Memorandum

Florida Department of Environmental Protection

TO: Joe Kahn, Director of DARM

THROUGH: Trina Vielhauer, Chief of BAR

FROM: Jeff Koerner, Air Permitting North

DATE: September 19, 2006

SUBJECT: Final Permit No. 0510003-039-AC
U.S. Sugar Corporation, Clewiston Sugar Mill and Refinery
Boilers 1, 2 and 4 - Combined Distillate Oil Firing Limit

Attached for your review and signature is the final permit for the above referenced project. Currently, Boilers 1 and 2 are permitted to fire 6,000,000 gallons per year of distillate oil (0.05% sulfur by weight) and Boiler 4 is permitted to fire 500,000 gallons per year of distillate oil (0.4% sulfur by weight). The permit establishes a common maximum fuel sulfur specification of 0.05% sulfur by weight and an oil firing cap of 6,000,000 gallons during any consecutive 12 months from Boilers 1, 2, and 4 (combined). The project does not result in PSD-significant emissions increases and is not subject to PSD preconstruction review. The boilers operate at the existing Clewiston Sugar Mill and Refinery (SIC Nos. 2061 and 2062) located at the intersection of W.C. Owens Avenue and State Road 832 in Hendry County, Florida.

The Public Notice was published in the Clewiston News on August 31, 2006. The Bureau of Air Regulation received the proof of publication on September 18, 2006. No comments were received on the draft permit package. No petitions for administrative hearings or extensions of time to petition for an administrative hearing were filed. I recommend your approval of the attached final permit for this project.

Attachments

FINAL DETERMINATION

PERMITTEE

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

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation, Air Permitting North Program
2600 Blair Stone Road, MS #5505
Tallahassee, Florida, 32399-2400

PROJECT

Air Permit No. 0510003-039-AC
U.S. Sugar Corporation, Clewiston Sugar Mill
Boilers 1, 2, and 4 - Combined Distillate Oil Firing Limit

This permit establishes a common maximum fuel sulfur specification of 0.05% sulfur by weight and a distillate oil firing cap of 6,000,000 gallons during any consecutive 12 months from Boilers 1, 2, and 4 (combined). The boilers operate at the existing Clewiston Sugar Mill and Refinery (SIC Nos. 2061 and 2062) 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 August 17, 2006. The Public Notice was published in the Clewiston News on August 31, 2006. The Bureau of Air Regulation received the proof of publication on September 18, 2006.

COMMENTS/PETITIONS

No comments were received on the draft permit package. No petitions for administrative hearings or extensions of time to petition for an administrative hearing were filed.

CONCLUSION

Only minor revisions were made to correct typographical errors, etc. The final action of the Department is to issue the permit with the minor changes described above.

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
Authorized Representative:
Mr. Neil Smith, V.P. of Sugar Processing Operations

Air Permit No. 0510003-039-AC
Clewiston Sugar Mill and Refinery
Boilers 1, 2, and 4
Combined Distillate Oil Firing

Enclosed is Final Air Permit No. 0510003-039-AC, which establishes a common maximum fuel sulfur specification of 0.05% sulfur by weight and an oil firing cap of 6,000,000 gallons during any consecutive 12 months from Boilers 1, 2, and 4 (combined). The boilers operate at the existing Clewiston Sugar Mill and Refinery (SIC Nos. 2061 and 2062) located at the intersection of W.C. Owens Avenue and State Road 832 in Hendry County, Florida. 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 L Vielhauer

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 package (including the Final Permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 9/20/06 to the persons listed:

Mr. Neil Smith, USSC*
Mr. Don Griffin, USSC
Mr. Peter Briggs, USSC
Mr. David Buff, Golder Associates Inc.
Mr. Ron Blackburn, SD Office
Mr. Gregg Worley, 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.

Mary L. Harmon (Clerk) 9/20/06 (Date)

Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

PERMITTEE

United States Sugar Corporation
111 Ponce DeLeon Avenue
Clewiston, FL 33440
Authorized Representative:
Mr. Neil Smith, V.P. of Sugar Processing Operations

Air Permit No. 0510003-039-AC
Clewiston Sugar Mill and Refinery
Boilers 1, 2, and 4
Combined Distillate Oil Firing
Permit Expires: January 30, 2007

PROJECT AND LOCATION

This permit combines the oil firing requirements in original Permit No. 0510003-029-AC for Boiler 4 and original Permit No. 0510003-036-AC for Boilers 1 and 2. It establishes a common maximum fuel sulfur specification of 0.05% sulfur by weight and an oil firing cap of 6,000,000 gallons during any consecutive 12 months from Boilers 1, 2, and 4 (combined). The boilers operate at the existing Clewiston Sugar Mill and Refinery (SIC Nos. 2061 and 2062) 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 supersedes the oil firing requirements in all previously issued air construction permits for the affected emissions units.

PERMIT CONTENT

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

Joseph Kahn, P.E., Director
Division of Air Resource Management

9/19/06
(Effective Date)

FACILITY DESCRIPTION

The United States Sugar Corporation 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, which fire primarily bagasse. Distillate oil is fired as a startup and supplemental fuel. Particulate matter emissions are controlled by wet scrubbers (Boilers 1, 2 and 4) and by electrostatic precipitators (Boilers 7 and 8). 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 project only affects the oil firing capabilities of Boilers 1, 2 and 4 (Emissions Units 001, 002 and 009, respectively).

FACILITY REGULATORY CLASSIFICATIONS

Title III: The existing facility is a 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 facility pursuant to Rule 62-212.400 (PSD), F.A.C.

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.

APPENDICES

The following Appendices are included as part of the permit in Section 4.

Appendix CF. Citation Format

Appendix GC. General Conditions

Appendix SC. Standard Conditions

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The permitting authority for this project is the Florida Department of Environmental Protection's Bureau of Air Regulation. The mailing address is 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400.
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 2295 Victoria Avenue, Suite 364, Fort Myers, Florida, 33901-3381.
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. Source Obligation: At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification. [Rule 62-212.400(12)(b), F.A.C.]
7. Title V Permit: This permit supersedes original Permit No. 0510003-027-AC. It authorizes construction of the permitted activities and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emissions unit. 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 by law require. [Rules 62-4.030, 62-4.050, 62-4.220 and Chapter 62-213, F.A.C.]

A. Boilers 1, 2 and 4

This section of the permit addresses the following emissions units.

EU No.	Emission Unit Description
001	Boiler 1 is a traveling grate boiler with a maximum 1-hour steam production rate of 255,000 pounds per hour at 750° F and 600 psig. Bagasse is the primary fuel and distillate oil is a startup and supplemental fuel. Particulate matter emissions are controlled by a Type D, Size 125, Joy Turbulaire wet impingement scrubber. Exhaust gases exit at 150° F with an approximate flow rate of 201,000 acfm from a stack that is 8 feet in diameter and 213 feet tall.
002	Boiler 2 is a traveling grate boiler with a maximum 1-hour steam production rate of 230,000 pounds per hour at 750° F and 600 psig. Bagasse is the primary fuel and distillate oil is a startup and supplemental fuel. Particulate matter emissions are controlled by a Type D, Size 125, Joy Turbulaire wet impingement scrubber. Exhaust gases exit at 150° F with an approximate flow rate of 201,000 acfm from a stack that is 8 feet in diameter and 213 feet tall.
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. Bagasse is the primary fuel and distillate oil is a startup and supplemental 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 Modifications:

   a. *Boilers 1 and 2*: For each boiler, the permittee is authorized to replace the existing oil burners with new Peabody-type multi-stage combustion (MSC) burners (or equivalent) to fire distillate oil. In general, each burner consists of a steam-atomized center-fired oil gun, a flame scanner, an ignitor with flame proving rod, and an individual burner windbox with an electrically-operated modulating damper. The project also includes new combustion air fans with associated ductwork, new fuel oil pump sets, and new burner management systems. The burners shall be low-NOx burners designed for a maximum NOx emission rate of 0.17 lb/MMBtu. Each boiler will have one oil burner with a maximum heat input rate of 130 MMBtu/hour. The modified boilers are estimated to produce approximately 97,400 pounds of steam per hour from the sole firing of distillate oil.

   b. *Boiler 4*: 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. The burners shall be low-NOx burners designed for a maximum NOx emission rate of 0.17 lb/MMBtu. The maximum heat input rate is 326 MMBtu per hour. The modified boiler is estimated to produce approximately 225,000 pounds of steam per hour from the sole firing of distillate oil.

   Bagasse remains the primary fuel. Distillate oil will be fired during startup, to supplement bagasse, and as an alternate fuel to support the refinery when bagasse is not available. This permit only addresses the oil firing aspects of these boilers. [Application; Design]

PERFORMANCE RESTRICTIONS

2. Oil Specification: Any oil fired in Boilers 1, 2 and 4 shall be new No. 2 distillate oil (or a superior grade) containing no more than 0.05% sulfur by weight. [Application; Design; Rule 62-212.400(12), F.A.C.]

3. Permitted Capacity on Oil:

   a. *Boilers 1 and 2*: For each boiler, the maximum heat input rate from distillate oil is 130 MMBtu per hour (963 gallons per hour).

   b. *Boiler 4*: The maximum heat input rate from distillate oil firing is 326 MMBtu per hour (2417 gallons per hour).

   [Application; Design; Rules 62-210.200(PTE) and 62-212.400(12)(Source Obligation), F.A.C.]

4. Oil Firing Cap: Total distillate oil firing shall not exceed 6,000,000 gallons during any consecutive 12 months from Boilers 1, 2 and 4 (combined). The permittee shall install, calibrate, operate, and maintain individual fuel oil flow meters with integrators. [Application; Design; Rules 62-210.200(PTE) and 62-212.400(12)(Source Obligation), F.A.C.

EMISSIONS STANDARDS AND PERFORMANCE TESTING

{Permitting Note: Emissions shall continue to be regulated by the existing permit requirements, which include previous air construction permits and Rule 62-296.410, F.A.C. for carbonaceous fuel burning equipment.}

RECORDS AND REPORTS

5. 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

6. Previous Permits: This permit supersedes Permit No. 0510003-029-AC for Boiler 4 and Permit No. 0510003-036-AC for Boilers 1 and 2. With regard to the specified oil firing requirements, this permit supplements all other previously issued air construction permits. Except for the specific conditions related to oil firing in this permit, the boilers remain subject to the conditions of all other valid air construction and operations permits. [Rule 62-4.070, F.A.C.]

Filename: 0510003-039-AC - Final Permit

CONTENTS

CITATION FORMAT

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 CRF 60.7]

Means: Title 40, Part 60, Section 7

GENERAL CONDITIONS

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

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 (not applicable to project);
    b. Determination of Prevention of Significant Deterioration (not applicable to project); and
    c. Compliance with New Source Performance Standards (not applicable to project).

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.

STANDARD CONDITIONS

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 permitee 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.]

RECORDS AND REPORTS

10. 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.]

11. 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.]

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. Neil Smith, V.P. of Sugar Processing Operations
Clewiston Sugar Mill and Refinery
United States Sugar Corporation
111 Ponce DeLeon Avenue
Clewiston, Florida 33440

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Rachel Delk ☐ Agent ☐ Addressee

B. Received by (Printed Name) Rachel Felton C. Date of Delivery 9/22

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

2. Article Number *(Transfer from service label)* 7000 1670 0013 3110 1243

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

U.S. Postal Service
CERTIFIED MAIL RECEIPT
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OFFICIAL USE

Postage	$
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Mr. Neil Smith, V.P. of Sugar Processing Operations
Clewiston Sugar Mill and Refinery
United States Sugar Corporation
111 Ponce DeLeon Avenue
Clewiston, Florida 33440

PS Form 3800, May 2000 See Reverse for Instructions

7000 1670 0013 3110 1243

UNITED STATES SUGAR CORPORATION

111 Ponce de Leon Ave.
Clewiston, Florida 33440
Telephone 863/902-8121
Fax 863/902-2729

SUGAR PROCESSING DEPARTMENT

September 7, 2006

Ron Blackburn, P.E.
Florida Dept. of Environmental Protection
P. O. Box 2549
Ft. Myers, Fl. 33902-2549

RE: Draft Air Permit No. 0510003-039-AC
U.S. Sugar Corporation, Clewiston Sugar Mill and Refinery
Boilers 1,2, and 4 – Combined Distillate Oil Firing

Dear Mr. Blackburn:

We are enclosing Affidavit of Publication certifying that the "Public Notice of Intent to Issue Draft Air Permit" was duly published in the legal section of the August 31, 2006 issue of "The Clewiston News" newspaper in Hendry County.

If you have any questions or need further information, please let me know.

Sincerely,

UNITED STATES SUGAR CORPORATION

Neil Smith
Vice President / General Manager
Sugar Manufacturing

NS:lp
Enclosure

cc: Peter Briggs

The Clewiston News

Published Weekly — Clewiston, Florida

AFFIDAVIT OF PUBLICATION

State of Florida
County of Hendry

Before the undersigned authority, personally appeared Jose Zaragoza, who on oath says he is Editor of the Clewiston News, a weekly newspaper published at Clewiston in Hendry County, Florida,

that the attached copy of advertisement being a notice

in the matter United States Sugar Corporation Public notice of intent to issue air permit #AC1# 1571610

in the _____ court, was published in said newspaper in the issue(s)

of August 31, 2006

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 he 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.

SEP 11 2006
D.E.P. - South District

Jose Zaragoza

Sworn to and subscribed before me this 1 day of Sept 2006

Notary Public

Ideybis Gonzalez
Commission #DD341238
Expires: Jul 26, 2008
Bonded Thru
Atlantic Bonding Co., Inc

PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

Florida Department of Environmental Protection
Draft Air Permit No. 0510003-039-AC
United States Sugar Corporation, Clewiston Sugar Mill and Refinery
Hendry County, Florida

Applicant: The applicant for this project is the United States Sugar Corporation. The applicant's authorized representative is Mr. Alan Smith, VP of Sugar Processing Operations. The applicant's mailing address is the Clewiston Sugar Mill and Refinery, 111 Ponce DeLeon Avenue, Clewiston, FL 33440.

Facility Location: The United States Sugar Corporation operates an existing sugar mill and refinery in Clewiston at the intersection of W.C. Owens Avenue and State Road 832 in Hendry County, Florida.

Project: On July 27, 2006, the Department received a complete application requesting Consolidation of the distillate oil firing restrictions for existing Boilers 1, 2, and 4 into a single cap. Specifically, the applicant requests: a revised distillate oil cap of 6,000,000 gallons during any consecutive 12 months for all three boilers combined; a reduction in the maximum fuel sulfur concentration for Boiler 4 from 0.4% to 0.05% by weight to match the other boilers; and a reduction of the maximum NOx emission rate for Boiler 4 from 0.20 to 0.17 lb/MMBtu, which is equivalent to the modified oil firing systems for Boilers 1 and 2 and supported by initial performance testing. A comparison of baseline to future potential emissions shows that this project, as restricted by the conditions of the draft permit, will not result in a PSD-significant emissions increase. Upon completion of this project, all boilers at this facility will be firing distillate oil with maximum sulfur content of 0.05% by weight.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Florida Department of Environmental Protection's Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Bureau of Air Regulation's physical address is 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301 and the mailing address is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Bureau of Air Regulation's phone number is 850/488-0114 and fax number is 850/922-6979.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address and phone number listed above. A copy of the complete project file is also available at the Department's South District Office at 2295 Victoria Avenue, Suite 364, Fort Myers, Florida 33902-3381. The South District's telephone number is 239/332-6975.

Notice of Intent to Issue Air Permit: The Permitting Authority gives notice of its Intent to issue an air permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of proposed equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Comments: The Permitting Authority will accept written comments concerning the Draft Permit for a period of fourteen (14) days from the date of publication of the Public Notice. Written comments must be post-marked, and all email or facsimile comments must be received by the close of business (5:00 p.m.), on or before the end of this 14-day period by the Permitting Authority at the above address, email or facsimile. For additional information, contact the Permitting Authority at the above address or phone number. If written comments result in a significant change to the Draft Permit, the Permitting Authority will issue a Revised Draft Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the applicant or any of the parties listed below must be filed within fourteen (14) days of receipt of this Written Notice of Intent to Issue Air Permit. 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 attached Public Notice or within fourteen (14) days of receipt of this Written Notice of Intent to Issue Air Permit, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority 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 Permitting Authority'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 each 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 state; (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 the 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 Permitting Authority'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 Permitting Authority's final action may be different from the position taken by it in this Public Notice of Intent to Issue Air Permit. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available in this proceeding.

15749 CN 8/31/06

Memorandum

Florida Department of
Environmental Protection

TO: Trina Vielhauer, Chief - Bureau of Air Regulation

FROM: Jeff Koerner, Air Permitting North

DATE: August 14, 2006

SUBJECT: Project No. 0510003-039-AC
U.S. Sugar Corporation, Clewiston Sugar Mill and Refinery
Boilers 1, 2 and 4 - Combined Distillate Oil Firing

Attached for your review are the following items:

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

The P.E. certification briefly summarizes the proposed permit project. The Technical Evaluation and Preliminary Determination provide a detailed description of the project, rationale, and conclusion. I recommend your approval of the attached Draft Permit for this project.

Attachments

Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

August 17, 2006

Mr. Neil Smith, 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. 0510003-039-AC
U.S. Sugar Corporation, Clewiston Sugar Mill and Refinery
Boilers 1, 2 and 4 – Combined Distillate Oil Firing

Dear Mr. Smith:

On July 27, 2006, U.S. Sugar submitted an application to revise the oil firing requirements for existing Boilers 1, 2 and 4. These units operate at the Clewiston sugar mill and refinery, which is located at the intersection of W.C. Owens Avenue and State Road 832 in Hendry County, Florida. Enclosed are the following documents: "Technical Evaluation and Preliminary Determination", "Draft Permit", "Written Notice of Intent to Issue Air Permit", and "Public Notice of Intent to Issue Air Permit".

The "Technical Evaluation and Preliminary Determination" summarizes the Bureau of Air Regulation's technical review of the application and provides the rationale for making the preliminary determination to issue a draft permit. The proposed "Draft Permit" includes the specific conditions that regulate the emissions units covered by the proposed project. The "Written Notice of Intent to Issue Air Permit" provides important information regarding: the Permitting Authority's intent to issue an air permit for the proposed project; the requirements for publishing a Public Notice of the Permitting Authority's intent to issue an air permit; the procedures for submitting comments on the Draft Permit; the process for filing a petition for an administrative hearing; and the availability of mediation. The "Public Notice of Intent to Issue Air Permit" is the actual notice that you must have published in the legal advertisement section of a newspaper of general circulation in the area affected by this project.

If you have any questions, please contact the Project Engineer, Jeff Koerner, at 850/921-9536.

Sincerely,

Trina Vielhauer, Chief
Bureau of Air Regulation

Enclosures

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

In the Matter of an
Application for Air Permit by:

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

Authorized Representative:
Mr. Neil Smith, V.P. of Sugar Processing Operations

Draft Air Permit No. 0510003-039-AC
Clewiston Sugar Mill and Refinery
Boilers 1, 2 and 4
Combined Distillate Oil Firing
Hendry County, Florida

Facility Location: U.S. Sugar Corporation operates an existing sugar mill and refinery in Clewiston at the intersection of W.C. Owens Avenue and State Road 832 in Hendry County, Florida.

Project: On July 27, 2006, the Department received a complete application requesting consolidation of the distillate oil firing restrictions for existing Boilers 1, 2, and 4 into a single cap. Specifically, the applicant requests: a revised distillate oil cap of 6,000,000 gallons during any consecutive 12 months for all three boilers combined; a reduction in the maximum fuel sulfur concentration for Boiler 4 from 0.4% to 0.05% by weight to match the other boilers; and a reduction of the maximum NOx emission rate for Boiler 4 from 0.20 to 0.17 lb/MMBtu, which is equivalent to the modified oil firing systems for Boilers 1 and 2 and supported by initial performance testing. A comparison of baseline to future potential emissions shows that this project, as restricted by the conditions of the draft permit, will not result in a PSD-significant emissions increase. Upon completion of this project, all boilers at this facility will be firing distillate oil with maximum sulfur content of 0.05% by weight.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Florida Department of Environmental Protection's Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Bureau of Air Regulation's physical address is 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301 and the mailing address is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Bureau of Air Regulation's phone number is 850/488-0114 and fax number is 850/922-6979.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address and phone number listed above. A copy of the complete project file is also available at the Department's South District Office at 2295 Victoria Avenue, Suite 364, Fort Myers, Florida 33902-3381. The South District's telephone number is 239/332-6975.

Notice of Intent to Issue Permit: The Permitting Authority gives notice of its intent to issue an air permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of proposed equipment will not adversely impact air quality and that the project will comply with all applicable provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Public Notice: Pursuant to Sections 403.087 and 403.815, F.S. and Rules 62-110.106 and 62-210.350, F.A.C., you (the applicant) are required to publish at your own expense the enclosed "Public Notice of Intent to Issue Air Permit" (Public Notice). The Public Notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected by this project. The newspaper used must meet 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 Permitting Authority at the address or phone number listed above. Pursuant to Rule 62-110.106(5), F.A.C., the applicant shall provide proof of publication to the Permitting Authority at the above address within seven (7) days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

Comments: The Permitting Authority will accept written comments concerning the Draft Permit for a period of fourteen (14) days from the date of publication of the Public Notice. Written comments must be post-marked, and all email or facsimile comments must be received by the close of business (5:00 p.m.), on or before the end of this 14-day period by the Permitting Authority at the above address, email or facsimile. For additional information, contact the Permitting Authority at the above address or phone number. If written comments result in a significant change to the Draft Permit, the Permitting Authority will issue a revised Draft Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

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Mediation: Mediation is not available in this proceeding.

