

Jeb Bush  
Governor

# Department of Environmental Protection

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

David B. Struhs  
Secretary

May 2, 2003

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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: Draft Air Permit No. 0510003-022-AC  
U.S. Sugar Corporation, Clewiston Sugar Mill and Refinery  
3-Year Boiler Maintenance Project

Dear Mr. Raiola:

Enclosed is one copy of the draft permit to perform the requested boiler repairs at the existing Clewiston Sugar Mill and Refinery, which is located at the intersection of W.C. Owens Avenue and State Road 832 in Hendry County, Florida. 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 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,

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>	<table border="1"> <tr> <td data-bbox="868 409 1209 483">A. Received by (Please Print Clearly) <i>William A. Raiola</i></td> <td data-bbox="1209 409 1388 483">B. Date of Delivery <i>5-5-03</i></td> </tr> </table>	A. Received by (Please Print Clearly) <i>William A. Raiola</i>	B. Date of Delivery <i>5-5-03</i>
A. Received by (Please Print Clearly) <i>William A. Raiola</i>	B. Date of Delivery <i>5-5-03</i>		
<p>1. Article Addressed to:</p> <p>Mr. William A. Raiola Vice President of Sugar Processing Operations United States Sugar Corporation Clewiston Sugar Mill and Refinery 111 Ponce DeLeon Avenue Clewiston, FL 33440</p>	<p>C. Signature <i>William A. Raiola</i> <input type="checkbox"/> Agent <input checked="" 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>7001 0320 0001 3692 6167</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 102595-99-M-1789

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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. **111 Ponce DeLeon Avenue**

City, State, ZIP+4 **Clewiston, FL 33440**

PS Form 3800, January 2001 See Reverse for Instructions

In the Matter of an  
Application for Air Permit by:

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

*Authorized Representative:*

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

Draft Air Permit No. 0510003-022-AC  
Clewiston Sugar Mill and Refinery  
Facility ID No. 0510003  
3-Year Boiler Maintenance Project  
Hendry County

### **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 April 28, 2003 to the Department for a permit to perform off season repairs to existing boilers over the next three years. The project is located at the existing Clewiston Sugar Mill and Refinery located in Hendry County Florida.

The Department has permitting jurisdiction under the provisions of Chapter 403, F.S., and Chapters 62-4, 62-210, and 62-212, 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 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.

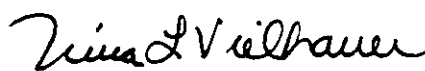
In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542, F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal 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.



Trina 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 5/2/03 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.

Victoria Gibson May 2, 2003  
(Clerk) (Date)

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

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Draft Air Permit No. 0510003-022-AC

U.S. Sugar Corporation  
Clewiston Sugar Mill and Refinery  
Boiler Maintenance Project

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to U.S. Sugar Corporation (applicant) to perform repairs to boilers at the existing Clewiston Sugar Mill and Refinery located 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 United States Sugar Corporation, Clewiston Sugar Mill and Refinery, 111 Ponce DeLeon Avenue, Clewiston, FL 33440.

In recent years, the Clewiston sugar mill experienced a shift to processing more sugarcane harvested from sandy soils. Even after washing, the cane contains much higher levels of sand than is typical for the industry. The sand carries through the milling process to the bagasse fired in the boilers and creates a very abrasive flue gas, which has led to premature tube and component wear. For the 2003-2005 cane milling off seasons, the draft permit authorizes a maintenance project to maintain the boilers at normal operational levels and reliability for the upcoming cane milling seasons. Repairs primarily involve component tube replacements, but also include stoker maintenance, and overfire/distributor air fan replacements. In performing the repairs, U.S. Sugar is prohibited from increasing the capacity of any boiler or changing the basic design parameters such as fuel firing rates or heat input rates. The draft permit requires summary reports on completed repairs, updated repair schedules, emissions tests, and tested capacities. For this project, the Department does not believe that the proposed repairs are physical changes that will result in the increase in actual emissions of any pollutant.

