, D-4294, or equivalent methods approved by the Department. [Applicant Request; Rules 62-212.400 and 62-296.405, F.A.C.; 40 CFR 60.42b(j)]
3. Permitted Capacity, Oil Firing: The maximum heat input rate shall not exceed 326 MMBtu per hour of heat input from distillate oil firing. *{Permitting Note: The maximum steam production rate from firing 100% distillate oil is approximately 225,000 lb/hour.}* [Design; Rule 62-120.200(PTE), F.A.C.]
4. Oil Firing Restrictions: No more than 2417 gallons of distillate oil shall be fired during any hour and no more than 500,000 gallons of distillate oil shall be fired during any consecutive 12-month period. The permittee shall install, calibrate, operate, and maintain an individual fuel oil flow meter with integrator. *{Permitting Note: The annual oil firing limit ensures that the annual capacity factor (as defined in 40 CFR 60.41b) remains below 10% and avoids applicability of the NOx standard in accordance with 40 CFR 60.44b(l)(1). The annual limit also provided the basis for an earlier determination of BACT for SO2 emissions in Permit No. PSD-FL-272A.}* [Design; Permit No. PSD-FL-272A; Rule 62-212.400, F.A.C.; 40 CFR 60.44b(l)(1)]

#### EMISSIONS STANDARDS

5. PM Emissions: Emissions of particulate matter (PM) shall not exceed 0.10 lb/MMBtu of heat input from the firing of distillate oil as determined by EPA Method 5. [Permit No. PSD-FL-272A; Rules 62-296.405 and 62-296.410, F.A.C.]
6. Visible Emissions: When firing distillate oil, visible emissions shall not exceed 20% opacity based on a 6-minute average except for one 6-minute period per hour that shall not exceed 27% opacity as determined by EPA Method 9. [Permit No. PSD-FL-272A; Rules 62-296.406 and 62-296.410; 40 CFR 60.43b(f)]
7. NOx Emissions: Emissions of nitrogen oxides (NOx) shall not exceed 0.20 lb/MMBtu of heat input from the firing of distillate oil as determined by EPA Method 7E. *{Note: Compliance with the standard ensures that the project does not result in a PSD significant increase for NOx emissions.}* [Rules 62-4.070(3) and 62-212.400, F.A.C.]

#### EMISSIONS PERFORMANCE TESTING

8. Initial Capacity Tests: Within 90 days of first fire on oil with the modified system, the permittee shall

### SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

#### A. Boiler No. 4

conduct a 1-hour performance test to validate the designed maximum heat input rate. The test shall be conducted when firing only oil. The oil firing rate (gallons) and steam production rate (lb/hour) shall be recorded for the 1-hour test. The heat input rate shall be calculated based on the recorded oil firing rate and an actual fuel analysis. If the maximum heat input rate for the initial test is less than 90% of the maximum rate specified in this permit, the Department will modify this permit accordingly. The design capacity test may be conducted during one of the other required initial tests. Results of the test shall be submitted to the Department within 45 days of completion. [Rule 62-4.070(3), F.A.C.]

9. **Test Methods:** Required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content <i>{Note: Performed as necessary to support other required methods.}</i>
5	Determination of Particulate Matter Emissions
7E	Determination of Nitrogen Oxides Emissions
9	Visual Determination of the Opacity of Emissions
19	Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates <i>{Note: Performed as necessary to support other required methods.}</i>

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used for compliance testing without prior written approval from the Department. Tests shall also be conducted in accordance with the requirements specified in Appendix SC of Section 4 of this permit. [Rules 62-204.800 and 62-297.100, F.A.C.; 40 CFR 60, Appendix A]

10. **Initial Compliance Tests:** Within 60 days of achieving permitted capacity on oil, but no later than 180 days after first firing oil in the modified system, the permittee shall conduct initial performance tests to demonstrate compliance with the standards for nitrogen oxides and visible emissions. The tests shall be conducted when firing only oil at the permitted capacity. Because this unit fires very low sulfur distillate oil with considerably restricted oil usage, an initial test for particulate matter when firing only oil is not required. [Permit No. PSD-FL-272A; and Rules 62-4.070(3) and 62-297.310(7)(a), F.A.C.]
11. **Annual Tests:** During each federal fiscal year (October 1 - September 30), the permittee shall conduct performance tests to demonstrate compliance with the standards for visible emissions. The test may be conducted when firing bagasse, oil, or a combination of these fuels. If oil is co-fired with bagasse during the required annual compliance test, the particulate matter standard shall be prorated based on heat input from each fuel and the corresponding particulate matter standards. [Rule 62-297.310(7)(a), F.A.C.]
12. **Renewal Tests:** The permittee shall conduct a performance test to demonstrate compliance with the nitrogen oxides and visible emissions standards prior to obtaining a renewed operation permit. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3. b or c, F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal: did not operate; or, in the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours. [Rule 62-297.310(7)(a)3, F.A.C.]
13. **Opacity Monitoring:** The permittee shall comply with the continuous opacity monitoring requirements of §60.48b and §60.49b in 40 CFR 60. See Appendix Db in Section 4 of this permit. [Subpart Db, 40 CFR 60; Rule 62-204.800, F.A.C.]

#### RECORDS AND REPORTS

14. **Test Notification:** The permittee shall notify the Compliance Authority in writing at least thirty (30) days prior to any initial NSPS performance tests and at least fifteen (15) days prior to any other required tests.

## SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

### A. Boiler No. 4

[Rule 62-297.310(7)(a)9, F.A.C.; 40 CFR 60.7 and 60.8]

15. **Test Reports:** The permittee shall submit reports for all required tests in accordance with the requirements specified in Appendix SC of Section 4 of this permit. For each test run, the report shall also indicate the actual total heat input rate (MMBtu/hour), the actual oil firing rate (gallons/hour), the actual heat input rate from oil (MMBtu/hour), and the steam production rate (lb/hour). [Rule 62-297.310(8), F.A.C.]
16. **Oil Firing Records:**
  - a. *Methods:* The sulfur content of the fuel oil shall be determined by ASTM Methods D-129, D-1552, D-2622, D-4294, or equivalent methods approved by the Department.
  - b. *Vendor Analysis:* For each fuel oil delivery, the permittee shall record and retain the following information: the date; gallons delivered; and a fuel oil analysis including the heat content in MMBtu/gallon, the density in pounds/gallon, the sulfur content in percent by weight, and the name of the test method used. A certified analysis supplied by the fuel oil vendor is acceptable.
  - c. *Actual Sampling:* At least once during each federal fiscal year, the permittee shall have a representative sample analyzed in accordance with the specified methods. Results of the analysis shall be submitted to the Compliance Authority within 45 days of sampling.
  - d. *Fuel Consumption:* At the end of each month, the permittee shall read and record the amount indicated by the integrator on the fuel oil flow meter. The permittee shall calculate and record the amount of fuel oil fired during each month and during each consecutive 12-month period. Records shall be available for inspection within ten days following each month.

[Rule 62-4.070(3), F.A.C.; 40 CFR 60.49b]

#### OTHER APPLICABLE REQUIREMENTS

17. **Previous Permits:** This permit supplements all previously issued air construction and operation permits for this emissions unit. Except for differences with the above conditions, the unit remains subject to the conditions of all other valid air construction and operations permits. [Rule 62-4.070, F.A.C.]
18. **NSPS Provisions:** Boiler 4 is subject to the applicable portions of Subpart Db of the New Source Performance Standards in 40 CFR 60. A summary of the NSPS Subpart Db requirements is provided in Appendix Db of Section 4 of this permit. [40 CFR 60, Subpart Db; Rule 62-204.800, F.A.C.]

## SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

### B. Boiler No. 7

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
014	Boiler 7 is an Alpha Conal Model No. ATT-203-18 spreader-stoker, vibrating-grate boiler with a maximum 1-hour steam production rate of 385,000 pounds per hour at 750° F and 600 psig. It fires primarily bagasse with distillate oil as a supplemental and alternate fuel. Particulate matter emissions are controlled by a wet sand separator followed by an ABB electrostatic precipitator. Exhaust gases exit a 225 feet tall stack at 335° F with an average flow rate of 355,000 acfm.

#### EQUIPMENT

1. Oil Firing Upgrade: The permittee is authorized to modify the existing oil firing system as follows: modify existing oil burners and configure as multi-stage combustion low-NOx burners; modify the fuel/steam valve train to incorporate a constant differential pressure valve; and replace two existing oil pumps. [Design]

#### PERFORMANCE RESTRICTIONS

2. Oil Specification: Any fuel oil fired in this boiler shall be No. 2 distillate oil (or a superior grade) containing no more than 0.05% sulfur by weight as determined by ASTM Methods D-129, D-1552, D-2622, D-4294, or equivalent methods approved by the Department. The nitrogen content of the distillate oil shall not exceed 0.015% nitrogen by weight as determined by ASTM Method D4629 or equivalent methods approved by the Department. [Permit No. PSD-FL-208; Rules 62-212.400 and 62-296.405, F.A.C.; and 40 CFR 60.42b(j)]
3. Permitted Capacity, Oil Firing: The maximum heat input rate shall not exceed 326 MMBtu per hour of heat input from distillate oil firing. *{Permitting Note: The maximum steam production rate from firing 100% distillate oil is approximately 225,000 lb/hour.}* [Design; Rule 62-120.200(PTE), F.A.C.]
4. Oil Firing Restrictions: No more than 2311 gallons of distillate oil shall be fired per hour and no more than 4,500,000 gallons of distillate oil shall be fired during any consecutive 12-month period. The permittee shall install, calibrate, operate, and maintain an individual fuel oil flow meter with integrator. *{Permitting Note: The annual oil firing limit ensures that the annual capacity factor (as defined in 40 CFR 60.41b) remains below 10% and avoids applicability of the NOx standard in accordance with 40 CFR 60.44b(l)(1).}* [Design; Permit No. PSD-FL-208; Rule 62-212.400, F.A.C.; and 40 CFR 60.44b(l)(1)]

#### EMISSIONS STANDARDS

5. PM Emissions: Emissions of particulate matter (PM) shall not exceed 0.03 lb/MMBtu of heat input from the firing of distillate oil as determined by EPA Methods 5 or 17. [Permit No. PSD-FL-208(BACT); Rules 62-296.405, and 62-296.410, F.A.C.]
6. Visible Emissions: When firing distillate oil, visible emissions shall not exceed 20% opacity based on a 6-minute average except for one 6-minute period per hour that shall not exceed 27% opacity, as determined by EPA Method 9. [40 CFR 60.43b(f); Permit No. PSD-FL-208(BACT)]
7. NOx Emissions: Emissions of nitrogen oxides shall not exceed 0.20 lb/MMBtu of heat input from the firing of distillate oil as determined by EPA Method 7E. *{Note: Compliance with the standard ensures that the project does not result in a PSD significant increase for NOx emissions.}* [Rule 62-4.070(3), F.A.C.; Permit No. PSD-FL-208(BACT)]

*{Permitting Note: The following table summarizes revised maximum emission rates based on the original BACT determinations of Permit No. PSD-FL-208, the limits of this permit, and a heating value of 135,000 Btu per gallon of distillate oil.}*

**SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)**

**B. Boiler No. 7**

*Table A. Estimated Maximum Emission Rates*

Pollutant	Original BACT lb/MMBtu*	Maximum Emission Rates	
		lb/hour	tons/year
CO	0.066	21.5	20.05
NOx	0.20	65.2	60.75
PM	0.03	9.8	9.11
SAM	0.005	1.6	1.52
SO <sub>2</sub>	0.05	16.3	15.19
VOC	0.004	1.3	1.22

**EMISSIONS PERFORMANCE TESTING**

- Design Capacity Tests:** Within 90 days of first fire on oil with the modified system, the permittee shall conduct a 1-hour performance test to validate the designed maximum heat input rate. The test shall be conducted when firing only oil. The oil firing rate (gallons) and steam production rate (lb/hour) shall be recorded for the 1-hour test. The heat input rate shall be calculated based on the recorded oil firing rate and an actual fuel analysis. If the maximum heat input rate for the initial test is less than 90% of the maximum rate specified in this permit, the Department will modify this permit accordingly. The design capacity test may be conducted during one of the other required initial tests. Results of the test shall be submitted to the Department within 45 days of completion. [Rule 62-4.070(3), F.A.C.]
- Test Methods:** Required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content <i>{Note: Performed as necessary to support other required methods.}</i>
5 or 17	Determination of Particulate Matter Emissions
7E	Determination of Nitrogen Oxides Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
19	Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates <i>{Note: Performed as necessary to support other required methods.}</i>

The above methods are described in Appendix A of 40 CFR 60 and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used for compliance testing without prior written approval from the Department. Tests shall also be conducted in accordance with the requirements specified in Section 4, Appendix SC of this permit. [Rules 62-204.800 and 62-297.100, F.A.C.; 40 CFR 60, Appendix A]

- Initial Compliance Tests:** Within 60 days of achieving permitted capacity on oil, but no later than 180 days after first firing oil in the modified system, the permittee shall conduct initial performance tests to demonstrate compliance with the standards for nitrogen oxides and visible emissions. The tests shall be conducted when firing only oil at the permitted capacity. Because this unit fires ultra-low sulfur distillate oil, a separate test for particulate matter when firing only oil is not required. If oil is co-fired with bagasse during the required annual compliance test, the particulate standard shall be prorated based on heat input from each fuel and the corresponding particulate matter standards. [Permit No. PSD-FL-208; Rules 62-4.070(3) and 62-297.310(7)(a)1, F.A.C.]
- Annual Tests:** During each federal fiscal year (October 1 - September 30), the permittee shall conduct performance tests to demonstrate compliance with the standards for visible emissions. The test may be conducted when firing bagasse, oil, or a combination of these fuels. [Rule 62-297.310(7)(a), F.A.C.]

## SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

### B. Boiler No. 7

12. Renewal Tests: The permittee shall conduct a performance test to demonstrate compliance with the nitrogen oxides and visible emissions standards prior to obtaining a renewed operation permit. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3. b or c, F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal: did not operate; or, in the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours. [Rule 62-297.310(7)(a)3, F.A.C.]
13. Opacity Monitoring: Appendix ASP specifies an Alternate Sampling Procedure for monitoring opacity in lieu of the NSPS Subpart Db requirements for continuous opacity monitoring. [Permit No. PSD-FL-208; Alternate Sampling Procedure No. 95-B-01 dated April 1, 1996]

#### RECORDS AND REPORTS

14. Test Notification: The permittee shall notify the Compliance Authority in writing at least thirty (30) days prior to any initial NSPS performance tests and at least fifteen (15) days prior to any other required tests. [Rule 62-297.310(7)(a)9, F.A.C.; 40 CFR 60.7 and 60.8]
15. Test Reports: The permittee shall submit reports for all required tests in accordance with the requirements specified in Appendix SC of Section 4 of this permit. For each test run, the report shall also indicate the actual total heat input rate (MMBtu/hour), the actual oil firing rate (gallons/hour), the actual heat input rate from oil (MMBtu/hour), and the steam production rate (lb/hour). [Rule 62-297.310(8), F.A.C.]
16. Oil Firing Records:
  - a. *Methods*: The sulfur content of the fuel oil shall be determined by ASTM Methods D-129, D-1552, D-2622, D-4294, or equivalent methods approved by the Department.
  - b. *Vendor Analysis*: For each fuel oil delivery, the permittee shall record and retain the following information: the date; the gallons delivered; and a fuel oil analysis including the heat content in MMBtu/gallon, the density in pounds/gallon, the sulfur content in percent by weight, and the name of the test method used. A certified analysis supplied by the fuel oil vendor is acceptable.
  - c. *Actual Sampling*: At least once during each federal fiscal year, the permittee shall have a representative sample analyzed in accordance with the specified methods. Results of the analysis shall be submitted to the Compliance Authority within 45 days of sampling.
  - d. *Fuel Consumption*: At the end of each month, the permittee shall read and record the amount indicated by the integrator on the fuel oil flow meter. The permittee shall calculate and record the amount of fuel oil fired during each month and during each consecutive 12-month period. Records shall be available for inspection within ten days following each month.

[Rule 62-4.070(3), F.A.C.; 40 CFR 60.49b]

#### OTHER APPLICABLE REQUIREMENTS

17. Previous Permits: This permit supplements all previously issued air construction and operation permits for this emissions unit. Except for differences with the above conditions, the unit remains subject to the conditions of all other valid air construction and operations permits. [Rule 62-4.070, F.A.C.]
18. NSPS Provisions: Boiler 7 is subject to the applicable portions of Subpart Db of the New Source Performance Standards in 40 CFR 60. A summary of the NSPS Subpart Db requirements is provided in Appendix Db. [40 CFR 60, Subpart Db; Rule 62-204.800, F.A.C.]



## SECTION 4. APPENDICES

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### CONTENTS

- Appendix ASP. Alternate Sampling Procedure for Opacity, Boiler 7
- Appendix CF. Citation Format
- Appendix Db. NSPS Subpart Db Requirements for Boilers 4 and 7
- Appendix GC. General Conditions
- Appendix SC. Standard Conditions

## SECTION 4. APPENDIX ASP

### ALTERNATE SAMPLING PROCEDURE FOR OPACITY, BOILER 7

In accordance with Alternate Sampling Procedure No. 95-B-01 dated April 1, 1996, the following conditions are specified in lieu of the requirement for continuous opacity monitoring.

1. Visible Emissions: In lieu of continuous opacity monitoring, the permittee may use the following procedure in order to determine the opacity of emissions when Boiler No. 7 burns No. 2 fuel oil:
  - a. An individual who is trained in the use of EPA Reference Method 9 and is currently certified as a visible emissions observer by the State of Florida shall perform a twelve-minute opacity test once per daylight shift during the period that the highest oil firing rate occurs;
  - b. An individual who is trained in the use of EPA Reference Method 9 and is currently certified as a visible emissions observer by the State of Florida shall perform a twelve-minute opacity test when the boiler achieves the normal operational load after a cold boiler startup with No. 2 fuel oil;
  - c. Required observations shall be made in accordance with the provisions of EPA Reference Method 9;
  - d. The observer shall maintain a log, which includes all of the information required by EPA Reference Method 9 for each set of observations and the quantity of No. 2 fuel oil being burned at the time of the observations;
  - e. A copy of the observation log shall be submitted to the South District Office of the Department once per calendar quarter if distillate oil was fired during that quarter. Information regarding fuel usage and fuel analysis shall also be submitted to the South district Office on a quarterly basis to verify that the 10 percent annual capacity factor limit is not exceeded;
  - f. The permittee shall follow the boiler manufacturer's maintenance schedule and procedures to assure that serviceable components are well maintained, and;
  - g. Permittee shall install and operate a continuous opacity monitor if either the annual capacity factor limit of 10 percent for combustion of No. 2 fuel oil is exceeded, or the applicable visible emission limiting standard in 40 CFR 60.43(f) is not regularly complied with when Boiler No. 7 is operated on No. 2 fuel oil.

[Rules 62-297.401(9), 62-212.400(5), F.A.C., 62-212.400(6), F.A.C., Construction Permit AC26-238006/BACT/PSD-FL-208 dated January 31, 1995, and ASP No. 95-B-01; Administrative Order dated April 1, 1996]

2. COMS: The Department reserves the right to require the permittee to install and operate a continuous opacity monitor pursuant to 40 CFR 60.48b(a), if after investigation, if it is believed that a continuous opacity monitoring system is necessary to more accurately assess the compliance status of the affected source.

[Permit No. PSD-FL-208 dated January 31, 1995; Alternate Sampling Procedure No. 95-B-01 dated April 1, 1996]

**SECTION 4. APPENDIX CF**  
**CITATION FORMAT**

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*The following examples illustrate the format used in the permit to identify applicable permitting actions and regulations.*

**REFERENCES TO PREVIOUS PERMITTING ACTIONS**

Old Permit Numbers

*Example:* Permit No. AC50-123456 or Air Permit No. AO50-123456

*Where:* "AC" identifies the permit as an Air Construction Permit  
"AO" identifies the permit as an Air Operation Permit  
"123456" identifies the specific permit project number

New Permit Numbers

*Example:* Permit Nos. 099-2222-001-AC, 099-2222-001-AF, 099-2222-001-AO, or 099-2222-001-AV

*Where:* "099" represents the specific county ID number in which the project is located  
"2222" represents the specific facility ID number  
"001" identifies the specific permit project  
"AC" identifies the permit as an air construction permit  
"AF" identifies the permit as a minor federally enforceable state operation permit  
"AO" identifies the permit as a minor source air operation permit  
"AV" identifies the permit as a Title V Major Source Air Operation Permit

PSD Permit Numbers

*Example:* Permit No. PSD-FL-317

*Where:* "PSD" means issued pursuant to the Prevention of Significant Deterioration of Air Quality  
"FL" means that the permit was issued by the State of Florida  
"317" identifies the specific permit project

**RULE CITATION FORMATS**

Florida Administrative Code (F.A.C.)