Executed in Tallahassee, Florida.

Trina L Vielhauer

Trina Vielhauer, Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this "Written Notice of Intent to Issue Air Permit" package (including the Public Notice, the 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 8/17/06 to the persons listed below.

Mr. Neil Smith, USSC*
Mr. Don Griffin, USSC
Mr. Peter Briggs, USSC
Mr. David Buff, Golder Associates Inc.
Mr. Ron Blackburn, SD Office
Mr. Gregg Worley, EPA Region 4

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

Mary D Harvey 8/17/06
(Clerk) (Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

Florida Department of Environmental Protection
Draft Air Permit No. 0510003-039-AC
United States Sugar Corporation, Clewiston Sugar Mill and Refinery
Hendry County, Florida

Applicant: The applicant for this project is the United States Sugar Corporation. The applicant's authorized representative is Mr. Neil Smith, V.P. of Sugar Processing Operations. The applicant's mailing address is the Clewiston Sugar Mill and Refinery, 111 Ponce DeLeon Avenue, Clewiston, FL 33440.

Facility Location: The United States Sugar Corporation operates an existing sugar mill and refinery in Clewiston at the intersection of W.C. Owens Avenue and State Road 832 in Hendry County, Florida.

Project: On July 27, 2006, the Department received a complete application requesting consolidation of the distillate oil firing restrictions for existing Boilers 1, 2, and 4 into a single cap. Specifically, the applicant requests: a revised distillate oil cap of 6,000,000 gallons during any consecutive 12 months for all three boilers combined; a reduction in the maximum fuel sulfur concentration for Boiler 4 from 0.4% to 0.05% by weight to match the other boilers; and a reduction of the maximum NOx emission rate for Boiler 4 from 0.20 to 0.17 lb/MMBtu, which is equivalent to the modified oil firing systems for Boilers 1 and 2 and supported by initial performance testing. A comparison of baseline to future potential emissions shows that this project, as restricted by the conditions of the draft permit, will not result in a PSD-significant emissions increase. Upon completion of this project, all boilers at this facility will be firing distillate oil with maximum sulfur content of 0.05% by weight.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Florida Department of Environmental Protection's Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Bureau of Air Regulation's physical address is 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301 and the mailing address is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Bureau of Air Regulation's phone number is 850/488-0114 and fax number is 850/922-6979.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address and phone number listed above. A copy of the complete project file is also available at the Department's South District Office at 2295 Victoria Avenue, Suite 364, Fort Myers, Florida 33902-3381. The South District's telephone number is 239/332-6975.

Notice of Intent to Issue Air Permit: The Permitting Authority gives notice of its intent to issue an air permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of proposed equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Comments: The Permitting Authority will accept written comments concerning the Draft Permit for a period of fourteen (14) days from the date of publication of the Public Notice. Written comments must be post-marked, and all email or facsimile comments must be received by the close of business (5:00 p.m.), on or before the end of this 14-day period by the Permitting Authority at the above address, email or facsimile. For additional information, contact the Permitting Authority at the above address or phone number. If written comments result in a significant change to the Draft Permit, the Permitting Authority will issue a Revised Draft Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the applicant or any of the parties listed below must be filed within fourteen (14) days of receipt of

(Public Notice to be Published in the Newspaper)

this Written Notice of Intent to Issue Air Permit. 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 attached Public Notice or within fourteen (14) days of receipt of this Written Notice of Intent to Issue Air Permit, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority 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.

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

Mediation: Mediation is not available in this proceeding.

(Public Notice to be Published in the Newspaper)

DRAFT PERMIT

PERMITTEE

United States Sugar Corporation
111 Ponce DeLeon Avenue
Clewiston, FL 33440
Authorized Representative:
Mr. Neil Smith, V.P. of Sugar Processing Operations

Air Permit No. 0510003-039-AC
Clewiston Sugar Mill and Refinery
Boilers 1, 2, and 4
Combined Distillate Oil Firing
Permit Expires: January 30, 2007

PROJECT AND LOCATION

This permit combines the oil firing requirements in original Permit No. 0510003-029-AC for Boiler 4 and original Permit No. 0510003-036-AC for Boilers 1 and 2. It established a common maximum fuel sulfur specification of 0.05% sulfur by weight and an oil firing cap of 6,000,000 gallons during any consecutive 12 months from Boilers 1, 2, and 4 (combined). The boilers operate at the existing Clewiston Sugar Mill and Refinery (SIC Nos. 2061 and 2062) 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 supersedes the oil firing requirements in all previously issued air construction permits for the affected emissions units.

PERMIT CONTENT

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

DRAFT

Joe Kahn, P.E., Acting Director
Division of Air Resource Management

(Effective Date)

FACILITY DESCRIPTION

The United States Sugar Corporation 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, which fire primarily bagasse. Distillate oil is fired as a startup and supplemental fuel. Particulate matter emissions are controlled by wet scrubbers (Boilers 1, 2 and 4) and by electrostatic precipitators (Boilers 7 and 8). 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 project only affects the oil firing capabilities of Boilers 1, 2 and 4 (Emissions Units 001, 002 and 009, respectively).

FACILITY REGULATORY CLASSIFICATIONS

Title III: The existing facility is a 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 facility pursuant to Rule 62-212.400(PSD), F.A.C.

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.

APPENDICES

The following Appendices are included as part of the permit in Section 4.

Appendix CF. Citation Format

Appendix GC. General Conditions

Appendix SC. Standard Conditions

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The permitting authority for this project is the Florida Department of Environmental Protection's Bureau of Air Regulation. The mailing address is 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400.
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 2295 Victoria Avenue, Suite 364, Fort Myers, Florida, 33901-3381.
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. Source Obligation: At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification. [Rule 62-212.400(12)(b), F.A.C.]
7. Title V Permit: A Title V operation permit is required for regular operation of the permitted emissions unit. 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 by law require. [Rules 62-4.030, 62-4.050, 62-4.220 and Chapter 62-213, F.A.C.]

A. Boilers 1, 2 and 4

This section of the permit addresses the following emissions units.

EU No.	Emission Unit Description
001	Boiler 1 is a traveling grate boiler with a maximum 1-hour steam production rate of 255,000 pounds per hour at 750° F and 600 psig. Bagasse is the primary fuel and distillate oil is a startup and supplemental fuel. Particulate matter emissions are controlled by a Type D, Size 125, Joy Turbulaire wet impingement scrubber. Exhaust gases exit at 150° F with an approximate flow rate of 201,000 acfm from a stack that is 8 feet in diameter and 213 feet tall.
002	Boiler 2 is a traveling grate boiler with a maximum 1-hour steam production rate of 230,000 pounds per hour at 750° F and 600 psig. Bagasse is the primary fuel and distillate oil is a startup and supplemental fuel. Particulate matter emissions are controlled by a Type D, Size 125, Joy Turbulaire wet impingement scrubber. Exhaust gases exit at 150° F with an approximate flow rate of 201,000 acfm from a stack that is 8 feet in diameter and 213 feet tall.
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. Bagasse is the primary fuel and distillate oil is a startup and supplemental 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 Modifications:

   a. *Boilers 1 and 2*: For each boiler, the permittee is authorized to replace the existing oil burners with new Peabody-type multi-stage combustion (MSC) burners (or equivalent) to fire distillate oil. In general, each burner consists of a steam-atomized center-fired oil gun, a flame scanner, an ignitor with flame proving rod, and an individual burner windbox with an electrically-operated modulating damper. The project also includes new combustion air fans with associated ductwork, new fuel oil pump sets, and new burner management systems. The burners shall be low-NOx burners designed for a maximum NOx emission rate of 0.17 lb/MMBtu. Each boiler will have one oil burner with a maximum heat input rate of 130 MMBtu/hour. The modified boilers are estimated to produce approximately 97,400 pounds of steam per hour from the sole firing of distillate oil.

   b. *Boiler 4*: 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. The burners shall be low-NOx burners designed for a maximum NOx emission rate of 0.17 lb/MMBtu. The maximum heat input rate is 326 MMBtu per hour. The modified boiler is estimated to produce approximately 225,000 pounds of steam per hour from the sole firing of distillate oil.

   Bagasse remains the primary fuel. Distillate oil will be fired during startup, to supplement bagasse, and as an alternate fuel to support the refinery when bagasse is not available. This permit only addresses the oil firing aspects of these boilers. [Application; Design]

PERFORMANCE RESTRICTIONS

2. Oil Specification: Any oil fired in Boilers 1, 2 and 4 shall be new No. 2 distillate oil (or a superior grade) containing no more than 0.05% sulfur by weight. [Application; Design; Rule 62-212.400(12), F.A.C.]

3. Permitted Capacity on Oil:

   a. *Boilers 1 and 2*: For each boiler, the maximum heat input rate from distillate oil is 130 MMBtu per hour (963 gallons per hour).

   b. *Boiler 4*: The maximum heat input rate from distillate oil firing is 326 MMBtu per hour (2417 gallons per hour).

   [Application; Design; Rules 62-210.200(PTE) and 62-212.400(12)(Source Obligation), F.A.C.]

4. Oil Firing Cap: Total distillate oil firing shall not exceed 6,000,000 gallons during any consecutive 12 months from Boilers 1, 2 and 4 (combined). The permittee shall install, calibrate, operate, and maintain individual fuel oil flow meters with integrators. [Application; Design; Rules 62-210.200(PTE) and 62-212.400(12)(Source Obligation), F.A.C.

EMISSIONS STANDARDS AND PERFORMANCE TESTING

{Permitting Note: Emissions shall continue to be regulated by the existing permit requirements, which include previous air construction permits and Rule 62-296.410, F.A.C. for carbonaceous fuel burning equipment.}

RECORDS AND REPORTS

5. 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

6. Previous Permits: This permit supersedes Permit No. 0510003-029-AC for Boiler 4 and Permit No. 0510003-036-AC for Boilers 1 and 2. With regard to the specified oil firing requirements, this permit supplements all other previously issued air construction permits. Except for the specific conditions related to oil firing in this permit, the boilers remain subject to the conditions of all other valid air construction and operations permits. [Rule 62-4.070, F.A.C.]

Filename: 0510003-039-AC - Draft Permit

CONTENTS

SECTION 4. APPENDIX CF
CITATION FORMAT

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 CRF 60.7]

Means: Title 40, Part 60, Section 7

SECTION 4. APPENDIX GC
GENERAL CONDITIONS

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

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 (not applicable to project);
    b. Determination of Prevention of Significant Deterioration (not applicable to project); and
    c. Compliance with New Source Performance Standards (not applicable to project).

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

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 permitee 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.]

RECORDS AND REPORTS

10. 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.]

11. 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.]

TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION

PROJECT

Draft Air Construction Permit No. 0510003-039-AC
Clewiston Boilers 1, 2 and 4 – Combined Distillate Oil Firing Requirements

COUNTY

Hendry County, Florida

APPLICANT

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

ARMS Facility ID No. 0510003

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation
Air Permitting North

August 14, 2006

{Filename: 0510003-039-AC - TEPD}

1. GENERAL PROJECT INFORMATION

Facility Description and Location

The United States Sugar Corporation (USSC) operates an existing sugar mill (SIC No. 2061) and refinery (SIC No. 2062) in Clewiston 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). The facility is regulated in accordance with the following facility categories:

Title III: The existing facility is a 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 in accordance with Chapter 213, F.A.C.

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

Project Description

Boilers 1 and 2 are vibrating grate units with total maximum heat input rates of 496 and 447 MMBtu per hour, respectively. The maximum heat input rate for each unit when firing distillate oil (0.05% sulfur) is 130 MMBtu/hour. Boiler 4 is a traveling grate unit with a total maximum heat input rate of 633 MMBtu per hour. The maximum heat input rate when firing distillate oil (0.40% sulfur) is 326 MMBtu/hour.

Bagasse is the primary fuel for these sugar mill boilers. However, distillate oil is used for startup and when necessary to supplement bagasse due to fuel quality issues or mill interruptions. In addition, these boilers operate as backup units to Boilers 7 and 8 during the refinery season. If bagasse is unavailable, the boilers fire distillate oil as necessary to meet the steam demands of the refinery, which are much less than the milling season.

On July 27, 2006, the Department received a complete application requesting consolidation of the distillate oil firing restrictions for existing Boilers 1, 2, and 4 into a single cap. Specifically, the applicant requests: a revised distillate oil cap of 6,000,000 gallons during any consecutive 12 months for all three boilers combined; a reduction in the maximum fuel sulfur concentration for Boiler 4 from 0.4% to 0.05% by weight to match the other boilers; and a reduction of the maximum NOx emission rate for Boiler 4 from 0.20 to 0.17 lb/MMBtu, which is equivalent to the modified oil firing systems for Boilers 1 and 2 and supported by initial performance testing. Currently, Boilers 1 and 2 are restricted to a combined total of 6,000,000 gallons during any consecutive 12 months and Boiler 4 is restricted to 500,000 gallons during any consecutive 12 months. The 500,000 gallon restriction originated with the original PSD permit to limit overall SO_2 emissions.

2. APPLICABLE REGULATIONS

PSD Applicability Review

The Department regulates major air pollution facilities 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 in areas currently in attainment with the state and federal Ambient Air Quality Standards (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 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; or 5 tons per year of lead.

For new projects at existing PSD-major facilities, each regulated pollutant is reviewed for PSD applicability based on emissions thresholds known as the Significant Emission Rates defined in Rule 62-210.200, 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.

The existing Clewiston sugar mill and refinery is located in an area that is currently in attainment with the state and federal Ambient Air Quality Standards (AAQS) or otherwise designated as unclassifiable. The actual and potential emissions of several pollutants from the facility are greater than the applicability thresholds defined above. As such, the sugar mill and refinery is an existing PSD-major facility as defined in Rules 62-210.200 (Definitions), F.A.C. and 62-212.400 (PSD), F.A.C. Therefore, the project must be evaluated for the applicability of PSD preconstruction review. The following table shows the applicant's estimated changes in annual emissions from the proposed project.

Table 2A. Applicant's PSD Applicability Summary – Revised Project

Pollutant*	Boilers 1, 2 and 4 – Annual Emissions, TPY		Project Increase TPY	Project	
	Baseline Actual [a]	Future Potential [b]		PSD Significant Emission Rate	PSD?
CO	4.40	15.4	11	100	No
NOx	39.82	70.9	32	40	No
PM	11.83	6.2	(-) 6	25	No
PM_{10}	10.06	3.1	(-) 7	15	No
SAM	3.78	1.1	(-) 3	7	No
SO_2	86.41	22.2	(-) 64	40	No
VOC	0.24	0.6	< 1	40	No

a. Baseline emissions are estimated from: the actual oil firing rates in 2002 and 2003; the actual fuel sulfur content for Boilers 1 and 2 (~ 1.5% sulfur by weight); the actual fuel sulfur content for Boiler 4 (~ 0.7% sulfur by weight); the Annual Operating Reports for 2002 and 2003; and AP-42 emissions factors.

b. Future potential emissions are based on: the requested fuel oil firing rate of 6.0 million gallons total from all boilers; AP-42 emission factors for CO, PM, PM_{10}, and VOC emissions; a distillate oil heating value of 139,000 Btu/gallon; stoichiometric calculations for SO_2 and SAM emissions based on the maximum permitted fuel sulfur content of 0.05% sulfur by weight; and a maximum NOx emissions rate of 0.17 lb/MMBtu as specified by permit and verified by testing.

The above comparison of baseline actual emissions to future potential emissions from these units shows there will be no PSD-significant emissions increase as a result of this project. Based on the above analysis and proposed permit conditions, the project is not subject to PSD preconstruction review.

Other Regulations

The proposed project will not impose any new state or federal regulations.

3. DRAFT PERMIT CONDITIONS

In March of 2005, Permit No. 0510003-029-AC authorized completion of the modified oil firing system for Boiler 4 to accommodate distillate oil with a maximum sulfur content of 0.4% by weight. In July of 2006, Permit No. 0510003-036-AC revised the original permit for the oil firing systems for Boilers 1 and 2 as installed. The requirements of these permits will be combined into a new permit. This permit will include the following limitations.

- A cap for combined distillate oil firing from Boilers 1, 2 and 4 will be specified as 6,000,000 gallons during any consecutive 12 months.
- The maximum fuel sulfur content for all boilers will be specified as 0.05% sulfur by weight.
- The low-NOx burner design specifications for all three boilers will be specified as 0.17 lb/MMBtu.

4. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the revised 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.

P.E. CERTIFICATION STATEMENT

PERMITTEE

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

Air Permit No. 0510003-039-AC
Clewiston Sugar Mill and Refinery
Boilers 1, 2 and 4
Combined Distillate Oil Firing

PROJECT DESCRIPTION

For this project, the applicant requests: a revised distillate oil cap of 6,000,000 gallons during any consecutive 12 months for all three boilers combined; a reduction in the maximum fuel sulfur content for Boiler 4 from 0.4% to 0.05% by weight to match the other boilers; and a reduction of the maximum NOx emission rate for Boiler 4 from 0.20 to 0.17 lb/MMBtu, which is equivalent to the modified oil firing systems for Boilers 1 and 2 and supported by initial performance testing. Currently, Boilers 1 and 2 are restricted to a combined total of 6,000,000 gallons during any consecutive 12 months and Boiler 4 is restricted to 500,000 gallons during any consecutive 12 months. The 500,000 gallon restriction originated with the original PSD permit for Boiler 4 to limit overall SO_2 emissions. A comparison of baseline to future potential emissions shows that this project, as restricted by the conditions of the draft permit, will not result in a PSD-significant emissions increase. Upon completion of this project, all boilers at this facility will be firing distillate oil with maximum sulfur content of 0.05% by weight.

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 J. Koerner — 8-14-06

Jeffery F. Koerner, P.E. (Date)
Registration Number: 49441

P.E. CERTIFICATION STATEMENT

PERMITTEE

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

Air Permit No. 0510003-039-AC
Clewiston Sugar Mill and Refinery
Boilers 1, 2 and 4
Combined Distillate Oil Firing

PROJECT DESCRIPTION

For this project, the applicant requests: a revised distillate oil cap of 6,000,000 gallons during any consecutive 12 months for all three boilers combined; a reduction in the maximum fuel sulfur content for Boiler 4 from 0.4% to 0.05% by weight to match the other boilers; and a reduction of the maximum NOx emission rate for Boiler 4 from 0.20 to 0.17 lb/MMBtu, which is equivalent to the modified oil firing systems for Boilers 1 and 2 and supported by initial performance testing. Currently, Boilers 1 and 2 are restricted to a combined total of 6,000,000 gallons during any consecutive 12 months and Boiler 4 is restricted to 500,000 gallons during any consecutive 12 months. The 500,000 gallon restriction originated with the original PSD permit for Boiler 4 to limit overall SO_2 emissions. A comparison of baseline to future potential emissions shows that this project, as restricted by the conditions of the draft permit, will not result in a PSD-significant emissions increase. Upon completion of this project, all boilers at this facility will be firing distillate oil with maximum sulfur content of 0.05% by weight.

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 J. Koerner

8-14-06

Jeffery F. Koerner, P.E.
Registration Number: 49441

(Date)

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. Neil Smith, V.P. of Sugar Processing Operations
Clewiston Sugar Mill and Refinery
United States Sugar Corporation
111 Ponce DeLeon Avenue
Clewiston, Florida 33440

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) L Harris C. Date of Delivery 6-21-6

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

2. Article Number *(Transfer from service label)* 7000 1670 0013 3110 1274

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

1003

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

OFFICIAL USE

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	

Postmark Here

7000 1670 0013 3110 1274

Mr. Neil Smith, V.P. of Sugar Processing Operations
Clewiston Sugar Mill and Refinery
United States Sugar Corporation
111 Ponce DeLeon Avenue
Clewiston, Florida 33440

PS Form 3800, May 2000 See Reverse for Instructions

Kofax Separator PSD

UNITED STATES SUGAR CORPORATION

111 Ponce de Leon Ave.
Clewiston, Florida 33440-1207
Telephone 863/902-8121
Fax 863/902-2729

Sugar Manufacturing Department

July 24, 2006

Mr. Ronald D. Blackburn
Florida Department of Environmental Protection
South District
Post Office Box 2549
Fort Myers, FL 33902-2549

RE: USSC - Clewiston Mill
Facility ID No. 0510003

Dear Ron:

Enclosed are one copies of an Application to revise annual fuel oil firing limit Boiler No. 4 at U.S. Sugar Corporation Clewiston Mill.

Please advise if there is anything further we need to provide in this regard.