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

**NOTICE TO BE PUBLISHED IN THE NEWSPAPER**

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 S. Magnolia Drive, Suite 4)  
2600 Blair Stone Road, MS #5505  
Tallahassee, Florida, 32399-2400  
Telephone: 850/488-0114

Department of Environmental Protection  
Air Resources Section  
South District Office  
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. 0510003-022-AC  
Boiler Repair Project

**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



May 2, 2003

*{Filename: USSCC Repairs - TEPD}*



# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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## 1. GENERAL PROJECT INFORMATION

### Applicant Name and Address

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

### Authorized Representative:

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

### Processing Schedule

- 01/28/03 *Meeting in Tallahassee:* Discussed NSR reform and routine maintenance and repair issues.
- 02/06/03 *U.S. Sugar's Letter:* Requested Department's concurrence that 3-year schedule of off season maintenance is normal and routine and does not require an air construction permit.
- 02/24/03 *Department's Letter:* Requested additional information from U.S. Sugar of repairs.
- 03/13/03 *Meeting in Clewiston:* Discussed proposed new Boiler 8 and routine maintenance and repair issues.
- 03/27/03 *U.S. Sugar's Letter:* Response to request for additional information on repairs.
- 04/18/03 *Meeting in Tallahassee:* Department provided a preliminary review of application for proposed new Boiler 8 and discussed routine maintenance and repair issues.
- 04/25/03 *Teleconference:* Department discussed that individual repair activities could be routine, but that overall 3-year effort may be non-routine; requested submittal of a minor source air construction permit. The 2003 maintenance activities for Boilers 4 and 7 (newest units) are considered routine.
- 04/25/03 *U.S. Sugar Letter:* As discussed in the teleconference, reaffirms that the 2003 maintenance activities for Boilers 4 and 7 (newest units) are considered routine and do not require a permit.
- 04/28/03 Application for 3-year maintenance project received by the Department.

### Facility Description and Location

The United States Sugar Corporation (U.S. Sugar) operates the existing Clewiston sugar mill and refinery (SIC Nos. 2061 and 2062), which located 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). 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. A minor source draft permit was recently issued that authorizes the upgrade of the oil firing systems for Boiler 4 and 7. An application is also under review by the Department to add a new boiler (Boiler 8) and to retire existing Boiler 3.

**Regulatory Categories**

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

Title IV: The existing facility operates 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**

During harvest, sand and soil cling to the sugarcane stalk. Although the cane is washed prior to milling, some inert materials carry through the milling process to the bagasse that is fired in the boilers. This makes the boiler flue gas very abrasive and causes metal wastage and component wear. For this reason, the sugars mills have an aggressive off season inspection and maintenance program to identify problems and perform required repairs. Florida's sugarcane milling season, which typically lasts from October through April, provides a recurring five months each year to conduct such work.

In 1985, about 30% of the sugarcane processed at the Clewiston Mill was harvested from sand fields as opposed to muck fields. Over the last 15 years, this percentage has steadily grown and now the percentage of cane from sand fields is nearly 70%. As previously mentioned the sand is difficult to wash out and accelerates the erosion of metal tubes and components. The shift to cane from sand fields has exacerbated the maintenance activities.

U.S. Sugar proposes to conduct the following repairs and replacements during the 2003 – 2005 off seasons:

- Boiler 1: tube replacements in the main generating bank; tube replacements in the superheater; and tube replacements in the air heater.
- Boiler 2: tube replacements in the roof, front, and sidewalls; tube replacements in the main generating bank; tube replacements in the superheater; tube replacements in the air heater; replacement of overfire air fan; and replacement of distributor air fan.
- Boiler 3: tube replacements in the main generating bank; and tube replacements in the superheater.
- Boiler 4: tube replacements in sidewall; tube replacement in main generating bank; tube replacements in screenwall; tube replacements in the superheater tube replacements in the superheater; and tube replacements in the air heater.
- Boiler 7: tube replacements in economizer; and stoker repairs.

All of the boilers undergo periodic refractory repair. The off season maintenance activities are intended to maintain the boilers at current steam production capabilities for the upcoming cane milling seasons and continued normal operating levels. After further inspection, some activities may not be required to the extent requested and other similar minor activities may be necessary. The total costs of these repairs are estimated at approximately \$4.5 million over the next three years. U.S Sugar believes that the proposed maintenance, repair, and replacement of components are routine for the sugar industry.