*Example:* [Rule 62-213.205, F.A.C.]

*Means:* Title 62, Chapter 213, Rule 205 of the Florida Administrative Code

Code of Federal Regulations (CFR)

*Example:* [40 CFR 60.7]

*Means:* Title 40, Part 60, Section 7

## SECTION 4. APPENDIX Db

### NSPS SUBPART Db REQUIREMENTS FOR BOILERS 4 AND 7

Boilers 4 and 7 (Emission Units 009 and 014) are subject to all applicable portions of the federal New Source Performance Standards specified in Subpart Db or 40 CFR 60. The following is a summary of these requirements supplemented with Department notes.

#### 60.40b Applicability and Delegation of Authority

- (a) The affected facility to which this subpart applies is each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 29 MW (100 million Btu/hour).
- (j) Any affected facility meeting the applicability requirements under paragraph (a) of this section and commencing construction, modification, or reconstruction after June 19, 1986 is not subject to Subpart D (Standards of Performance for Fossil-Fuel-Fired Steam Generators, §60.40).

*{Department Note: Although the heat input rates of Boilers 4 and 7 exceed 250 MMBtu per hour, the modifications occur after June 19, 1986. Therefore, the modified boilers are subject only to the applicable portions of NSPS Subpart Db.}*

#### 60.41b Definitions

*Annual capacity factor* means the ratio between the actual heat input to a steam generating unit from the fuels listed in §60.42b(a), §60.43b(a), or §60.44b(a), as applicable, during a calendar year and the potential heat input to the steam generating unit had it been operated for 8760 hours during a calendar year at the maximum steady state design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility in a calendar year.

*Conventional technology* means wet flue gas desulfurization (FGD) technology, dry FGD technology, atmospheric fluidized bed combustion technology, and oil hydro-desulfurization technology.

*Distillate oil* means fuel oils that contain 0.05 weight percent nitrogen or less and comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society of Testing and Materials in ASTM D396-78, Standard Specifications for Fuel Oils (incorporated by reference - see §60.17).

*Emerging technology* means any sulfur dioxide control system that is not defined as a conventional technology under this section, and for which the owner or operator of the facility has applied to the Administrator and received approval to operate as an emerging technology under §60.49b(a)(4).

*Federally enforceable* means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State Implementation Plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

*Full capacity* means operation of the steam generating unit at 90 percent or more of the maximum steady-state design heat input capacity.

*Heat input* means heat derived from combustion of fuel in a steam generating unit and does not include the heat input from preheated combustion air, recirculated flue gases, or exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

*Heat release rate* means the steam generating unit design heat input capacity (in MW or Btu/hour) divided by the furnace volume (in cubic meters or cubic feet); the furnace volume is that volume bounded by the front furnace wall where the burner is located, the furnace side waterwall, and extending to the level just below or in front of the first row of convection pass tubes.

*Heat transfer medium* means any material that is used to transfer heat from one point to another point.

*High heat release rate* means a heat release rate greater than 730,000 J/sec-m<sup>3</sup> (70,000 Btu/hour-ft<sup>3</sup>).

*Low heat release rate* means a heat release rate of 730,000 J/sec-m<sup>3</sup> (70,000 Btu/hour-ft<sup>3</sup>) or less.

*Maximum heat input capacity* means the ability of a steam generating unit to combust a stated maximum amount of fuel on a steady state basis, as determined by the physical design and characteristics of the steam generating unit.

*Oil* means crude oil or petroleum or a liquid fuel derived from crude oil or petroleum, including distillate and residual oil.

## SECTION 4. APPENDIX Db

### NSPS SUBPART Db REQUIREMENTS FOR BOILERS 4 AND 7

*Potential sulfur dioxide emission rate* means the theoretical sulfur dioxide emissions (ng/J, lb/million Btu heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

*Steam generating unit* means a device that combusts any fuel or byproduct/waste to produce steam or to heat water or any other heat transfer medium. This term includes any municipal-type solid waste incinerator with a heat recovery steam generating unit or any steam generating unit that combusts fuel and is part of a cogeneration system or a combined cycle system. This term does not include process heaters as they are defined in this subpart.

*Steam generating unit operating day* means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

*Very low sulfur oil* means an oil that contains no more than 0.5 weight percent sulfur or that, when combusted without sulfur dioxide emission control, has a sulfur dioxide emission rate equal to or less than 0.5 lb/million BTU heat input.

#### 60.42b Standard for Sulfur Dioxide

- (j) Percent reduction requirements are not applicable to affected facilities combusting only very low sulfur oil. The owner or operator of an affected facility combusting very low sulfur oil shall demonstrate that the oil meets the definition of very low sulfur oil by: (2) maintaining fuel receipts as described in §60.49b(r).

*{Permitting Note: The permit limits distillate oil for Boilers 4 and 7 to  $\leq 0.5\%$  sulfur by weight and requires the permittee to maintain fuel receipts.}*

#### 60.43b Standard for Particulate Matter

- (b) On and after the date on which the performance test is completed or required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts oil (or mixtures of oil with other fuels) and uses a conventional or emerging technology to reduce sulfur dioxide emissions shall cause to be discharged into the atmosphere from that affected facility any gases that contain particulate matter in excess of 0.10 lb/million Btu heat input.

*{Permitting Note: The particulate matter standard for oil does not apply because Boilers 4 and 7 do not use "conventional technology" or "emerging technology" to reduce sulfur dioxide emissions as defined in the Subpart.}*

- (f) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, wood, or mixtures of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

*{Permitting Note: The permit includes an equivalent limit for oil firing.}*

#### 60.44b Standard for Nitrogen Oxides

- (1) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility which commenced construction, modification, or reconstruction after July 9, 1997 shall cause to be discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides (expressed as NO<sub>2</sub>) in excess of the following limits:

- (1) If the affected facility combusts coal, oil, or natural gas, or a mixture of these fuels, or with any other fuels: A limit of 86 ng/J (0.20 lb/million Btu) heat input unless the affected facility has an annual capacity factor for coal, oil, and natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the facility to an annual capacity factor of 10 percent (0.10) or less for coal, oil, and natural gas.

*{Permitting Note: The permit contains enforceable conditions for Boilers 4 and 7 limiting the annual capacity factors for firing distillate oil to less than 10%.}*

#### 60.45b Compliance and Performance Test Methods and Procedures for Sulfur Dioxide

- (j) The owner or operator of an affected facility that combusts very low sulfur oil is not subject to the compliance and performance testing requirements of this section if the owner or operator obtains fuel receipts as described in §60.49b(r).

## SECTION 4. APPENDIX Db

### NSPS SUBPART Db REQUIREMENTS FOR BOILERS 4 AND 7

*{Permitting Note: The permit contains enforceable conditions for maintaining fuel receipts.}*

#### 60.46b Compliance and Performance Test Methods and Procedures for Particulate Matter and Nitrogen Oxides

- (a) The opacity limits under §60.43b apply at all times except during periods of startup, shutdown, or malfunction.
- (d) To determine compliance with the opacity limits under §60.43b, the owner or operator of an affected facility shall conduct an initial performance test as required under §60.8 using the following procedures and reference methods:
  - (7) Method 9 is used for determining the opacity of stack emissions.

*{Permitting Note: The permit conditions are consistent with these requirements.}*

#### 60.47b Emission Monitoring for Sulfur Dioxide

- (f) The owner or operator of an affected facility that combusts very low sulfur oil is not subject to the emission monitoring requirements of this section if the owner or operator obtains fuel receipts as described in §60.49b(r).

*{Permitting Note: The permit contains enforceable conditions for maintaining fuel receipts.}*

#### 60.48b Emission Monitoring for Particulate Matter and Nitrogen Oxides

- (a) The owner or operator of an affected facility subject to the opacity standard under §60.43b shall install, calibrate, maintain, and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere and record the output of the system.
- (e) The procedures under §60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems.

*{Permitting Note: The permit requires continuous opacity monitoring to demonstrate compliance for Boiler 4. In lieu of continuous opacity monitoring for Boiler 7, an Alternate Sampling Procedure was previously approved after construction of Boiler 7. The permittee has indicated that a similar request will be made for Boiler 4 prior to commercial startup.}*

#### 60.49b Reporting and Recordkeeping Requirements

- (a) The owner or operator of each affected facility shall submit notification of the date of initial startup, as provided by §60.7. This notification shall include:
  - (1) The design heat input capacity of the affected facility and identification of the fuels to be combusted in the affected facility,
  - (3) The annual capacity factor at which the owner or operator anticipates operating the facility based on all fuels fired and based on each individual fuel fired.
- (b) The owner or operator of each affected facility subject to the sulfur dioxide, particulate matter, and/or nitrogen oxides emission limits under §60.42b, §60.43b, and §60.44b shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in Appendix B.
- (f) For facilities subject to the opacity standard under §60.43b, the owner or operator shall maintain records of opacity.
- (h) The owner or operator of any affected facility in any category listed in paragraphs (h)(1) or (2) of this section is required to submit excess emission reports for any calendar quarter during which there are excess emissions from the affected facility. If there are no excess emissions during the calendar quarter, the owner or operator shall submit a report semiannually stating that no excess emissions occurred during the semiannual reporting period.
  - (1) Any affected facility subject to the opacity standards under §60.43b(e) or to the operating parameter monitoring requirements under §60.13(i)(1).
  - (3) For the purpose of §60.43b, excess emissions are defined as all 6-minute periods during which the average opacity exceeds the opacity standards under §60.43b(f).
- (r) The owner or operator of an affected facility who elects to demonstrate that the affected facility combusts only very low sulfur oil under §60.42b(j)(2) shall obtain and maintain at the affected facility fuel receipts from the fuel supplier which

**SECTION 4. APPENDIX Db**

**NSPS SUBPART Db REQUIREMENTS FOR BOILERS 4 AND 7**

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certify that the oil meets the definition of distillate oil as defined in §60.41b. For the purposes of this section, the oil need not meet the fuel nitrogen content specification in the definition of distillate oil. Quarterly reports shall be submitted to the Administrator certifying that only very low sulfur oil meeting this definition was combusted in the affected facility during the preceding quarter.

*{Permitting Note: The permit requires continuous opacity monitoring to demonstrate compliance for Boiler 4. In lieu of continuous opacity monitoring for Boiler 7, an Alternate Sampling Procedure was previously approved after construction of Boiler 7. The permittee has indicated that a similar request will be made for Boiler 4 prior to commercial startup.}*

**SECTION 4. APPENDIX GC**  
**GENERAL CONDITIONS**

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The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
  - a. Have access to and copy and records that must be kept under the conditions of the permit;
  - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
  - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
  - a. A description of and cause of non-compliance; and
  - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida



**SECTION 4. APPENDIX GC**  
**GENERAL CONDITIONS**

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Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
  - a. Determination of Best Available Control Technology (NA);
  - b. Determination of Prevention of Significant Deterioration (NA); and
  - c. Compliance with New Source Performance Standards (X).
14. The permittee shall comply with the following:
  - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
  - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
  - c. Records of monitoring information shall include:
    - 1) The date, exact place, and time of sampling or measurements;
    - 2) The person responsible for performing the sampling or measurements;
    - 3) The dates analyses were performed;
    - 4) The person responsible for performing the analyses;
    - 5) The analytical techniques or methods used; and
    - 6) The results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

**SECTION 4. APPENDIX SC**  
**STANDARD CONDITIONS**

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*{Permitting Note: Unless otherwise specified by permit, the following conditions apply to all emissions units and activities.}*

**EMISSIONS AND CONTROLS**

1. **Plant Operation - Problems:** If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]
2. **Circumvention:** The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]
3. **Excess Emissions Allowed:** Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]
4. **Excess Emissions Prohibited:** Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
5. **Excess Emissions - Notification:** In case of excess emissions resulting from malfunctions, the permittee shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(6), F.A.C.]
6. **VOC or OS Emissions:** No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]
7. **Objectionable Odor Prohibited:** No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. [Rule 62-296.320(2), F.A.C.]
8. **General Visible Emissions:** No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20 percent opacity. [Rule 62-296.320(4)(b)1, F.A.C.]
9. **Unconfined Particulate Emissions:** During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

**TESTING REQUIREMENTS**

10. **Required Number of Test Runs:** For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]

**SECTION 4. APPENDIX SC**  
**STANDARD CONDITIONS**

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11. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2), F.A.C.]
12. Calculation of Emission Rate: For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
13. Test Procedures: Tests shall be conducted in accordance with all applicable requirements of Chapter 62-297, F.A.C.
  - a. *Required Sampling Time*. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes. The minimum observation period for a visible emissions compliance test shall be thirty (30) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur.
  - b. *Minimum Sample Volume*. Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet.
  - c. *Calibration of Sampling Equipment*. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C.[Rule 62-297.310(4), F.A.C.]
14. Determination of Process Variables
  - a. *Required Equipment*. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
  - b. *Accuracy of Equipment*. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.[Rule 62-297.310(5), F.A.C.]
15. Sampling Facilities: The permittee shall install permanent stack sampling ports and provide sampling facilities that meet the requirements of Rule 62-297.310(6), F.A.C.
16. Test Notification: The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [Rule 62-297.310(7)(a)9, F.A.C.]
17. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]
18. Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide

**SECTION 4. APPENDIX SC**  
**STANDARD CONDITIONS**

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sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

- a. The type, location, and designation of the emissions unit tested.
- b. The facility at which the emissions unit is located.
- c. The owner or operator of the emissions unit.
- d. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
- e. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
- f. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
- g. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
- h. The date, starting time and duration of each sampling run.
- i. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
- j. The number of points sampled and configuration and location of the sampling plane.
- k. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
- l. The type, manufacturer and configuration of the sampling equipment used.
- m. Data related to the required calibration of the test equipment.
- n. Data on the identification, processing and weights of all filters used.
- o. Data on the types and amounts of any chemical solutions used.
- p. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
- q. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
- r. All measured and calculated data required to be determined by each applicable test procedure for each run.
- s. The detailed calculations for one run that relate the collected data to the calculated emission rate.
- t. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
- u. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

**RECORDS AND REPORTS**

19. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2, F.A.C.]
20. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by March 1st of each year. [Rule 62-210.370(2), F.A.C.]

**P.E. CERTIFICATION STATEMENT**

**PERMITTEE**

United States Sugar Corporation  
111 Ponce DeLeon Avenue  
Clewiston, FL 33440

Draft Air Permit No. 0510003-018-AC  
Clewiston Sugar Mill and Refinery  
Boilers 4/7, Modified Oil Firing Systems

**PROJECT DESCRIPTION**

The United States Sugar Corporation operates the existing Clewiston Sugar Mill and Refinery in Hendry County, Florida. Boilers 4 and 7 fire bagasse as the primary fuel to produce steam for the plant's operations. Bagasse is the fibrous vegetative matter remaining from sugarcane after the milling process. Fuel oil is fired as a supplemental and alternate fuel. The applicant proposes to modify the existing oil firing systems of Boilers 4 and 7. Boiler 4 will begin firing distillate oil containing less than 0.4% sulfur by weight. Boiler 7 will continue to fire distillate oil containing less than 0.05% sulfur by weight. The project will increase the maximum heat input rates from 225 to 326 MMBtu per hour for Boiler 4 and from 250 to 326 MMBtu per hour for Boiler 7. Oil firing will be restricted to 500,000 gallons per year for Boiler 4 and 4,500,000 for Boiler 7. Both boilers are subject to Subpart Db of 40 CFR 60, which is a federal New Source Performance Standard for boilers.

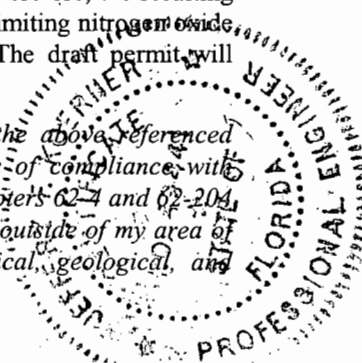
The applicant estimates that the project has the potential to result in the following increases in actual emissions: 16 tons of carbon monoxide per year; 39 tons of nitrogen oxides per year; 6.7 tons of particulate matter per year; 1.4 tons of sulfuric acid mist per year; 16.8 tons of sulfur dioxide per year; and 1 ton of volatile organic compounds per year. These levels are below the significant emission rates that would require a preconstruction review in accordance with the Prevention of Significant Deterioration of Air Quality (Rule 62-212.400, F.A.C.). Therefore, the resulting project requires a minor source air construction permit. The draft permit includes conditions limiting nitrogen oxide emissions, visible emissions from the stack, fuel oil sulfur content, and fuel oil usage. The draft permit will supplement all previously issued air construction and operation permits for these boilers.

*I HEREBY CERTIFY that the air pollution control engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-7 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including, but not limited to, the electrical, mechanical, structural, hydrological, geological, and meteorological features).*



Jeffery F. Koerner, P.E.

Registration Number: 49441



4-1-03

(Date)

# Memorandum

# Florida Department of Environmental Protection

---

TO: Trina Vielhauer, Chief *by Ray*  
Bureau of Air Regulation

THROUGH: Al Linero, Manager *Ray*  
New Source Review Section

FROM: Jeff Koerner, New Source Review Section *JK*

DATE: April 1, 2003

SUBJECT: Draft Air Construction Permit No. 0510003-018-AC  
United States Sugar Corporation  
Clewiston Sugar Mill and Refinery  
Boilers 4/7 - Modified Oil Firing Systems

Attached for your review are the following items:

- Intent to Issue Permit and Public Notice Package;
- Technical Evaluation and Preliminary Determination;
- Draft Permit; and
- P.E. Certification

The United States Sugar Corporation operates the existing Clewiston Sugar Mill and Refinery in Hendry County, Florida. Boilers 4 and 7 fire bagasse as the primary fuel to produce steam for the plant's operations. Bagasse is the fibrous vegetative matter remaining from sugarcane after the milling process. Fuel oil is fired as a supplemental and alternate fuel.

The applicant proposes to modify the existing oil firing systems of Boilers 4 and 7. Boiler 4 will begin firing distillate oil containing less than 0.4% sulfur by weight. Boiler 7 will continue to fire distillate oil containing less than 0.05% sulfur by weight. The project will increase the maximum heat input rates from 225 to 326 MMBtu per hour for Boiler 4 and from 250 to 326 MMBtu per hour for Boiler 7. Oil firing will be restricted to 500,000 gallons per year for Boiler 4 and 4,500,000 for Boiler 7.

The project was reviewed only for the impacts related to oil firing. The project will not result in PSD-significant emissions increase. Therefore, a minor source air construction permit is appropriate. Both boilers will be subject to Subpart Db of 40 CFR 60, which is a federal New Source Performance Standard for boilers.

The Technical Evaluation and Preliminary Determination provides a detailed description of the project, rule applicability, and permit conditions. The P.E. certification briefly summarizes the proposed project. Day #74 is April 21, 2003. I recommend your approval of the attached Draft Permit for this project.

Attachments

**Golder Associates Inc.**

6241 NW 23rd Street, Suite 500  
Gainesville, FL 32653-1500  
Telephone (352) 336-5600  
Fax (352) 336-6603



FEB 24 2003 0237615

February 18, 2003

Florida Department of Environmental Protection  
Department of Air Resources Management  
2600 Blair Stone Road, MS 5500  
Tallahassee, FL 32399-2400

BUREAU OF AIR REGULATION

Attention : Mr. Jeffery Koerner, P. E.