Sincerely,
UNITED STATES SUGAR CORPORATION

Neil Smith
Vice President & General Mgr. –
Sugar Manufacturing

NS:tkw
Enclosures
cc: Peter Briggs
Jeff Koerner

RECEIVED
JUL 27 2006
BUREAU OF AIR REGULATION

APPLICATION TO REVISE ANNUAL FUEL OIL FIRING LIMIT BOILER NO. 4

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

July 2006

0637573-0400

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

APPLICATION FOR AIR PERMIT – LONG FORM

Department of Environmental Protection

Division of Air Resource Management

APPLICATION FOR AIR PERMIT - LONG FORM

I. APPLICATION INFORMATION

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

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

Air Operation Permit – Use this form to apply for:

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

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

To ensure accuracy, please see form instructions.

Identification of Facility

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

Application Contact

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

Application Processing Information (DEP Use)

1. Date of Receipt of Application: 1-27-06	3. PSD Number (if applicable):
2. Project Number(s): 0510003-034-AC	4. Siting Number (if applicable):

APPLICATION INFORMATION

Purpose of Application

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

Air Construction Permit

☒ Air construction permit.

☐ Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).

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

Air Operation Permit

☐ Initial Title V air operation permit.

☐ Title V air operation permit revision.

☐ Title V air operation permit renewal.

☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.

☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

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

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

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

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

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

Application Comment

Application to increase the annual fuel oil firing limit in Boiler No. 4 from 500,000 gallons per year to 6,000,000 gallons per year. The new limit will represent a cap for Boiler Nos. 1, 2, and 4 combined for fuel oil burning.

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Proc. Fee
009	Clewiston Boiler No. 4		

Application Processing Fee

Check one: ☐ Attached - Amount: $_____ ☒ Not Applicable

APPLICATION INFORMATION

Owner/Authorized Representative Statement

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

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

   I, the undersigned, am the owner or authorized representative of the facility addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other requirements identified in this application to which the facility is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit.

   Signature _____ Date 7/24/06

APPLICATION INFORMATION

Application Responsible Official Certification

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

1. Application Responsible Official Name:

2. Application Responsible Official Qualification (Check one or more of the following options, as applicable):
   - ☐ For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.
   - ☐ For a partnership or sole proprietorship, a general partner or the proprietor, respectively.
   - ☐ For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.
   - ☐ The designated representative at an Acid Rain source.

3. Application Responsible Official Mailing Address...
   Organization/Firm:
   Street Address:
   City: State: Zip Code:

4. Application Responsible Official Telephone Numbers...
   Telephone: ( ) - ext. Fax: ( ) -

5. Application Responsible Official Email Address:

6. Application Responsible Official Certification:

   I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.

   Signature Date

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: **David A. Buff**
   Registration Number: **19011**
2. Professional Engineer Mailing Address...
   Organization/Firm: **Golder Associates Inc.****
   Street Address: **6241 NW 23rd Street, Suite 500**
   City: **Gainesville** State: **FL** Zip Code: **32653-1500**
3. Professional Engineer Telephone Numbers...
   Telephone: **(352) 336-5600** ext.**545** Fax: **(352) 336-6603**
4. Professional Engineer Email Address: **dbuff@golder.com**
5. Professional Engineer Statement:

I, 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.

(3) If the purpose of this application is to obtain a Title V 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 plan and schedule is submitted with this application.

(4) If the purpose of this application is to obtain an air construction permit (check here ☒, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here ☐, 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.

(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here ☐, 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

7/21/06
Date

(seal)

* Attach any exception to certification statement.

**Board of Professional Engineers Certificate of Authorization #00001670

III. EMISSIONS UNIT INFORMATION

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

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

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

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

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

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

☐ The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

☐ The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

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

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

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

☐ This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
Boiler No. 4

3. Emissions Unit Identification Number: **009**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A			**20**	☐ Yes ☒ No

9. Package Unit:
Manufacturer: Model Number:

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment:
Traveling grate boiler fired by carbonaceous fuel and fuel oil with a maximum sulfur content of 0.05 percent by weight. Fuel oil can include facility-generated, on-specification used oil.

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

Joy Turbulaire Impingement Scrubber, Size 200, Type D

2. Control Device or Method Code(s): **001**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate:	
2. Maximum Production Rate: **300,000 lb/hr steam**	
3. Maximum Heat Input Rate: **633** million Btu/hr	
4. Maximum Incineration Rate: pounds/hr tons/day	
5. Requested Maximum Operating Schedule:	
24 hours/day	**7** days/week
52 weeks/year	**8,760** hours/year

6. Operating Capacity/Schedule Comment:

Maximum heat input rate based on 1-hour maximum steam rate of 300,000 lb/hr for carbonaceous fuel firing. The maximum permitted 24-hour average heat input rate for firing carbonaceous fuel is 600 MMBtu/hr, and the maximum permitted 1-hour average heat input rate for firing No. 2 fuel oil is 326 MMBtu/hr (Permit No. 0510003-018-AC). Maximum annual heat input is limited to 2,880,000 MMBtu/yr (Permit No. 0510003-010/PSD-FL-272A).

C. EMISSION POINT (STACK/VENT) INFORMATION
(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **BLR-4**	2. Emission Point Type Code: **1**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **V**	6. Stack Height: **150** feet	7. Exit Diameter: **8.2** feet
8. Exit Temperature: **160** °F	9. Actual Volumetric Flow Rate: **281,000** 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 Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: **Stack parameters based on test data.**		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type): **External combustion boilers; Industrial; Bagasse; All boiler sizes**		
2. Source Classification Code (SCC): **1-02-011-01**	3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **87.92**	5. Maximum Annual Rate: **400,000**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **0.24 (dry)**	8. Maximum % Ash: **8.4 (dry basis)**	9. Million Btu per SCC Unit: **7.2**
10. Segment Comment: **Based on 633 MMBtu/hr and 3,600 Btu/lb wet bagasse. Annual rate is maximum allowable from Permit No. 0510003-010-AC/PSD-FL-272A, equivalent to 2,880,000 MMBtu/yr @ 3,600 Btu/lb for wet bagasse. Bagasse may include incidental amounts of on-specification used oil.**		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type): **External combustion boilers; Industrial; Distillate Oil; Grades 1 and 2**		
2. Source Classification Code (SCC): **1-02-005-01**	3. SCC Units: **1,000 Gallons Burned**	
4. Maximum Hourly Rate: **2.417**	5. Maximum Annual Rate: **6,000**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **0.05**	8. Maximum % Ash:	9. Million Btu per SCC Unit: **135**
10. Segment Comment: **Maximum hourly and annual rates based on 326 MMBtu/hr and 6,000,000 gallons of fuel oil per year (Permit No. 0510003-018-AC). Includes combustion of facility-generated, on-specification used oil. Annual rate represents cap for Boiler Nos. 1, 2, and 4 combined.**		

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	001		EL
PM_{10}	001		NS
SO_2	001		EL
NO_x			EL
CO			EL
VOC			EL
SAM			NS

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **95** lb/hour **216** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.15 lb/MMBtu** Reference: **Permit No. 0510003-017-AV**	7. Emissions Method Code: **0**
8.a. Baseline Actual Emission (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:

Bagasse: 633 MMBtu/hr x 0.15 lb/MMBtu = 95 lb/hr

Annual emissions based on heat input rate of 2,880,000 MMBtu during consecutive any 12 months.

2,880,000 MMBtu/yr x 0.15 lb/MMBtu x 1 ton/2,000 lb = 216 ton/yr

Fuel Oil:
326 MMBtu/hr x 0.1 lb/MMBtu = 32.6 lb/hr
6,000,000 gal/yr x 139,000 Btu/gal = 834,000 MMBtu/yr
834,000 MMBtu/yr x 0.1 lb/MMBtu x 1 ton/2,000 lb = 41.7 ton/yr

9. Pollutant Potential/Estimated Fugitive Emissions Comment:
Maximum emissions representative of bagasse firing.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.15 lb/MMBtu**	4. Equivalent Allowable Emissions: **95** lb/hour **216** tons/year
5. Method of Compliance: **EPA Method 5 or 17**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-017-AV. Emissions representative of bagasse firing only.**	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.10 lb/MMBtu**	4. Equivalent Allowable Emissions: **32.6** lb/hour **41.7** tons/year
5. Method of Compliance: **EPA Method 5 or 17**	
6. Allowable Emissions Comment (Description of Operating Method): **Rule 62-296.406, F.A.C. Emissions representative of fuel oil firing. Annual emissions based on 6,000,000 gallons per any consecutive 12 months.**	

Allowable Emissions Allowable Emissions _____ of _____

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

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: **SO_2**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **38.0** lb/hour **86.4** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.06 lb/MMBtu for bagasse** Reference: **Permit No. 0510003-017-AV**	7. Emissions Method Code: **0**

8. Calculation of Emissions:

Hourly: **Bagasse – 633 MMBtu/hr x 0.06 lb/MMBtu = 38.0 lb/hr**
Fuel Oil -- 326 MMBtu/hr x 0.0533 lb/MMBtu = 17.4 lb/hr

Annual: **Bagasse – 2,880,000 MMBtu/hr x 0.06 lb/MMBtu ÷ 2,000 lb/ton = 86.4 TPY**
Fuel Oil -- 6,000,000 gal/yr x 139,000 Btu/gal = 834,000 MMBtu/yr
834,000 MMBtu/yr x 0.0533 lb/MMBtu ÷ 2,000 lb/ton = 22.2 TPY

9. Pollutant Potential/Estimated Fugitive Emissions Comment:
Factors based on carbonaceous fuel firing. Fuel oil sulfur content limited to 0.05 percent: 7.2 lb/gal x 0.05/100 lb S/lb oil x 2 lb SO_2/lb S ÷ 135,000 Btu/gal = 0.0533 lb SO_2/MMBtu.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.06 lb/MMBtu**	4. Equivalent Allowable Emissions: **38** lb/hour **86.4** tons/year
5. Method of Compliance: **EPA Method 6, 6c, or 8.**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-017-AV. Emissions representative of bagasse firing only. Based on carbonaceous fuel and maximum heat input of 2,880,000 MMBtu during any consecutive 12 months.**	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.05% S oil**	4. Equivalent Allowable Emissions: **17.4** lb/hour **22.2** tons/year
5. Method of Compliance: **Fuel oil analysis**	
6. Allowable Emissions Comment (Description of Operating Method): **Emissions representative of fuel oil firing. Hourly emissions based on firing 2,417 gal/hr. Annual emissions based on 6,000,000 gallons per any consecutive 12 months.**	

Allowable Emissions Allowable Emissions _____ of _____

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

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: **NO_x**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **126.6** lb/hour **288** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.20 lb/MMBtu** Reference: **Permit Nos. 0510003-017-AV and 0510003-018-AC.**	7. Emissions Method Code: **0**

8. Calculation of Emissions:

Bagasse: 633 MMBtu/hr x 0.20 lb/MMBtu = 126.6 lb/hr

Annual emissions based on heat input rate of 2,880,000 MMBtu during any consecutive 12 months.

2,880,000 MMBtu/yr x 0.20 lb/MMBtu x 1 ton/2,000 lb = 288.0 TPY

Fuel Oil:
326 MMBtu/hr x 0.20 lb/MMBtu = 65.2 lb/hr
834,000 MMBtu/yr x 0.20 lb/MMBtu x 1 ton/2,000 lb = 83.4 TPY

9. Pollutant Potential/Estimated Fugitive Emissions Comment:
Maximum emissions representative of bagasse firing only.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.20 lb/MMBtu**	4. Equivalent Allowable Emissions: **126.6** lb/hour **288** tons/year
5. Method of Compliance: **EPA Method 7 or 7E**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-017-AV. Based on carbonaceous fuel firing and maximum heat input of 2,880,000 MMBtu during any consecutive 12 months.**	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.20 lb/MMBtu**	4. Equivalent Allowable Emissions: **65.2** lb/hour **83.4** tons/year
5. Method of Compliance: **EPA Method 7E**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-018-AC. Based on firing of No. 2 distillate fuel oil.**	

Allowable Emissions Allowable Emissions _____ of _____

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

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: **CO**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **4,114.5** lb/hour **9,360.0** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **6.5 lb/MMBtu** Reference: **Permit No. 0510003-017-AV**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **633 MMBtu/hr x 6.5 lb/MMBtu = 4,114.5 lb/hr** **Annual emissions based on heat input rate of 2,880,000 MMBtu during any consecutive 12 months.** **2,880,000 MMBtu/yr x 6.5 lb/MMBtu x 1 ton/2,000 lb = 9,360 TPY**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Maximum emissions representative of bagasse firing only.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **6.5 lb/MMBtu**	4. Equivalent Allowable Emissions: **4,114.5** lb/hour **9,360.0** tons/year
5. Method of Compliance: **EPA Method 10**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-017-AV. Emissions representative of bagasse firing only.**	

Allowable Emissions Allowable Emissions _____ of _____

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

Allowable Emissions Allowable Emissions _____ of _____

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

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: **VOC**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **316.5** lb/hour **720** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.50 lb/MMBtu** Reference: **Permit No. 0510003-017-AV**	7. Emissions Method Code: **0**

8. Calculation of Emissions:

633 MMBtu/hr x 0.50 lb/MMBtu = 316.5 lb/hr

Annual emissions based on heat input rate of 2,880,000 MMBtu during any consecutive 12 months.

2,880,000 MMBtu/yr x 0.50 lb/MMBtu x 1 ton/2,000 lb = 720 TPY

9. Pollutant Potential/Estimated Fugitive Emissions Comment:
Maximum emissions representative of bagasse firing only.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.50 lb/MMBtu**	4. Equivalent Allowable Emissions: **316.5** lb/hour **720** tons/year
5. Method of Compliance: **EPA Method 18 and 25A**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-017-AV. Emissions representative of bagasse firing only.**	

Allowable Emissions Allowable Emissions _____ of _____

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

Allowable Emissions Allowable Emissions _____ of _____

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

G. VISIBLE EMISSIONS INFORMATION

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

Visible Emissions Limitation: Visible Emissions Limitation 1 of 2

1. Visible Emissions Subtype: **VE20**	2. Basis for Allowable Opacity: ☐ Rule ☒ Other
3. Allowable Opacity: Normal Conditions: **20** % Exceptional Conditions: **40** % Maximum Period of Excess Opacity Allowed: **2** min/hour	
4. Method of Compliance: **DEP Method 9**	
5. Visible Emissions Comment: **Applies to carbonaceous fuel burning only. Permit 0510003-017-AV.**	

Visible Emissions Limitation: Visible Emissions Limitation 2 of 2

1. Visible Emissions Subtype: **VE20**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **20** % Exceptional Conditions: **27** % Maximum Period of Excess Opacity Allowed: **6** min/hour	
4. Method of Compliance: **DEP Method 9**	
5. Visible Emissions Comment: **Applies to fuel oil burning only. Permit No. 0510003-018-AC.**	

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor **1** of **9**

1. Parameter Code: **PRS**	2. Pollutant(s):
3. CMS Requirement:	☐ Rule ☒ Other
4. Monitor Information... Manufacturer: **Custom Design** Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **Monitors pressure drop across wet scrubber. Monitored to ensure proper operation of scrubber. Permit No. 0510003-017-AV.**	

Continuous Monitoring System: Continuous Monitor **2** of **9**

1. Parameter Code: **Nozzle PRESSURE**	2. Pollutant(s):
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information... Manufacturer: **ABB-Kent Taylor or equivalent** Model Number: **621G**	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **Monitors wet scrubber spray nozzle pressure. Permit No. 0510003-017-AV.**	

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor **3** of **9**

1. Parameter Code: **FLOW**	2. Pollutant(s):
3. CMS Requirement: ☐ Rule ☒ Other	
4. Monitor Information... Manufacturer: **Rosemount, Inc., or equivalent** Model Number: **8711/8712** Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **Monitors wet scrubber liquid flow rate. Permit No. 0510003-017-AV.**	

Continuous Monitoring System: Continuous Monitor **4** of **9**

1. Parameter Code: **Steam TEMP**	2. Pollutant(s):
3. CMS Requirement: ☒ Rule ☐ Other	
4. Monitor Information... Manufacturer: **Preferred Instruments or equivalent** Model Number: **PCC-III Controller** Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **Monitors steam temperature. Permit No. 0510003-017-AV.**	

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor **5** of **9**

1. Parameter Code: **Steam PRESSURE**	2. Pollutant(s):
3. CMS Requirement: ☐ Rule ☒ Other	
4. Monitor Information... Manufacturer: **ABB-Kent Taylor or equivalent** Model Number: **621G** Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **Monitors steam pressure. Permit No. 0510003-017-AV.**	

Continuous Monitoring System: Continuous Monitor **6** of **9**

1. Parameter Code: **FLOW**	2. Pollutant(s):
3. CMS Requirement: ☒ Rule ☐ Other	
4. Monitor Information... Manufacturer: **ABB-Kent Taylor or equivalent** Model Number: **621D** Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **Monitors steam flow rate. Permit No. 0510003-017-AV.**	

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor 7 of 9

1. Parameter Code: **O_2**	2. Pollutant(s):
3. CMS Requirement:	☐ Rule ☒ Other
4. Monitor Information... Manufacturer: **Rosemount Analytical, Inc., or equivalent** Model Number: **3000**	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **Monitors flue gas oxygen content. Permit No. 0510003-017-AV.**	

Continuous Monitoring System: Continuous Monitor 8 of 9

1. Parameter Code: **CO**	2. Pollutant(s):
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information... Manufacturer: **Thermo Environmental Instruments, Inc., or equivalent** Model Number: **48C**	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **Monitors flue gas carbon monoxide content. Permit No. 0510003-017-AV.**	

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor **9** of **9**

1. Parameter Code: **FLOW**	2. Pollutant(s):
3. CMS Requirement: ☐ Rule ☒ Other	
4. Monitor Information... Manufacturer: **ITT Barton or equivalent** Model Number: **Flowco F500** Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **Monitors fuel oil flow to Boiler No. 4. No serial number or installation date provided because monitors are routinely replaced to ensure optimum performance. Permit No. 0510003-017-AV.**	

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: ☐ Rule ☐ Other	
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: **USS-EU3-I1** ☐ Previously Submitted, Date _____

2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: **USS-EU3-I2** ☐ Previously Submitted, Date _____

3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: **USS-EU3-I3** ☐ Previously Submitted, Date _____

4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ ☒ Previously Submitted, Date **May 2005**
   ☐ Not Applicable (construction application)

5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   Attached, Document ID: _____ ☐ Previously Submitted, Date _____
   ☒ Not Applicable

6. Compliance Demonstration Reports/Records
   ☐ Attached, Document ID: _____
   Test Date(s)/Pollutant(s) Tested: _____
   ☐ Previously Submitted, Date: _____
   Test Date(s)/Pollutant(s) Tested: _____
   ☐ To be Submitted, Date (if known): _____
   Test Date(s)/Pollutant(s) Tested: _____
   ☒ Not Applicable
   Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute
   ☐ Attached, Document ID: _____ ☒ Not Applicable

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(6) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e))
   ☐ Attached, Document ID: _____ ☒ Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(5)(h)6., F.A.C., and Rule 62-212.500(4)(f), F.A.C.)
   ☐ Attached, Document ID: _____ ☒ Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only)
   ☐ Attached, Document ID: _____ ☒ Not Applicable

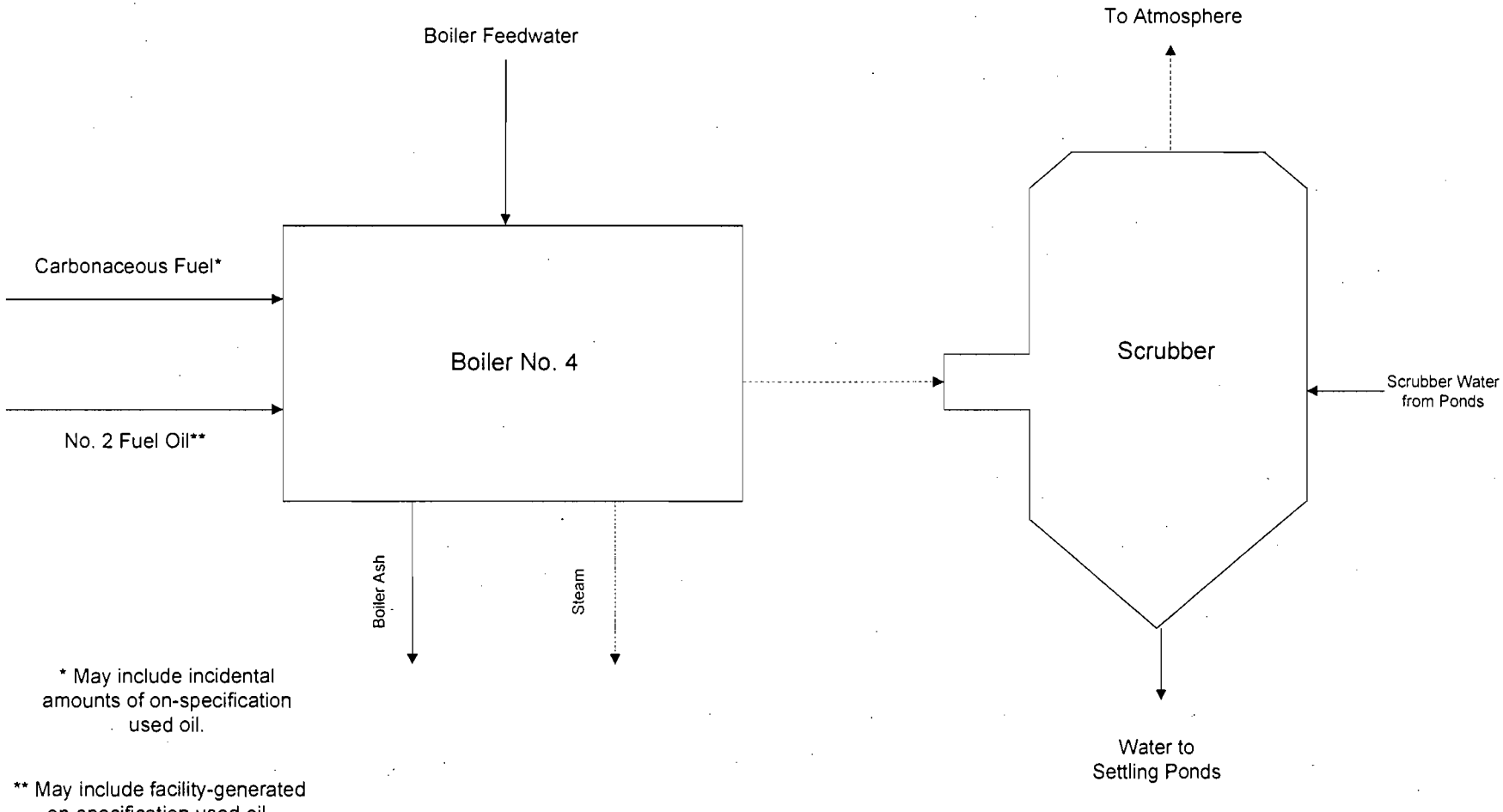
Additional Requirements for Title V Air Operation Permit Applications

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

Additional Requirements Comment

ATTACHMENT USS-EU1-I1

PROCESS FLOW DIAGRAM



Attachment USS-EU1-I1
Process Flow Diagram
U.S. Sugar Corporation
Boiler No. 4

Process Flow Legend
Solid/Liquid
Gas
Steam

0637573/4.4/USS-EU1-I1.VSD

Date: 07/20/06

Golder Associates

ATTACHMENT USS-EU1-I2

FUEL ANALYSIS

ATTACHMENT USS-EU1-I2
BOILER NO. 4 FUEL ANALYSIS

Parameter	Fuel	
	Carbonaceous Fuel [a]	No. 2 Fuel Oil (0.05% S max)
Density (lb/gal)	--	6.83 [c]
Approximate Heating Value (Btu/lb)	3,600 [b]	19,910 [c]
Approximate Heating Value (Btu/gal)	--	135,000 [c]
Ultimate Analysis (dry basis):		
Carbon	48.1%	84.7% [d]
Hydrogen	5.9%	15.3% [d]
Nitrogen	0.35%	0.18% [d]
Oxygen	40.9%	0.38% [d]
Sulfur	0.08% - 0.24%	0.05% [e]
Ash/Inorganic	0.87% - 8.4%	0.06% [c]
Moisture	49% - 55%	0.51% [c]

Footnotes:

[a] Source: Clewiston Mill fuel analysis averages.