**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.

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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<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, Stack Height Policy, Circumvention, Excess Emissions, and Forms
62-212	Preconstruction Review, PSD Requirements, and BACT Determinations
62-213	Operation Permits for Major Sources of Air Pollution
62-296	Emission Limiting Standards
62-297	Test Methods and Procedures, Continuous Monitoring Specifications, and Alternate Sampling Procedures

### PSD Applicability and Preconstruction Review

The Department regulates major air pollution sources in accordance with Florida's Prevention of Significant Deterioration (PSD) program, as approved by the EPA in Florida's State Implementation Plan and defined in Rule 62-212.400, F.A.C. A PSD review is required only in areas currently in attainment with the National Ambient Air Quality Standard (AAQS) or 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 of any regulated pollutant, or

≥ 100 tons per year of any regulated pollutant and belonging to one of 28 PSD Major Facility Categories, or

≥ 5 tons per year of lead.

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.

### **3. DEPARTMENT'S REVIEW**

#### **Sugar Industry Practices**

The sugar industry in Florida is an agricultural operation that revolves around the seasonal harvest and processing of sugarcane from October through about April of each year. At a certain maturity, the sugar content of cane reaches its highest level and then begins to gradually decrease. It is important to cut the cane at the proper time to maximize sugar production. Once cut, purity of the sucrose begins to decline and the useful sugar content is reduced. Therefore, it is equally important to process the cane as rapidly as possible.<sup>1</sup>

For these reasons, the mill boilers operate almost continually until the entire crop is processed. Facilities that can shorten the milling season will reduce operating costs. Reliability of the equipment is an important consideration. The agricultural cycle in Florida provides a five-month off season, which is used to perform boiler maintenance and repairs. The off season work is intended to maintain each unit at normal operational levels and increase the reliability.

Site inspections performed by District and Local Air Programs verify that each mill routinely performs a variety of off season maintenance. Each facility performs work necessary to restore each boiler to the current operating levels and reliability for the upcoming year. The most common work performed includes tube replacements for the main generating bank, economizers, superheaters, and air heaters in addition to repairs of the grates, refractory, wet scrubbers, and stacks.<sup>2</sup>

#### **Comparison to Coal-Fired Boilers**

The major components of a boiler include: furnace/convection pass; steam drum; lower drum; waterwall tubing;

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

superheater; economizer; air preheaters; fuel feed grates; supplemental fuel burners; and forced/induced draft fans. Of course, all of this equipment is subject to normal wear and tear. The steam drum is probably the most expensive single boiler component and would be expected to last the life of the unit. The superheater is a critical component that is continually exposed to high temperatures and flue gas erosion. For comparison, repair or replacement of the superheater for a coal-fired boiler might be required every 20 years. Other components are replaced or repaired more frequently subject to the given operating conditions. The expected useful life of a coal-fired boiler is estimated at approximately 30 to 55 years.<sup>3</sup>

Based on industry references for coal-fired boilers, about 80% to 90% of all forced outages are due to waterwall, superheater, air preheater, and economizer tubing leaks. Although several factors can lead to tubing leaks, boiler manufacturers recognize the potential abrasive nature of the flue gas and recommend regular inspections for equipment in the gas path. Excessive metal "wastage" from erosion can result in premature tube failure. While economizers typically experience the most metal erosion, superheaters can suffer as well. Industry practices have been developed for evaluating and measuring metal wastage as well as standard operating procedures for performing tubing replacements. However, it is not uncommon to contract skilled labor to perform such repairs. It is also recognized that the flue gas is much more abrasive in carbonaceous fuel-fired boilers than coal-fired boilers. Therefore, it is reasonable to expect that inspections would occur more often, repairs would be more extensive, and maintenance activities would be more frequent for a boiler firing carbonaceous fuels. This has been the observed case for the sugar industry.<sup>1,3,4</sup>

### Problems Related to Sand

The proposed repairs include components subject to wear and erosion that are in direct contact with the boiler exhaust flue gas. Harvested sugarcane contains sand and soil on the stalk and leaves. Although the cane is washed during processing, some sand carries through to the boiler operations and increases the abrasiveness of the boiler flue gas causing accelerated wear of downstream equipment. Component metal is actually eroded from the equipment surface. Similar boiler industry references indicate that the ash from wood/bark fired boilers is predominantly silica and much more abrasive in nature than the ash from coal-fired units.<sup>1,3</sup> This would result in an accelerated maintenance schedule.