RE: United States Sugar Corporation (U.S. Sugar) – Clewiston Mill  
Boiler No. 4 and Boiler No. 7 Fuel Oil Burning Increase  
DEP Project No. 0510003-018-AC

Dear Mr. Koerner:

U. S. Sugar is in receipt of the Department's request for additional information (RAI) dated January 15, 2003, for the above referenced project. The following are responses to each of the Department's requests, each provided in the same order as they appear in the letter.

1.a. **Boiler No. 4**

The physical changes to Boiler No. 4 to implement the fuel oil burning change consist of the following:

1. Two (2) new multi-stage combustion low-NO<sub>x</sub> burners, complete with flame scanner, fuel/steam valve train, steam-atomized center-fired oil gun and ignitor and flame proving rod.
2. Multi-burner windbox.
3. Fuel oil pump set.
4. Burner management system.

These components will replace the existing oil-firing system, which is more rudimentary (i.e., no burner management system).

The furnace volume for Boiler No. 4 is 21,245 cubic feet (ft<sup>3</sup>), while the maximum heat input due to fuel oil will be 326.25 million British thermal units per hour (MMBtu/hr). Therefore, the heat release rate for fuel oil firing will be 15,357 Btu/hr-ft<sup>3</sup>.

The fixed capital cost of installing the above components is approximately \$400,000. As presented in Golder's recent letter to the Department regarding planned maintenance and repairs to the Clewiston boilers, the estimated cost of a comparable new boiler is \$8 million. Reconstruction, as defined in 40 CFR 60.15, is triggered if the cost of the new components exceeds 50 percent of the fixed capital cost of a comparable new boiler. The planned project cost represents 5 percent of the cost of a new boiler. Therefore, reconstruction is not triggered under the New Source Performance Standards (NSPS).

1.b. **Boiler No. 7**

The physical changes to Boiler No. 7 to implement the fuel oil burning change consist of the following:

1. Modify the existing fuel oil burners to configure as multi-stage combustion low- NO<sub>x</sub> burners, and modify the fuel/steam valve train to incorporate a constant differential pressure valve.
2. Replace the existing two fuel oil pumps.

These components will replace the existing components. No components will be added.

The furnace volume for Boiler No. 7 is 43,470 ft<sup>3</sup>, while the maximum heat input due to fuel oil will be 326.25 MMBtu/hr. Therefore, the heat release rate for fuel oil firing will be 7,505 Btu/hr-ft<sup>3</sup>.

The fixed capital cost of installing the above components is approximately \$78,000. As presented in Golder's recent letter to the Department regarding planned maintenance and repairs to the Clewiston boilers, the estimated cost of a comparable new boiler is \$8.5 million. Reconstruction, as defined in 40 CFR 60.15, is triggered if the cost of the new components exceeds 50 percent of the fixed capital cost of a comparable new boiler. The planned project cost represents less than 1 percent of the cost of a new boiler. Therefore, reconstruction is not triggered under the NSPS.

2. Attached are the two spreadsheets used to calculate current actual emissions due to fuel oil firing from Boiler No. 4. These spreadsheets, taken from the Annual Operating Reports for Clewiston (submitted to the Department), show the emission factors used for fuel oil firing. The factors were based on No. 6 fuel oil firing, since Boiler No. 4 has burned No. 6 fuel oil during the last 2 years. Attached also is a current fuel oil analysis for the oil burned in Boiler No. 4.
3. Attachment UC-EU1-G8 in the December 18, 2002, response letter contains the revised maximum hourly and annual emissions due to fuel oil firing for Boiler No. 7. However, we know of no requirement that would impose allowable limits upon the boiler for fuel oil firing. We believe the imposition in the permit of a fuel oil sulfur limit and maximum fuel oil firing rate are sufficient, and that specific emission limits are unnecessary.

4.a. **Boiler No. 4**

Boiler No. 4 does not currently burn No. 2 distillate oil. As stated in the application for Boiler No. 4, the boiler currently burns No. 6 fuel oil with a maximum sulfur content of 0.7 percent. As further demonstrated, after converting to No. 2 fuel oil with a maximum sulfur content of 0.4 percent, the maximum hourly emissions of PM, SO<sub>2</sub>, and NO<sub>x</sub> will decrease (refer to Table 3 of the application). Therefore, "modification" is not triggered under the NSPS (refer to 40 CFR 60.14), and the unit will not become subject to Subpart Db requirements due to the proposed project.

4.b. **Boiler No. 7**

We believe the citation at the end of paragraph (2) should refer to 40 CFR 60.44b(j) and (k). These two paragraphs read together provide an exemption from the NO<sub>x</sub> standards for a unit that has a heat input capacity of 250 MMBtu/hr or less. Since the modified boiler will have a heat input greater than 250 MMBtu/hr for fuel oil, this exemption will no longer be available.

However, we believe that 60.44b(c) would continue to exempt the boiler from the NO<sub>x</sub> standards. This provision states:

"...no owner or operator of an affected facility that simultaneously combusts coal or oil...with...any other fuel shall cause to be discharged into the atmosphere any gases that contain nitrogen oxides in excess of the emission limit for the coal or oil...as determined from paragraph (a) or (b), **unless the affected facility has an annual capacity factor for coal or oil, or a mixture of these fuels with natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less for coal, oil, or a mixture of these fuels with natural gas.**"

In summary, we believe the NSPS provide an exemption from the NO<sub>x</sub> standards for any boiler, regardless of heat input capacity for oil, with an annual capacity factor of less than 10 percent for oil. Since Boiler No. 7 will be restricted to a 10 percent capacity factor on oil, the boiler is exempt from the NO<sub>x</sub> standards per this provision.



- 4.c. We concur with comment.
- 4.d. As previously discussed, we do not believe Boiler No. 4 will be subject to Subpart Db due to the proposed project. Even if it were, no NO<sub>x</sub> standard would be applicable since it has a 10-percent annual capacity limitation for oil. Boiler No. 7 is similarly exempt from the NO<sub>x</sub> standards. Therefore, if there is no applicable NO<sub>x</sub> standard, no NO<sub>x</sub> testing is required under the NSPS.

Further, we do not believe that Subpart Db requires stack testing for PM for distillate oil firing. Section 60.43b(b) addresses the applicable PM emission limitation for oil firing, but only covers affected facilities using a "conventional or emerging technology to reduce sulfur dioxide emissions". Since Boiler No. 7 does not use either a conventional or emerging technology to control sulfur dioxide emissions, as defined in 60.41b, no PM emission limit applies to either boiler.

We agree that an initial visible emissions test is required, and that the required total testing time is 3 hours (30 6-minute averages), per 60.11 (b). We agree that compliance with the SO<sub>2</sub> standards will be on the basis of fuel receipts.

- 4.e. As previously discussed, we do not believe that an NO<sub>x</sub> standard is applicable to either boiler under the NSPS, and therefore, continuous monitoring for NO<sub>x</sub> is not required. If Boiler No. 4 would become subject to Subpart Db, we would request an alternative sampling plan for opacity.

Please call or e-mail me if you have any questions concerning this additional information.

Sincerely,

GOLDER ASSOCIATES INC.

*David A. Buff*  
 David A. Buff, P.E., Q.E.P.  
 Principal Engineer  
 Florida P. E. # 19011  
 SEAL

DB/fej

Enclosure

- cc: Don Griffin
- Sarah Watson
- Ron Blackburn, DEP
- C. Malladay*
- G. Little, EPA*
- G. Bernyach, NPS*

0237615/4/4.1/L021803.doc

Attachment B-4. 2000 Emissions of Criteria Pollutants at U.S. Sugar Corporation Clewiston Boiler 4

Regulated Pollutant	Emission Factors								Total Annual Emissions (TPY)
	Carbonaceous Fuel				No. 6 Fuel Oil				
	Emission Factor (lb/ton)	Reference	Annual Fuel Usage (TPY)	Annual Emissions (TPY)	Emission Factor (lb/1,000 gal)	Reference	Annual Fuel Usage (Gallons/yr)	Annual Emissions (TPY)	
<u>Criteria and Precursor Air Pollutants</u>									
Particulate Matter (PM)	1.080	1	237,895	128.46	10.48	3 (b)	185,631	0.97	129.44
Particulate Matter (PM <sub>10</sub> )	0.918	(a)	237,895	109.19	8.91	(a)	185,631	0.83	110.02
Sulfur Dioxide (SO <sub>2</sub> )	0.001	1	237,895	0.12	62.02	3 (b)	185,631	5.76	5.88
Nitrogen Oxides (NO <sub>x</sub> )	0.763	1	237,895	90.76	47	3	185,631	4.36	95.12
Carbon Monoxide (CO)	26.309	1	237,895	3,129.39	5	3	185,631	0.46	3,129.85
VOC	2.232	1	237,895	265.49	0.28	4	185,631	0.03	265.52
Lead - Total	4.45E-04	2	237,895	0.05	1.51E-03	5	185,631	1.40E-04	0.05

Footnotes:

- (a) Assuming 85% of PM is PM<sub>10</sub>.  
 (b) Average sulfur content of the fuel mix is 0.79% (mixture of 2.5% sulfur fuel oil and 0.7% sulfur fuel oil).

Unless otherwise specified, heating values for each fuel are as follows: 3,600 Btu/lb for wet bagasse and 146,210 Btu/gal for No. 6 fuel oil.

- Based on compliance test data, collected by Air Consulting and Engineering:
 

PM	0.150 lb/MMBtu	11/17/2000
SO <sub>2</sub>	0.00013 lb/MMBtu	1/5/2000
VOC	0.310 lb/MMBtu	11/17/2000
NO <sub>x</sub>	0.106 lb/MMBtu	11/17/2000
CO	3.654 lb/MMBtu	11/17/2000
- Based on EPA's AP-42 Table 1.6-5, "Emission Factors for Trace Elements from Wood Waste Combustion with PM Controls" (2/99).
- Based on AP-42 Table 1.3-1, "Criteria Pollutant Emission Factors for Fuel Oil Combustion" (9/98), normal firing. Assume 50% SO<sub>2</sub> removal from scrubber.
- Based on AP-42 Table 1.3-3, "Emission Factors for Total Organic Compounds (TOC), Methane, and Nonmethane TOC (NMTOC) from Uncontrolled Fuel Oil Combustion (9/98).
- Based on AP-42 Table 1.3-11, "Emission Factors for Metals from Uncontrolled No. 6 Fuel Oil Combustion" (9/98).

Attachment B-4. 2001 Emissions of Criteria Pollutants at U.S. Sugar Corporation Clewiston Boiler No. 4

Regulated Pollutant	Emission Factors								Total Annual Emissions (TPY)	
	Carbonaceous Fuel				No. 6 Fuel Oil					
	Emission Factor (lb/ton)	Reference	Annual Fuel Usage (TPY)	Annual Emissions (TPY)	Emission Factor (lb/1,000 gal)	Reference	Annual Fuel Usage (Gallons/yr)	Annual Emissions (TPY)		
<u>Criteria and Precursor Air Pollutants</u>										
Particulate Matter (PM)	0.504	1	262,404	66.13	9.65	3 (b)	172,413	0.83	66.96	
Particulate Matter (PM <sub>10</sub> )	0.428	(a)	262,404	56.21	8.21	(a)	172,413	0.71	56.91	
Sulfur Dioxide (SO <sub>2</sub> )	0.00094	1	262,404	0.12	54.95	3 (b)	172,413	4.74	4.86	
Nitrogen Oxides (NO <sub>x</sub> )	0.857	1	262,404	112.44	47	3	172,413	4.05	116.49	
Carbon Monoxide (CO)	8.366	1	262,404	1,097.64	5	3	172,413	0.43	1,098.07	
VOC	0.209	1	262,404	27.42	0.28	4	172,413	0.02	27.45	
Lead - Total	4.45E-04	2	262,404	0.06	1.51E-03	5	172,413	1.30E-04	0.06	

Footnotes:

- (a) Assuming 85% of PM is PM<sub>10</sub>.  
(b) Sulfur content of the fuel is 0.7%.

Unless otherwise specified, heating values for each fuel are as follows: 3,600 Btu/lb for wet bagasse and 146,000 Btu/gal for No. 6 fuel oil.

- Based on compliance test data, collected by Air Consulting and Engineering:

PM	0.070 lb/MMBtu	1/23/2002
SO <sub>2</sub>	0.00013 lb/MMBtu	1/5/2000
VOC	0.029 lb/MMBtu	1/23/2002
NO <sub>x</sub>	0.119 lb/MMBtu	1/23/2002
CO	1.162 lb/MMBtu	1/23/2002
- Based on EPA's AP-42 Table 1.6-5, "Emission Factors for Trace Elements from Wood Waste Combustion with PM Controls" (2/99).
- Based on AP-42 Table 1.3-1, "Criteria Pollutant Emission Factors for Fuel Oil Combustion" (9/98), No. 6 fuel oil, normal firing. Assume 50% SO<sub>2</sub> removal from scrubber.
- Based on AP-42 Table 1.3-3, "Emission Factors for Total Organic Compounds (TOC), Methane, and Nonmethane TOC (NMTOC) from Uncontrolled Fuel Oil Combustion (9/98).
- Based on AP-42 Table 1.3-11, "Emission Factors for Metals from Uncontrolled No. 6 Fuel Oil Combustion" (9/98).

COASTAL FUELS MARKETING, INC  
PORT MANATEE, FL

#1  
Lewis 702

12/21/02  
15:19:00

Calculated  
BLEND

LAB  
DATE TESTED  
TANK  
PRODUCT  
VOLUME  
BLEND %

607B  
100.0  
100.0

#6 Fuel Oil  
0.7%

	Test Method	UNITS	
SPECIFIC GRAVITY		60/60 F	0.9674
API GRAVITY	D-1298	60 F	14.78
FLASH POINT	D-93	DEG F	183
VISCOSITY (@122 F)	D-445	SFS	12.6
	D-445	cSt	24.0
POUR POINT	D-97	DEG F	0
SULFUR	D-4294	% WT.	0.690
WATER BY DISTILLATION	D-95	% VOL.	0.35
SEDIMENT BY HOT FILTRATION IP 390B		% WT.	0.007
GROSS HEAT OF COMBUSTION	D-240	BTU/GAL.	150764
ASH (sample, g)	D482	% WT.	0.051
ASPHALTINES	IP-143	% WT.	3.04
CARBON RESIDUE	D-4530	% WT.	6.87
VANADIUM	D-5863A	ppm	9.0
SODIUM	D-5863B	ppm	37.3
ALUMINUM	D-5184	ppm	23.5
SILICON	D-5184	ppm	29.7

Boiler #4  
% SO<sub>2</sub>

Boiler #4  
Heat Content

**Golder Associates Inc.**

6241 NW 23rd Street, Suite 500  
Gainesville, FL 32653-1500  
Telephone (352) 336-5600  
Fax (352) 336-6603

December 18, 2002

Florida Department of Environmental Protection  
Bureau of Air Regulation  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

Attention: Jeffery F. Koerner, P.E.

RE: PROJECT NO. 0510003-018-AC (PSD-FL-208A)  
CLEWISTON SUGAR MILL AND REFINERY  
INCREASE IN OIL FIRING RATE FOR BOILER NO. 7

Dear Mr. Koerner:

United States Sugar Corporation (USSC) has received the Department's request for additional information (RAI) dated October 22, 2002, regarding the above referenced air construction permit application. Each of the Department's comments is addressed below, in the same order as they appear in the RAI letter.

1. There are currently two oil burners (guns) in Boiler No. 7 to provide fuel oil firing. The number of oil burners (guns) will not change as a result of the project.

The maximum oil firing rate has been slightly revised based on discussions with a perspective vendor. In terms of gallons per hour (gal/hr), the maximum fuel oil firing rate will be 2,417 gal/hr based on 326.25 million British thermal units per hour (MMBtu/hr) heat input due to fuel oil and a fuel oil heating value of 135,000 Btu/gal. These values are based on the following calculations:

$$225,000 \text{ lb/hr steam} \times 1,160 \text{ Btu/lb} / 0.80 / 1\text{E}+06 = 326.25 \text{ MMBtu/hr}$$

$$326.25 \text{ MMBtu/hr} / 135,000 \text{ Btu/gal} = 2,416.7 \text{ gal/hr}$$

This calculation assumes 80-percent thermal efficiency when burning fuel oil only.

Revised pages of the application form are attached. Note that this change only slightly affects maximum hourly emissions due to fuel oil firing. Maximum annual emissions due to fuel oil firing are not affected.

2. The lb/MMBtu limits for fuel oil firing would not change due to the project. As stated above, the revised heat input rate due to oil firing is 326.25 MMBtu/hr. All other information is correct. The purpose of the 4,500,000 gal/yr fuel oil limit is to avoid applicable requirements of 40 CFR 60, Subpart Db. Specifically, if the boiler is limited to an annual capacity factor of 10 percent or less for fuel oil firing, the boiler is exempt from the NO<sub>x</sub> standards per 40 CFR 60.44b(c) and 60.44b(1)(1).
3. To our knowledge, the proposed project does not trigger any additional requirements under Rule 62-296.405 or 40 CFR 60.49b, nor does it trigger any new regulations.



0237584

RECEIVED

DEC 20 2002

BUREAU OF AIR REGULATION

Rule 62-296.405 is applicable to fossil-fuel steam generators with more than 250 MMBtu/hr heat input. Boiler No. 7 is a carbonaceous fuel burner and is subject to Rule 62-296.410. The carbonaceous fuel burner rule recognizes that fossil fuel is burned in carbonaceous fuel burning units. Nevertheless, no additional requirements or standards would apply under Rule 62-296.405. A continuous opacity monitor would not be required since the annual capacity factor for fuel oil for the boiler is less than 30 percent (reference Rule 62-296.405(1)(f)1).

Reporting and recordkeeping requirements are contained in 40 CFR 60.49b. Boiler No. 7 is already subject to these requirements as they pertain to fuel oil firing, and we are not aware of any new requirements that are triggered by the proposed change.

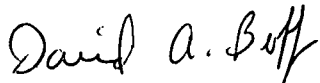
The proposed project is not subject to 40 CFR 60 Subpart D requirements. According to 40 CFR 60.40b(j), any affected facility meeting the applicability requirements of Subpart Db, under 40 CFR 60.40b(a), and commencing construction after June 19, 1986, is not subject to Subpart D. Construction was commenced on Boiler No. 7 well after June 19, 1986.

4. The dispersion modeling analysis performed for the Boiler No. 4 PSD permit application included Boiler No. 7 while burning 100-percent bagasse, since maximum SO<sub>2</sub> emissions were produced by bagasse firing. The modeled SO<sub>2</sub> emission rate for bagasse firing was 0.17 lb/MMBtu and 138.0 lb/hr (also see page 19 of application form for SO<sub>2</sub> pollutant detail). For the proposed fuel oil firing rate, the SO<sub>2</sub> emissions are 0.05 lb/MMBtu and 16.3 lb/hr. Therefore, SO<sub>2</sub> emissions due to bagasse firing are over eight times higher than emissions due to fuel oil firing, and there is no need for additional modeling analysis.

Please call if you have any questions concerning this additional information.

Sincerely,

GOLDER ASSOCIATES INC.