[b] Wet basis for bagasse. Represents normal minimum.

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

[d] Source: fuel analysis from Coastal Fuels Marketing, Inc. (9/21/00).

[e] Proposed maximum.

ATTACHMENT UC-EU1-I3

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

ATTACHMENT USS-EU3-I3

U.S. SUGAR CORPORATION

BOILER NO. 4 SCRUBBER EQUIPMENT DESIGN PARAMETERS

Scrubber Type	Impingement Scrubber
Scrubber Model	Joy Turbulaire
Scrubbant	Water
Packing Material	Type D, Size 200
Outlet Gas Temp (°F)	160
Outlet Gas Flow Rate (acfm)	281,000
Differential Pressure Drop (inches of water)	8 – 11
Scrubbant Flow Rate (gpm)	375 minimum[a]
Scrubbant Pressure (psi)	40 – 55

[a]Based on a 3-hour block average.

ATTACHMENT A

SUPPLEMENTAL INFORMATION FOR CONSTRUCTION PERMIT APPLICATION

ATTACHMENT A

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

U.S. Sugar operates five sugar mill boilers at the Clewiston Mill. The five boilers provide steam to the sugar mill as well as to the sugar refinery. Boiler Nos. 1, 2 and 4 operate primarily during the crop season, which is typically October through June, to provide steam to the sugar mill and refinery. Boilers No. 7 and No. 8 can operate year-round to provide steam to the sugar mill during the crop season and steam to the sugar refinery during the off-crop season. Boiler Nos. 1, 2 and 4 also 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. 4 is currently permitted to burn bagasse and No. 2 fuel oil. The maximum sulfur content of the fuel oil is limited to 0.4 percent. The maximum heat input due to bagasse is 633 million British thermal units per hour (MMBtu/hr), and the maximum heat input from fuel oil only is 326 MMBtu/hr [equivalent to 2,417 gallons per hour (gal/hr)].

When Boiler No. 4 was initially constructed in the mid-1980's, it was designed to burn No. 6 fuel oil instead of No. 2 fuel oil. When originally permitted, the maximum annual fuel oil firing limit was 500,000 gallons per year (gal/yr) of No. 6 fuel oil with a maximum sulfur content of 2.5 percent. The annual limitation has stayed with the boiler throughout its operation, and remains in place today.

In December 2002, U.S. Sugar proposed to replace the existing No. 6 fuel oil burners on Boiler Nos. 4 and 7 with new No. 2 fuel oil burners. The new burner system for each boiler was to have two burners and be rated for a maximum heat input of 326 MMBtu/hr. The burner design emission rate for nitrogen oxides (NO_x) was 0.20 pounds per million British thermal units (lb/MMBtu).

U. S. Sugar was granted air construction Permit No. 0510003-018-AC on June 6, 2003, for the upgrading of the fuel oil burning system on Boiler Nos. 4 and 7 at the Clewiston Mill. For Boiler No. 7, the modifications were completed, and the design capacity test and compliance testing was performed on October 1, 2003. For Boiler No. 4, however, the installation of the new oil burners

was delayed. After receiving the construction permit in June, 2003, U. S. Sugar proceeded to install the authorized equipment and 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 a result, U.S. Sugar requested authorization to install an additional auxiliary fan to provide sufficient combustion air to the system. This request was granted by the Department on November 6, 2003.

The new windbox fan and ductwork were subsequently installed. Also installed were bypass solenoid valves for the atomizing steam and damper kits on the scotch valves to dampen their action as recommended by Sunbelt Energy. During subsequent testing it was found that the fuel oil pumps will not deliver the required flow rate of oil. The pumps were opened for inspection, and some damage on the shaft housing of the pumps was identified. Sunbelt, the supplier of the burner system, therefore supplied a new pump and installed it in early 2005.

The required capacity and compliance tests were then performed in February 2005. The tests demonstrated a capacity of 213,700 lb/hr steam at 308 MMBtu/hr heat input. NO_x emissions averaged 0.11 lb/MMBtu.

Although the performance of the Boiler No. 4 fuel oil firing system is adequate, the annual limitation of 500,000 gal/yr (12-month rolling average) of No. 2 fuel oil is proving to be problematic. The annual limitation is rather low compared to all the other boilers, i.e., 6,000,000 gal/yr for Boiler Nos. 1 and 2 combined; 4,600,000 gal/yr for Boiler No. 7, and 6,073,600 gal/yr for Boiler No.8. U.S. Sugar has been reaching the fuel oil firing limit on the boiler, and during 2005 actually exceeded the limit (the exceedance was reported to FDEP Fort Myers).

Generally, the 500,000 gal/yr fuel oil limit on Boiler No. 4 is not a concern. However, problems arise when Boiler No. 4 has to be operated an unusual amount of time during the off-season. This can occur when both Boiler No. 7 and No. 8 are down for repairs, as is currently the situation. Boiler No. 7 lost its front wall in April of this year, and has not operated since. Now, Boiler No. 8 is being taken down for repairs, which will necessitate the increased operation of Boiler No. 4 during the current off-season. Therefore, U.S. Sugar is requesting that the annual fuel oil cap on Boiler No. 4 be increased.

It is stressed that U.S. Sugar takes all measures possible to minimize the use of fuel oil, since it has a significant economic impact on operations. However, the boilers must reliably supply the sugar mill

and refinery with adequate steam in the event that bagasse becomes unavailable. Also, in the off-season, if the bagasse supply is interrupted, it is not possible to quickly startup one of the other mill boilers to provide additional steam, because of the period of time required for startup. Therefore, fuel oil must be fired in the boiler to maintain steam production. Maintaining steam production under conditions when bagasse supply is interrupted is critical to the reliable and efficient operation of the sugar mill and refinery.

Recently, Boiler Nos. 1 and 2 were issued draft air construction Permit No. 0510000-036-AC to revise the fuel oil burning design and limits for those boilers. Included in the limits is an annual cap over the two boilers of 6,000,000 gal/yr. U.S. Sugar is requesting that Boiler No. 4 be included as part of this annual fuel oil cap, i.e., that Boiler Nos. 1, 2 and 4 have a total combined annual cap of 6,000,000 gal/yr of No. 2 fuel oil. This will give U.S. Sugar the flexibility to burn an adequate amount of fuel oil in any of these three boilers, as operations dictate. U.S. Sugar is also requesting that the maximum sulfur content of the No. 2 fuel oil be reduced from the current 0.4 percent to 0.05 percent, to match the sulfur limits of the other boilers at the Clewiston Mill.

The estimated future potential hourly and annual emissions for Boiler No. 4 are presented in Table 1. These emissions reflect a maximum of 6,000,000 gal/yr of No. 2 fuel oil, since theoretically all fuel oil could be burned in Boiler No. 4 under the cap. Emissions due to bagasse firing will not change; and, therefore, emissions due to bagasse firing are not addressed.

The emission factors used for particulate matter (both PM and PM_{10}), carbon monoxide (CO), volatile organic compounds (VOCs), sulfuric acid mist (SAM), lead, mercury, and beryllium are from the Environmental Protection Agency's (EPA's) Publication AP-42, Section 3, which presents factors for No. 2 fuel oil combustion. The activity factors are based on the proposed maximum fuel oil heat input of 326 MMBtu/hr and the proposed annual limit of 6,000,000 gal/yr of fuel oil for Boiler Nos. 1, 2 and 4 combined.

Emissions of sulfur dioxide (SO_2) are based on a stoichiometric calculation, using the maximum future sulfur content of 0.05 percent, and the density for very low sulfur No. 2 fuel oil of 7.2 pounds per gallon (lb/gal). Emissions of NO_x are based on the initial performance tests results plus a safety factor, i.e., 0.17 lb/MMBtu, to be conservative (actual NO_x test results were 0.11 lb/MMBtu). This factor is also the same as used for Boiler Nos. 1 and 2 in the recent application for draft Permit No. 0510003-036-AC.

To determine if prevention of significant deterioration (PSD) review applies to the requested change, the same methodology used for revising the annual fuel oil limits for Boiler Nos. 1 and 2 was utilized. The past actual emissions from Boiler Nos. 1, 2 and 4 due to fuel oil firing are presented in Table 2. All three boilers are included since the annual cap affects all three boilers. Detailed calculations are shown in Attachment B. The past actual emissions are based on the average emissions from 2002 and 2003. The emissions are from U.S. Sugar's Annual Operating Reports (AORs) submitted to the FDEP for each respective year. Lead, beryllium, mercury, and SAM have not been required to be reported in the AORs, so these emissions were calculated using AP-42 factors for No. 2 fuel oil combustion and the activity factors for each respective year.

The future potential emissions due to No. 2 fuel oil firing in Boiler Nos. 1 and 2, up to 6,000,000 gal/yr, are shown in Attachment C (taken from application for Boiler Nos. 1 and 2). These emissions are the same as the fuel oil firing emissions for Boiler No. 4, since the emission factors for all three boilers are the same.

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 3. The net increase due to the project is determined by subtracting the past actual emissions from Boiler Nos. 1, 2 and 4 due to fuel oil firing from the future potential emissions resulting from fuel oil firing. The worst-case potential emissions are the same regardless of which boiler the fuel oil is fired in, since they all have wet scrubbers and the emission factors for each boiler for fuel oil firing are identical. Emissions due to bagasse firing are not included since these emissions will not be affected by the proposed project.

The net increase due to the project is compared to PSD significant emission rates in Table 3. As shown in Table 3, the increases due to this project do not exceed any PSD significant emission rates and therefore, PSD review is not applicable. In addition, U.S. Sugar believes PSD review is not applicable for the following reasons:

- The maximum steam rate for the boilers will not be affected;
- Steam rates, heat input rates and firing rates for bagasse will not be affected;
- U.S. Sugar intends to burn bagasse when it is available; and
- Emission factors for No. 2 fuel oil in terms of lb/MMBtu are lower than for No. 6 fuel oil or for bagasse burning, so emissions will not increase while Boiler Nos. 1, 2 and 4 are firing very low sulfur No. 2 fuel oil.

TABLE 1
FUTURE POTENTIAL EMISSIONS DUE TO FIRING 6,000,000 GAL/YR OF FUEL OIL IN BOILER NO. 4
U. S. Sugar Corporation Clewiston

Regulated Pollutant	No. 2 Fuel Oil Combustion					
	Emission Factor (lb/MMBtu)	Ref.	Activity Factor		Hourly Emissions (lb/hr)	Annual Emissions (TPY)
			Hourly[a] MMBtu/hr	Annual[b] MMBtu/yr		
Particulate Matter (PM)	0.015	1	326	834,000	4.8	6.2
Particulate Matter (PM_{10})	0.007	2	326	834,000	2.4	3.1
Sulfur dioxide (SO_2)	0.0533	3	326	834,000	17.4	22.2
Nitrogen oxides (NO_x)	0.17	4	326	834,000	55.4	70.9
Carbon monoxide (CO)	0.037	1	326	834,000	12.1	15.4
Volatile Organic Compounds (VOC)	1.5E-03	1	326	834,000	0.5	0.62
Sulfuric acid mist (SAM)	0.0026	1	326	834,000	0.8	1.1
Lead (Pb)	9.0E-06	5	326	834,000	2.9E-03	3.8E-05
Beryllium (Be)	3.0E-06	5	326	834,000	9.8E-04	1.3E-05
Mercury (Hg)	3.0E-06	5	326	834,000	9.8E-04	1.3E-03

References:

1. Factors for No. 2 fuel oil combustion: AP-42 Tables 1.3-1 and 1.3-3 (9/98). For sulfuric acid mist, factor shown is for SO_3. Convert to H_2SO_4 by multiplying by 98/80. Factors were converted to lb/MMBtu by dividing by 135,000 Btu/gal (min).
   PM = 2 lb/1000 gal
   CO = 5 lb/1000 gal
   SO_3 = 5.7S lb/1000 gal, where S = 0.05 VOC = 0.2 lb/1000 gal
2. Factors for distillate fuel oil, PM_{10} is 50% of PM based on AP-42, Table 1.3-6 (9/98).
3. Based on stochiometric calculation: 7.2 lbs/gal; 135,000 Btu/gal (min); 0.05% sulfur.
4. Based on stack testing conducted on Boiler No. 4 on February 9, 2005.
5. Factors for No. 2 fuel oil combustion, AP-42 Table 1.3-10 (9/98).

Footnotes:

[a] Based on maximum heat input due to No. 2 fuel oil combustion, from manufacturer specifications.

[b] Based on No. 2 fuel oil usage of 6,000,000 gallons per year and heating value of 139,000 Btu/gal (max).

TABLE 2
PAST ACTUAL EMISSIONS DUE TO FUEL OIL BURNING, BOILER NOS. 1, 2, AND 4
U.S. Sugar Corporation, Clewiston Mill

Regulated Pollutant	Boiler No. 1 Actual Emissions[a] (TPY)		Boiler No. 2 Actual Emissions[a] (TPY)		Boiler No. 4 Actual Emissions[a] (TPY)		Boiler No. 1 + No. 2 + No. 4 2-Yr Average (TPY)
	2002	2003	2002	2003	2002	2003	
Particulate Matter (PM)	6.18	5.06	5.63	4.09	1.49	1.21	11.83
Particulate Matter (PM_{10})	5.25	4.30	4.79	3.48	1.27	1.03	10.06
Sulfur Dioxide (SO_2)	46.41	38.64	42.28	31.27	8.44	5.79	86.41
Nitrogen Oxides (NO_x)	18.90	15.67	17.22	12.68	7.32	7.85	39.82
Carbon Monoxide (CO)	2.01	1.67	1.83	1.35	0.78	1.17	4.40
Volatile Organic Compound (VOC)	0.11	0.09	0.10	0.08	0.04	0.06	0.24
Sulfur Acid Mist (SAM)	2.05	1.70	1.86	1.38	0.32	0.25	3.78
Lead - Total	6.07E-04	5.04E-04	5.53E-04	4.08E-04	2.4E-04	1.5E-04	1.23E-03
Beryllium (Be)	1.12E-05	9.27E-06	1.02E-05	7.50E-06	4.3E-06	2.7E-06	2.26E-05
Mercury (Hg)	4.54E-05	3.77E-05	4.14E-05	3.05E-05	1.8E-05	1.1E-05	9.19E-05

Footnotes:

[a] Based on Annual Operating Report submitted to FDEP for 2002 and 2003, except for:
SAM, Be and Hg not reported on the AOR; emissions based on AP-42 factors, see Attachment B.

TABLE 3
NET CHANGE IN EMISSIONS DUE TO BURNING 6,000,000 GAL/YR OF FUEL OIL IN BOILER NOS. 1, 2 AND 4
U.S. Sugar Corporation Clewiston

Regulated Pollutant	Boiler Nos. 1 , 2 & 4 Past Actual Emissions[a] (TPY)	Boiler Nos. 1, 2 & 4 Future Potential Emissions[b] (TPY)	Net Change in Emissions (TPY)	PSD Significant Emission Rate (TPY)	PSD Review Applies?
Particulate Matter (PM)	11.83	6.2	-5.7	25	NO
Particulate Matter (PM_{10})	10.06	3.1	-7.0	15	NO
Sulfur Dioxide (SO_2)	86.41	22.2	-64.2	40	NO
Nitrogen Oxides (NO_x)	39.82	70.9	31.1	40	NO
Carbon Monoxide (CO)	4.40	15.4	11.0	100	NO
Volatile Organic Compound (VOC)	0.24	0.6	0.4	40	NO
Sulfur Acid Mist (SAM)	3.78	1.1	-2.70	0.6	NO
Lead (Pb)	1.23E-03	3.8E-05	-1.2E-03	7	NO
Beryllium (Be)	2.26E-05	1.3E-05	-1.0E-05	4.0E-04	NO
Mercury (Hg)	9.19E-05	1.3E-03	1.2E-03	0.1	NO

Footnotes:

[a] Based on emissions due to fuel oil firing in Boiler Nos. 1, 2 and 4 for calendar years 2002 and 2003. See Table 1.

[b] Based on firing a total combined 6,000,000 gal/yr of fuel oil in Boiler Nos. 1, 2 and 4.

ATTACHMENT B

2002 AND 2003 EMISSIONS INFORMATION FROM ANNUAL OPERATING REPORTS

TABLE B-1
2002 EMISSIONS OF CRITERIA POLLUTANTS FOR U.S. SUGAR CORPORATION CLEWISTON BOILER NO. 1

Regulated Pollutant	Carbonaceous Fuel				No. 6 Fuel Oil				Total
	Emission Factor (lb/ton)	Ref.	Annual Fuel Usage (TPY)	Annual Emissions (TPY)	Emission Factor (lb/1,000 gal)	Ref.	Annual Fuel Usage (gal/yr)	Annual Emissions (TPY)	Annual Emissions (TPY)
Criteria and Precursor Air Pollutants									
Particulate Matter (PM)	1.296	1	188,782	122.33	15.36	4 (b)	804,298	6.18	128.51
Particulate Matter (PM_{10})	1.205	(a)	188,782	113.77	13.06	(a)	804,298	5.25	119.02
Sulfur Dioxide (SO_2)	0.073	1	188,782	6.89	115.40	5 (b)	804,298	46.41	53.30
Nitrogen Oxides (NO_x)	0.677	1	188,782	63.90	47	5	804,298	18.90	82.80
Carbon Monoxide (CO)	49.262	1	188,782	4,649.89	5	5	804,298	2.01	4,651.90
Volatile Organic Compounds (VOC)	1.668	2	188,782	157.44	0.28	6	804,298	0.11	157.56
Sulfuric Acid Mist (SAM)	0.0032	8	188,782	0.30	5.09	8	804,298	2.05	2.35
Lead - Total (PB)	4.45E-04	3	188,782	0.04	1.51E-03	7	804,298	6.07E-04	0.04
Beryllium (Be)	--		--	--	2.78E-05	7	804,298	1.12E-05	1.12E-05
Mercury (Hg)	--		--	--	1.13E-04	7	804,298	4.54E-05	4.54E-05

Note:

(a) Assuming 93% of PM is PM_{10} for bagasse, and 85% of PM is PM_{10} for No. 6 fuel oil.

(b) Average sulfur content of the fuel mix is 1.47%.