U.S. Sugar has noticed increasing wear in boiler components over the last 15 years. It is believed that normal component wear has been aggravated due to a gradual shift in processing more sugarcane from "sandy soils" than from "muck soils". Sugarcane harvested from sand acreage and processed at the Clewiston Mill has steadily increased from about 30% in 1985 to about 70% in 2002. Although harvested sugarcane typically contains significant amounts of silica on the leaves<sup>1</sup>, it is reasonable to expect even higher levels from cane grown in sandy soils. As an indicator of the abrasiveness of the flue gas, a comparison of bagasse samples collected over the years shows the following levels of inert materials:

Table 3A. Inert Material Content of Sugar Mill Boiler Ash

Sugar Mill	Inert Materials in Ash, Percent by Weight, Dry		
	1978/1979 Season	1984/1985 Season	2001/2002 Season
U.S. Sugar Clewiston Mill	2.1%	3.53%	4.44%
U.S. Sugar Bryant Mill	---	1.98%	2.63%
Sugar Cane Growers Cooperative of Florida	1.0%	1.68%	1.74%
Atlantic Sugar Association	0.72%	1.11%	1.30%

This information supports U.S. Sugar's claim that component wear at the Clewiston Mill may be worse than at other mills and is getting worse. To further illustrate the issue, U.S. Sugar related the following history for Boiler 7, which was installed in 1997. The original design specified the flue gas exhaust fan to be placed prior to the ESP and without any pre-controls. The flue gas from the boiler was so abrasive that components of the fan had to be replaced after only three months of operation. Ultimately, a wet cyclone separator (~ 50% removal

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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efficiency) was installed prior to the exhaust fan. This provided about three years before additional maintenance was required.

Again, Boiler 7 began operation in 1997 and is the most modern sugar mill boiler in Florida. In 2002, about \$460,000 in repairs were performed, primarily to replace excessively worn superheater tubing. In 2003, approximately \$267,000 of maintenance is scheduled to repair the fuel grate and replace economizer tubing. This boiler has experienced only six years of operation. These are the types of repairs and representative costs that can be expected for maintaining such boilers at present operating levels given the existing conditions at the Clewiston Mill.

### **Consideration as a Routine Effort**

For each boiler, the applicant provided a discussion of the nature, extent, purpose, frequency, and costs of the proposed project based on EPA's criteria for determining "routine" repair or replacement. These criteria are outlined in a May 2000 guidance letter from EPA that is commonly referred to as the Detroit Edison "Dense-Pack" Project. The following is the Department's summary of the proposed project as a whole.

#### Nature

- The boilers are major components of the mill and important to sugarcane processing.
- The proposed activities do not require any pre-approvals of state commissions.
- U.S. Sugar has characterized the proposed work as routine for the sugar industry in Florida. The Department understands that the types of activities identified are commonly performed by all of the mills during the cane milling off season. The extent, frequency, and perhaps costs may be greater for the proposed project than is typical for the Florida sugar industry.
- Most of the maintenance activities could not be performed while the boilers were functioning. However, the proposed work will be conducted during the normal five month off season, which is typically used to inspect each boiler and perform such repairs.
- Most of the materials, equipment and resources necessary to carry out the planned activities are not on site. Labor for most of the work will be contracted to an outside company.

#### Extent

- U.S. Sugar does not propose to replace an entire emissions unit, but rather component parts of the boilers.
- The repairs will take a significant amount of time to complete. However, the normal cycle of sugarcane processing affords more than sufficient time to complete the repairs.
- U.S. Sugar believes that the proposed work represents routine maintenance activities for the sugar industry in Florida. The Department believes that although most of the activities could be considered routine for the industry, the collection of activities (taken as a whole) can be viewed as a non-routine effort. However, this effort appears to be a reasonable response to the additional sand handled by the Clewiston boilers compared to boilers at other Florida sugar mills.
- The proposed work does not require the addition of new types of parts to existing equipment, only the replacement with functionally equivalent components. The majority of work involves the replacement of tubing that has been prematurely worn due to the sand problem. Although this type of replacement is common in Florida's sugar industry, the extent of the replacements may be greater than other similar mills.