David A. Buff, P. E., Q. E. P.  
Principal Engineer  
Florida P. E. #19011

DB/jkw

Cc: Don Griffin  
Peter Briggs

*C. Holladay*

P:\Projects\2002\0237584\JS Sugar\414.1\121702\C121702.doc

*R. Blackman SD*  
*Q. Kettle EPA*  
*J. Kemp WPS*

**B. EMISSIONS UNIT CAPACITY INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:	<b>812</b>	mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:	<b>385,000</b>	lb/hr steam
5. Requested Maximum Operating Schedule:		
	<b>24</b>	hours/day
		<b>7</b> days/week
	<b>52</b>	weeks/year
		<b>8,760</b> hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):		
<p><b>Maximum heat input based on 1-hour maximum steam rate (above) for carbonaceous fuel firing. Maximum 24-hour average firing for carbonaceous fuel is 738 MMBtu/hr. Proposed maximum for No. 2 fuel oil is 326.25 MMBtu/hr.</b></p>		

**E. SEGMENT (PROCESS/FUEL) INFORMATION  
(All Emissions Units)**

**Segment Description and Rate: Segment  1  of  2**

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>External combustion boilers; Industrial; Bagasse; All boiler sizes</b>		
2. Source Classification Code (SCC): <b>1-02-011-01</b>	3. SCC Units: <b>Tons Burned</b>	
4. Maximum Hourly Rate: <b>112.78</b>	5. Maximum Annual Rate: <b>897,800</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: <b>7.2</b>
10. Segment Comment (limit to 200 characters):  <b>Maximum hourly rate based on 812 MMBtu/hr (1-hr max) and maximum annual rate based on 738 MMBtu/hr (24-hr max).</b>		

**Segment Description and Rate: Segment  2  of  2**

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>External combustion boilers; Industrial; Distillate Oil; Grades 1 and 2</b>		
2. Source Classification Code (SCC): <b>1-02-005-01</b>	3. SCC Units: <b>Thousand Gallons Burned</b>	
4. Maximum Hourly Rate: <b>2.417</b>	5. Maximum Annual Rate: <b>4,500</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: <b>0.05</b>	8. Maximum % Ash:	9. Million Btu per SCC Unit: <b>135</b>
10. Segment Comment (limit to 200 characters):  <b>Rates based on proposed 326.25 MMBtu/hr and a maximum of 4,500,000 gallons of fuel oil per year.</b>		



**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>PM</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>24.4 lb/hour</b>		4. Synthetically Limited? [ ]	
		<b>97 tons/year</b>	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: <b>0.03 lb/MMBtu</b> Reference: <b>Permit No. 0510003-014-AV</b>		7. Emissions Method Code: <b>0</b>	
8. Calculation of Emissions (limit to 600 characters):  <b>812 MMBtu/hr x 0.03 lb/MMBtu = 24.4 lb/hr</b> <b>Annual limit from Permit No. 0510003-014-AV for bagasse firing.</b>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions representative of bagasse firing.</b>			

**Allowable Emissions** Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>0.03 lb/MMBtu</b>		4. Equivalent Allowable Emissions: <b>24.4 lb/hour</b> <b>97 tons/year</b>	
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 5 or 17</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Permit No. 0510003-014-AV. Emissions representative of bagasse firing only.</b>			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>PM</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour		tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code:	
8. Calculation of Emissions (limit to 600 characters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>0.03 lb/MMBtu</b>		<b>9.8 lb/hour</b>	<b>9.1 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>EPA Method 5 or 17</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Emissions representative of No. 2 fuel oil firing only. Annual emissions based on proposed limit of 4,500,000 gal/yr. See Attachment UC-EU1-G8 for calculations.</b>			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>PM<sub>10</sub></b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: <b>24.4 lb/hour                      97 tons/year</b>	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/year	
6. Emission Factor: <b>0.03 lb/MMBtu</b> Reference: <b>Permit No. 0510003-014-AV</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions (limit to 600 characters):  <b>812 MMBtu/hr x 0.03 lb/MMBtu = 24.4 lb/hr</b> <b>Annual limit from Permit No. 0510003-014-AV for bagasse firing.</b>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions representative of bagasse firing.</b>	

**Allowable Emissions** Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>0.03 lb/MMBtu</b>	4. Equivalent Allowable Emissions: <b>24.4 lb/hour                      97 tons/year</b>
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 5 or 17</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Permit No. 0510003-014-AV. Emissions representative of bagasse firing only.</b>	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>PM<sub>10</sub></b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour _____ tons/year _____		4. Synthetically Limited? [ ]	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code:	
8. Calculation of Emissions (limit to 600 characters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>0.03 lb/MMBtu</b>		4. Equivalent Allowable Emissions: <b>9.8 lb/hour 9.1 tons/year</b>	
5. Method of Compliance (limit to 60 characters): <b>EPA Method 5 or 17</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): <b>Emissions representative of No. 2 fuel oil firing only. Annual emissions based on proposed limit of 4,500,000 gal/yr. See Attachment UC-EU1-G8 for calculations.</b>			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>SO<sub>2</sub></b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: <b>138.0 lb/hour</b> <b>550 tons/year</b>	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/year	
6. Emission Factor: <b>0.17 lb/MMBtu</b> Reference: <b>Permit No. 0510003-014-AV</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions (limit to 600 characters):  <b>812 MMBtu/hr x 0.17 lb/MMBtu = 138.0 lb/hr</b> <b>Annual limit from Permit No. 0510003-014-AV for bagasse firing.</b>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions representative of bagasse firing.</b>	

**Allowable Emissions** Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>0.17 lb/MMBtu</b>	4. Equivalent Allowable Emissions: <b>138.0 lb/hour</b> <b>550 tons/year</b>
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 6</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Permit No. 0510003-014-AV. Emissions representative of bagasse firing only.</b>	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>SO<sub>2</sub></b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour _____ tons/year _____		4. Synthetically Limited? [ ]	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code:	
8. Calculation of Emissions (limit to 600 characters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>0.05 lb/MMBtu</b>		4. Equivalent Allowable Emissions: <b>16.3 lb/hour 15.2 tons/year</b>	
5. Method of Compliance (limit to 60 characters): <b>EPA Method 6</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): <b>Emissions representative of No. 2 fuel oil firing only. Annual emissions based on proposed limit of 4,500,000 gal/yr. See Attachment UC-EU1-G8 for calculations.</b>			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>NO<sub>x</sub></b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>203 lb/hour                      809 tons/year</b>		4. Synthetically Limited? [ ]	
5. Range of Estimated Fugitive Emissions: [ ] 1            [ ] 2            [ ] 3            _____ to _____ tons/year			
6. Emission Factor: <b>0.25 lb/MMBtu</b> Reference: <b>Permit No. 0510003-14-AV</b>		7. Emissions Method Code: <b>0</b>	
8. Calculation of Emissions (limit to 600 characters):  <b>812 MMBtu/hr x 0.25 lb/MMBtu = 203.0 lb/hr</b> <b>Annual limit from Permit No. 0510003-014-AV for bagasse firing.</b>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions representative of bagasse firing.</b>			

**Allowable Emissions** Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>0.25 lb/MMBtu</b>		4. Equivalent Allowable Emissions: <b>203 lb/hour                      809 tons/year</b>	
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 7 or 7E</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Permit No. 0510003-014-AV. Emissions representative of bagasse firing only.</b>			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted:		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour		tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code:	
8. Calculation of Emissions (limit to 600 characters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions  2  of  2

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>0.2 lb/MMBtu</b>	4. Equivalent Allowable Emissions: <b>65.3 lb/hour      60.8 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>EPA Method 7 or 7E</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): <b>Emissions representative of No. 2 fuel oil firing only. Annual emissions based on proposed limit of 4,500,000 gal/yr. See Attachment UC-EU1-G8 for calculations.</b>	



**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>CO</b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: <b>568.4 lb/hour                      2,262 tons/year</b>	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/year	
6. Emission Factor: <b>0.70 lb/MMBtu</b> Reference: <b>Permit No. 0510003-014-AV</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions (limit to 600 characters):  <b>812 MMBtu/hr x 0.70 lb/MMBtu = 568.4 lb/hr</b> <b>Annual limit from in Permit No. 0510003-014-AV for bagasse firing.</b>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions representative of bagasse firing.</b>	

**Allowable Emissions** Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>0.70 lb/MMBtu</b>	4. Equivalent Allowable Emissions: <b>568.4 lb/hour                      2,262 tons/year</b>
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 10</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Permit No. 0510003-014-AV. Emissions representative of bagasse firing only.</b>	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>CO</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour _____ tons/year _____		4. Synthetically Limited? [ ]	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code:	
8. Calculation of Emissions (limit to 600 characters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>0.066 lb/MMBtu</b>		4. Equivalent Allowable Emissions: <b>21.5 lb/hour 20.0 tons/year</b>	
5. Method of Compliance (limit to 60 characters): <b>EPA Method 10</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): <b>Emissions representative of No. 2 fuel oil firing only. Annual emissions based on proposed limit of 4,500,000 gal/yr. See Attachment UC-EU1-G8 for calculations.</b>			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>VOC</b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: <b>172.1 lb/hour</b> <b>685 tons/year</b>	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1            [ ] 2            [ ] 3            _____ to _____ tons/year	
6. Emission Factor: <b>0.212 lb/MMBtu</b> Reference: <b>Permit No. 0510003-014-AV</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions (limit to 600 characters):  <b>812 MMBtu/hr x 0.212 lb/MMBtu = 172.1 lb/hr</b> <b>Annual limit from Permit No. 0510003-014-AV for bagasse firing.</b>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions representative of bagasse firing.</b>	

**Allowable Emissions** Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>0.212 lb/MMBtu</b>	4. Equivalent Allowable Emissions: <b>172.1 lb/hour</b> <b>685 tons/year</b>
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 25 or 25A</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Permit No. 0510003-014-AV. Emissions representative of bagasse firing only.</b>	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>VOC</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour		tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code:	
8. Calculation of Emissions (limit to 600 characters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>0.004 lb/MMBtu</b>		4. Equivalent Allowable Emissions: <b>1.3 lb/hour      1.2 tons/year</b>	
5. Method of Compliance (limit to 60 characters): <b>EPA Method 25 or 25A</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): <b>Emissions representative of No. 2 fuel oil firing only. Annual emissions based on proposed limit of 4,500,000 gal/yr. See Attachment UC-EU1-G8 for calculations.</b>			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>SAM</b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: <b>13.8 lb/hour                      55 tons/year</b>	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/year	
6. Emission Factor: <b>0.017 lb/MMBtu</b> Reference: <b>Permit No. 0510003-014-AV</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions (limit to 600 characters):  <b>812 MMBtu/hr x 0.017 lb/MMBtu = 13.8 lb/hr</b> <b>Annual limit from Permit No. 0510003-014-AV for bagasse firing.</b>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions representative of bagasse firing.</b>	

**Allowable Emissions** Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>0.017 lb/MMBtu</b>	4. Equivalent Allowable Emissions: <b>13.8 lb/hour                      55 tons/year</b>
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 8 when required</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Permit No. 0510003-014-AV. Emissions representative of bagasse firing only.</b>	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>SAM</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour		tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code:	
8. Calculation of Emissions (limit to 600 characters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>0.005 lb/MMBtu</b>		4. Equivalent Allowable Emissions: <b>1.6 lb/hour      1.5 tons/year</b>	
5. Method of Compliance (limit to 60 characters): <b>EPA Method 8 when required</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): <b>Emissions representative of No. 2 fuel oil firing only. Annual emissions based on proposed limit of 4,500,000 gal/yr. See Attachment UC-EU1-G8 for calculations.</b>			

Attachment UC-EU1-G8. Future Maximum Emissions due to Fuel Oil, Boiler No. 7, US Sugar Corporation Clewiston (revised 12/17/2002)

Regulated Pollutant	No. 2 Fuel Oil Combustion					
	Emission Factor (lb/MMBtu)	Ref.	Activity Factor <sup>a</sup>		Hourly Emissions (lb/hr)	Annual Emissions (TPY)
			Hourly <sup>a</sup> MMBtu/hr	Annual <sup>b</sup> MMBtu/yr <sup>b</sup>		
Particulate Matter (PM)	0.03	1	326.25	607,500	9.8	9.1
Particulate Matter (PM <sub>10</sub> )	0.03	1	326.25	607,500	9.8	9.1
Sulfur dioxide (SO <sub>2</sub> )	0.05	1	326.25	607,500	16.3	15.2
Nitrogen oxides (NO <sub>x</sub> )	0.2	1	326.25	607,500	65.3	60.8
Carbon monoxide (CO)	0.066	1	326.25	607,500	21.5	20.0
Volatile Organic Compound (VOC)	0.004	1	326.25	607,500	1.3	1.2
Lead (Pb)	9.0E-06	2	326.25	607,500	2.9E-05	2.7E-05
Sulfuric acid mist (SAM)	0.005	1	326.25	607,500	1.6	1.5
Beryllium (Be)	3.0E-06	2	326.25	607,500	9.8E-06	9.1E-06
Mercury (Hg)	3.0E-06	2	326.25	607,500	9.8E-04	9.1E-04

References:

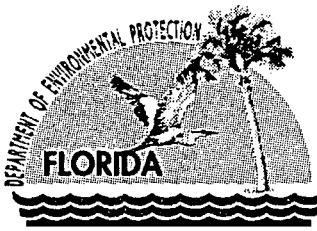
1. Based on Permit No. 0510003-14-AV.
2. Factors for No. 2 fuel oil combustion, AP-42 Table 1.3-10, "Emission Factors for Trace Elements from Distillate Fuel Oil Combustion Sources" (9/98). Assumes a 99% removal efficiency for lead and beryllium due to ESP control.

Footnotes:

<sup>a</sup> Based on proposed maximum heat input due to fuel oil combustion, calculated as follows:

$$225,000 \text{ lb/hr steam} \times 1160 \text{ Btu/lb (net)} / 0.80 / 1\text{E}+06 = 326.25 \text{ MMBtu/hr}$$

<sup>b</sup> Based on proposed maximum allowable fuel usage of 4,500,000 gallons per year and 135,000 Btu/gal.



# Department of Environmental Protection

Jeb Bush  
Governor

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

David B. Struhs  
Secretary

December 10, 2002

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. William A. Raiola, V.P. of Sugar Processing Operations  
United States Sugar Corporation  
111 Ponce Deleon Avenue  
Clewiston, Florida 33440

Re: **Reminder of Request for Additional Information**  
Project No. 0510003-018-AC (PSD-FL-208A)  
Clewiston Sugar Mill and Refinery  
Increase in Oil Firing Rate for Boiler No. 7

Dear Raiola:

On October 11, 2002, the Department received your application and sufficient fee for an air construction permit to increase the oil firing rate for Boiler No. 7 at the Clewiston sugar mill and refinery. The application was incomplete. On October 22, 2002, the Department requested you to submit additional information that would allow continued processing of your application. To date, we have not received the requested additional information and the application remains incomplete. Rule 62-4.055(1) of the Florida Administrative Code requires the following:

*"The applicant shall have ninety days after the Department mails a timely request for additional information to submit that information to the Department. If an applicant requires more than ninety days in which to respond to a request for additional information, the applicant may notify the Department in writing of the circumstances, at which time the application shall be held in active status for one additional period of up to ninety days. Additional extensions shall be granted for good cause shown by the applicant. A showing that the applicant is making a diligent effort to obtain the requested additional information shall constitute good cause. Failure of an applicant to provide the timely requested information by the applicable deadline shall result in denial of the application."*

It has been more than 45 days since our last request for additional information (copy attached). You are reminded that the permit processing time clock has stopped for this project and that we will not continue our review until we receive the additional information. If you require a period of time in addition to the 90 days allowed by rule, please submit a written request indicating the amount of time necessary. If you fail to provide the additional information or request additional time to submit the additional information, the Department will deny your application.

If you have any questions regarding this matter, please call me at 850/921-9536.

Sincerely,

Jeffery F. Koerner, P.E.  
New Source Review Section

cc: Mr. David Buff, Golder Associates  
Mr. Ron Blackburn, SD  
Mr. Gregg Worley, EPA Region 4  
Mr. John Bunyai, NPS

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- Print your name and address on the reverse so that we can return the card to you.
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1. Article Addressed to:

Mr. William A. Raiola  
 V. P. of Sugar Processing Operations  
 United States Sugar Corporation  
 111 Ponce DeLeon Avenue  
 Clewiston, FL 33440

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by (Please Print Clearly)

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x *William A. Raiola*
 Agent  
 Addressee

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Street, Apt. No.,  
or P.O. Box No.

111 Ponce DeLeon Ave.

City, State, ZIP+4

Clewiston, FL 33440

PS Form 3800, January 2001

See Reverse for Instructions



Jeb Bush  
Governor

# Department of Environmental Protection

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

David B. Struhs  
Secretary

October 22, 2002

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. William A. Raiola, V.P. of Sugar Processing Operations  
United States Sugar Corporation  
111 Ponce Deleon Avenue  
Clewiston, Florida 33440

Re: **Request for Additional Information**  
Project No. 0510003-018-AC (PSD-FL-208A)  
Clewiston Sugar Mill and Refinery  
Increase in Oil Firing Rate for Boiler No. 7

Dear Mr. Raiola:

On October 11, 2002, the Department received your application and sufficient fee for an air construction permit to increase the oil firing rate for Boiler No. 7 at the Clewiston sugar mill and refinery. The application is incomplete. In order to continue processing your application, the Department will need the additional information requested below. Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

1. The proposed project would increase the maximum heat input rate for Boiler No. 7 from 250 MMBtu per hour to 321 MMBtu per hour by adding two new oil pumps and modifying the existing burners. Please identify the number of burners and oil guns before the project and upon completion of the project. What is the maximum oil-firing rate in terms of gph based on the HHV of the distillate oil?
2. If approved, the proposed project would require modification of the following conditions of Permit No. PSD-FL-208:

**Condition No. 1:** The project proposes to modify the maximum heat input rate from oil firing and the corresponding allowable emissions (lb/MMBtu, lb/hour, and tons/year).

**Condition No. 8:** The project proposes to increase the maximum heat input rate from oil firing, the equivalent oil firing rate (gph), equivalent steam production (pounds per hour), and possibly the burner/oil gun configuration.

**Condition No. 9:** The project proposes to decrease the allowable annual oil-firing rate from 4,600,000 gallons per year to 4,500,000 gallons per year.

**Condition No. 11:** The project proposes to increase the designed maximum oil heat input rate from 250 MMBtu/hour (HHV, 1-hour average) to 321 MMBtu/hour (HHV, 1-hour average).

Please comment. In addition, Condition No. 9 limits the annual capacity factor for distillate oil to 10%. Is the purpose of this condition to avoid applicable requirements of NSPS Subpart Db? Please discuss.

3. In addition to PSD BACT standards specified in Permit No. PSD-FL-208, Boiler No. 7 is also subject to Rule 62-296.405, F.A.C. and 40 CFR 60.49b for industrial-commercial-institutional steam generating units. Does the proposed project trigger any additional requirements of these regulations or any new regulations?

*"More Protection, Less Process"*

*Printed on recycled paper.*

Will the proposed project subject Boiler No. 7 to NSPS Subpart D for fossil fuel fired steam generators (40 CFR 60.40, 60.41, 60.42, 60.43, 60.44, 60.45, and 60.46)?

4. Boiler No. 7 was also part of a PSD-preconstruction review that modified the operations of Boiler No. 4, which resulted in the following additional conditions for Boiler No. 7 as specified in Section IIIB of Permit No. PSD-FL-272A:

**Condition No. 4e:** 385,000 pounds of steam per hour, 812 mmBTU per hour of total heat input, and 1839 gallons of oil per hour.

**Condition No. 5d:** Any distillate oil fired in Boiler No. 7 shall contain no more than 0.05% sulfur by weight.

**Condition No. 7a(2):** Boiler No. 7 shall not produce more than 8,400,000 pounds of steam during any 24-hour period.

Section IIIB also includes the following explanation for these additional requirements.

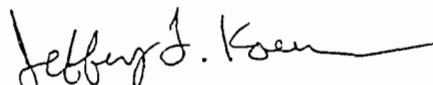
“The PSD permit for Boiler No. 4 (PSD-FL-272A) was issued based on an Air Quality Analysis using the ISC PRIME model that contained several operational constraints on existing emissions units. These constraints are now enforceable conditions of the permit and are in addition to any limits imposed by other valid permits. Modification of these constraints would require modification of the PSD permit and a new Air Quality Analysis.”

In accordance with Rules 62-212.300(1) and 62-212.400(5)(d), F.A.C., please provide reasonable assurance that the proposed project will not cause or contribute to a violation of any ambient air quality standard or maximum allowable increase. For additional information, please contact Cleve Holladay at 850/921-8986.

The Department will resume processing your application after receipt of the requested information. Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. For any material changes to the application, please include a new certification statement by the authorized representative or responsible official. You are reminded that Rule 62-4.055(1), F.A.C. now requires applicants to respond to requests for information within 90 days or provide a written request for an additional period of time to submit the information.

If you have any questions regarding this matter, please call me at 850/921-9536.

Sincerely,



Jeffery F. Koerner, P.E.