Unless otherwise specified, heating values for each fuel are as follows: 3,600 Btu/lb for wet bagasse and 153,645 Btu/gal for No. 6 fuel oil.

1. Based on compliance test data, conducted by Air Consulting and Engineerin

PM	0.180 lb/MMBtu	11/20/2002
SO_2	0.0101 lb/MMBtu	12/8/2000
NO_x	0.094 lb/MMBtu	1/3/1995
CO	6.842 lb/MMBtu	1994 - 1995

2. Based on test data for similar bagasse boiler. (Bryant Boilers 1, 2, and 3 average = 0.232 lb/MMBtu.)
3. Based on EPA's AP-42 Table 1.6-5, "Emission Factors for Trace Elements from Wood Waste Combustion with PM controls" (2/99).
4. Based on emission limit of 0.1 lb/MMBtu for PM while firing No. 6 fuel oil.
5. 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_2 removal from scrubber.
6. 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).
7. Based on AP-42 Table 1.3-11, "Emission Factors for Metals from Uncontrolled No. 6 Fuel Oil Combustion" (9/98).
8. From AP-42 Table 1.3-1: SO_3 represents 3.6% of SO_2; then convert to H_2SO_4 (x 98/80).

TABLE B-2
2002 EMISSIONS OF CRITERIA POLLUTANTS FOR U.S. SUGAR CORPORATION CLEWISTON BOILER NO. 2

Regulated Pollutant	Carbonaceous Fuel				No. 6 Fuel Oil				Total Annual Emissions (TPY)
	Emission Factor (lb/ton)	Ref.	Annual Fuel Usage (TPY)	Annual Emissions (TPY)	Emission Factor (lb/1,000 gal)	Ref.	Annual Fuel Usage (gal/yr)	Annual Emissions (TPY)	
Criteria and Precursor Air Pollutants									
Particulate Matter (PM)	1.296	1	225,369	146.04	15.36	5 (b)	732,805	5.63	151.67
Particulate Matter (PM_{10})	1.205	(a)	225,369	135.82	13.06	(a)	732,805	4.79	140.60
Sulfur Dioxide (SO_2)	0.073	2	225,369	8.23	115.40	6 (b)	732,805	42.28	50.51
Nitrogen Oxides (NO_x)	0.727	1	225,369	81.92	47	6	732,805	17.22	99.14
Carbon Monoxide (CO)	70.834	1	225,369	7,981.89	5	6	732,805	1.83	7,983.73
Volatile Organic Compounds (VOC)	1.668	3	225,369	187.96	0.28	7	732,805	0.10	188.06
Sulfuric Acid Mist (SAM)	0.0032	9	225,369	0.36	5.09	9	732,805	1.86	2.23
Lead - Total	4.45E-04	4	225,369	0.05	1.51E-03	8	732,805	5.53E-04	0.05
Beryllium (Be)	--		--	--	2.78E-05	8	732,805	1.02E-05	1.02E-05
Mercury (Hg)	--		--	--	1.13E-04	8	732,805	4.14E-05	4.14E-05

Note:
(a) Assuming 93% of PM is PM_{10} for bagasse, and 85% of PM is PM_{10} for No. 6 fuel oil.
(b) Average sulfur content of the fuel mix is 1.47%.
Unless otherwise specified, heating values for each fuel are as follows: 3,600 Btu/lb for wet bagasse and 153,645 Btu/gal for No. 6 fuel oil.

1. Based on compliance test data, conducted by Air Consulting and Engineerin PM 0.180 lb/MMBtu 12/17/2002
   NO_x 0.101 lb/MMBtu 1/4/1995
   CO 9.838 lb/MMBtu 1994 - 1995
2. Based on compliance test data, conducted by Air Consulting and Engineering for Boiler No. 1, 0.0101 lb/MMBtu (12/8/00).
3. Based on test data for similar bagasse boiler. (Bryant Boilers 1, 2, and 3 average = 0.232 lb/MMBtu.)
4. Based on EPA's AP-42 Table 1.6-5, "Emission Factors for Trace Elements from Wood Waste Combustion with PM Controls", (2/99).
5. Based on emission limit of 0.1 lb/MMBtu for PM while firing No. 6 fuel oil.
6. 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_2 removal from scrubber.
7. 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).
8. Based on AP-42 Table 1.3-11, "Emission Factors for Metals from Uncontrolled No. 6 Fuel Oil Combustion" (9/98).
9. From AP-42 Table 1.3-1: SO_3 represents 3.6% of SO_2; then convert to H_2SO_4 (x 98/80).

TABLE B-3
2003 EMISSIONS OF CRITERIA POLLUTANTS FOR U.S. SUGAR CORPORATION CLEWISTON BOILER NO. 1

Regulated Pollutant	Carbonaceous Fuel				No. 6 Fuel Oil				Total
	Emission Factor (lb/ton)	Ref.	Annual Fuel Usage (TPY)	Annual Emissions (TPY)	Emission Factor (lb/1,000 gal)	Ref.	Annual Fuel Usage (gal/yr)	Annual Emissions (TPY)	Annual Emissions (TPY)
Criteria and Precursor Air Pollutants									
Particulate Matter (PM)	1.267	1	176,732	111.96	15.17	4 (b)	666,974	5.06	117.02
Particulate Matter (PM_{10})	1.178	(a)	176,732	104.12	12.89	(a)	666,974	4.30	108.42
Sulfur Dioxide (SO_2)	0.073	1	176,732	6.45	115.87	5 (b)	666,974	38.64	45.09
Nitrogen Oxides (NO_x)	0.677	1	176,732	59.82	47	5	666,974	15.67	75.50
Carbon Monoxide (CO)	49.262	1	176,732	4,353.09	5	5	666,974	1.67	4,354.75
Volatile Organic Compounds (VOC)	1.778	2	176,732	157.11	0.28	6	666,974	0.09	157.21
Sulfuric Acid Mist (SAM)	0.0032	8	176,732	0.28	5.11	8	666,974	1.70	1.99
Lead - Total (PB)	2.45E-05	3	176,732	0.002	1.51E-03	7	666,974	5.04E-04	0.003
Beryllium (Be)	--		--	--	2.78E-05	7	666,974	9.27E-06	9.27E-06
Mercury (Hg)	--		--	--	1.13E-04	7	666,974	3.77E-05	3.77E-05

Note:

(a) Assuming 93% of PM is PM_{10} for bagasse, and 85% of PM is PM_{10} for No. 6 fuel oil.

(b) Average sulfur content of the fuel mix is 1.476%.

Unless otherwise specified, heating values for each fuel are as follows: 3,600 Btu/lb for wet bagasse and 151,704 Btu/gal for No. 6 fuel oil.

1. Based on compliance test data, conducted by Air Consulting and Engineering:

PM	0.176 lb/MMBtu	11/14/2003
SO_2	0.0101 lb/MMBtu	12/8/2000
NO_x	0.094 lb/MMBtu	1/3/1995
CO	6.842 lb/MMBtu	1994 - 1995

2. Based on test data for similar bagasse boiler. (Bryant Boilers 1, 2, and 3 average = 0.247 lb/MMBtu.)
3. Based on average industry test data of 3.4E-06 lb/MMBtu or less.
4. Based on emission limit of 0.1 lb/MMBtu for PM while firing No. 6 fuel oil.
5. 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_2 removal from scrubber.
6. 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).
7. Based on AP-42 Table 1.3-11, "Emission Factors for Metals from Uncontrolled No. 6 Fuel Oil Combustion" (9/98).
8. From AP-42 Table 1.3-1: SO_3 represents 3.6% of SO_2; then convert to H_2SO_4 (x 98/80).

TABLE B-4
2003 EMISSIONS OF CRITERIA POLLUTANTS FOR U.S. SUGAR CORPORATION CLEWISTON BOILER NO. 2

Regulated Pollutant	Carbonaceous Fuel				No. 6 Fuel Oil				Total
	Emission Factor (lb/ton)	Ref.	Annual Fuel Usage (TPY)	Annual Emissions (TPY)	Emission Factor (lb/1,000 gal)	Ref.	Annual Fuel Usage (gal/yr)	Annual Emissions (TPY)	Annual Emissions (TPY)
Criteria and Precursor Air Pollutants									
Particulate Matter (PM)	1.433	1	216,540	155.15	15.17	5 (b)	539,742	4.09	159.24
Particulate Matter (PM_{10})	1.333	(a)	216,540	144.29	12.89	(a)	539,742	3.48	147.77
Sulfur Dioxide (SO_2)	0.360	2	216,540	38.98	115.87	6 (b)	539,742	31.27	70.25
Nitrogen Oxides (NO_x)	0.727	1	216,540	78.71	47	6	539,742	12.68	91.40
Carbon Monoxide (CO)	70.834	1	216,540	7,669.20	5	6	539,742	1.35	7,670.55
Volatile Organic Compounds (VOC)	1.778	3	216,540	192.50	0.28	7	539,742	0.08	192.58
Sulfuric Acid Mist (SAM)	0.0159	9	216,540	1.72	5.11	9	539,742	1.38	3.10
Lead - Total	2.45E-05	4	216,540	0.003	1.51E-03	8	539,742	4.08E-04	0.003
Beryllium (Be)	--		--	--	2.78E-05	8	539,742	7.50E-06	7.50E-06
Mercury (Hg)	--		--	--	1.13E-04	8	539,742	3.05E-05	3.05E-05

Note:
(a) Assuming 93% of PM is PM_{10} for bagasse, and 85% of PM is PM_{10} for No. 6 fuel oil.
(b) Average sulfur content of the fuel mix is 1.476%.
Unless otherwise specified, heating values for each fuel are as follows: 3,600 Btu/lb for wet bagasse and 151,704 Btu/gal for No. 6 fuel oil.

1. Based on compliance test data, conducted by Air Consulting and Engineering: PM 0.199 lb/MMBtu 11/18/2003; NO_x 0.101 lb/MMBtu 1/4/1995; CO 9.838 lb/MMBtu 1994 - 1995
2. Based on average industry test data of 0.05 lb/MMBtu or less.
3. Based on test data for similar bagasse boiler. (Bryant Boilers 1, 2, and 3 average = 0.247 lb/MMBtu.)
4. Based on average industry test data of 3.4E-06 lb/MMBtu or less.
5. Based on emission limit of 0.1 lb/MMBtu for PM while firing No. 6 fuel oil.
6. 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_2 removal from scrubber.
7. 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).
8. Based on AP-42 Table 1.3-11, "Emission Factors for Metals from Uncontrolled No. 6 Fuel Oil Combustion" (9/98).
9. From AP-42 Table 1.3-1: SO_3 represents 3.6% of SO_2; then convert to H_2SO_4 (x 98/80).

ATTACHMENT B-5
2002 EMISSIONS OF CRITERIA POLLUTANTS FOR U.S. SUGAR CORPORATION CLEWISTON BOILER NO. 4

Regulated Pollutant	Carbonaceous Fuel				No. 6 Fuel Oil				Total Annual Emissions (TPY)
	Emission Factor (lb/ton)	Ref.	Annual Fuel Usage (TPY)	Annual Emissions (TPY)	Emission Factor (lb/1,000 gal)	Ref.	Annual Fuel Usage (gal/yr)	Annual Emissions (TPY)	
Criteria and Precursor Air Pollutants									
Particulate Matter (PM)	0.713	1	230,042	82.01	9.56	3 (b)	311,554	1.49	83.50
Particulate Matter (PM_{10})	0.663	(a)	230,042	76.27	8.13	(a)	311,554	1.27	77.54
Sulfur Dioxide (SO_2)	0.00094	1	230,042	0.11	54.165	3 (b)	311,554	8.44	8.55
Nitrogen Oxides (NO_x)	0.670	1	230,042	77.06	47	3	311,554	7.32	84.39
Carbon Monoxide (CO)	20.578	1	230,042	2,366.90	5	3	311,554	0.78	2,367.68
VOC	1.022	1	230,042	117.55	0.28	4	311,554	0.04	117.60
Lead - Total	4.45E-04	2	230,042	0.051	1.51E-03	5	311,554	2.35E-04	0.051
Sulfuric Acid Mist (SAM)	4.13E-05	6	230,042	0.0047	2.07	6	311,554	0.32	0.33
Beryllium (Be)	--		--	--	2.78E-05	5	311,554	4.33E-06	4.33E-06
Mercury (Hg)	--		--	--	1.13E-04	5	311,554	1.76E-05	1.76E-05

Footnotes:

(a) Assuming 93% of PM is PM_{10} for bagasse, and 85% of PM is PM_{10} for No. 6 fuel oil.

(b) Sulfur content of the fuel is 0.69%.

Unless otherwise specified, heating values for each fuel are as follows: 3,600 Btu/lb for wet bagasse and 150,764 Btu/gal for No. 6 fuel oil.

1. Based on compliance test data, collectecd by Air Consulting and Engineering:

PM	0.099 lb/MMBtu	12/19/2002
SO_2	0.00013 lb/MMBtu	1/5/2000
VOC	0.142 lb/MMBtu	12/19/2002
NO_x	0.093 lb/MMBtu	12/19/2002
CO	2.858 lb/MMBtu	12/19/2002

2. Based on EPA's AP-42 Table 1.6-5, "Emission Factors for Trace Elements from Wood Waste Combustion with PM Controls" (2/99).
3. 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_2 removal from scrubber.
4. 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).
5. Based on AP-42 Table 1.3-11, "Emission Factors for Metals from Uncontrolled No. 6 Fuel Oil Combustion" (9/98).
6. From AP-42 Table 1.3-1: SO_3 represents 3.6% of SO_2; then convert to H_2SO_4 (x 98/80).

ATTACHMENT B-6
2003 EMISSIONS OF CRITERIA POLLUTANTS FOR U.S. SUGAR CORPORATION CLEWISTON BOILER NO. 4

Regulated Pollutant	Carbonaceous Fuel				No. 6 Fuel Oil				No. 2 Fuel Oil				Total Annual Emissions (TPY)
	Emission Factor (lb/ton)	Ref.	Annual Fuel Usage (TPY)	Annual Emissions (TPY)	Emission Factor (lb/1,000 gal)	Ref.	Annual Fuel Usage (Gallons/yr)	Annual Emissions (TPY)	Emission Factor (lb/1,000 gal)	Ref.	Annual Fuel Usage (Gallons/yr)	Annual Emissions (TPY)	
Criteria and Precursor Air Pollutants													
Particulate Matter (PM)	0.914	1	269,658	123.23	9.56	3 (b)	196,123	0.94	2	6	270,109	0.27	124.44
Particulate Matter (PM_{10})	0.850	(a)	269,658	114.61	8.13	(a)	196,123	0.80	1.70	(a)	270,109	0.23	115.63
Sulfur Dioxide (SO_2)	0.00094	1	269,658	0.13	54.165	3 (b)	196,123	5.31	3.55	6 (c)	270,109	0.48	5.92
Nitrogen Oxides (NO_x)	0.972	1	269,658	131.05	47	3	196,123	4.61	24	6	270,109	3.24	138.90
Carbon Monoxide (CO)	28.267	1	269,658	3,811.21	5	3	196,123	0.49	5	6	270,109	0.68	3812.38
VOC	3.190	1	269,658	430.10	0.28	4	196,123	0.03	0.2	4	270,109	0.03	430.16
Lead - Total	2.45E-05	2	269,658	0.00	1.51E-03	5	196,123	1.48E-04	1.224E-09	7	270,109	1.65E-10	3.45E-03
Sulfuric Acid Mist (SAM)	4.13E-05	6	269,658	0.0056	2.39	6	196,123	0.23	0.16	6	270,109	2.11E-02	0.26
Beryllium (Be)	--		--	--	2.78E-05	5	196,123	2.73E-06	--		--	--	2.73E-06
Mercury (Hg)	--		--	--	1.13E-04	5	196,123	1.11E-05	--		--	--	1.11E-05

Footnotes:
(a) Assuming 93% of PM is PM_{10} for bagasse, and 85% of PM is PM_{10} for No. 6 and No. 2 fuel oil.
(b) Sulfur content of No. 6 fuel oil is 0.69%.
(c) Sulfur content of No. 2 fuel oil is 0.05%.

Unless otherwise specified, heating values for each fuel are as follows: 3,600 Btu/lb for wet bagasse, 150,764 Btu/gal for No. 6 fuel oil, and 135,000 Btu/gal for No. 2 fuel oil.

1. Based on compliance test data, collecteed by Air Consulting and Engineering:

PM	0.127 lb/MMBtu	11/21/2003
SO_2	0.00013 lb/MMBtu	1/5/2000
VOC	0..443 lb/MMBtu	11/21/2003
NO_x	0.135 lb/MMBtu	11/21/2003
CO	3.926 lb/MMBtu	11/21/2003

2. Based on average industry test data of 3.4E-06 lb/MMBtu or less.
3. 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_2 removal from scrubber.
4. 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).
5. Based on AP-42 Table 1.3-11, "Emission Factors for Metals from Uncontrolled No. 6 Fuel Oil Combustion" (9/98).
6. Based on AP-42 Table 1.3-1, "Criteria Pollutant Emission Factors for Fuel Oil Combustion" (9/98), No. 2 fuel oil, normal firing. Assume 50% SO_2 removal from scrubber.
7. Based on AP-42 Table 1.3-10, "Emission Factors for Trace Elements From Distillate Fuel Oil Combustion Sources" (9/98).
8. From AP-42 Table 1.3-1: SO_3 represents 3.6% of SO_2; then convert to H_2SO_4 (x 98/80).

ATTACHMENT C

FUTURE POTENTIAL EMISSIONS

TABLE C-1
FUTURE POTENTIAL EMISSIONS DUE TO FUEL OIL FIRING BOILER NO. 1
U. S. Sugar Corporation Clewiston

Regulated Pollutant	No. 2 Fuel Oil Combustion					
	Emission Factor (lb/MMBtu)	Ref.	Activity Factor		Hourly Emissions (lb/hr)	Annual Emissions (TPY)
			Hourly[a] MMBtu/hr	Annual[b] MMBtu/yr		
Particulate Matter (PM)	0.015	1	130	834,000	1.9	6.2
Particulate Matter (PM_{10})	0.007	2	130	834,000	1.0	3.1
Sulfur dioxide (SO_2)	0.053	3	130	834,000	6.9	22.2
Nitrogen oxides (NO_x)	0.17	4	130	834,000	22.1	70.9
Carbon monoxide (CO)	0.037	1	130	834,000	4.8	15.4
Volatile Organic Compounds (VOC)	1.5E-03	1	130	834,000	0.2	0.62
Sulfuric acid mist (SAM)	0.0026	1	130	834,000	0.3	1.1
Lead (Pb)	9.0E-06	5	130	834,000	1.2E-03	3.8E-05
Beryllium (Be)	3.0E-06	5	130	834,000	3.9E-04	1.3E-05
Mercury (Hg)	3.0E-06	5	130	834,000	3.9E-04	1.3E-03

References:

1. Factors for No. 2 fuel oil combustion: AP-42 Tables 1.3-1 and 1.3-3 (9/98). For sulfuric acid mist, factor shown is for SO_3. Convert to H_2SO_4 by multiplying by 98/80. Factors were converted to lb/MMBtu by dividing by 135,000 Btu/gal (min).
   PM = 2 lb/1000 gal
   CO = 5 lb/1000 gal
   SO_3 = 5.7S lb/1000 gal, where S = 0.05 VOC = 0.2 lb/1000 gal
2. Factors for distillate fuel oil, PM_{10} is 50% of PM based on AP-42, Table 1.3-6 (9/98).
3. Based on stochiometric calculation: 7.2 lbs/gal; 135,000 Btu/gal (min); 0.05% sulfur.
4. Based on stack testing conducted on Boiler No. 1 and 2 on Feb. 10-11, 2006.
5. Factors for No. 2 fuel oil combustion, AP-42 Table 1.3-10 (9/98).

Footnotes:

[a] Based on maximum heat input due to No. 2 fuel oil combustion, from manufacturer specifications.

[b] Based on No. 2 fuel oil usage of 6,000,000 gallons per year and heating value of 139,000 Btu/gal (max).