#### Purpose

- U.S. Sugar asserts that the purpose of the effort is not to extend the useful life of the unit, but to maintain each boiler at current steam production capabilities for the upcoming cane milling seasons. U.S. Sugar did retire two bagasse-fired boilers (Boilers 5 and 6) as part of the 1997 project to construct Boiler 7, which was

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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subject to PSD preconstruction review. Boiler 7 is the most modern sugar mill boiler in Florida and controls particulate matter emissions with an ESP. Similarly, U.S. Sugar proposes to retire Boiler 3 as part of the project to add proposed new Boiler 8 to the mill, which is currently under review. The project does not appear to be an attempt to avoid PSD review.

- The proposed work is intended to keep each boiler in its present operating condition. The repairs will not increase the capacity of any boiler or change the basic design parameters including fuel firing rates or heat input rates. The project will not increase the emission rates of any boiler, fuel capabilities, or the cane milling capacity of the plant.

### Frequency

- The majority of this project involves the replacements of tubing, which is performed relatively frequently in the life of a typical sugar mill boiler. Similarly, grates and refractory are also repaired fairly frequently. Overfire air and distributor air fans are replaced less frequently.
- These types of repairs are typically performed at the Clewiston mill. However, due to the sand problem experienced at this mill, the frequency of these typical replacements appears to be increasing.

### Cost

- None of the repairs approach 50% of the fixed capital costs to replace (or reconstruct) any boiler. The total cost of the project over the three years is estimated to be approximately \$4.5 million. Of this total, approximately 75% is for contracted labor and the remaining 25% is for replacement materials. For perspective, replacement of an entire boiler would be approximately \$5.5 to \$8.5 million in equipment costs alone depending on size. The total project costs each year represent less than 5% of the estimated costs to replace the five boilers (purchased equipment costs).
- U.S. Sugar provided information indicating that the estimated annual maintenance costs for the entire "boiler room" would total approximately \$8.1 million for the 2002/2003 fiscal year. These costs have ranged from \$4.4 to \$6.5 million over the last four previous years.
- All of the repair costs will be paid out of the operating budget.

The above categories are interrelated. No one factor by itself would conclusively render a project to be routine or not. Many of the individual proposed activities are typically performed for sugar mill boilers in Florida and could be considered routine. However, when considering the project as a whole, the Department believes that the project could be viewed as a non-routine effort resulting from complications due to the sand problems at this facility. As stated previously, U.S. Sugar believes that the proposed maintenance, repairs, and replacements of components are considered routine practices for the Florida sugar industry. Nevertheless, at the request of the Department, U.S. Sugar submitted an application for an air construction permit to authorize these activities.

### **Conclusion**

In considering the 3-year project as a whole, the Department believes the maintenance activities may be a *non-routine* effort to maintain the boilers at present operating conditions. The repairs, mostly the replacement of tubing, involve components that are directly in the path of the boiler exhaust flue gas. Such work is typical off season maintenance for the Florida sugar industry. However, the metal wastage from boiler components at the Clewiston mill is not necessarily typical of Florida sugar mills. The shift to processing more cane from sand acreage at the Clewiston mill has caused accelerated wear and premature component replacements. The extent and frequency of repairs appear to be greater than for other similar facilities. However, the proposed work is a reasonable and prudent response to an identifiable problem. The Department will require a minor source permit to authorize the 3-year effort and provide a means to track progress.

### **PSD Applicability**

Sugarcane processing, like all agricultural operations, may vary from year to year. Mills are subject to a variety of factors that can affect annual production including drought, excessive rain, heat, freezes, pests, etc. However, since the 1998/1999 crop season, cane grinding at the Clewiston mill has not varied by more than 6% from an annual average of about  $7.0 \times 10^{+06}$  tons. Since 1999, the steam demands at the plant (including the refinery) have not varied by more than 6% from an annual average of about 4.18 billion pounds. The amount of land in Florida available for sugarcane is not expanding, but rather contracting. In fact, the Talisman sugar mill was recently shut down and thousands of acres were returned to wetlands as part of the Everglades Restoration Project. The scheduled maintenance activities are intended to maintain each boiler at normal operation to meet the consistent annual steam demands of the mill and refinery. It is not reasonable to expect that the proposed changes would cause increased production or utilization.