New Source Review Section

cc: Mr. David Buff, Golder Associates  
Mr. Ron Blackburn, SD  
Mr. Gregg Worley, EPA Region 4  
Mr. John Bunyak, NPS

AAL/jfk



Jeb Bush  
Governor

# Department of Environmental Protection

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

David B. Struhs  
Secretary

October 22, 2002

## CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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111 Ponce Deleon Avenue  
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*Printed on recycled paper.*

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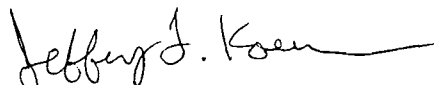
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If you have any questions regarding this matter, please call me at 850/921-9536.

Sincerely,



Jeffery F. Koerner, P.E.  
New Source Review Section

cc: Mr. David Buff, Golder Associates  
Mr. Ron Blackburn, SD  
Mr. Gregg Worley, EPA Region 4  
Mr. John Bunyak, NPS

AAJ/jfk

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> <li>Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	<p>A. Received by (Please Print Clearly) <i>Andree Sofis</i>      B. Date of Delivery <i>10-24</i></p>
<p>1. Article Addressed to:</p> <p>Mr. William A. Raiola V.P. of Sugar Processing Operations United States Sugar Corporation 111 Ponce DeLeon Avenue Clewiston, FL 33440</p>	<p>C. Signature <i>x Andree Sofis</i>      <input type="checkbox"/> Agent  <input type="checkbox"/> Addressee</p> <p>D. Is delivery address different from item 1?      <input type="checkbox"/> Yes  If YES, enter delivery address below:      <input type="checkbox"/> No</p>
<p>2. A <u>7001 0320 0001 3692 7775</u></p>	<p>3. Service Type  <input checked="" type="checkbox"/> Certified Mail      <input type="checkbox"/> Express Mail  <input type="checkbox"/> Registered      <input type="checkbox"/> Return Receipt for Merchandise  <input type="checkbox"/> Insured Mail      <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee)      <input type="checkbox"/> Yes</p>

PS Form 3811, July 1999      Domestic Return Receipt      102595-00-M-0952

**U.S. Postal Service**  
**CERTIFIED MAIL RECEIPT**  
*(Domestic Mail Only; No Insurance Coverage Provided)*

OFFICIAL USE

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
<b>Total Postage &amp; Fees</b>	<b>\$</b>	

Sent To **William A. Raiola**

Street, Apt. No. or P.O. Box No. **Ponce DeLeon Avenue**

City, State, ZIP+4 **Clewiston, FL 33440**

PS Form 3800, January 2001      See Reverse for Instructions

7001 0320 0001 3692 7775

**DEP ROUTING AND TRANSMITTAL SLIP**

TO: (NAME, OFFICE, LOCATION) 3. \_\_\_\_\_  
1. JEFF KOERNER, PE - ARM 4. \_\_\_\_\_  
2. MS 5505 - MAGNOLIA CENTER 5. \_\_\_\_\_

PLEASE PREPARE REPLY FOR:  
\_\_\_\_ SECRETARY'S SIGNATURE  
\_\_\_\_ DIV/DIST DIR SIGNATURE  
\_\_\_\_ MY SIGNATURE  
\_\_\_\_ YOUR SIGNATURE  
\_\_\_\_ DUE DATE: \_\_\_\_\_

ACTION/DISPOSITION:  
\_\_\_\_ DISCUSS WITH ME  
\_\_\_\_ COMMENTS/ADVISE  
\_\_\_\_ REVIEW AND RETURN  
\_\_\_\_ SET UP MEETING  
\_\_\_\_ FOR YOUR INFORMATION  
\_\_\_\_ HANDLE APPROPRIATELY  
\_\_\_\_ INITIAL AND FORWARD  
\_\_\_\_ SHARE WITH STAFF  
\_\_\_\_  FOR YOUR FILES

COMMENTS:  
U S SUGAR CORPORATION - BOILER No. 7  
PERMIT APPLICATION  
1 ORIGINAL  
1 COPY

**RECEIVED**  
OCT 17 2002  
BUREAU OF AIR REGULATION

FROM: Mara Nasca / SD DATE: 10/14/02 PHONE: SC 748-6975

**RECEIVED**

OCT 17 2002

BUREAU OF AIR REGULATION

**RECEIVED**  
OCT 11 2002  
D.E.P. - South District

**AIR PERMIT APPLICATION  
TO INCREASE FUEL OIL FIRING RATE  
BOILER NO. 7  
U.S. SUGAR CORPORATION  
CLEWISTON, FLORIDA**

**Prepared For:  
United States Sugar Corporation  
111 Ponce DeLeon Ave.  
Clewiston, Florida 33440**

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

**October 2002  
0237584**

**DISTRIBUTION:  
4 Copies - FDEP, Ft. Myers  
2 Copies - U.S. Sugar  
2 Copies - Golder Associates Inc.**



**AIR PERMIT APPLICATION**



# Department of Environmental Protection

## Division of Air Resources Management

### APPLICATION FOR AIR PERMIT - TITLE V SOURCE

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

#### I. APPLICATION INFORMATION

RECEIVED  
OCT 11 2002  
D.E.P. - South District

#### Identification of Facility

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

#### Application Contact

1. Name and Title of Application Contact: <b>William A. Raiola, Vice President, Sugar Processing Operations</b>	
2. Application Contact Mailing Address: Organization/Firm: <b>United States Sugar Corporation</b> Street Address: <b>111 Ponce DeLeon Ave.</b> City: <b>Clewiston</b> State: <b>FL</b> Zip Code: <b>33440</b>	
3. Application Contact Telephone Numbers: Telephone: <b>( 863 ) 983 - 8121</b> Fax: <b>( 863 ) 902 - 2729</b>	

#### Application Processing Information (DEP Use)

1. Date of Receipt of Application:	<b>10-11-2002</b>
2. Permit Number:	<b>0510003-014-AC</b>
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

**Purpose of Application**

**Air Operation Permit Application**

This Application for Air Permit is submitted to obtain: (Check one)

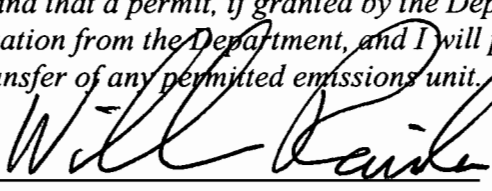
- Initial Title V air operation permit for an existing facility which is classified as a Title V source.
- Initial Title V air operation permit for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.  
Current construction permit number: \_\_\_\_\_
- Title V air operation permit revision to address one or more newly constructed or modified emissions units addressed in this application.  
Current construction permit number: \_\_\_\_\_  
Operation permit number to be revised: \_\_\_\_\_
- Title V air operation permit revision or administrative correction to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. (Also check Air Construction Permit Application below.)  
Operation permit number to be revised/corrected: \_\_\_\_\_
- Title V air operation permit revision for reasons other than construction or modification of an emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.  
Operation permit number to be revised: \_\_\_\_\_  
Reason for revision: \_\_\_\_\_

**Air Construction Permit Application**

This Application for Air Permit is submitted to obtain: (Check one)

- Air construction permit to construct or modify one or more emissions units.
- Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.
- Air construction permit for one or more existing, but unpermitted, emissions units.

**Owner/Authorized Representative or Responsible Official**

1. Name and Title of Owner/Authorized Representative or Responsible Official: <b>William A. Raiola, Vice President, Sugar Processing Operations</b>
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: <b>United States Sugar Corporation</b> Street Address: <b>111 Ponce DeLeon Ave.</b> City: <b>Clewiston</b> State: <b>FL</b> Zip Code: <b>33440</b>
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: <b>( 863 ) 983 - 8121</b> Fax: <b>( 863 ) 902 - 2729</b>
4. Owner/Authorized Representative or Responsible Official Statement: <i>I, the undersigned, am the owner or authorized representative*(check here [ ], if so) or the responsible official (check here [ ], if so) of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.</i>  Signature _____ Date <u>10/7/02</u>

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

**Professional Engineer Certification**

1. Professional Engineer Name: <b>David A. Buff</b> Registration Number: <b>19011</b>
2. Professional Engineer Mailing Address: Organization/Firm: <b>Golder Associates Inc.*</b> Street Address: <b>6241 NW 23rd Street, Suite 500</b> City: <b>Gainesville</b> State: <b>FL</b> Zip Code: <b>32653-1500</b>
3. Professional Engineer Telephone Numbers: Telephone: <b>( 352 ) 336 - 5600</b> Fax: <b>( 352 ) 336 - 6603</b>

\* Board of Professional Engineers Certificate of Authorization #00001670

4. Professional Engineer Statement:

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

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

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

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

*If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [ X ], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

*If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ] , if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.*

*David A. Buff*  
\_\_\_\_\_  
Signature

*10/10/02*  
\_\_\_\_\_  
Date

(seal)

\* Attach any exception to certification statement.



**Construction/Modification Information**

1. Description of Proposed Project or Alterations:

**United States Sugar Corp. is proposing to increase the maximum hourly heat input due to fuel oil combustion from 250 MMBtu/hr to 312 MMBtu/hr for Boiler No. 7. This increase will enable Boiler No. 7 to provide more steam to the refinery when bagasse is not available (i.e. due to bagasse conveyor breakdown, rainy conditions, etc.). See Attachment A for more details.**

2. Projected or Actual Date of Commencement of Construction: **November 1, 2002**

3. Projected Date of Completion of Construction: **Jan 31, 2004**

**Application Comment**

[Empty box for Application Comment]





**Facility Regulatory Classifications**

**Check all that apply:**

1. <input type="checkbox"/> Small Business Stationary Source?	<input type="checkbox"/> Unknown
2. <input checked="" type="checkbox"/> Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?	
3. <input type="checkbox"/> Synthetic Minor Source of Pollutants Other than HAPs?	
4. <input checked="" type="checkbox"/> Major Source of Hazardous Air Pollutants (HAPs)?	
5. <input type="checkbox"/> Synthetic Minor Source of HAPs?	
6. <input checked="" type="checkbox"/> One or More Emissions Units Subject to NSPS?	
7. <input type="checkbox"/> One or More Emission Units Subject to NESHAP?	
8. <input type="checkbox"/> Title V Source by EPA Designation?	
9. Facility Regulatory Classifications Comment (limit to 200 characters):	
<p><b>One or more emission units potentially subject to NESHAP for asbestos removal in the event that the facility may wish to perform asbestos removal in the future.</b></p>	

**List of Applicable Regulations**

<b>Attachment UC-FI-A - Title V core list, effective date 3/02/02</b>	

## B. FACILITY POLLUTANTS

### List of Pollutants Emitted

1. Pollutant Emitted	2. Pollutant Classif.	3. Requested Emissions Cap		4. Basis for Emissions Cap	5. Pollutant Comment
		lb/hour	tons/year		
PM	A				Particulate Matter – Total
SO <sub>2</sub>	A				Sulfur Dioxide
NO <sub>x</sub>	A				Nitrogen Oxides
CO	A				Carbon Monoxide
PM <sub>10</sub>	A				Particulate Matter – PM <sub>10</sub>
SAM	A				Sulfuric Acid Mist
HAPs	A				Total Hazardous Air Pollutants
VOC	A				Volatile Organic Compounds
H001	A				Acetaldehyde
H017	A				Benzene
H095	A				Formaldehyde
H144	A				Phenol
H151	A				Polycyclic Organic Matter
H163	A				Styrene
H169	A				Toluene
H132	A				Naphthalene
H058	A				Dibenzofuran



**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

8. List of Proposed Insignificant Activities: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. List of Equipment/Activities Regulated under Title VI: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Equipment/Activities On site but Not Required to be Individually Listed <input checked="" type="checkbox"/> Not Applicable
10. Alternative Methods of Operation: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
11. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Identification of Additional Applicable Requirements: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Risk Management Plan Verification: <input type="checkbox"/> Plan previously submitted to Chemical Emergency Preparedness and Prevention Office (CEPPO). Verification of submittal attached (Document ID: _____) or previously submitted to DEP (Date and DEP Office: _____) <input type="checkbox"/> Plan to be submitted to CEPPO (Date required: _____) <input checked="" type="checkbox"/> Not Applicable
14. Compliance Report and Plan: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
15. Compliance Certification (Hard-copy Required): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**ATTACHMENT UC-FI-A**

**FACILITY REGULATIONS**

# Title V Core List

Effective: 03/01/02

[Note: The Title V Core List is meant to simplify the completion of the "List of Applicable Regulations" for DEP Form No. 62-210.900(1), Application for Air Permit - Long Form. The Title V Core List is a list of rules to which all Title V Sources are presumptively subject. The Title V Core List may be referenced in its entirety, or with specific exceptions. The Department may periodically update the Title V Core List.]

## ***Federal: (description)***

40 CFR 61, Subpart M: NESHAP for Asbestos.

40 CFR 82: Protection of Stratospheric Ozone.

40 CFR 82, Subpart B: Servicing of Motor Vehicle Air Conditioners (MVAC).

40 CFR 82, Subpart F: Recycling and Emissions Reduction.

## ***State: (description)***

### **CHAPTER 62-4, F.A.C.: PERMITS, effective 06-01-01**

62-4.030, F.A.C.: General Prohibition.

62-4.040, F.A.C.: Exemptions.

62-4.050, F.A.C.: Procedure to Obtain Permits; Application

62-4.060, F.A.C.: Consultation.

62-4.070, F.A.C.: Standards for Issuing or Denying Permits; Issuance; Denial.

62-4.080, F.A.C.: Modification of Permit Conditions.

62-4.090, F.A.C.: Renewals.

62-4.100, F.A.C.: Suspension and Revocation.

62-4.110, F.A.C.: Financial Responsibility.

62-4.120, F.A.C.: Transfer of Permits.

62-4.130, F.A.C.: Plant Operation - Problems.

62-4.150, F.A.C.: Review

62-4.160, F.A.C.: Permit Conditions.

62-4.210, F.A.C.: Construction Permits.

62-4.220, F.A.C.: Operation Permit for New Sources.

### **CHAPTER 62-210, F.A.C.: STATIONARY SOURCES - GENERAL REQUIREMENTS, effective 06-21-01**

62-210.300, F.A.C.: Permits Required.

62-210.300(1), F.A.C.: Air Construction Permits.

62-210.300(2), F.A.C.: Air Operation Permits.

62-210.300(3), F.A.C.: Exemptions.

62-210.300(5), F.A.C.: Notification of Startup.

62-210.300(6), F.A.C.: Emissions Unit Reclassification.

62-210.300(7), F.A.C.: Transfer of Air Permits.

## **Title V Core List**

Effective: 03/01/02

62-210.350, F.A.C.: Public Notice and Comment.  
62-210.350(1), F.A.C.: Public Notice of Proposed Agency Action.  
62-210.350(2), F.A.C.: Additional Public Notice Requirements for Emissions Units Subject to Prevention of Significant Deterioration or Nonattainment-Area Preconstruction Review.  
62-210.350(3), F.A.C.: Additional Public Notice Requirements for Sources Subject to Operation Permits for Title V Sources.

62-210.360, F.A.C.: Administrative Permit Corrections.  
62-210.370(3), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility.  
62-210.400, F.A.C.: Emission Estimates.  
62-210.650, F.A.C.: Circumvention.  
62-210.700, F.A.C.: Excess Emissions

62-210.900, F.A.C.: Forms and Instructions.  
62-210.900(1), F.A.C.: Application for Air Permit - Title V Source, Form and Instructions.  
62-210.900(5), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions.  
62-210.900(7), F.A.C.: Application for Transfer of Air Permit - Title V and Non-Title V Source.

**CHAPTER 62-212, F.A.C.: STATIONARY SOURCES- PRECONSTRUCTION REVIEW,**  
effective 08-17-00

**CHAPTER 62-213, F.A.C.: OPERATION PERMITS FOR MAJOR SOURCES OF AIR POLLUTION,**  
effective 04-16-01

62-213.205, F.A.C.: Annual Emissions Fee.  
62-213.400, F.A.C.: Permits and Permit Revisions Required.  
62-213.410, F.A.C.: Changes Without Permit Revision.  
62-213.412, F.A.C.: Immediate Implementation Pending Revision Process.  
62-213.415, F.A.C.: Trading of Emissions Within a Source.  
62-213.420, F.A.C.: Permit Applications.  
62-213.430, F.A.C.: Permit Issuance, Renewal, and Revision.  
62-213.440, F.A.C.: Permit Content.  
62-213.450, F.A.C.: Permit Review by EPA and Affected States  
62-213.460, F.A.C.: Permit Shield.

62-213.900, F.A.C.: Forms and Instructions.  
62-213.900(1), F.A.C.: Major Air Pollution Source Annual Emissions Fee Form.  
62-213.900(7), F.A.C.: Statement of Compliance Form

## **Title V Core List**

Effective: 03/01/02

### **CHAPTER 62-296, F.A.C.: STATIONARY SOURCES - EMISSION STANDARDS, effective 03-02-99**

62-296.320(2), F.A.C.: Objectionable Odor Prohibited.

62-296.320(4)(c), F.A.C.: Unconfined Emissions of Particulate Matter

### **CHAPTER 62-297, F.A.C.: STATIONARY SOURCES - EMISSIONS MONITORING, effective 03-02-99**

62-297.310, F.A.C.: General Test Requirements.

62-297.330, F.A.C.: Applicable Test Procedures.

62-297.340, F.A.C.: Frequency of Compliance Tests.

62-297.345, F.A.C.: Stack Sampling Facilities Provided by the Owner of an Emissions Unit.

62-297.350, F.A.C.: Determination of Process Variables.

62-297.570, F.A.C.: Test Report.

62-297.620, F.A.C.: Exceptions and Approval of Alternate Procedures and Requirements.