TABLE C-2
FUTURE POTENTIAL EMISSIONS DUE TO FUEL OIL FIRING, BOILER NO. 2,
U. S. Sugar Corporation Clewiston

Regulated Pollutant	No. 2 Fuel Oil Combustion					
	Emission Factor (lb/MMBtu)	Ref.	Activity Factor		Hourly Emissions (lb/hr)	Annual Emissions (TPY)
			Hourly[a] MMBtu/hr	Annual[b] MMBtu/yr		
Particulate Matter (PM)	0.015	1	130	834,000	1.9	6.2
Particulate Matter (PM_{10})	0.007	2	130	834,000	1.0	3.1
Sulfur dioxide (SO_2)	0.053	3	130	834,000	6.9	22.2
Nitrogen oxides (NO_x)	0.17	4	130	834,000	22.1	70.9
Carbon monoxide (CO)	0.037	1	130	834,000	4.8	15.4
Volatile Organic Compounds (VOC)	1.5E-03	1	130	834,000	0.2	0.62
Sulfuric acid mist (SAM)	0.0026	1	130	834,000	0.3	1.1
Lead (Pb)	9.0E-06	5	130	834,000	1.2E-03	3.8E-05
Beryllium (Be)	3.0E-06	5	130	834,000	3.9E-04	1.3E-05
Mercury (Hg)	3.0E-06	5	130	834,000	3.9E-04	1.3E-03

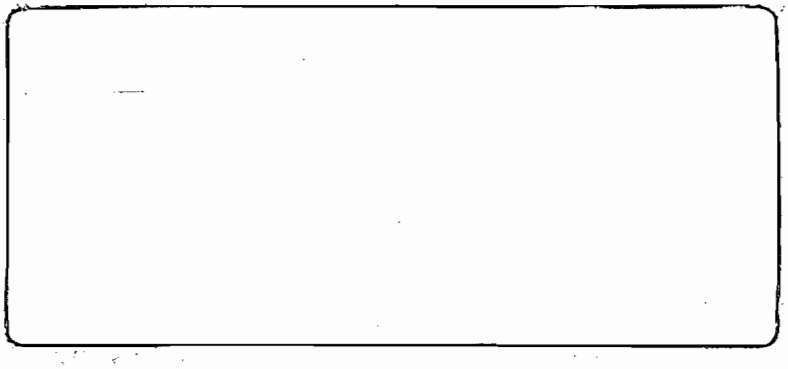
References:

1. Factors for No. 2 fuel oil combustion: AP-42 Tables 1.3-1 and 1.3-3 (9/98). For sulfuric acid mist, factor shown is for SO_3. Convert to H_2SO_4 by multiplying by 98/80. Factors were converted to lb/MMBtu by dividing by 135,000 Btu/gal (min).
   PM = 2 lb/1000 gal
   CO = 5 lb/1000 gal
   SO_3 = 5.7S lb/1000 gal, where S = 0.05 VOC = 0.2 lb/1000 gal
2. Factors for distillate fuel oil, PM_{10} is 50% of PM based on AP-42, Table 1.3-6 (9/98).
3. Based on stochiometric calculation: 7.2 lbs/gal; 135,000 Btu/gal (min); 0.05% sulfur.
4. Based on stack testing conducted on Boiler No. 1 and 2 on Feb. 10-11, 2006.
5. Factors for No. 2 fuel oil combustion, AP-42 Table 1.3-10 (9/98).

Footnotes:

[a] Based on maximum heat input due to No. 2 fuel oil combustion, from manufacturer specifications.

[b] Based on No. 2 fuel oil usage of 6,000,000 gallons per year and heating value of 139,000 Btu/gal (max).



Golder Associates

RECEIVED
JUL 27 2006
BUREAU OF AIR REGULATION

APPLICATION TO REVISE ANNUAL FUEL OIL FIRING LIMIT BOILER NO. 4

U.S. SUGAR CORPORATION
CLEWISTON, FLORIDA

EXTRA COPY

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

July 2006

0637573-0400

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

APPLICATION FOR AIR PERMIT – LONG FORM

Department of Environmental Protection

Division of Air Resource Management

APPLICATION FOR AIR PERMIT - LONG FORM

I. APPLICATION INFORMATION

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

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

Air Operation Permit – Use this form to apply for:

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

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

To ensure accuracy, please see form instructions.

Identification of Facility

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

Application Contact

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

Application Processing Information (DEP Use)

1. Date of Receipt of Application: 7-27-06	3. PSD Number (if applicable):
2. Project Number(s): 0510003-039-AC	4. Siting Number (if applicable):

APPLICATION INFORMATION

Purpose of Application

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

Air Construction Permit

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

Air Operation Permit

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

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

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

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

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

Application Comment

Application to increase the annual fuel oil firing limit in Boiler No. 4 from 500,000 gallons per year to 6,000,000 gallons per year. The new limit will represent a cap for Boiler Nos. 1, 2, and 4 combined for fuel oil burning.

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Proc. Fee
009	Clewiston Boiler No. 4		

Application Processing Fee

Check one: ☐ Attached - Amount: $_____ ☒ Not Applicable

APPLICATION INFORMATION

Owner/Authorized Representative Statement

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

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

   I, the undersigned, am the owner or authorized representative of the facility addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other requirements identified in this application to which the facility is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit.

   Signature _____ Date 7/24/06

APPLICATION INFORMATION

Application Responsible Official Certification

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

1. Application Responsible Official Name:

2. Application Responsible Official Qualification (Check one or more of the following options, as applicable):
   - ☐ For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.
   - ☐ For a partnership or sole proprietorship, a general partner or the proprietor, respectively.
   - ☐ For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.
   - ☐ The designated representative at an Acid Rain source.

3. Application Responsible Official Mailing Address...
   Organization/Firm:
   Street Address:
   City: State: Zip Code:

4. Application Responsible Official Telephone Numbers...
   Telephone: ( ) - ext. Fax: ( ) -

5. Application Responsible Official Email Address:

6. Application Responsible Official Certification:

   I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.

   Signature Date

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: **David A. Buff**
   Registration Number: **19011**
2. Professional Engineer Mailing Address...
   Organization/Firm: **Golder Associates Inc.****
   Street Address: **6241 NW 23rd Street, Suite 500**
   City: **Gainesville** State: **FL** Zip Code: **32653-1500**
3. Professional Engineer Telephone Numbers...
   Telephone: **(352) 336-5600** ext.**545** Fax: **(352) 336-6603**
4. Professional Engineer Email Address: **dbuff@golder.com**
5. Professional Engineer Statement:

I, 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.

(3) If the purpose of this application is to obtain a Title V 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 plan and schedule is submitted with this application.

(4) If the purpose of this application is to obtain an air construction permit (check here ☒, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here ☐, 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.

(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here ☐, 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 — 7/21/06

Signature — Date

(seal)

* Attach any exception to certification statement.

**** Board of Professional Engineers Certificate of Authorization #00001670**

III. EMISSIONS UNIT INFORMATION

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

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

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

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

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

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

Emissions Unit Description and Status

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

2. Description of Emissions Unit Addressed in this Section:
   Boiler No. 4

3. Emissions Unit Identification Number: **009**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A			**20**	☐ Yes ☒ No

9. Package Unit:
   Manufacturer: Model Number:

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment:
    Traveling grate boiler fired by carbonaceous fuel and fuel oil with a maximum sulfur content of 0.05 percent by weight. Fuel oil can include facility-generated, on-specification used oil.

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

Joy Turbulaire Impingement Scrubber, Size 200, Type D

2. Control Device or Method Code(s): **001**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate:	
2. Maximum Production Rate: **300,000 lb/hr steam**	
3. Maximum Heat Input Rate: **633** million Btu/hr	
4. Maximum Incineration Rate: pounds/hr tons/day	
5. Requested Maximum Operating Schedule:	
24 hours/day	**7** days/week
52 weeks/year	**8,760** hours/year

6. Operating Capacity/Schedule Comment:

Maximum heat input rate based on 1-hour maximum steam rate of 300,000 lb/hr for carbonaceous fuel firing. The maximum permitted 24-hour average heat input rate for firing carbonaceous fuel is 600 MMBtu/hr, and the maximum permitted 1-hour average heat input rate for firing No. 2 fuel oil is 326 MMBtu/hr (Permit No. 0510003-018-AC). Maximum annual heat input is limited to 2,880,000 MMBtu/yr (Permit No. 0510003-010/PSD-FL-272A).

C. EMISSION POINT (STACK/VENT) INFORMATION
(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **BLR-4**		2. Emission Point Type Code: **1**
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **V**	6. Stack Height: **150** feet	7. Exit Diameter: **8.2** feet
8. Exit Temperature: **160** °F	9. Actual Volumetric Flow Rate: **281,000** 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 Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)
15. Emission Point Comment: **Stack parameters based on test data.**		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type): **External combustion boilers; Industrial; Bagasse; All boiler sizes**		
2. Source Classification Code (SCC): **1-02-011-01**	3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **87.92**	5. Maximum Annual Rate: **400,000**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **0.24 (dry)**	8. Maximum % Ash: **8.4 (dry basis)**	9. Million Btu per SCC Unit: **7.2**
10. Segment Comment: **Based on 633 MMBtu/hr and 3,600 Btu/lb wet bagasse. Annual rate is maximum allowable from Permit No. 0510003-010-AC/PSD-FL-272A, equivalent to 2,880,000 MMBtu/yr @ 3,600 Btu/lb for wet bagasse. Bagasse may include incidental amounts of on-specification used oil.**		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type): **External combustion boilers; Industrial; Distillate Oil; Grades 1 and 2**		
2. Source Classification Code (SCC): **1-02-005-01**	3. SCC Units: **1,000 Gallons Burned**	
4. Maximum Hourly Rate: **2.417**	5. Maximum Annual Rate: **6,000**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **0.05**	8. Maximum % Ash:	9. Million Btu per SCC Unit: **135**
10. Segment Comment: **Maximum hourly and annual rates based on 326 MMBtu/hr and 6,000,000 gallons of fuel oil per year (Permit No. 0510003-018-AC). Includes combustion of facility-generated, on-specification used oil. Annual rate represents cap for Boiler Nos. 1, 2, and 4 combined.**		

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	001		EL
PM_{10}	001		NS
SO_2	001		EL
NO_x			EL
CO			EL
VOC			EL
SAM			NS

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **95** lb/hour **216** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.15 lb/MMBtu** Reference: **Permit No. 0510003-017-AV**	7. Emissions Method Code: **0**
8.a. Baseline Actual Emission (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:

Bagasse: 633 MMBtu/hr x 0.15 lb/MMBtu = 95 lb/hr

Annual emissions based on heat input rate of 2,880,000 MMBtu during consecutive any 12 months.

2,880,000 MMBtu/yr x 0.15 lb/MMBtu x 1 ton/2,000 lb = 216 ton/yr

Fuel Oil:
326 MMBtu/hr x 0.1 lb/MMBtu = 32.6 lb/hr
6,000,000 gal/yr x 139,000 Btu/gal = 834,000 MMBtu/yr
834,000 MMBtu/yr x 0.1 lb/MMBtu x 1 ton/2,000 lb = 41.7 ton/yr

9. Pollutant Potential/Estimated Fugitive Emissions Comment:
Maximum emissions representative of bagasse firing.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions **1** of **2**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.15 lb/MMBtu**	4. Equivalent Allowable Emissions: **95** lb/hour **216** tons/year
5. Method of Compliance: **EPA Method 5 or 17**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-017-AV. Emissions representative of bagasse firing only.**	

Allowable Emissions Allowable Emissions **2** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.10 lb/MMBtu**	4. Equivalent Allowable Emissions: **32.6** lb/hour **41.7** tons/year
5. Method of Compliance: **EPA Method 5 or 17**	
6. Allowable Emissions Comment (Description of Operating Method): **Rule 62-296.406, F.A.C. Emissions representative of fuel oil firing. Annual emissions based on 6,000,000 gallons per any consecutive 12 months.**	

Allowable Emissions Allowable Emissions ____ of ____

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

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: **SO_2**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **38.0** lb/hour **86.4** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.06 lb/MMBtu for bagasse** Reference: **Permit No. 0510003-017-AV**	7. Emissions Method Code: **0**

8. Calculation of Emissions:

Hourly: **Bagasse – 633 MMBtu/hr x 0.06 lb/MMBtu = 38.0 lb/hr**
Fuel Oil -- 326 MMBtu/hr x 0.0533 lb/MMBtu = 17.4 lb/hr

Annual: **Bagasse – 2,880,000 MMBtu/hr x 0.06 lb/MMBtu ÷ 2,000 lb/ton = 86.4 TPY**
Fuel Oil -- 6,000,000 gal/yr x 139,000 Btu/gal = 834,000 MMBtu/yr
834,000 MMBtu/yr x 0.0533 lb/MMBtu ÷ 2,000 lb/ton = 22.2 TPY

9. Pollutant Potential/Estimated Fugitive Emissions Comment:
Factors based on carbonaceous fuel firing. Fuel oil sulfur content limited to 0.05 percent: 7.2 lb/gal x 0.05/100 lb S/lb oil x 2 lb SO_2/lb S ÷ 135,000 Btu/gal = 0.0533 lb SO_2/MMBtu.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.06 lb/MMBtu**	4. Equivalent Allowable Emissions: **38** lb/hour **86.4** tons/year
5. Method of Compliance: **EPA Method 6, 6c, or 8.**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-017-AV. Emissions representative of bagasse firing only. Based on carbonaceous fuel and maximum heat input of 2,880,000 MMBtu during any consecutive 12 months.**	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.05% S oil**	4. Equivalent Allowable Emissions: **17.4** lb/hour **22.2** tons/year
5. Method of Compliance: **Fuel oil analysis**	
6. Allowable Emissions Comment (Description of Operating Method): **Emissions representative of fuel oil firing. Hourly emissions based on firing 2,417 gal/hr. Annual emissions based on 6,000,000 gallons per any consecutive 12 months.**	

Allowable Emissions Allowable Emissions _____ of _____

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

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: **NO_x**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **126.6** lb/hour **288** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.20 lb/MMBtu** Reference: **Permit Nos. 0510003-017-AV and 0510003-018-AC.**	7. Emissions Method Code: **0**

8. Calculation of Emissions:

Bagasse: 633 MMBtu/hr x 0.20 lb/MMBtu = 126.6 lb/hr

Annual emissions based on heat input rate of 2,880,000 MMBtu during any consecutive 12 months.

2,880,000 MMBtu/yr x 0.20 lb/MMBtu x 1 ton/2,000 lb = 288.0 TPY

Fuel Oil:
326 MMBtu/hr x 0.20 lb/MMBtu = 65.2 lb/hr
834,000 MMBtu/yr x 0.20 lb/MMBtu x 1 ton/2,000 lb = 83.4 TPY

9. Pollutant Potential/Estimated Fugitive Emissions Comment:
Maximum emissions representative of bagasse firing only.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.20 lb/MMBtu**	4. Equivalent Allowable Emissions: **126.6** lb/hour **288** tons/year
5. Method of Compliance: **EPA Method 7 or 7E**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-017-AV. Based on carbonaceous fuel firing and maximum heat input of 2,880,000 MMBtu during any consecutive 12 months.**	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.20 lb/MMBtu**	4. Equivalent Allowable Emissions: **65.2** lb/hour **83.4** tons/year
5. Method of Compliance: **EPA Method 7E**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-018-AC. Based on firing of No. 2 distillate fuel oil.**	

Allowable Emissions Allowable Emissions _____ of _____

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

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: **CO**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **4,114.5** lb/hour **9,360.0** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **6.5 lb/MMBtu** Reference: **Permit No. 0510003-017-AV**	7. Emissions Method Code: **0**

8. Calculation of Emissions:

633 MMBtu/hr x 6.5 lb/MMBtu = 4,114.5 lb/hr

Annual emissions based on heat input rate of 2,880,000 MMBtu during any consecutive 12 months.

2,880,000 MMBtu/yr x 6.5 lb/MMBtu x 1 ton/2,000 lb = 9,360 TPY

9. Pollutant Potential/Estimated Fugitive Emissions Comment:
Maximum emissions representative of bagasse firing only.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions **1** of **1**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **6.5 lb/MMBtu**	4. Equivalent Allowable Emissions: **4,114.5** lb/hour **9,360.0** tons/year
5. Method of Compliance: **EPA Method 10**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-017-AV. Emissions representative of bagasse firing only.**	

Allowable Emissions Allowable Emissions _____ of _____

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

Allowable Emissions Allowable Emissions _____ of _____

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

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: **VOC**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **316.5** lb/hour **720** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.50 lb/MMBtu** Reference: **Permit No. 0510003-017-AV**	7. Emissions Method Code: **0**

8. Calculation of Emissions:

633 MMBtu/hr x 0.50 lb/MMBtu = 316.5 lb/hr

Annual emissions based on heat input rate of 2,880,000 MMBtu during any consecutive 12 months.

2,880,000 MMBtu/yr x 0.50 lb/MMBtu x 1 ton/2,000 lb = 720 TPY

9. Pollutant Potential/Estimated Fugitive Emissions Comment:
Maximum emissions representative of bagasse firing only.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.50 lb/MMBtu**	4. Equivalent Allowable Emissions: **316.5** lb/hour **720** tons/year
5. Method of Compliance: **EPA Method 18 and 25A**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0510003-017-AV. Emissions representative of bagasse firing only.**	

Allowable Emissions Allowable Emissions _____ of _____

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

Allowable Emissions Allowable Emissions _____ of _____

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

G. VISIBLE EMISSIONS INFORMATION

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

Visible Emissions Limitation: Visible Emissions Limitation 1 of 2

1. Visible Emissions Subtype: **VE20**	2. Basis for Allowable Opacity: ☐ Rule ☒ Other
3. Allowable Opacity: Normal Conditions: **20** % Exceptional Conditions: **40** % Maximum Period of Excess Opacity Allowed: **2** min/hour	
4. Method of Compliance: **DEP Method 9**	
5. Visible Emissions Comment: **Applies to carbonaceous fuel burning only. Permit 0510003-017-AV.**	

Visible Emissions Limitation: Visible Emissions Limitation 2 of 2

1. Visible Emissions Subtype: **VE20**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **20** % Exceptional Conditions: **27** % Maximum Period of Excess Opacity Allowed: **6** min/hour	
4. Method of Compliance: **DEP Method 9**	
5. Visible Emissions Comment: **Applies to fuel oil burning only. Permit No. 0510003-018-AC.**	

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor **1** of **9**

1. Parameter Code: **PRS**	2. Pollutant(s):
3. CMS Requirement:	☐ Rule ☒ Other
4. Monitor Information... Manufacturer: **Custom Design** Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **Monitors pressure drop across wet scrubber. Monitored to ensure proper operation of scrubber. Permit No. 0510003-017-AV.**	

Continuous Monitoring System: Continuous Monitor **2** of **9**

1. Parameter Code: **Nozzle PRESSURE**	2. Pollutant(s):
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information... Manufacturer: **ABB-Kent Taylor or equivalent** Model Number: **621G**	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **Monitors wet scrubber spray nozzle pressure. Permit No. 0510003-017-AV.**	

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor **3** of **9**

1. Parameter Code: **FLOW**	2. Pollutant(s):
3. CMS Requirement: ☐ Rule ☒ Other	
4. Monitor Information... Manufacturer: **Rosemount, Inc., or equivalent** Model Number: **8711/8712** Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **Monitors wet scrubber liquid flow rate. Permit No. 0510003-017-AV.**	

Continuous Monitoring System: Continuous Monitor **4** of **9**

1. Parameter Code: **Steam TEMP**	2. Pollutant(s):
3. CMS Requirement: ☒ Rule ☐ Other	
4. Monitor Information... Manufacturer: **Preferred Instruments or equivalent** Model Number: **PCC-III Controller** Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **Monitors steam temperature. Permit No. 0510003-017-AV.**	

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor **5** of **9**

1. Parameter Code: **Steam PRESSURE**	2. Pollutant(s):
3. CMS Requirement: ☐ Rule ☒ Other	
4. Monitor Information... Manufacturer: **ABB-Kent Taylor or equivalent** Model Number: **621G** Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **Monitors steam pressure. Permit No. 0510003-017-AV.**	

Continuous Monitoring System: Continuous Monitor **6** of **9**

1. Parameter Code: **FLOW**	2. Pollutant(s):
3. CMS Requirement: ☒ Rule ☐ Other	
4. Monitor Information... Manufacturer: **ABB-Kent Taylor or equivalent** Model Number: **621D** Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **Monitors steam flow rate. Permit No. 0510003-017-AV.**	

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor 7 of 9

1. Parameter Code: **O_2**	2. Pollutant(s):
3. CMS Requirement: ☐ Rule ☒ Other	
4. Monitor Information... Manufacturer: **Rosemount Analytical, Inc., or equivalent** Model Number: **3000** Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **Monitors flue gas oxygen content. Permit No. 0510003-017-AV.**	

Continuous Monitoring System: Continuous Monitor 8 of 9

1. Parameter Code: **CO**	2. Pollutant(s):
3. CMS Requirement: ☒ Rule ☐ Other	
4. Monitor Information... Manufacturer: **Thermo Environmental Instruments, Inc., or equivalent** Model Number: **48C** Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **Monitors flue gas carbon monoxide content. Permit No. 0510003-017-AV.**	

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor **9** of **9**

1. Parameter Code: **FLOW**	2. Pollutant(s):
3. CMS Requirement: ☐ Rule ☒ Other	
4. Monitor Information... Manufacturer: **ITT Barton or equivalent** Model Number: **Flowco F500** Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **Monitors fuel oil flow to Boiler No. 4. No serial number or installation date provided because monitors are routinely replaced to ensure optimum performance. Permit No. 0510003-017-AV.**	

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: ☐ Rule ☐ Other	
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: **USS-EU3-I1** ☐ Previously Submitted, Date _____

2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: **USS-EU3-I2** ☐ Previously Submitted, Date _____

3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: **USS-EU3-I3** ☐ Previously Submitted, Date _____

4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ ☒ Previously Submitted, Date **May 2005**
   ☐ Not Applicable (construction application)

5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   Attached, Document ID: _____ ☐ Previously Submitted, Date _____
   ☒ Not Applicable

6. Compliance Demonstration Reports/Records
   ☐ Attached, Document ID: _____
   Test Date(s)/Pollutant(s) Tested: _____
   ☐ Previously Submitted, Date: _____
   Test Date(s)/Pollutant(s) Tested: _____
   ☐ To be Submitted, Date (if known): _____
   Test Date(s)/Pollutant(s) Tested: _____
   ☒ Not Applicable
   Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute
   ☐ Attached, Document ID: _____ ☒ Not Applicable