Rule 62-210.200(169), F.A.C. defines a *modification* as, "Any physical change in, change in the method of operation of, or addition to a facility which would result in an increase in the actual emissions of any air pollutant subject to regulation under the Act, including any not previously emitted, from any emissions unit or facility." The definition also states that a physical change shall not include the routine maintenance, repair, or replacement of component parts of an emissions unit or facility. Rule 62-212.400(4), F.A.C. provides a similar definition for purposes of PSD review. Although the Department believes that the 3-year maintenance project may be a non-routine effort, it does not believe that the proposed physical changes will result in any increases in the actual emissions. Therefore, the Department concludes that PSD review is not applicable to the project.

### **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. Florida's sugar industry has many distinctive factors as an agricultural operation with defined seasons for growing, harvesting, milling and refining. In addition, operating conditions at the Clewiston Mill may be unique within the industry. This determination was made on a case-by-case basis after careful review of the details and circumstances with regard to this specific project. No air quality modeling analysis is required because the project does not result in a significant increase in emissions. Satisfactory air quality modeling analyses for the Clewiston mill were reviewed in 1996 (Boiler 7) and 2000/2001 (Boiler 4). The Department is currently reviewing an extensive modeling effort for the proposed new Boiler 8 project at the Clewiston mill. 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. Cane Sugar Handbook  
Meade and Chen; 1997, 10<sup>th</sup> Edition
2. *District and Local Program Inspections*: Personal experiences and conversations with engineers in the South District Office and the Palm Beach County Health Department.
3. Steam: Its Generation and Use  
Babcock and Wilcox; 1993, 40<sup>th</sup> Edition
4. Combustion Fossil Power  
Singer; Combustion Engineering, Inc.; ABB; 1991, 4<sup>th</sup> Edition

# 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. 0510003-022-AC Facility ID No. 0510003 SIC Nos. 2061, 2062 Permit Expires: October 1, 2005
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## PROJECT AND LOCATION

This permit authorizes a 3-year project to repair and replace components of boilers at the existing Clewiston Sugar Mill and Refinery, which 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 proposed 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.

## CONTENTS

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

(DRAFT)

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Howard L. Rhodes, Director  
Division of Air Resources Management

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(Date)



### **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.

In recent years, the Clewiston sugar mill experienced a shift to processing more sugarcane harvested from sandy soils. Even after washing, the cane contains much higher levels of sand than is typical for the industry. The sand carries through to bagasse fired in the boilers and creates a very abrasive flue gas, which has led to premature tube and component wear. The permit authorizes maintenance, repairs, and replacements to maintain each unit at normal operational levels and reliability. This permit only affects the boilers. It supplements all previously issued air construction and operation permits for these emissions units.

### **REGULATORY CLASSIFICATION**

Title III: The existing facility is identified as 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.

### **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. Appendices: The following Appendices are attached as part of this permit: Appendix CF (Citation Format); and Appendix GC (General Conditions).
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit 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 (F.S.); Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The terms used in this permit have specific meanings as defined in the applicable chapters of the Florida Administrative Code. 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 62-210.300 and 62-210.900, F.A.C.]
5. 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.]
6. Modifications: The permittee shall notify the Compliance Authority upon commencement of construction. 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.]
7. Operation Permit: As this construction permit does not alter any emissions standards, operational restrictions, or monitoring requirements specified in the current Title V operation permit, a revised application is not required. [Rules 62-4.070, F.A.C.]

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

### A. Boilers 1, 2, 3, 4, and 7

This section of the permit addresses the following emissions units.