#### **Miscellaneous:**

**CHAPTER 28-106, F.A.C.: Decisions Determining Substantial Interests**

**CHAPTER 62-110, F.A.C.: Exception to the Uniform Rules of Procedure, effective 07-01-98**

**CHAPTER 62-256, F.A.C.: Open Burning and Frost Protection Fires, effective 11-30-94**

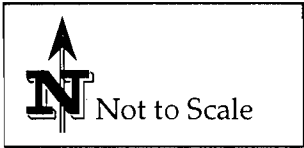
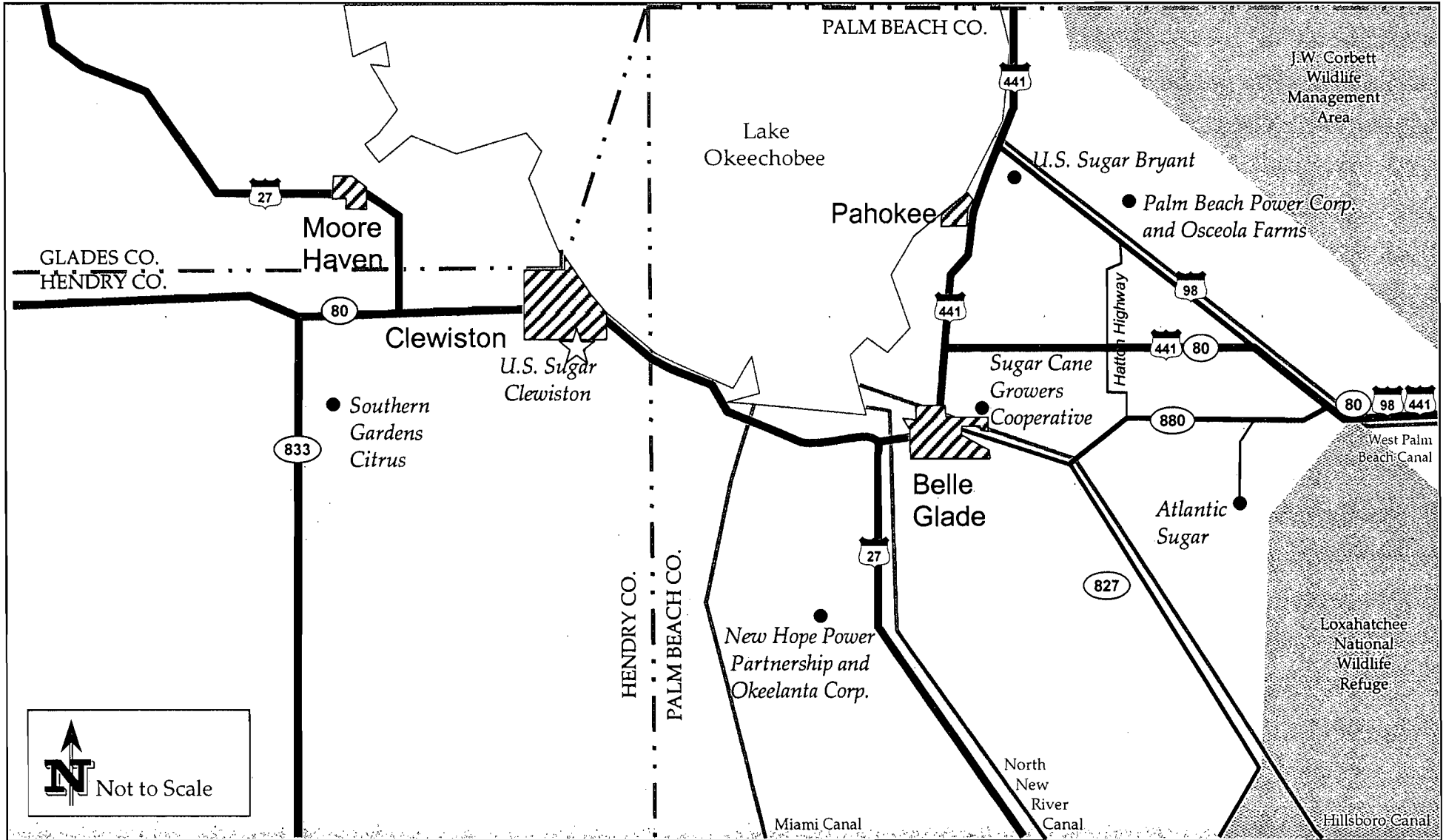
**CHAPTER 62-257, F.A.C.: Asbestos Notification and Fee, effective 02-09-99**

**CHAPTER 62-281, F.A.C.: Motor Vehicle Air Conditioning Refrigerant Recovery and  
Recycling, effective 09-10-96**



**ATTACHMENT UC-FI-C1**

**AREA MAP SHOWING FACILITY LOCATION**



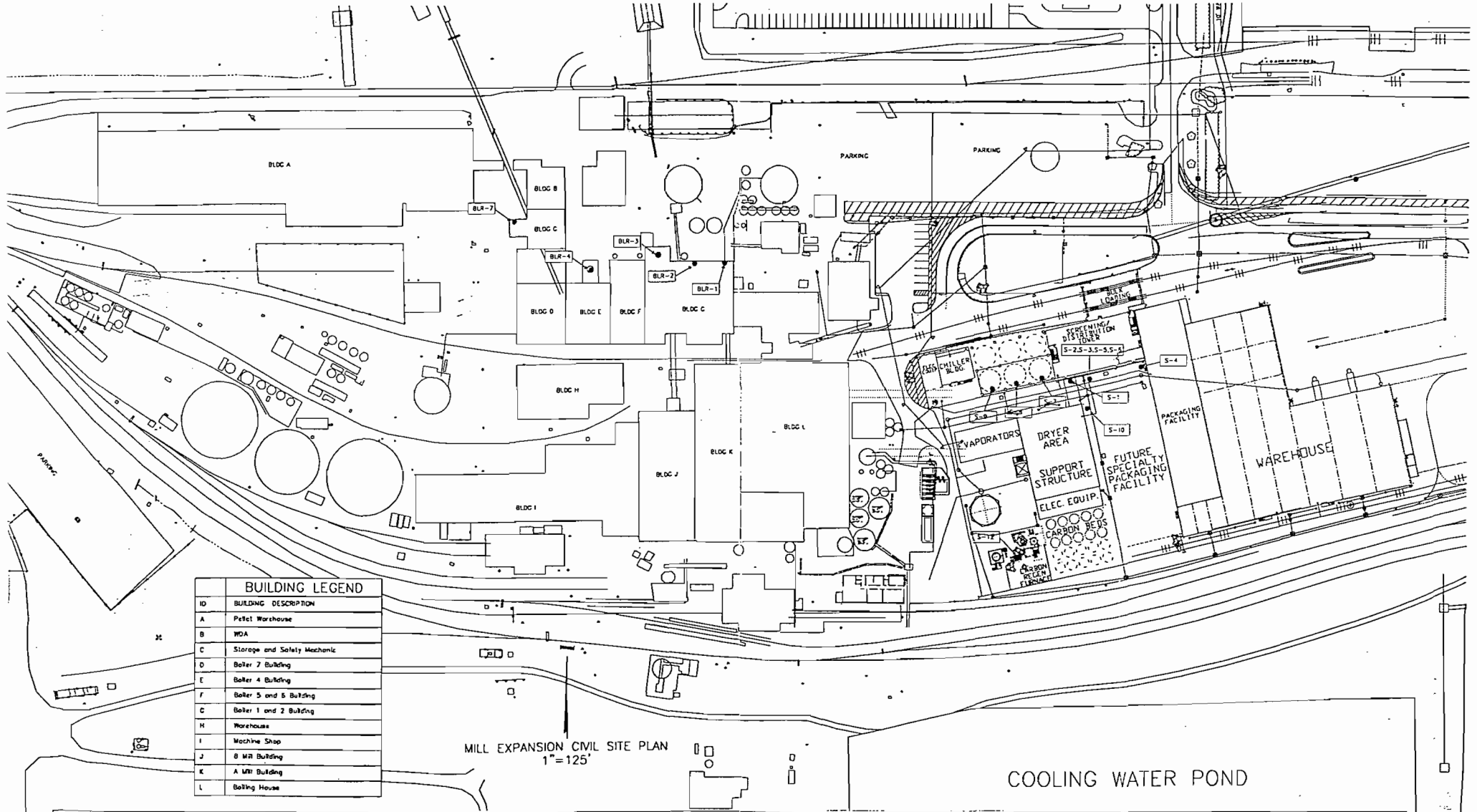
**Attachment UC-FI-C1**  
**Location of U.S. Sugar Corporation, Clewiston Mill**

Source: Golder Associates Inc., 2002.



**ATTACHMENT UC-FI-C2**

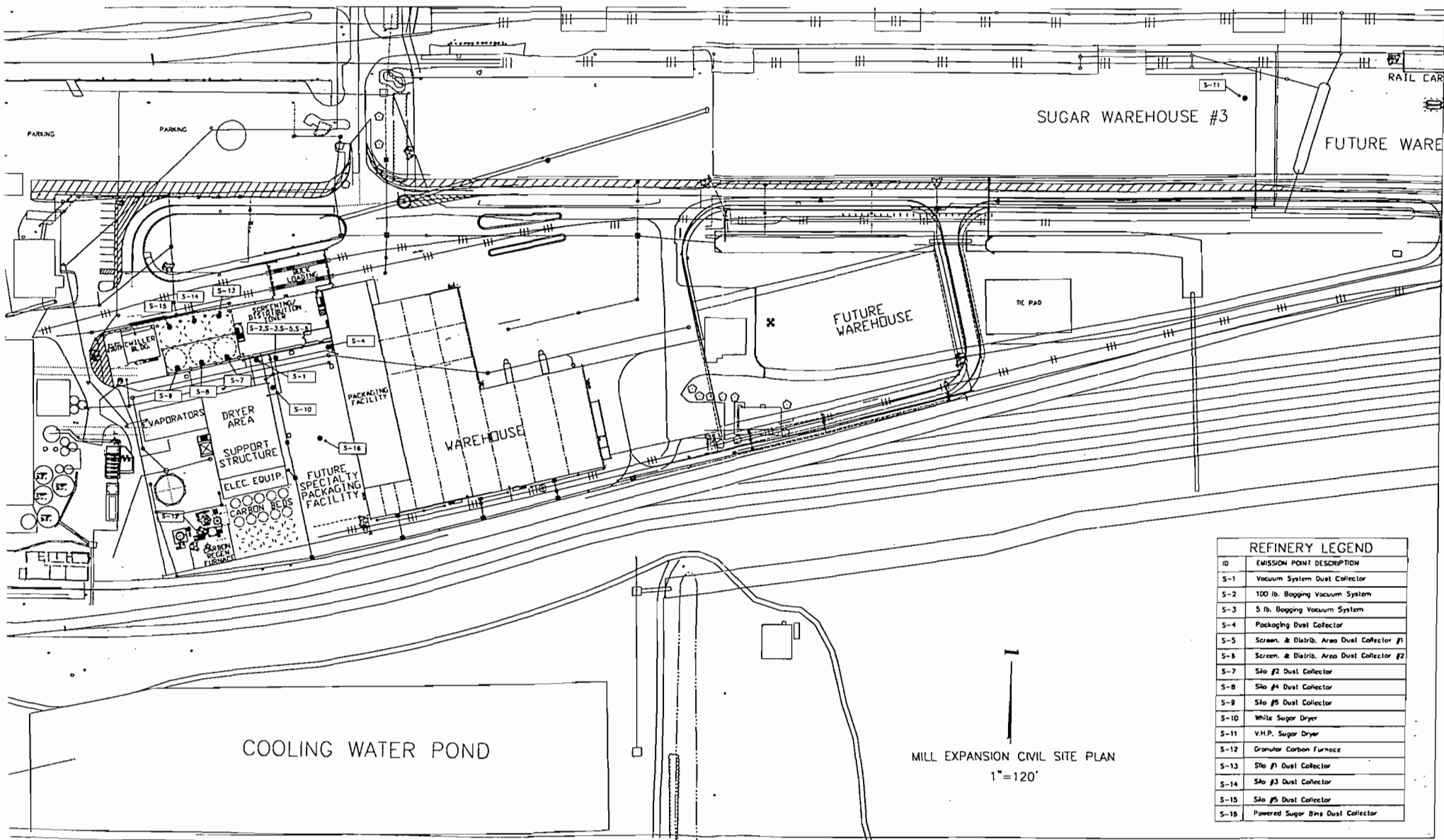
**FACILITY PLOT PLANS**



ID	BUILDING DESCRIPTION
A	Pellet Warehouse
B	WDA
C	Storage and Safety Mechanic
D	Boiler 7 Building
E	Boiler 4 Building
F	Boiler 5 and 6 Building
G	Boiler 1 and 2 Building
H	Warehouse
I	Machine Shop
J	B Mill Building
K	A Mill Building
L	Baling House

Attachment UC-FI-C2, Page 1. Clewiston Mill Plot Plan of Existing Sources and Major Buildings





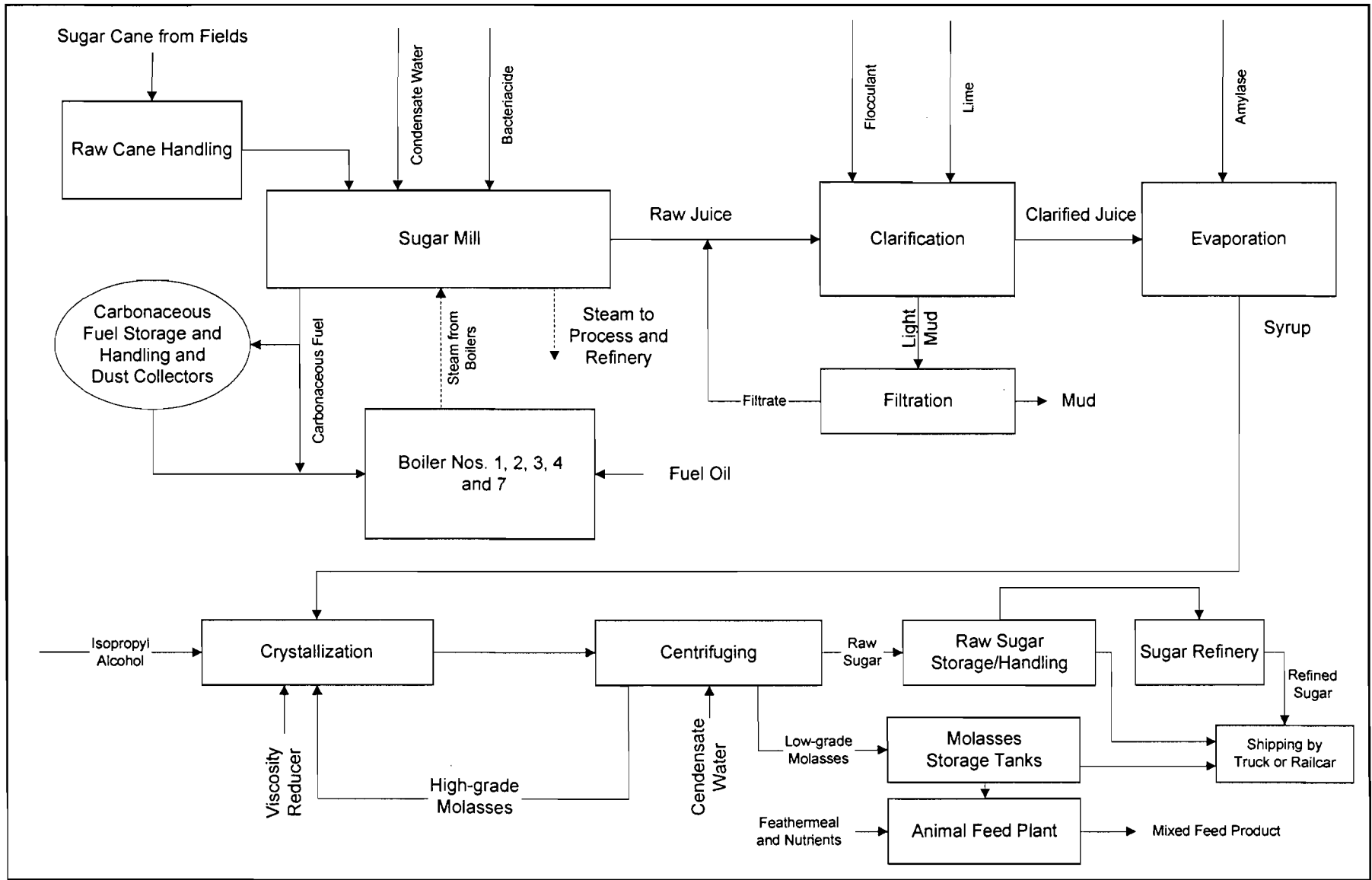
REFINERY LEGEND	
ID	EMISSION POINT DESCRIPTION
S-1	Vacuum System Dust Collector
S-2	100 lb. Bagging Vacuum System
S-3	5 lb. Bagging Vacuum System
S-4	Packaging Dust Collector
S-5	Screen. & Distrib. Area Dust Collector #1
S-6	Screen. & Distrib. Area Dust Collector #2
S-7	Site #2 Dust Collector
S-8	Site #4 Dust Collector
S-9	Site #5 Dust Collector
S-10	White Sugar Dryer
S-11	V.H.P. Sugar Dryer
S-12	Granular Carbon Furnace
S-13	Site #1 Dust Collector
S-14	Site #3 Dust Collector
S-15	Site #5 Dust Collector
S-16	Powered Sugar Silos Dust Collector

Attachment UC-FI-C2, Page 2. Location of Sugar Refinery Sources and Major Buildings



**ATTACHMENT UC-FI-C3**

**PROCESS FLOW DIAGRAM**



Attachment UC-FI-C3  
 Process Flow Diagram  
 U.S. Sugar Corporation  
 Clewiston Mill, Florida

**Process Flow Legend**

Solid/Liquid  $\longrightarrow$   
 Steam  $\dashrightarrow$

Clewiston Sugar Mill Facility

Filename: 0237584\4.4.4.4.1\UC-FI-C3.VSD

Date: 10/08/02



**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION**  
**(All Emissions Units)**

**Emissions Unit Description and Status**

1. Type of Emissions Unit Addressed in This Section: (Check one)			
<input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.			
2. Regulated or Unregulated Emissions Unit? (Check one)			
<input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.			
<input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.			
3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):			
Boiler No. 7			
4. Emissions Unit Identification Number: <span style="float: right;"><input type="checkbox"/> No ID</span>			
ID: 014 <span style="float: right;"><input type="checkbox"/> ID Unknown</span>			
5. Emissions Unit Status Code: A	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 20	8. Acid Rain Unit? <input type="checkbox"/>
9. Emissions Unit Comment: (Limit to 500 Characters)			
Vibrating grate boiler fired by carbonaceous fuel and low sulfur No. 2 fuel oil.			



**Emissions Unit Control Equipment**

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

**Electrostatic Precipitator**

**Wet Sand Separator**

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

**Emissions Unit Details**

1. Package Unit:	
Manufacturer:	Model Number:
2. Generator Nameplate Rating: MW	
3. Incinerator Information:	
Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F

**B. EMISSIONS UNIT CAPACITY INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:	812	mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:	385,000	lb/hr steam
5. Requested Maximum Operating Schedule:		
	24	hours/day
		7
		days/week
	52	weeks/year
	8,760	hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):		
<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 738 MMBtu/hr. Proposed maximum for No. 2 fuel oil is 312 MMBtu/hr.</p>		

**C. EMISSIONS UNIT REGULATIONS  
(Regulated Emissions Units Only)**

**List of Applicable Regulations**

<b>40 CFR 60.40b(a): 40 CFR 63, Subpart Db Applicability</b>
<b>40 CFR 60.40b(j): 40 CFR 63, Subpart Db Applicability</b>
<b>40 CFR 60.42b(a): Standard for Sulfur Dioxide</b>
<b>40 CFR 60.42b(j)(2): Standard for Sulfur Dioxide</b>
<b>40 CFR 60.43b(e): Standard for Particulate Matter and Opacity</b>
<b>40 CFR 60.43b(f): Standard for Particulate Matter and Opacity</b>
<b>40 CFR 60.43b(g): Standard for Particulate Matter and Opacity</b>
<b>40 CFR 60.44b(c): Standard for Nitrogen Oxides</b>
<b>40 CFR 60.45b(j): Compliance and Performance Test Methods for Sulfur Dioxide</b>
<b>40 CFR 60.46b(a): Compliance and Performance Test Methods for PM</b>
<b>40 CFR 60.46b(d)7: Compliance and Performance Test Methods for PM</b>
<b>40 CFR 60.49b(a): Reporting and Recordkeeping Requirements</b>
<b>40 CFR 60.49b(d): Reporting and Recordkeeping Requirements</b>
<b>40 CFR 60.49b(f): Reporting and Recordkeeping Requirements</b>
<b>40 CFR 60.49b(h)(1): Reporting and Recordkeeping Requirements</b>
<b>40 CFR 60.49b(h)(3): Reporting and Recordkeeping Requirements</b>
<b>62.212.400, F.A.C.: Prevention of Significant Deterioration</b>
<b>62.296.405(2), F.A.C.: Steam Generating Units Greater than 250 MMBtu/hr</b>
<b>62.297.310(1), F.A.C.: General Compliance Test Requirements</b>
<b>62-297-310(2)(b), F.A.C.: General Compliance Test Requirements</b>
<b>62-297-310(3), F.A.C.: General Compliance Test Requirements</b>
<b>62-297-310(4), F.A.C.: General Compliance Test Requirements</b>
<b>62-297-310(5), F.A.C.: General Compliance Test Requirements</b>
<b>62-297-310(6), F.A.C.: General Compliance Test Requirements</b>
<b>62-297-310(7)(a)3., F.A.C.: General Compliance Test Requirements</b>
<b>62-297-310(7)(a)4., F.A.C.: General Compliance Test Requirements</b>
<b>62-297-310(7)(a)5., F.A.C.: General Compliance Test Requirements</b>
<b>62-297-310(7)(a)9., F.A.C.: General Compliance Test Requirements</b>
<b>62-297-310(7)(a)10., F.A.C.: General Compliance Test Requirements</b>
<b>62-297.310(8), F.A.C.: General Compliance Test Requirements</b>
<b>62-297.401(1), F.A.C.: EPA Test Method 1</b>
<b>62-297.401(2), F.A.C.: EPA Test Method 2</b>



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

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? <b>BLR-7</b>		2. Emission Point Type Code: <b>1</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: <b>V</b>	6. Stack Height: <b>225</b> feet	7. Exit Diameter: <b>8.5</b> feet	
8. Exit Temperature: <b>335</b> °F	9. Actual Volumetric Flow Rate: <b>355,000</b> acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: East (km): North (km):			
14. Emission Point Comment (limit to 200 characters):  <b>Stack parameters based on January 2001 stack testing. Flow rate ratioed to maximum 24-hour steam rate of 350,000 lb/hr.</b>			