EMISSIONS UNIT INFORMATION
Section [1]
Boiler No. 4

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(6) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e))
   ☐ Attached, Document ID: _____ ☒ Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(5)(h)6., F.A.C., and Rule 62-212.500(4)(f), F.A.C.)
   ☐ Attached, Document ID: _____ ☒ Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only)
   ☐ Attached, Document ID: _____ ☒ Not Applicable

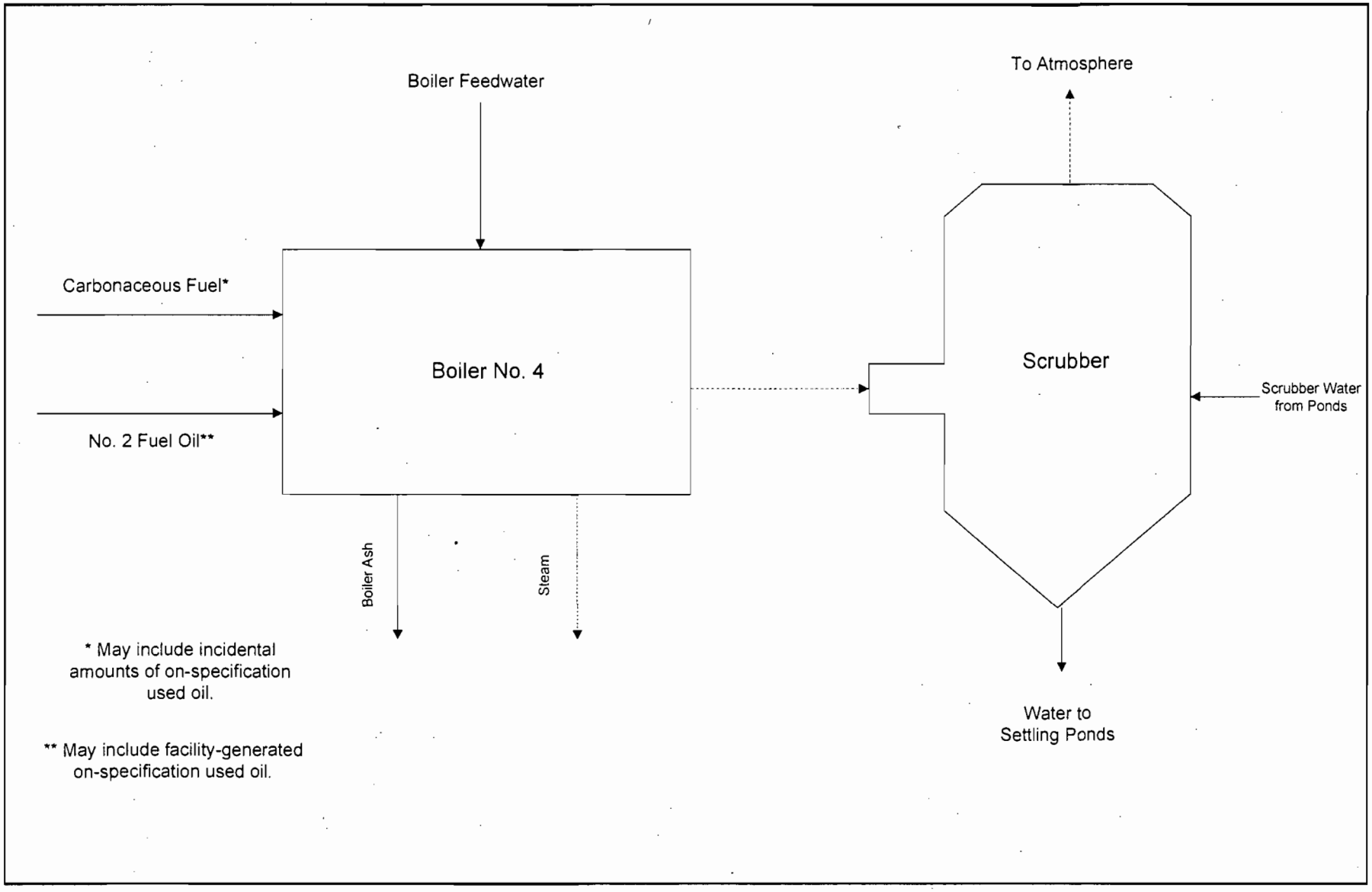
Additional Requirements for Title V Air Operation Permit Applications

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

Additional Requirements Comment

ATTACHMENT USS-EU1-I1

PROCESS FLOW DIAGRAM



Attachment USS-EU1-I1
Process Flow Diagram
U.S. Sugar Corporation
Boiler No. 4

Process Flow Legend
Solid/Liquid
Gas
Steam

0637573/4.4/USS-EU1-I1.VSD

Date: 07/20/06

Golder Associates

ATTACHMENT USS-EU1-I2

FUEL ANALYSIS

ATTACHMENT USS-EU1-I2
BOILER NO. 4 FUEL ANALYSIS

Parameter	Fuel	
	Carbonaceous Fuel [a]	No. 2 Fuel Oil (0.05% S max)
Density (lb/gal)	--	6.83 [c]
Approximate Heating Value (Btu/lb)	3,600 [b]	19,910 [c]
Approximate Heating Value (Btu/gal)	--	135,000 [c]
Ultimate Analysis (dry basis):		
Carbon	48.1%	84.7% [d]
Hydrogen	5.9%	15.3% [d]
Nitrogen	0.35%	0.18% [d]
Oxygen	40.9%	0.38% [d]
Sulfur	0.08% - 0.24%	0.05% [e]
Ash/Inorganic	0.87% - 8.4%	0.06% [c]
Moisture	49% - 55%	0.51% [c]

Footnotes:

[a] Source: Clewiston Mill fuel analysis averages.

[b] Wet basis for bagasse. Represents normal minimum.

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

[d] Source: fuel analysis from Coastal Fuels Marketing, Inc. (9/21/00).

[e] Proposed maximum.

ATTACHMENT UC-EU1-I3

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

ATTACHMENT USS-EU3-I3

U.S. SUGAR CORPORATION

BOILER NO. 4 SCRUBBER EQUIPMENT DESIGN PARAMETERS

Scrubber Type	Impingement Scrubber
Scrubber Model	Joy Turbulaire
Scrubbant	Water
Packing Material	Type D, Size 200
Outlet Gas Temp (°F)	160
Outlet Gas Flow Rate (acfm)	281,000
Differential Pressure Drop (inches of water)	8 – 11
Scrubbant Flow Rate (gpm)	375 minimum[a]
Scrubbant Pressure (psi)	40 – 55

[a]Based on a 3-hour block average.

ATTACHMENT A

SUPPLEMENTAL INFORMATION FOR CONSTRUCTION PERMIT APPLICATION

ATTACHMENT A

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

U.S. Sugar operates five sugar mill boilers at the Clewiston Mill. The five boilers provide steam to the sugar mill as well as to the sugar refinery. Boiler Nos. 1, 2 and 4 operate primarily during the crop season, which is typically October through June, to provide steam to the sugar mill and refinery. Boilers No. 7 and No. 8 can operate year-round to provide steam to the sugar mill during the crop season and steam to the sugar refinery during the off-crop season. Boiler Nos. 1, 2 and 4 also 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. 4 is currently permitted to burn bagasse and No. 2 fuel oil. The maximum sulfur content of the fuel oil is limited to 0.4 percent. The maximum heat input due to bagasse is 633 million British thermal units per hour (MMBtu/hr), and the maximum heat input from fuel oil only is 326 MMBtu/hr [equivalent to 2,417 gallons per hour (gal/hr)].

When Boiler No. 4 was initially constructed in the mid-1980's, it was designed to burn No. 6 fuel oil instead of No. 2 fuel oil. When originally permitted, the maximum annual fuel oil firing limit was 500,000 gallons per year (gal/yr) of No. 6 fuel oil with a maximum sulfur content of 2.5 percent. The annual limitation has stayed with the boiler throughout its operation, and remains in place today.

In December 2002, U.S. Sugar proposed to replace the existing No. 6 fuel oil burners on Boiler Nos. 4 and 7 with new No. 2 fuel oil burners. The new burner system for each boiler was to have two burners and be rated for a maximum heat input of 326 MMBtu/hr. The burner design emission rate for nitrogen oxides (NO_x) was 0.20 pounds per million British thermal units (lb/MMBtu).

U. S. Sugar was granted air construction Permit No. 0510003-018-AC on June 6, 2003, for the upgrading of the fuel oil burning system on Boiler Nos. 4 and 7 at the Clewiston Mill. For Boiler No. 7, the modifications were completed, and the design capacity test and compliance testing was performed on October 1, 2003. For Boiler No. 4, however, the installation of the new oil burners

was delayed. After receiving the construction permit in June, 2003, U. S. Sugar proceeded to install the authorized equipment and 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 a result, U.S. Sugar requested authorization to install an additional auxiliary fan to provide sufficient combustion air to the system. This request was granted by the Department on November 6, 2003.

The new windbox fan and ductwork were subsequently installed. Also installed were bypass solenoid valves for the atomizing steam and damper kits on the scotch valves to dampen their action as recommended by Sunbelt Energy. During subsequent testing it was found that the fuel oil pumps will not deliver the required flow rate of oil. The pumps were opened for inspection, and some damage on the shaft housing of the pumps was identified. Sunbelt, the supplier of the burner system, therefore supplied a new pump and installed it in early 2005.

The required capacity and compliance tests were then performed in February 2005. The tests demonstrated a capacity of 213,700 lb/hr steam at 308 MMBtu/hr heat input. NO_x emissions averaged 0.11 lb/MMBtu.

Although the performance of the Boiler No. 4 fuel oil firing system is adequate, the annual limitation of 500,000 gal/yr (12-month rolling average) of No. 2 fuel oil is proving to be problematic. The annual limitation is rather low compared to all the other boilers, i.e., 6,000,000 gal/yr for Boiler Nos. 1 and 2 combined; 4,600,000 gal/yr for Boiler No. 7, and 6,073,600 gal/yr for Boiler No.8. U.S. Sugar has been reaching the fuel oil firing limit on the boiler, and during 2005 actually exceeded the limit (the exceedance was reported to FDEP Fort Myers).

Generally, the 500,000 gal/yr fuel oil limit on Boiler No. 4 is not a concern. However, problems arise when Boiler No. 4 has to be operated an unusual amount of time during the off-season. This can occur when both Boiler No. 7 and No. 8 are down for repairs, as is currently the situation. Boiler No. 7 lost its front wall in April of this year, and has not operated since. Now, Boiler No. 8 is being taken down for repairs, which will necessitate the increased operation of Boiler No. 4 during the current off-season. Therefore, U.S. Sugar is requesting that the annual fuel oil cap on Boiler No. 4 be increased.

It is stressed that U.S. Sugar takes all measures possible to minimize the use of fuel oil, since it has a significant economic impact on operations. However, the boilers must reliably supply the sugar mill

and refinery with adequate steam in the event that bagasse becomes unavailable. Also, in the off-season, if the bagasse supply is interrupted, it is not possible to quickly startup one of the other mill boilers to provide additional steam, because of the period of time required for startup. Therefore, fuel oil must be fired in the boiler to maintain steam production. Maintaining steam production under conditions when bagasse supply is interrupted is critical to the reliable and efficient operation of the sugar mill and refinery.

Recently, Boiler Nos. 1 and 2 were issued draft air construction Permit No. 0510000-036-AC to revise the fuel oil burning design and limits for those boilers. Included in the limits is an annual cap over the two boilers of 6,000,000 gal/yr. U.S. Sugar is requesting that Boiler No. 4 be included as part of this annual fuel oil cap, i.e., that Boiler Nos. 1, 2 and 4 have a total combined annual cap of 6,000,000 gal/yr of No. 2 fuel oil. This will give U.S. Sugar the flexibility to burn an adequate amount of fuel oil in any of these three boilers, as operations dictate. U.S. Sugar is also requesting that the maximum sulfur content of the No. 2 fuel oil be reduced from the current 0.4 percent to 0.05 percent, to match the sulfur limits of the other boilers at the Clewiston Mill.

The estimated future potential hourly and annual emissions for Boiler No. 4 are presented in Table 1. These emissions reflect a maximum of 6,000,000 gal/yr of No. 2 fuel oil, since theoretically all fuel oil could be burned in Boiler No. 4 under the cap. Emissions due to bagasse firing will not change; and, therefore, emissions due to bagasse firing are not addressed.

The emission factors used for particulate matter (both PM and PM_{10}), carbon monoxide (CO), volatile organic compounds (VOCs), sulfuric acid mist (SAM), lead, mercury, and beryllium are from the Environmental Protection Agency's (EPA's) Publication AP-42, Section 3, which presents factors for No. 2 fuel oil combustion. The activity factors are based on the proposed maximum fuel oil heat input of 326 MMBtu/hr and the proposed annual limit of 6,000,000 gal/yr of fuel oil for Boiler Nos. 1, 2 and 4 combined.

Emissions of sulfur dioxide (SO_2) are based on a stoichiometric calculation, using the maximum future sulfur content of 0.05 percent, and the density for very low sulfur No. 2 fuel oil of 7.2 pounds per gallon (lb/gal). Emissions of NO_x are based on the initial performance tests results plus a safety factor, i.e., 0.17 lb/MMBtu, to be conservative (actual NO_x test results were 0.11 lb/MMBtu). This factor is also the same as used for Boiler Nos. 1 and 2 in the recent application for draft Permit No. 0510003-036-AC.

To determine if prevention of significant deterioration (PSD) review applies to the requested change, the same methodology used for revising the annual fuel oil limits for Boiler Nos. 1 and 2 was utilized. The past actual emissions from Boiler Nos. 1, 2 and 4 due to fuel oil firing are presented in Table 2. All three boilers are included since the annual cap affects all three boilers. Detailed calculations are shown in Attachment B. The past actual emissions are based on the average emissions from 2002 and 2003. The emissions are from U.S. Sugar's Annual Operating Reports (AORs) submitted to the FDEP for each respective year. Lead, beryllium, mercury, and SAM have not been required to be reported in the AORs, so these emissions were calculated using AP-42 factors for No. 2 fuel oil combustion and the activity factors for each respective year.

The future potential emissions due to No. 2 fuel oil firing in Boiler Nos. 1 and 2, up to 6,000,000 gal/yr, are shown in Attachment C (taken from application for Boiler Nos. 1 and 2). These emissions are the same as the fuel oil firing emissions for Boiler No. 4, since the emission factors for all three boilers are the same.

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 3. The net increase due to the project is determined by subtracting the past actual emissions from Boiler Nos. 1, 2 and 4 due to fuel oil firing from the future potential emissions resulting from fuel oil firing. The worst-case potential emissions are the same regardless of which boiler the fuel oil is fired in, since they all have wet scrubbers and the emission factors for each boiler for fuel oil firing are identical. Emissions due to bagasse firing are not included since these emissions will not be affected by the proposed project.

The net increase due to the project is compared to PSD significant emission rates in Table 3. As shown in Table 3, the increases due to this project do not exceed any PSD significant emission rates and therefore, PSD review is not applicable. In addition, U.S. Sugar believes PSD review is not applicable for the following reasons:

- The maximum steam rate for the boilers will not be affected;
- Steam rates, heat input rates and firing rates for bagasse will not be affected;
- U.S. Sugar intends to burn bagasse when it is available; and
- Emission factors for No. 2 fuel oil in terms of lb/MMBtu are lower than for No. 6 fuel oil or for bagasse burning, so emissions will not increase while Boiler Nos. 1, 2 and 4 are firing very low sulfur No. 2 fuel oil.

TABLE 1
FUTURE POTENTIAL EMISSIONS DUE TO FIRING 6,000,000 GAL/YR OF FUEL OIL IN BOILER NO. 4
U. S. Sugar Corporation Clewiston

Regulated Pollutant	No. 2 Fuel Oil Combustion					
	Emission Factor (lb/MMBtu)	Ref.	Activity Factor		Hourly Emissions (lb/hr)	Annual Emissions (TPY)
			Hourly[a] MMBtu/hr	Annual[b] MMBtu/yr		
Particulate Matter (PM)	0.015	1	326	834,000	4.8	6.2
Particulate Matter (PM_{10})	0.007	2	326	834,000	2.4	3.1
Sulfur dioxide (SO_2)	0.0533	3	326	834,000	17.4	22.2
Nitrogen oxides (NO_x)	0.17	4	326	834,000	55.4	70.9
Carbon monoxide (CO)	0.037	1	326	834,000	12.1	15.4
Volatile Organic Compounds (VOC)	1.5E-03	1	326	834,000	0.5	0.62
Sulfuric acid mist (SAM)	0.0026	1	326	834,000	0.8	1.1
Lead (Pb)	9.0E-06	5	326	834,000	2.9E-03	3.8E-05
Beryllium (Be)	3.0E-06	5	326	834,000	9.8E-04	1.3E-05
Mercury (Hg)	3.0E-06	5	326	834,000	9.8E-04	1.3E-03

References:

1. Factors for No. 2 fuel oil combustion: AP-42 Tables 1.3-1 and 1.3-3 (9/98). For sulfuric acid mist, factor shown is for SO_3. Convert to H_2SO_4 by multiplying by 98/80. Factors were converted to lb/MMBtu by dividing by 135,000 Btu/gal (min).
   PM = 2 lb/1000 gal
   CO = 5 lb/1000 gal
   SO_3 = 5.7S lb/1000 gal, where S = 0.05 VOC = 0.2 lb/1000 gal
2. Factors for distillate fuel oil, PM_{10} is 50% of PM based on AP-42, Table 1.3-6 (9/98).
3. Based on stochiometric calculation: 7.2 lbs/gal; 135,000 Btu/gal (min); 0.05% sulfur.
4. Based on stack testing conducted on Boiler No. 4 on February 9, 2005.
5. Factors for No. 2 fuel oil combustion, AP-42 Table 1.3-10 (9/98).

Footnotes:

[a] Based on maximum heat input due to No. 2 fuel oil combustion, from manufacturer specifications.

[b] Based on No. 2 fuel oil usage of 6,000,000 gallons per year and heating value of 139,000 Btu/gal (max).

TABLE 2
PAST ACTUAL EMISSIONS DUE TO FUEL OIL BURNING, BOILER NOS. 1, 2, AND 4
U.S. Sugar Corporation, Clewiston Mill

Regulated Pollutant	Boiler No. 1 Actual Emissions[a] (TPY)		Boiler No. 2 Actual Emissions[a] (TPY)		Boiler No. 4 Actual Emissions[a] (TPY)		Boiler No. 1 + No. 2 + No. 4 2-Yr Average (TPY)
	2002	2003	2002	2003	2002	2003	
Particulate Matter (PM)	6.18	5.06	5.63	4.09	1.49	1.21	11.83
Particulate Matter (PM_{10})	5.25	4.30	4.79	3.48	1.27	1.03	10.06
Sulfur Dioxide (SO_2)	46.41	38.64	42.28	31.27	8.44	5.79	86.41
Nitrogen Oxides (NO_x)	18.90	15.67	17.22	12.68	7.32	7.85	39.82
Carbon Monoxide (CO)	2.01	1.67	1.83	1.35	0.78	1.17	4.40
Volatile Organic Compound (VOC)	0.11	0.09	0.10	0.08	0.04	0.06	0.24
Sulfur Acid Mist (SAM)	2.05	1.70	1.86	1.38	0.32	0.25	3.78
Lead - Total	6.07E-04	5.04E-04	5.53E-04	4.08E-04	2.4E-04	1.5E-04	1.23E-03
Beryllium (Be)	1.12E-05	9.27E-06	1.02E-05	7.50E-06	4.3E-06	2.7E-06	2.26E-05
Mercury (Hg)	4.54E-05	3.77E-05	4.14E-05	3.05E-05	1.8E-05	1.1E-05	9.19E-05

Footnotes:

[a] Based on Annual Operating Report submitted to FDEP for 2002 and 2003, except for:
SAM, Be and Hg not reported on the AOR; emissions based on AP-42 factors, see Attachment B.

TABLE 3
NET CHANGE IN EMISSIONS DUE TO BURNING 6,000,000 GAL/YR OF FUEL OIL IN BOILER NOS. 1, 2 AND 4
U.S. Sugar Corporation Clewiston

Regulated Pollutant	Boiler Nos. 1 , 2 & 4 Past Actual Emissions[a] (TPY)	Boiler Nos. 1, 2 & 4 Future Potential Emissions[b] (TPY)	Net Change in Emissions (TPY)	PSD Significant Emission Rate (TPY)	PSD Review Applies?
Particulate Matter (PM)	11.83	6.2	-5.7	25	NO
Particulate Matter (PM_{10})	10.06	3.1	-7.0	15	NO
Sulfur Dioxide (SO_2)	86.41	22.2	-64.2	40	NO
Nitrogen Oxides (NO_x)	39.82	70.9	31.1	40	NO
Carbon Monoxide (CO)	4.40	15.4	11.0	100	NO
Volatile Organic Compound (VOC)	0.24	0.6	0.4	40	NO
Sulfur Acid Mist (SAM)	3.78	1.1	-2.70	0.6	NO
Lead (Pb)	1.23E-03	3.8E-05	-1.2E-03	7	NO
Beryllium (Be)	2.26E-05	1.3E-05	-1.0E-05	4.0E-04	NO
Mercury (Hg)	9.19E-05	1.3E-03	1.2E-03	0.1	NO

Footnotes:

[a] Based on emissions due to fuel oil firing in Boiler Nos. 1, 2 and 4 for calendar years 2002 and 2003. See Table 1.