ID	Emission Unit Description
001	Boiler 1 – 255,000 lb/hour steam with a heat input rate of 495.6 MMBtu/hour (24-hour averages)
002	Boiler 2 – 230,000 lb/hour steam with a heat input rate of 447 MMBtu/hour (24-hour averages)
003	Boiler 3 – 130,000 lb/hour steam with a heat input rate of 265 MMBtu/hour (24-hour averages)
009	Boiler 4 – 285,000 lb/hour steam with a heat input rate of 600 MMBtu/hour (24-hour averages)
014	Boiler 7 – 350,000 lb/hour steam with a heat input rate of 738 MMBtu/hour (24-hour averages)

#### COMPONENT REPAIRS AND REPLACEMENT

- Schedule:** This permit authorizes a series of maintenance activities that are expected to occur during 2003, 2004, and 2005. In general, these repairs will occur during each milling off season (May through September). Specific repairs have not been linked to a given year to provide the permittee flexibility to perform work during the scheduled seasonal shutdown as identified below. The permittee shall summarize the repair activities for each year and update the schedule for the following years as required by Specific Condition No. 4 of this permit. [Rule 62-4.070(3), F.A.C.]
- Maintenance Activities:** The following general maintenance, repairs, and replacements are authorized to occur during the 2003, 2004, and 2005 cane milling off seasons:
  - Boiler 1:** tube replacements in the main generating bank, superheater, and air heater.
  - Boiler 2:** tube replacements in the roof, front, sidewalls, main generating bank, superheater, and air heater; replacement of overfire air and distributor air fans.
  - Boiler 3:** tube replacements in the main generating bank and superheater. *{Permitting Note: Boiler 3 is proposed for retirement as part of the proposed new Boiler 8 project.}*
  - Boiler 4:** tube replacements in sidewall, main generating bank, screenwall, superheater, and air heater ; repair lagging on superheater tubes
  - Boiler 7:** stoker repairs; tube replacements in economizer

Replacements shall be made with “functionally equivalent” components that serve the same purpose as the replaced component. The off season maintenance activities are intended to maintain the boilers at current operational levels and reliability for the upcoming cane milling seasons. After further inspection, some activities may not be required to the extent requested and other similar routine repair, replacement, and maintenance activities may be necessary. Routine repairs and replacements that are not mentioned above shall be included in the required summary reports. [Applicant Request; Rule 62-4.070(3), F.A.C.]

#### EMISSIONS AND PERFORMANCE REQUIREMENTS

*{Permitting Note: This permit does not alter any emissions standards, operational restrictions, authorized fuels or any other conditions specified in other applicable air construction and operation permits.}*

- Permitted Capacities:** The maintenance activities authorized in this permit shall not increase the capacity of any boiler or change the basic design parameters including fuel firing rates or heat input rates. The project shall not increase the emission rates of any boiler or the cane milling capacity of the plant. [Rule 62-4.070(3), F.A.C.]

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

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### A. Boilers 1, 2, 3, 4, and 7

#### REPORTS

4. Maintenance Summary Report: Within 60 days of beginning the cane milling season, the permittee shall submit a report to the Department's New Source Review Section that summarizes the following information: a general description of the work performed on each boiler during the previous off season; a summary of the off season maintenance inspections; a revised schedule of maintenance and repair activities for the next off season. [Rule 62-4.070(3), F.A.C.]
5. Capacity Report and Emissions Summary: Within 60 days of completing the last required stack test for all of the boilers during that season, the permittee shall submit a report to the Department's New Source Review Section that summarizes the following information for each boiler: the test dates; the pollutant tested; the tested emissions rate; the allowable emissions rate; the permitted 24-hour average steam production rate; the steam production rate during the test; and the percent of permitted capacity during the test based on the permitted 24-hour steam production rate. *{Permitting Note: This condition refers to the testing that is already required by the Title V air operation permit.}* [Rule 62-4.070(3), F.A.C.]

**SECTION 4. APPENDICES**  
**CONTENTS**

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Appendix CF. Citation Format  
Appendix GC. General Conditions

**SECTION 4. APPENDIX CF**  
**CITATION FORMATS**

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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 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 (NA).
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.