**E. SEGMENT (PROCESS/FUEL) INFORMATION  
(All Emissions Units)**

**Segment Description and Rate:** Segment  1  of  2

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>External combustion boilers; Industrial; Bagasse; All boiler sizes</b>		
2. Source Classification Code (SCC): <b>1-02-011-01</b>		3. SCC Units: <b>Tons Burned</b>
4. Maximum Hourly Rate: <b>112.78</b>	5. Maximum Annual Rate: <b>897,800</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: <b>7.2</b>
10. Segment Comment (limit to 200 characters):  <b>Maximum hourly rate based on 812 MMBtu/hr (1-hr max) and maximum annual rate based on 738 MMBtu/hr (24-hr max).</b>		

**Segment Description and Rate:** Segment  2  of  2

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>External combustion boilers; Industrial; Distillate Oil; Grades 1 and 2</b>		
2. Source Classification Code (SCC): <b>1-02-005-01</b>		3. SCC Units: <b>Thousand Gallons Burned</b>
4. Maximum Hourly Rate: <b>2.311</b>	5. Maximum Annual Rate: <b>4,500</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: <b>0.05</b>	8. Maximum % Ash:	9. Million Btu per SCC Unit: <b>135</b>
10. Segment Comment (limit to 200 characters):  <b>Rates based on proposed 312 MMBtu/hr and a maximum of 4,500,000 gallons of fuel oil per year.</b>		

**F. EMISSIONS UNIT POLLUTANTS  
(All Emissions Units)**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	099	010	EL
PM <sub>10</sub>	099	010	EL
SO <sub>2</sub>			EL
NO <sub>x</sub>			EL
CO			EL
VOC			EL
SAM			EL
PB	099	010	NS
H021	099	010	NS
H114			NS
H017			NS
H095			NS
HAPS			NS

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>PM</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>24.4 lb/hour</b>		4. Synthetically Limited? [ ] <b>97 tons/year</b>	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: <b>0.03 lb/MMBtu</b> Reference: <b>Permit No. 0510003-014-AV</b>		7. Emissions Method Code: <b>0</b>	
8. Calculation of Emissions (limit to 600 characters):  <b>812 MMBtu/hr x 0.03 lb/MMBtu = 24.4 lb/hr</b> <b>Annual limit from Permit No. 0510003-014-AV for bagasse firing.</b>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions representative of bagasse firing.</b>			

**Allowable Emissions** Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>0.03 lb/MMBtu</b>		4. Equivalent Allowable Emissions: <b>24.4 lb/hour</b> <b>97 tons/year</b>	
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 5 or 17</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Permit No. 0510003-014-AV. Emissions representative of bagasse firing only.</b>			



**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>PM</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour		4. Synthetically Limited? [ ] tons/year	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code:	
8. Calculation of Emissions (limit to 600 characters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>0.03 lb/MMBtu</b>		4. Equivalent Allowable Emissions: <b>9.4 lb/hour 9.1 tons/year</b>	
5. Method of Compliance (limit to 60 characters): <b>EPA Method 5 or 17</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): <b>Emissions representative of No. 2 fuel oil firing only. Annual emissions based on proposed limit of 4,500,000 gal/yr. See Attachment UC-EU1-G8 for calculations.</b>			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>PM<sub>10</sub></b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: <b>24.4 lb/hour</b>	4. Synthetically Limited? [ ] <b>97 tons/year</b>
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: <b>0.03 lb/MMBtu</b> Reference: <b>Permit No. 0510003-014-AV</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions (limit to 600 characters):  <b>812 MMBtu/hr x 0.03 lb/MMBtu = 24.4 lb/hr</b> <b>Annual limit from Permit No. 0510003-014-AV for bagasse firing.</b>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions representative of bagasse firing.</b>	

**Allowable Emissions** Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>0.03 lb/MMBtu</b>	4. Equivalent Allowable Emissions: <b>24.4 lb/hour</b> <b>97 tons/year</b>
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 5 or 17</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Permit No. 0510003-014-AV. Emissions representative of bagasse firing only.</b>	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>PM<sub>10</sub></b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour		tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code:	
8. Calculation of Emissions (limit to 600 characters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>0.03 lb/MMBtu</b>		4. Equivalent Allowable Emissions: <b>9.4 lb/hour      9.1 tons/year</b>	
5. Method of Compliance (limit to 60 characters): <b>EPA Method 5 or 17</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Emissions representative of No. 2 fuel oil firing only. Annual emissions based on proposed limit of 4,500,000 gall/yr. See Attachment UC-EU1-G8 for calculations.</b>			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>SO<sub>2</sub></b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: <b>138.0 lb/hour                      550 tons/year</b>	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/year	
6. Emission Factor: <b>0.17 lb/MMBtu</b> Reference: <b>Permit No. 0510003-014-AV</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions (limit to 600 characters):  <b>812 MMBtu/hr x 0.17 lb/MMBtu = 138.0 lb/hr</b> <b>Annual limit from Permit No. 0510003-014-AV for bagasse firing.</b>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions representative of bagasse firing.</b>	

**Allowable Emissions** Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>0.17 lb/MMBtu</b>	4. Equivalent Allowable Emissions: <b>138.0 lb/hour                      550 tons/year</b>
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 6</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Permit No. 0510003-014-AV. Emissions representative of bagasse firing only.</b>	



**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>NO<sub>x</sub></b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>203 lb/hour                      809 tons/year</b>		4. Synthetically Limited? [ ]	
5. Range of Estimated Fugitive Emissions: [ ] 1            [ ] 2            [ ] 3            _____ to _____ tons/year			
6. Emission Factor: <b>0.25 lb/MMBtu</b> Reference: <b>Permit No. 0510003-14-AV</b>		7. Emissions Method Code: <b>0</b>	
8. Calculation of Emissions (limit to 600 characters):  <b>812 MMBtu/hr x 0.25 lb/MMBtu = 203.0 lb/hr</b> <b>Annual limit from Permit No. 0510003-014-AV for bagasse firing.</b>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions representative of bagasse firing.</b>			

**Allowable Emissions** Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>0.25 lb/MMBtu</b>		4. Equivalent Allowable Emissions: <b>203 lb/hour                      809 tons/year</b>	
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 7 or 7E</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Permit No. 0510003-014-AV. Emissions representative of bagasse firing only.</b>			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted:		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour		tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code:	
8. Calculation of Emissions (limit to 600 characters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>0.2 lb/MMBtu</b>	4. Equivalent Allowable Emissions: <b>62.4 lb/hour      60.8 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>EPA Method 7 or 7E</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): <b>Emissions representative of No. 2 fuel oil firing only. Annual emissions based on proposed limit of 4,500,000 gal/yr. See Attachment UC-EU1-G8 for calculations.</b>	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>CO</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>568.4 lb/hour</b>		4. Synthetically Limited? [ ]	
		<b>2,262 tons/year</b>	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: <b>0.70 lb/MMBtu</b>		7. Emissions Method Code:	
Reference: <b>Permit No. 0510003-014-AV</b>		<b>0</b>	
8. Calculation of Emissions (limit to 600 characters):  <b>812 MMBtu/hr x 0.70 lb/MMBtu = 568.4 lb/hr</b> <b>Annual limit from in Permit No. 0510003-014-AV for bagasse firing.</b>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions representative of bagasse firing.</b>			

**Allowable Emissions** Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>0.70 lb/MMBtu</b>		4. Equivalent Allowable Emissions: <b>568.4 lb/hour</b> <b>2,262 tons/year</b>	
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 10</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Permit No. 0510003-014-AV. Emissions representative of bagasse firing only.</b>			



**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>CO</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour		tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code:	
8. Calculation of Emissions (limit to 600 characters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>0.066 lb/MMBtu</b>		4. Equivalent Allowable Emissions: <b>20.6 lb/hour      20.0 tons/year</b>	
5. Method of Compliance (limit to 60 characters): <b>EPA Method 10</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Emissions representative of No. 2 fuel oil firing only. Annual emissions based on proposed limit of 4,500,000 gal/yr. See Attachment UC-EU1-G8 for calculations.</b>			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>VOC</b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: <b>172.1 lb/hour                      685 tons/year</b>	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/year	
6. Emission Factor: <b>0.212 lb/MMBtu</b> Reference: <b>Permit No. 0510003-014-AV</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions (limit to 600 characters):  <b>812 MMBtu/hr x 0.212 lb/MMBtu = 172.1 lb/hr</b> <b>Annual limit from Permit No. 0510003-014-AV for bagasse firing.</b>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions representative of bagasse firing.</b>	

**Allowable Emissions** Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>0.212 lb/MMBtu</b>	4. Equivalent Allowable Emissions: <b>172.1 lb/hour                      685 tons/year</b>
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 25 or 25A</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Permit No. 0510003-014-AV. Emissions representative of bagasse firing only.</b>	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>VOC</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour		4. Synthetically Limited? [ ]	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code:	
8. Calculation of Emissions (limit to 600 characters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>0.004 lb/MMBtu</b>		4. Equivalent Allowable Emissions: <b>1.2 lb/hour      1.2 tons/year</b>	
5. Method of Compliance (limit to 60 characters): <b>EPA Method 25 or 25A</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Emissions representative of No. 2 fuel oil firing only. Annual emissions based on proposed limit of 4,500,000 gal/yr. See Attachment UC-EU1-G8 for calculations.</b>			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>SAM</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>13.8 lb/hour</b>		4. Synthetically Limited? [ ] <b>55 tons/year</b>	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: <b>0.017 lb/MMBtu</b> Reference: <b>Permit No. 0510003-014-AV</b>		7. Emissions Method Code: <b>0</b>	
8. Calculation of Emissions (limit to 600 characters):  <b>812 MMBtu/hr x 0.017 lb/MMBtu = 13.8 lb/hr</b> <b>Annual limit from Permit No. 0510003-014-AV for bagasse firing.</b>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Potential emissions representative of bagasse firing.</b>			

**Allowable Emissions** Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>0.017 lb/MMBtu</b>		4. Equivalent Allowable Emissions: <b>13.8 lb/hour 55 tons/year</b>	
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 8 when required</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Permit No. 0510003-014-AV. Emissions representative of bagasse firing only.</b>			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>SAM</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour		4. Synthetically Limited? [ ] tons/year	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code:	
8. Calculation of Emissions (limit to 600 characters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>0.005 lb/MMBtu</b>		4. Equivalent Allowable Emissions: <b>1.6 lb/hour      1.5 tons/year</b>	
5. Method of Compliance (limit to 60 characters): <b>EPA Method 8 when required</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): <b>Emissions representative of No. 2 fuel oil firing only. Annual emissions based on proposed limit of 4,500,000 gal/yr. See Attachment UC-EU1-G8 for calculations.</b>			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>PB</b>		2. Total Percent Efficiency of Control: <b>99%</b>	
3. Potential Emissions: <b>3.9 x 10<sup>-4</sup> lb/hour</b> <b>1.6 x 10<sup>-3</sup> tons/year</b>		4. Synthetically Limited? [ ]	
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/year			
6. Emission Factor: <b>4.8 x 10<sup>-5</sup> lb/MMBtu</b> Reference: <b>AP-42, Table 1.6-4 (3/02)</b>		7. Emissions Method Code: <b>3</b>	
8. Calculation of Emissions (limit to 600 characters):  $4.8 \times 10^{-5} \text{ lb/MMBtu} \times 812 \text{ MMBtu/hr} \times (1-0.99) = 3.9 \times 10^{-4} \text{ lb/hr}$ $4.8 \times 10^{-5} \text{ lb/MMBtu} \times 6,464,880 \text{ MMBtu/yr} \times (1-0.99) \div 2,000 \text{ lb/ton} = 1.6 \times 10^{-3} \text{ ton/yr}$			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Emission factor based on wood firing, representative of bagasse firing only. See Attachment UC-EU1-G8 for potential emissions due to fuel oil firing.</b>			

**Allowable Emissions** Allowable Emissions \_\_\_\_\_ of \_\_\_\_\_

1. Basis for Allowable Emissions Code:		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:		4. Equivalent Allowable Emissions:  lb/hour      tons/year	
5. Method of Compliance (limit to 60 characters):			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>H021</b>		2. Total Percent Efficiency of Control: <b>99%</b>	
3. Potential Emissions: <b>8.9 x 10<sup>-6</sup> lb/hour</b>		4. Synthetically Limited? [ ]	
		<b>3.6 x 10<sup>-5</sup> tons/year</b>	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: <b>1.1 x 10<sup>-6</sup> lb/MMBtu</b>		7. Emissions Method Code: <b>3</b>	
Reference: <b>AP-42, Table 1.6-4 (3/02)</b>			
8. Calculation of Emissions (limit to 600 characters):  $1.1 \times 10^{-6} \text{ lb/MMBtu} \times 812 \text{ MMBtu/hr} \times (1-0.99) = 8.9 \times 10^{-6} \text{ lb/hr}$ $1.1 \times 10^{-6} \text{ lb/MMBtu} \times 6,464,880 \text{ MMBtu/yr} \times (1-0.99) \div 2,000 \text{ lb/ton} = 3.6 \times 10^{-5} \text{ ton/yr}$			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Emissions representative of bagasse firing only. See Attachment UC-EU1-G8 for potential emissions due to fuel oil firing.</b>			

**Allowable Emissions** Allowable Emissions \_\_\_\_\_ of \_\_\_\_\_

1. Basis for Allowable Emissions Code:		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:		4. Equivalent Allowable Emissions:	
		<b>lb/hour                      tons/year</b>	
5. Method of Compliance (limit to 60 characters):			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>H114</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>6.5 x 10<sup>-3</sup> lb/hour      2.57 x 10<sup>-2</sup> tons/year</b>		4. Synthetically Limited? [ ]	
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/year			
6. Emission Factor: <b>7.95 x 10<sup>-6</sup> lb/MMBtu</b> Reference: <b>Based on industry stack testing (Cooper, 1999)</b>		7. Emissions Method Code: <b>5</b>	
8. Calculation of Emissions (limit to 600 characters):  $7.95 \times 10^{-6} \text{ lb/MMBtu} \times 812 \text{ MMBtu/hr} = 6.5 \times 10^{-3} \text{ lb/hr}$ $7.95 \times 10^{-6} \text{ lb/MMBtu} \times 6,464,880 \text{ MMBtu/yr} \div 2,000 \text{ lb/ton} = 2.57 \times 10^{-2} \text{ ton/yr}$			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Emissions representative of bagasse firing only. See Attachment UC-EU1-G8 for potential emissions due to fuel oil firing.</b>			

**Allowable Emissions** Allowable Emissions \_\_\_\_\_ of \_\_\_\_\_

1. Basis for Allowable Emissions Code:		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:		4. Equivalent Allowable Emissions:  lb/hour      tons/year	
5. Method of Compliance (limit to 60 characters):			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):			



**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE Limitation)**

**Visible Emissions Limitation:** Visible Emissions Limitation \_\_\_\_\_ of \_\_\_\_\_

1. Visible Emissions Subtype: <b>VE20</b>	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Requested Allowable Opacity: Normal Conditions: <b>20</b> %      Exceptional Conditions: <b>27</b> % Maximum Period of Excess Opacity Allowed: <b>6</b> min/hour	
4. Method of Compliance: <b>EPA Method 9</b>	
5. Visible Emissions Comment (limit to 200 characters):  <b>Rule 62-212.400(5), F.A.C.</b>	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units Subject to Continuous Monitoring)**

**Continuous Monitoring System:** Continuous Monitor 1 of 4

1. Parameter Code: <b>FLOW</b>	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information: Manufacturer: <b>ABB – Kent Taylor or equivalent</b> Model Number: <b>621D</b> Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):  <b>Current permit condition requires Boiler No. 7 be equipped with an oil flow measurement instrument.</b>	

**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE Limitation)**

**Visible Emissions Limitation:** Visible Emissions Limitation \_\_\_\_\_ of \_\_\_\_\_

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

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units Subject to Continuous Monitoring)**

**Continuous Monitoring System:** Continuous Monitor  2  of  4

1. Parameter Code: <b>FLOW</b>	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [ <b>X</b> ] Other
4. Monitor Information: Manufacturer: <b>ABB – Kent Taylor or equivalent</b> Model Number: <b>621D</b> Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):  <b>Current permit condition requires Boiler No. 7 be equipped with a steam production measurement instrument.</b>	

**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE Limitation)**

**Visible Emissions Limitation:** Visible Emissions Limitation \_\_\_\_\_ of \_\_\_\_\_

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

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units Subject to Continuous Monitoring)**

**Continuous Monitoring System:** Continuous Monitor  3  of  4

1. Parameter Code: <b>Steam Pressure Monitor</b>	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [ X ] Other
4. Monitor Information: Manufacturer: <b>ABB – Kent Taylor or equivalent</b> Model Number: <b>621G</b> Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):  <b>Current permit condition requires Boiler No. 7 be equipped with a steam pressure measurement instrument.</b>	

**H. VISIBLE EMISSIONS INFORMATION**  
 (Only Regulated Emissions Units Subject to a VE Limitation)

**Visible Emissions Limitation:** Visible Emissions Limitation \_\_\_\_\_ of \_\_\_\_\_

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

**I. CONTINUOUS MONITOR INFORMATION**  
 (Only Regulated Emissions Units Subject to Continuous Monitoring)

**Continuous Monitoring System:** Continuous Monitor  4  of  4

1. Parameter Code: <b>TEMP</b>	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [ X ] Other
4. Monitor Information: Manufacturer: <b>ABB – Kent Taylor or equivalent</b> Model Number: <b>600T</b> Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):  <b>Current permit condition requires Boiler No. 7 be equipped with a steam temperature measurement instrument.</b>	

**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)****Supplemental Requirements**

1. Process Flow Diagram <input checked="" type="checkbox"/> Attached, Document ID: <u>UC-EU1-J1</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input checked="" type="checkbox"/> Attached, Document ID: <u>UC-EU1-J2</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input checked="" type="checkbox"/> Attached, Document ID: <u>UC-EU1-J3</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Compliance Test Report <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
8. Supplemental Information for Construction Permit Application <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment A</u> <input type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Supplemental Requirements Comment:

**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

11. Alternative Methods of Operation [ ] Attached, Document ID: _____ [ X ] Not Applicable
12. Alternative Modes of Operation (Emissions Trading) [ ] Attached, Document ID: _____ [ X ] Not Applicable
13. Identification of Additional Applicable Requirements [ ] Attached, Document ID: _____ [ X ] Not Applicable
14. Compliance Assurance Monitoring Plan [ ] Attached, Document ID: _____ [ X ] Not Applicable
15. Acid Rain Part Application (Hard-copy Required) [ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ [ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ [ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ [ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ [ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ [ X ] Not Applicable

**ATTACHMENT UC-EU1-G8**

**EMISSIONS CALCULATIONS**

## Attachment UC-EU1-G8. Future Maximum Emissions due to Fuel Oil, Boiler No. 7, US Sugar Corporation Clewiston

Regulated Pollutant	No. 2 Fuel Oil Combustion					Hourly Emissions (lb/hr)	Annual Emissions (TPY)
	Emission Factor (lb/MMBtu)	Ref.	Activity Factor <sup>a</sup>				
			MMBtu/hr	MMBtu/yr <sup>b</sup>			
Particulate Matter (PM)	0.03	1	312	607,500	9.4	9.1	
Particulate Matter (PM <sub>10</sub> )	0.03	1	312	607,500	9.4	9.1	
Sulfur dioxide (SO <sub>2</sub> )	0.05	1	312	607,500	15.6	15.2	
Nitrogen oxides (NO <sub>x</sub> )	0.2	1	312	607,500	62.4	60.8	
Carbon monoxide (CO)	0.066	1	312	607,500	20.6	20.0	
Volatile Organic Compound (VOC)	0.004	1	312	607,500	1.2	1.2	
Lead (Pb)	9.0E-06	2	312	607,500	2.8E-05	2.7E-05	
Sulfuric acid mist (SAM)	0.005	1	312	607,500	1.6	1.5	
Beryllium (Be)	3.0E-06	2	312	607,500	9.4E-06	9.1E-06	
Mercury (Hg)	3.0E-06	2	312	607,500	9.4E-04	9.1E-04	

<sup>a</sup> Based on proposed maximum heat input due to fuel oil combustion.

<sup>b</sup> Based on proposed maximum allowable fuel usage of 4,500,000 gallons per year and 135,000 Btu/gal.

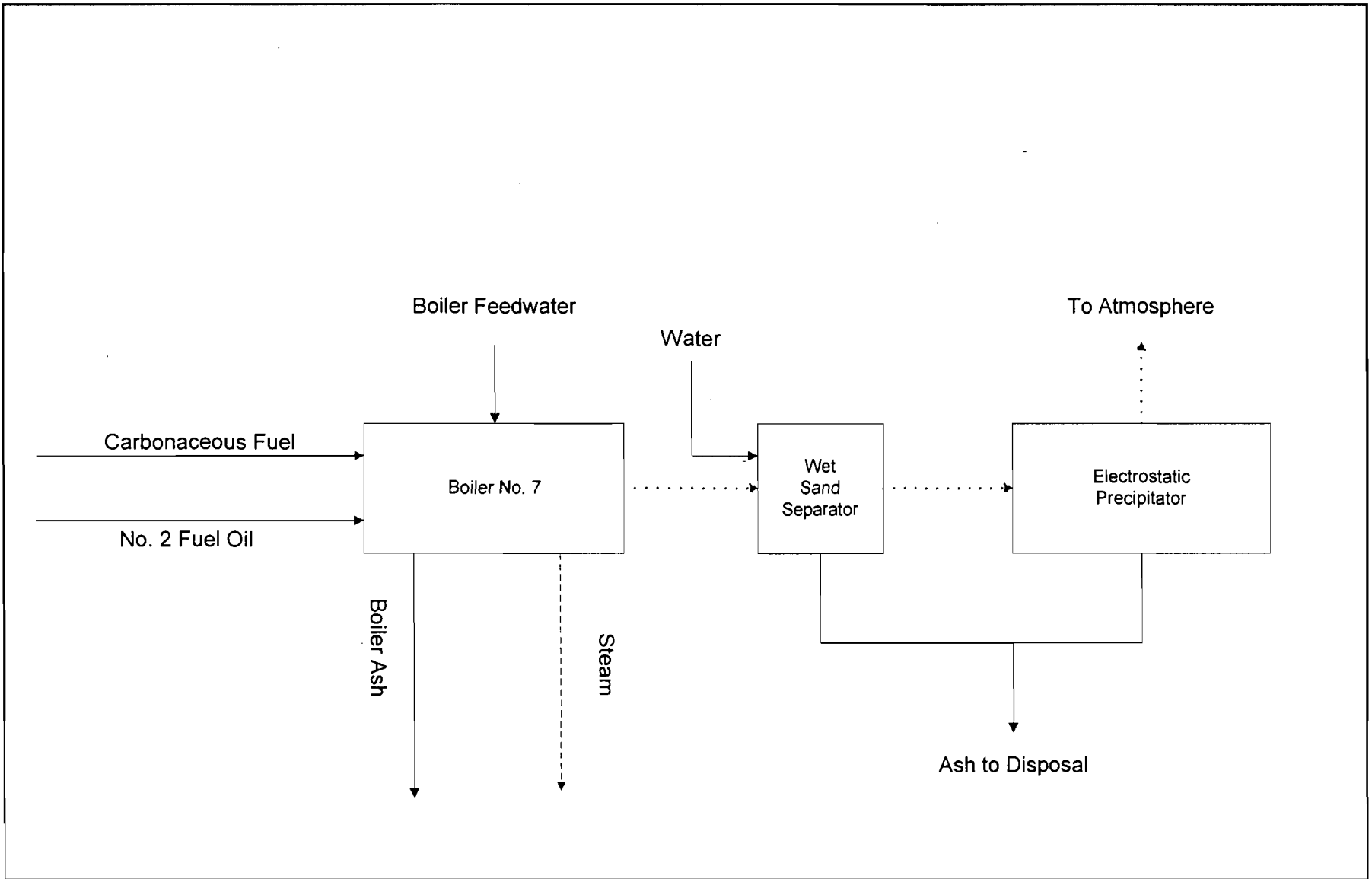
## References:


1. Based on Permit No. 0510003-14-AV.
2. Factors for No. 2 fuel oil combustion, AP-42 Table 1.3-10, "Emission Factors for Trace Elements from Distillate Fuel Oil Combustion Sources" (9/98). Assumes a 99% removal efficiency for lead and beryllium due to ESP control.



**ATTACHMENT UC-EU1-J1**

**PROCESS FLOW DIAGRAM**



<p>Attachment UC-EU1-J1          Process Flow Diagram          U.S. Sugar Corporation          Clewiston Mill, Florida</p>	<p><b>Process Flow Legend</b>          Solid/Liquid —————&gt;          Air .....&gt;          Steam - - - - -&gt;</p>	<p>Boiler No. 7          Project Number: 0237584\4\4.4\4.1          Filename: UC-EU1-J1.VSD          Date: 10/8/02</p>	
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**ATTACHMENT UC-EU1-J2**

**FUEL ANALYSIS**

## ATTACHMENT UC-EU1-J2

## Boiler No. 7 Fuel Analysis

Parameter	Fuel	
	Carbonaceous Fuel <sup>a</sup>	No. 2 Fuel Oil (0.05% S max)
Density (lb/gal)	--	6.83
Approximate Heating Value (Btu/lb)	3,600 <sup>b</sup>	19,910
Approximate Heating Value (Btu/gal)	--	135,000
<u>Ultimate Analysis (dry basis):</u>		
Carbon	48.48%	84.7%
Hydrogen	6.01%	15.3%
Nitrogen	0.33%	0.015% <sup>c</sup>
Oxygen	43.65%	0.38%
Sulfur	0.01% - 0.40%	0.05% <sup>c</sup>
Ash/Inorganic	0.2% - 8.6%	0.06% <sup>d</sup>
Moisture	50% - 55%	0.51% <sup>d</sup>

Represents typical values.

<sup>a</sup> Source: sugar industry fuel analysis averages.

<sup>b</sup> Wet basis for bagasse.

<sup>c</sup> Permit limits, Permit No. 0510003-014-AV.

<sup>d</sup> Source: Perry's Chemical Engineer's Handbook. Sixth Edition, 1984.

Represents average fuel characteristics.

**ATTACHMENT UC-EU1-J3**

**DETAILED DESCRIPTION OF CONTROL EQUIPMENT**

Attachment UC-EU1-J3a  
Control Equipment Parameters for Boiler No. 7  
at U. S. Sugar Clewiston Mill

WET SAND SEPARATOR

Control Device Type Manufacturer and Model No.	Wet Cyclone Custom Design
Flue Gas Temp (°F)	350
Flue Gas Flow Rate (acfm)	355,000
Moisture (% Volume)	28.1
Cyclone Diameter (ft)	19
Cyclone Height (ft)	32
No. of Spray Nozzles (Cyclone)	3
No. of Spray Nozzles (Inlet Duct)	15
Total Water Flow to Nozzles (gpm)	40

Attachment UC-EU1-J3b  
Control Equipment Parameters and Particulate Removal Efficiency Derivation for Boiler No. 7  
Electrostatic Precipitator; U. S. Sugar Clewiston Mill

Manufacturer and Model No.	ABB ESP Model 1 Only FTA 3X30.0 M-104-120		
Flue Gas Temp (°F)	350		
Flue Gas Flow Rate (acfm)	355,000		
Moisture (% Volume)	28.1		
No. of Precipitators	1		
No. of Chambers	1		
No. of Cells per Chamber	1		
Number of Fields	3		
Field Height (ft)	39.37		
Field Depth, each (ft)	9.84		
Total Treatment Length (ft)	29.62		
Number Gas Passages (total)	26		
Spacing Gas Passages (inches)	15.75		
Total Installed Collection Area per Precipitator (ft <sup>2</sup> )	60,456		
Pollutants	Inlet Loading (lb/hr)	Outlet Loading (lb/hr)	Control Efficiency %
Particulate Matter	1,379	20.299	98.52

Note: ESP parameters represent supplier design specifications.

Sample calculations:

$$\text{Control efficiency (\%)} = [(\text{inlet loading} - \text{outlet loading}) / \text{inlet loading}] \times 100$$

**ATTACHMENT A**

**SUPPLEMENTAL INFORMATION FOR  
CONSTRUCTION PERMIT APPLICATION**



## 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 Title V operating permit No. 0510003-014-AV. The location of the mill in relation to the surrounding area is shown in Attachment UC-FI-C1. U.S. Sugar harvests sugar cane and transports it to the Clewiston Mill, where the cane is processed into raw sugar in the mill. U.S. Sugar sells some of the raw sugar, but the majority of the raw sugar is refined into white sugar.

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, 3, and 4 operate primarily during the crop season, which is typically October through June, to provide steam to the sugar mill April. Boiler No. 7 operates year-around to provide steam to the sugar mill during the crop season and steam to the sugar refinery during the off-season. Boiler No. 7 is the primary boiler used to meet the steam demands of the refinery during the off-crop season. Boiler Nos. 1 through 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.

Boiler No. 7 is permitted to burn bagasse and low-sulfur fuel oil. U. S. Sugar is proposing to increase the maximum steaming rate due to oil burning in Boiler No. 7 from 175,000 pounds per hour (lb/hr) steam to 225,000 lb/hr steam. The maximum heat input due to oil will increase from 250 million British thermal units per hour (MMBtu/hr) to 321 MMBtu/hr. To implement this increase, U.S. Sugar will need to make certain physical changes to the fuel oil burner system. The permitted steam rate from bagasse firing, bagasse firing rates, and bagasse heat input rates will not change as a result of the changes to the fuel oil system.

The primary reason for increasing the steaming rate on oil for Boiler No. 7 is to more reliably supply the sugar refinery with adequate steam in the event that bagasse becomes unavailable during the off-season. Typically, if Boiler No. 7 is operating during the off-season, the other mill boilers are shut down. In this case, if the bagasse supply is temporarily interrupted, it is not possible to immediately use one of these other mill boilers because of the extended time required to start up a bagasse boiler. Maintaining steam production under conditions when the bagasse supply is interrupted is critical to the reliable and efficient operation of the sugar refinery.

The remainder of this report is divided into two sections. Section 2.0 describes the proposed project in further detail, including air emissions. Section 3.0 provides a review of regulatory requirements applicable to the project.

## 2.0 PROJECT DESCRIPTION

### 2.1 PROPOSED PROJECT

U.S. Sugar is proposing to increase the maximum steam generating rate from fuel oil firing for Boiler No. 7. The current maximum steam generation rate from fuel oil firing is 175,000 lb/hr steam. This will be increased to 225,000 lb/hr steam by increasing the heat input from fuel oil from 250 MMBtu/hr to 321 MMBtu/hr. U.S. Sugar is also proposing to reduce the annual fuel oil firing limit from 4,600,000 gallons per year (gal/yr) to 4,500,000 gal/yr.

The increased steam generation from fuel oil will primarily be utilized during the off-crop season. During the off-season, Boiler No. 7 is the primary unit that meets the steam demands of the refinery. Boiler Nos. 1 through 4 are used as backup units when Boiler No. 7 is down for maintenance, repair or during periods of unusually low steam demand. Therefore, Boiler No. 7 is often the only boiler operating during the off-season.

Under such conditions, when bagasse becomes unavailable due to bagasse conveyor breakdown, rainy conditions, etc., steam production may have to be reduced. Boiler No. 7 may be able to continue to operate utilizing fuel oil, but may not be able to meet the steam demands of the refinery at the current permitted fuel oil firing rate. At times like this, typically U.S. Sugar cannot automatically switch to another boiler because the other boilers are shut down. Cold startup of another boiler would take 12 to 24 hours. With the increase in fuel oil firing, Boiler No. 7 can continue to provide sufficient steam to the refinery without significant interruption.

Interruption of steam supply to the refinery results in operating inefficiencies in the refinery. Equipment must be throttled back and refined sugar production is reduced. The refinery must then be operated longer hours to make up for the lost production. This results in increased labor and operating costs for the refinery.

To implement the increased fuel oil burning capability, U.S. Sugar will need to make certain physical changes to Boiler No. 7. Two new No. 2 fuel oil pumps will be installed. Each fuel oil pump will be capable of providing sufficient fuel oil flow and pressure to provide 225,000 lb/hr steam. The existing burners will be modified as well. The burners will be configured as modern burner registers, which are designed with significant reduction in register draft loss (RDL) for the same required combustion air flow. The modified burners coupled with the new fuel pumps will allow the boiler to

produce 225,000 lb/hr steam at 600 pounds per square inch gauge (psig) and 750 degrees Fahrenheit (°F).

Bagasse firing rates or steam production for Boiler No. 7 will not be affected by the increase in fuel oil firing rate. The increased heat input from fuel oil will primarily be used when the bagasse supply is interrupted. U.S. Sugar intends to burn bagasse when it is available because it is much cheaper than No. 2 fuel oil. Typically, No. 2 fuel oil is burned out of necessity.

## **2.2 PROJECT EMISSIONS**

The estimated maximum hourly and annual emissions for the increased fuel oil firing in Boiler No. 7 are presented in Attachment UC-EU1-G8. Emissions due to bagasse firing are not presented in this application since they will not increase as a result of this project.

The emission factors used for particulate matter [both PM and particulate matter less than 10 microns (PM<sub>10</sub>)], sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), volatile organic compounds (VOC), and sulfuric acid mist (SAM) are based on current emission limits for Boiler No. 7 as presented in Permit No. 0510003-014-AV. The emission factors for lead, mercury, and beryllium are from the U.S. Environmental Protection Agency's (EPA's) AP-42, Table 1.3-10, "Emission Factors for Trace Elements from Distillate Fuel Oil Combustion Services" (see Appendix A). A removal efficiency of 99 percent for lead and beryllium is assumed due to control by the wet sand separator and the electrostatic precipitator (ESP). The activity factors are based on the proposed maximum fuel oil heat input of 312 MMBtu/hr and proposed fuel oil usage limit of 4,500,000 gal/yr of fuel oil.

The current actual emissions from Boiler No. 7 due to fuel oil firing are presented in Table 1. The current actual emissions are based on the average emissions from 2000 and 2001. The emissions from 2000 and 2001 are from U.S. Sugar's annual operating reports (AORs) for each respective year. Lead, beryllium, and mercury have not been required to be reported in the AORs, so these emissions were calculated using AP-42 factors for distillate oil combustion and the activity factors for each respective year. As with the future potential emissions, a removal efficiency of 99 percent for lead and beryllium is assumed due to wet sand separator/ESP control.

### 3.0 AIR QUALITY REVIEW REQUIREMENTS AND APPLICABILITY

The following discussion pertains to the federal and state air regulatory requirements and their applicability to the proposed increase in fuel oil firing rate for Boiler No. 7.

#### 3.1 PSD REVIEW

Under federal and State of Florida Prevention of Significant Deterioration (PSD) review requirements, all major new or modified sources of air pollutants regulated under the Clean Air Act (CAA) must be reviewed and a pre-construction permit issued. Florida's State Implementation Plan, which contains PSD regulations, has been approved by EPA; therefore, PSD approval authority has been granted to the Florida Department of Environmental Protection (FDEP).

A "major facility" is defined as any one of 28 named source categories that have the potential to emit 100 tons per year (TPY) or more or any other stationary facility that has the potential to emit 250 TPY or more of any pollutant regulated under the CAA. "Potential to emit" means the capability, at maximum design capacity, to emit a pollutant after the application of control equipment. A "major modification" is defined under PSD regulations as a change at an existing major facility that increases emissions by greater than significant amounts.

The net change in emissions due to the proposed project is presented in Table 2. The net increase due to the project is determined by subtracting Boiler No. 7's current actual emissions due to fuel oil burning from the future potential emissions resulting from fuel oil burning. The future emissions reflect the proposed annual usage cap of 4,500,000 gal/yr of fuel oil.

The net increase due to the project is compared to PSD significant emission rates in Table 2. As shown in Table 2, the increases due to this project do not exceed any PSD significant emission rates, and therefore PSD review is not applicable. PSD review is also not applicable for the following reasons:

- Steam rates, heat input rates and firing rates for bagasse will not be affected by these changes;
- The increased fuel oil firing rate will occur when the bagasse has been interrupted and sufficient steam is not available to meet the demands of the sugar refinery;
- U.S. Sugar intends to burn bagasse when it is available because it is cheaper than fuel oil;

- Emission factors in terms of lb/MMBtu are lower for No. 2 fuel oil compared to bagasse burning, so emissions will not increase due to the increased firing of No. 2 fuel oil; and
- The increased fuel oil firing rate will primarily occur during the off-crop season when the other boilers are shutdown.

### **3.2 NEW SOURCE PERFORMANCE STANDARDS**

The New Source Performance Standards (NSPS) are a set of national emission standards that apply to specific categories of new sources. Boiler No. 7 is already subject to NSPS Subpart Db for Industrial Steam Generating Units. Subpart Db regulates SO<sub>2</sub>, NO<sub>x</sub>, and PM emissions from steam generating units. Boiler No. 7 is in compliance with the standards established in Subpart Db.

Review of Subpart Db indicates that no further restrictions or requirements would be placed on Boiler No. 7 by increasing the fuel oil firing rate to 225,000 lb/hr steam (312 MMBtu/hr). Boiler No. 7 will comply with the NSPS for SO<sub>2</sub> and PM burning very low sulfur fuel oil (i.e., fuel oil with a sulfur content of 0.5 percent or less). The boiler will continue to be exempt from the NO<sub>x</sub> emission standards by maintaining a cap on annual fuel oil usage, not to exceed the 10 percent annual capacity factor (40 CFR 60.44b(d)).

Table 1. Current Actual Emissions Due to Fuel Oil Consumption,  
Boiler No. 7, U.S. Sugar Corporation Clewiston

Regulated Pollutant	Actual Emissions <sup>a</sup> (TPY)		
	2000	2001	Average
Particulate Matter (PM)	1.49	2.44	1.97
Particulate Matter (PM <sub>10</sub> )	1.27	2.07	1.67
Sulfur Dioxide (SO <sub>2</sub> )	5.86	8.66	7.26
Nitrogen Oxides (NO <sub>x</sub> )	17.92	29.29	23.60
Carbon Monoxide (CO)	3.73	6.10	4.92
Volatile Organic Compound (VOC)	0.15	0.24	0.20
Lead - Total	9.0E-06	1.5E-05	1.2E-05
Sulfuric Acid Mist (SAM)	0.21	0.35	0.28
Beryllium (Be)	3.0E-06	4.9E-06	4.0E-06
Mercury (Hg)	3.0E-04	4.9E-04	4.0E-04

<sup>a</sup> Based on emissions due to fuel oil from calendar years 2000 and 2001.

Table 2. Net Change in Emissions Due to Increase in Fuel Oil Firing Rate, Boiler No. 7, U.S. Sugar Corporation Clewiston

Regulated Pollutant	Actual Emissions <sup>a</sup> (TPY)	Future Potential Emissions <sup>b</sup> (TPY)	Net Change in Emissions (TPY)	PSD Significant Emission Rate (TPY)	PSD Review Applies?
Particulate Matter (PM)	1.97	9.1	7.1	25	NO
Particulate Matter (PM <sub>10</sub> )	1.67	9.1	7.4	15	NO
Sulfur Dioxide (SO <sub>2</sub> )	7.26	15.2	7.9	40	NO
Nitrogen Oxides (NO <sub>x</sub> )	23.60	60.8	37.1	40	NO
Carbon Monoxide (CO)	4.92	20.0	15.1	100	NO
Volatile Organic Compound (VOC)	0.20	1.2	1.0	40	NO
Lead - Total	1.2E-05	2.7E-05	1.6E-05	0.6	NO
Sulfuric Acid Mist (SAM)	0.28	1.5	1.2	7	NO
Beryllium (Be)	4.0E-06	9.1E-06	5.1E-06	4.0E-04	NO
Mercury (Hg)	4.0E-04	9.1E-04	5.1E-04	0.1	NO

<sup>a</sup> Based on emissions due to fuel oil from calendar years 2000 and 2001.

<sup>b</sup> Based on proposed fuel oil firing rate. See Attachment UC-EU1-G8 for calculations.