**P.E. CERTIFICATION STATEMENT**

**PERMITTEE**

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

Draft Air Permit No. 0510003-022-AC  
Clewiston Sugar Mill and Refinery  
3-Year Boiler Maintenance Project

**PROJECT DESCRIPTION**

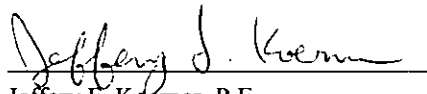
The United States Sugar Corporation (U.S. Sugar) operates the existing Clewiston Sugar Mill and Refinery in Hendry County, Florida. The facility includes five boilers that primarily fire bagasse to provide steam for the mill and refinery. In recent years, the Clewiston sugar mill experienced a shift to processing more sugarcane harvested from sandy soils. Even after washing, the cane contains much higher levels of sand than is typical for the industry. The sand carries through to bagasse fired in the boilers and creates a very abrasive flue gas, which has led to premature tube and component wear. U.S. Sugar proposes a 3-year maintenance project to primarily replace tubes in the main generating banks, sidewalls, superheaters, economizers, and air heaters. Other work includes stoker repairs and the replacement of overfire/distributor air fans. The repairs are intended to maintain the boilers at current operating levels. U.S. Sugar believes that the repairs and replacements are routine for Florida's sugar industry and that a permit is not required.

In considering the 3-year project as a whole, the Department believes the maintenance activities may be a *non-routine* effort necessary to maintain the boilers at present operating conditions. The repairs, mostly the replacement of tubing, involve components that are directly in the path of the boiler exhaust flue gas. Such work is typical off season maintenance for the Florida sugar industry. However, the metal wastage from boiler components at the Clewiston mill is not necessarily typical of Florida sugar mills. The shift to processing more cane from sand acreage at the Clewiston mill has caused accelerated wear and premature component replacements. The extent and frequency of repairs appear to be greater than for other similar mills. However, the proposed work is a reasonable and prudent response to an identifiable problem. If cane from sand acreage continues to be processed at the current levels, then the extent and frequency of the repairs could later become routine for the Clewiston mill. The Department will require a minor source permit to authorize the proposed work and provide a means to track progress.

Sugarcane processing, like all agricultural operations, may vary from year to year. Mills are subject to a variety of factors that can affect annual production including droughts, excessive rainfall, heat waves, freezes, pests, etc. However, for the last four years, cane grinding and steam production at the Clewiston mill has not varied by more than 6% from an annual average for this period. The amount of land in Florida available for sugarcane is not expanding, but rather contracting with a portion returned to wetlands as part of the Everglades Restoration Project. It is not reasonable to expect that the proposed changes would cause increased production or utilization.

The Department's rules define a *modification* to be a physical change or a change in the method of operation that would result in an increase in the actual emissions of an emission unit or facility. The rules also state that a physical change shall not include the routine maintenance, repair, or replacement of component parts of an emissions unit or facility. The proposed work is recognized as a physical change that may not be routine. However, for the Clewiston mill, it is not reasonable to expect that the proposed physical changes will result in any increases in actual emissions. Therefore, the Department concludes that the project is not a modification that is subject to PSD preconstruction review.

*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 62-4 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

5-2-03  
(Date)

# Memorandum

# Florida Department of Environmental Protection

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TO: Trina Vielhauer, Chief  
Bureau of Air Regulation

THROUGH: Al Linero, Manager *ay 5/2*  
New Source Review Section

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

DATE: May 2, 2003

SUBJECT: Draft Air Construction Permit No. 0510003-022-AC  
U.S. Sugar Corporation, Clewiston Sugar Mill and Refinery  
3-Year Boiler Repair Project

Attached for your review are the following items:

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

The draft permit authorizes a 3-year repair project for boilers at the existing Clewiston mill located in Hendry County, Florida. The draft permit describes the types of activities to be performed in general terms (mostly tube replacements) and provides the flexibility to respond to other similar work resulting from actual inspections. It also requires reports that summarize repairs made during the off season, an updated schedule of repairs for the upcoming off season, emissions test results, and tested capacities. Although I believe that the 3-year project may be a non-routine effort, I do not believe that the proposed physical changes will result in any emissions increases. Therefore, the project is not a modification and is not subject to PSD preconstruction review. The P.E. certification briefly summarizes the proposed project and conclusion. The Technical Evaluation and Preliminary Determination provide a detailed description of the project, rationale, and conclusion. Day #74 is July 10, 2003. I recommend your approval of the attached Draft Permit for this project.

Attachments