[b] Based on firing a total combined 6,000,000 gal/yr of fuel oil in Boiler Nos. 1, 2 and 4.

ATTACHMENT B

2002 AND 2003 EMISSIONS INFORMATION FROM ANNUAL OPERATING REPORTS

TABLE B-1
2002 EMISSIONS OF CRITERIA POLLUTANTS FOR U.S. SUGAR CORPORATION CLEWISTON BOILER NO. 1

Regulated Pollutant	Carbonaceous Fuel				No. 6 Fuel Oil				Total Annual Emissions (TPY)
	Emission Factor (lb/ton)	Ref.	Annual Fuel Usage (TPY)	Annual Emissions (TPY)	Emission Factor (lb/1,000 gal)	Ref.	Annual Fuel Usage (gal/yr)	Annual Emissions (TPY)	
Criteria and Precursor Air Pollutants									
Particulate Matter (PM)	1.296	1	188,782	122.33	15.36	4 (b)	804,298	6.18	128.51
Particulate Matter (PM_{10})	1.205	(a)	188,782	113.77	13.06	(a)	804,298	5.25	119.02
Sulfur Dioxide (SO_2)	0.073	1	188,782	6.89	115.40	5 (b)	804,298	46.41	53.30
Nitrogen Oxides (NO_x)	0.677	1	188,782	63.90	47	5	804,298	18.90	82.80
Carbon Monoxide (CO)	49.262	1	188,782	4,649.89	5	5	804,298	2.01	4,651.90
Volatile Organic Compounds (VOC)	1.668	2	188,782	157.44	0.28	6	804,298	0.11	157.56
Sulfuric Acid Mist (SAM)	0.0032	8	188,782	0.30	5.09	8	804,298	2.05	2.35
Lead - Total (PB)	4.45E-04	3	188,782	0.04	1.51E-03	7	804,298	6.07E-04	0.04
Beryllium (Be)	--		--	--	2.78E-05	7	804,298	1.12E-05	1.12E-05
Mercury (Hg)	--		--	--	1.13E-04	7	804,298	4.54E-05	4.54E-05

Note:

(a) Assuming 93% of PM is PM_{10} for bagasse, and 85% of PM is PM_{10} for No. 6 fuel oil.

(b) Average sulfur content of the fuel mix is 1.47%.

Unless otherwise specified, heating values for each fuel are as follows: 3,600 Btu/lb for wet bagasse and 153,645 Btu/gal for No. 6 fuel oil.

1. Based on compliance test data, conducted by Air Consulting and Engineerin

PM	0.180 lb/MMBtu	11/20/2002
SO_2	0.0101 lb/MMBtu	12/8/2000
NO_x	0.094 lb/MMBtu	1/3/1995
CO	6.842 lb/MMBtu	1994 - 1995

2. Based on test data for similar bagasse boiler. (Bryant Boilers 1, 2, and 3 average = 0.232 lb/MMBtu.)
3. Based on EPA's AP-42 Table 1.6-5, "Emission Factors for Trace Elements from Wood Waste Combustion with PM controls" (2/99).
4. Based on emission limit of 0.1 lb/MMBtu for PM while firing No. 6 fuel oil.
5. 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_2 removal from scrubber.
6. 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).
7. Based on AP-42 Table 1.3-11, "Emission Factors for Metals from Uncontrolled No. 6 Fuel Oil Combustion" (9/98).
8. From AP-42 Table 1.3-1: SO_3 represents 3.6% of SO_2; then convert to H_2SO_4 (x 98/80).

TABLE B-2
2002 EMISSIONS OF CRITERIA POLLUTANTS FOR U.S. SUGAR CORPORATION CLEWISTON BOILER NO. 2

Regulated Pollutant	Carbonaceous Fuel				No. 6 Fuel Oil				Total Annual Emissions (TPY)
	Emission Factor (lb/ton)	Ref.	Annual Fuel Usage (TPY)	Annual Emissions (TPY)	Emission Factor (lb/1,000 gal)	Ref.	Annual Fuel Usage (gal/yr)	Annual Emissions (TPY)	
Criteria and Precursor Air Pollutants									
Particulate Matter (PM)	1.296	1	225,369	146.04	15.36	5 (b)	732,805	5.63	151.67
Particulate Matter (PM_{10})	1.205	(a)	225,369	135.82	13.06	(a)	732,805	4.79	140.60
Sulfur Dioxide (SO_2)	0.073	2	225,369	8.23	115.40	6 (b)	732,805	42.28	50.51
Nitrogen Oxides (NO_x)	0.727	1	225,369	81.92	47	6	732,805	17.22	99.14
Carbon Monoxide (CO)	70.834	1	225,369	7,981.89	5	6	732,805	1.83	7,983.73
Volatile Organic Compounds (VOC)	1.668	3	225,369	187.96	0.28	7	732,805	0.10	188.06
Sulfuric Acid Mist (SAM)	0.0032	9	225,369	0.36	5.09	9	732,805	1.86	2.23
Lead - Total	4.45E-04	4	225,369	0.05	1.51E-03	8	732,805	5.53E-04	0.05
Beryllium (Be)	--		--	--	2.78E-05	8	732,805	1.02E-05	1.02E-05
Mercury (Hg)	--		--	--	1.13E-04	8	732,805	4.14E-05	4.14E-05

Note:
(a) Assuming 93% of PM is PM_{10} for bagasse, and 85% of PM is PM_{10} for No. 6 fuel oil.
(b) Average sulfur content of the fuel mix is 1.47%.
Unless otherwise specified, heating values for each fuel are as follows: 3,600 Btu/lb for wet bagasse and 153,645 Btu/gal for No. 6 fuel oil.

1. Based on compliance test data, conducted by Air Consulting and Engineerin PM 0.180 lb/MMBtu 12/17/2002
   NO_x 0.101 lb/MMBtu 1/4/1995
   CO 9.838 lb/MMBtu 1994 - 1995
2. Based on compliance test data, conducted by Air Consulting and Engineering for Boiler No. 1, 0.0101 lb/MMBtu (12/8/00).
3. Based on test data for similar bagasse boiler. (Bryant Boilers 1, 2, and 3 average = 0.232 lb/MMBtu.)
4. Based on EPA's AP-42 Table 1.6-5, "Emission Factors for Trace Elements from Wood Waste Combustion with PM Controls", (2/99).
5. Based on emission limit of 0.1 lb/MMBtu for PM while firing No. 6 fuel oil.
6. 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_2 removal from scrubber.
7. 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).
8. Based on AP-42 Table 1.3-11, "Emission Factors for Metals from Uncontrolled No. 6 Fuel Oil Combustion" (9/98).
9. From AP-42 Table 1.3-1: SO_3 represents 3.6% of SO_2; then convert to H_2SO_4 (x 98/80).

TABLE B-3
2003 EMISSIONS OF CRITERIA POLLUTANTS FOR U.S. SUGAR CORPORATION CLEWISTON BOILER NO. 1

Regulated Pollutant	Carbonaceous Fuel				No. 6 Fuel Oil				Total Annual Emissions (TPY)
	Emission Factor (lb/ton)	Ref.	Annual Fuel Usage (TPY)	Annual Emissions (TPY)	Emission Factor (lb/1,000 gal)	Ref.	Annual Fuel Usage (gal/yr)	Annual Emissions (TPY)	
Criteria and Precursor Air Pollutants									
Particulate Matter (PM)	1.267	1	176,732	111.96	15.17	4 (b)	666,974	5.06	117.02
Particulate Matter (PM_{10})	1.178	(a)	176,732	104.12	12.89	(a)	666,974	4.30	108.42
Sulfur Dioxide (SO_2)	0.073	1	176,732	6.45	115.87	5 (b)	666,974	38.64	45.09
Nitrogen Oxides (NO_x)	0.677	1	176,732	59.82	47	5	666,974	15.67	75.50
Carbon Monoxide (CO)	49.262	1	176,732	4,353.09	5	5	666,974	1.67	4,354.75
Volatile Organic Compounds (VOC)	1.778	2	176,732	157.11	0.28	6	666,974	0.09	157.21
Sulfuric Acid Mist (SAM)	0.0032	8	176,732	0.28	5.11	8	666,974	1.70	1.99
Lead - Total (PB)	2.45E-05	3	176,732	0.002	1.51E-03	7	666,974	5.04E-04	0.003
Beryllium (Be)	--		--	--	2.78E-05	7	666,974	9.27E-06	9.27E-06
Mercury (Hg)	--		--	--	1.13E-04	7	666,974	3.77E-05	3.77E-05

Note:

(a) Assuming 93% of PM is PM_{10} for bagasse, and 85% of PM is PM_{10} for No. 6 fuel oil.

(b) Average sulfur content of the fuel mix is 1.476%.

Unless otherwise specified, heating values for each fuel are as follows: 3,600 Btu/lb for wet bagasse and 151,704 Btu/gal for No. 6 fuel oil.

1. Based on compliance test data, conducted by Air Consulting and Engineering:

PM	0.176 lb/MMBtu	11/14/2003
SO_2	0.0101 lb/MMBtu	12/8/2000
NO_x	0.094 lb/MMBtu	1/3/1995
CO	6.842 lb/MMBtu	1994 - 1995

2. Based on test data for similar bagasse boiler. (Bryant Boilers 1, 2, and 3 average = 0.247 lb/MMBtu.)
3. Based on average industry test data of 3.4E-06 lb/MMBtu or less.
4. Based on emission limit of 0.1 lb/MMBtu for PM while firing No. 6 fuel oil.
5. 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_2 removal from scrubber.
6. 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).
7. Based on AP-42 Table 1.3-11, "Emission Factors for Metals from Uncontrolled No. 6 Fuel Oil Combustion" (9/98).
8. From AP-42 Table 1.3-1: SO_3 represents 3.6% of SO_2; then convert to H_2SO_4 (x 98/80).

TABLE B-4
2003 EMISSIONS OF CRITERIA POLLUTANTS FOR U.S. SUGAR CORPORATION CLEWISTON BOILER NO. 2

Regulated Pollutant	Carbonaceous Fuel				No. 6 Fuel Oil				Total
	Emission Factor (lb/ton)	Ref.	Annual Fuel Usage (TPY)	Annual Emissions (TPY)	Emission Factor (lb/1,000 gal)	Ref.	Annual Fuel Usage (gal/yr)	Annual Emissions (TPY)	Annual Emissions (TPY)
Criteria and Precursor Air Pollutants									
Particulate Matter (PM)	1.433	1	216,540	155.15	15.17	5 (b)	539,742	4.09	159.24
Particulate Matter (PM_{10})	1.333	(a)	216,540	144.29	12.89	(a)	539,742	3.48	147.77
Sulfur Dioxide (SO_2)	0.360	2	216,540	38.98	115.87	6 (b)	539,742	31.27	70.25
Nitrogen Oxides (NO_x)	0.727	1	216,540	78.71	47	6	539,742	12.68	91.40
Carbon Monoxide (CO)	70.834	1	216,540	7,669.20	5	6	539,742	1.35	7,670.55
Volatile Organic Compounds (VOC)	1.778	3	216,540	192.50	0.28	7	539,742	0.08	192.58
Sulfuric Acid Mist (SAM)	0.0159	9	216,540	1.72	5.11	9	539,742	1.38	3.10
Lead - Total	2.45E-05	4	216,540	0.003	1.51E-03	8	539,742	4.08E-04	0.003
Beryllium (Be)	--		--	--	2.78E-05	8	539,742	7.50E-06	7.50E-06
Mercury (Hg)	--		--	--	1.13E-04	8	539,742	3.05E-05	3.05E-05

Note:

(a) Assuming 93% of PM is PM_{10} for bagasse, and 85% of PM is PM_{10} for No. 6 fuel oil.

(b) Average sulfur content of the fuel mix is 1.476%.

Unless otherwise specified, heating values for each fuel are as follows: 3,600 Btu/lb for wet bagasse and 151,704 Btu/gal for No. 6 fuel oil.

1. Based on compliance test data, conducted by Air Consulting and Engineerin PM 0.199 lb/MMBtu 11/18/2003
   NO_x 0.101 lb/MMBtu 1/4/1995
   CO 9.838 lb/MMBtu 1994 - 1995
2. Based on average industry test data of 0.05 lb/MMBtu or less.
3. Based on test data for similar bagasse boiler. (Bryant Boilers 1, 2, and 3 average = 0.247 lb/MMBtu.)
4. Based on average industry test data of 3.4E-06 lb/MMBtu or less.
5. Based on emission limit of 0.1 lb/MMBtu for PM while firing No. 6 fuel oil.
6. 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_2 removal from scrubber.
7. 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).
8. Based on AP-42 Table 1.3-11, "Emission Factors for Metals from Uncontrolled No. 6 Fuel Oil Combustion" (9/98).
9. From AP-42 Table 1.3-1: SO_3 represents 3.6% of SO_2; then convert to H_2SO_4 (x 98/80).

ATTACHMENT B-5
2002 EMISSIONS OF CRITERIA POLLUTANTS FOR U.S. SUGAR CORPORATION CLEWISTON BOILER NO. 4

Regulated Pollutant	Carbonaceous Fuel				No. 6 Fuel Oil				Total
	Emission Factor (lb/ton)	Ref.	Annual Fuel Usage (TPY)	Annual Emissions (TPY)	Emission Factor (lb/1,000 gal)	Ref.	Annual Fuel Usage (gal/yr)	Annual Emissions (TPY)	Annual Emissions (TPY)
Criteria and Precursor Air Pollutants									
Particulate Matter (PM)	0.713	1	230,042	82.01	9.56	3 (b)	311,554	1.49	83.50
Particulate Matter (PM_{10})	0.663	(a)	230,042	76.27	8.13	(a)	311,554	1.27	77.54
Sulfur Dioxide (SO_2)	0.00094	1	230,042	0.11	54.165	3 (b)	311,554	8.44	8.55
Nitrogen Oxides (NO_x)	0.670	1	230,042	77.06	47	3	311,554	7.32	84.39
Carbon Monoxide (CO)	20.578	1	230,042	2,366.90	5	3	311,554	0.78	2,367.68
VOC	1.022	1	230,042	117.55	0.28	4	311,554	0.04	117.60
Lead - Total	4.45E-04	2	230,042	0.051	1.51E-03	5	311,554	2.35E-04	0.051
Sulfuric Acid Mist (SAM)	4.13E-05	6	230,042	0.0047	2.07	6	311,554	0.32	0.33
Beryllium (Be)	--		--	--	2.78E-05	5	311,554	4.33E-06	4.33E-06
Mercury (Hg)	--		--	--	1.13E-04	5	311,554	1.76E-05	1.76E-05

Footnotes:

(a) Assuming 93% of PM is PM_{10} for bagasse, and 85% of PM is PM_{10} for No. 6 fuel oil.

(b) Sulfur content of the fuel is 0.69%.

Unless otherwise specified, heating values for each fuel are as follows: 3,600 Btu/lb for wet bagasse and 150,764 Btu/gal for No. 6 fuel oil.

1. Based on compliance test data, collectecd by Air Consulting and Engineering:

PM	0.099 lb/MMBtu	12/19/2002
SO_2	0.00013 lb/MMBtu	1/5/2000
VOC	0.142 lb/MMBtu	12/19/2002
NO_x	0.093 lb/MMBtu	12/19/2002
CO	2.858 lb/MMBtu	12/19/2002

2. Based on EPA's AP-42 Table 1.6-5, "Emission Factors for Trace Elements from Wood Waste Combustion with PM Controls" (2/99).
3. 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_2 removal from scrubber.
4. 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).
5. Based on AP-42 Table 1.3-11, "Emission Factors for Metals from Uncontrolled No. 6 Fuel Oil Combustion" (9/98).
6. From AP-42 Table 1.3-1: SO_3 represents 3.6% of SO_2; then convert to H_2SO_4 (x 98/80).

ATTACHMENT B-6
2003 EMISSIONS OF CRITERIA POLLUTANTS FOR U.S. SUGAR CORPORATION CLEWISTON BOILER NO. 4

Regulated Pollutant	Carbonaceous Fuel				No. 6 Fuel Oil				No. 2 Fuel Oil				Total
	Emission Factor (lb/ton)	Ref.	Annual Fuel Usage (TPY)	Annual Emissions (TPY)	Emission Factor (lb/1,000 gal)	Ref.	Annual Fuel Usage (Gallons/yr)	Annual Emissions (TPY)	Emission Factor (lb/1,000 gal)	Ref.	Annual Fuel Usage (Gallons/yr)	Annual Emissions (TPY)	Annual Emissions (TPY)
Criteria and Precursor Air Pollutants													
Particulate Matter (PM)	0.914	1	269,658	123.23	9.56	3 (b)	196,123	0.94	2	6	270,109	0.27	124.44
Particulate Matter (PM_{10})	0.850	(a)	269,658	114.61	8.13	(a)	196,123	0.80	1.70	(a)	270,109	0.23	115.63
Sulfur Dioxide (SO_2)	0.00094	1	269,658	0.13	54.165	3 (b)	196,123	5.31	3.55	6 (c)	270,109	0.48	5.92
Nitrogen Oxides (NO_x)	0.972	1	269,658	131.05	47	3	196,123	4.61	24	6	270,109	3.24	138.90
Carbon Monoxide (CO)	28.267	1	269,658	3,811.21	5	3	196,123	0.49	5	6	270,109	0.68	3812.38
VOC	3.190	1	269,658	430.10	0.28	4	196,123	0.03	0.2	4	270,109	0.03	430.16
Lead - Total	2.45E-05	2	269,658	0.00	1.51E-03	5	196,123	1.48E-04	1.224E-09	7	270,109	1.65E-10	3.45E-03
Sulfuric Acid Mist (SAM)	4.13E-05	6	269,658	0.0056	2.39	6	196,123	0.23	0.16	6	270,109	2.11E-02	0.26
Beryllium (Be)	--		--	--	2.78E-05	5	196,123	2.73E-06	--		--	--	2.73E-06
Mercury (Hg)	--		--	--	1.13E-04	5	196,123	1.11E-05	--		--	--	1.11E-05

Footnotes:

(a) Assuming 93% of PM is PM_{10} for bagasse, and 85% of PM is PM_{10} for No. 6 and No. 2 fuel oil.

(b) Sulfur content of No. 6 fuel oil is 0.69%.

(c) Sulfur content of No. 2 fuel oil is 0.05%.

Unless otherwise specified, heating values for each fuel are as follows: 3,600 Btu/lb for wet bagasse, 150,764 Btu/gal for No. 6 fuel oil, and 135,000 Btu/gal for No. 2 fuel oil.

1. Based on compliance test data, collected by Air Consulting and Engineering:

PM	0.127 lb/MMBtu	11/21/2003
SO_2	0.00013 lb/MMBtu	1/5/2000
VOC	0..443 lb/MMBtu	11/21/2003
NO_x	0.135 lb/MMBtu	11/21/2003
CO	3.926 lb/MMBtu	11/21/2003

2. Based on average industry test data of 3.4E-06 lb/MMBtu or less.
3. 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_2 removal from scrubber.
4. 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).
5. Based on AP-42 Table 1.3-11, "Emission Factors for Metals from Uncontrolled No. 6 Fuel Oil Combustion" (9/98).
6. Based on AP-42 Table 1.3-1, "Criteria Pollutant Emission Factors for Fuel Oil Combustion" (9/98), No. 2 fuel oil, normal firing. Assume 50% SO_2 removal from scrubber.
7. Based on AP-42 Table 1.3-10, "Emission Factors for Trace Elements From Distillate Fuel Oil Combustion Sources" (9/98).
8. From AP-42 Table 1.3-1: SO_3 represents 3.6% of SO_2; then convert to H_2SO_4 (x 98/80).

ATTACHMENT C

FUTURE POTENTIAL EMISSIONS

TABLE C-1
FUTURE POTENTIAL EMISSIONS DUE TO FUEL OIL FIRING BOILER NO. 1
U. S. Sugar Corporation Clewiston

Regulated Pollutant	No. 2 Fuel Oil Combustion					
	Emission Factor (lb/MMBtu)	Ref.	Activity Factor		Hourly Emissions (lb/hr)	Annual Emissions (TPY)
			Hourly[a] MMBtu/hr	Annual[b] MMBtu/yr		
Particulate Matter (PM)	0.015	1	130	834,000	1.9	6.2
Particulate Matter (PM_{10})	0.007	2	130	834,000	1.0	3.1
Sulfur dioxide (SO_2)	0.053	3	130	834,000	6.9	22.2
Nitrogen oxides (NO_x)	0.17	4	130	834,000	22.1	70.9
Carbon monoxide (CO)	0.037	1	130	834,000	4.8	15.4
Volatile Organic Compounds (VOC)	1.5E-03	1	130	834,000	0.2	0.62
Sulfuric acid mist (SAM)	0.0026	1	130	834,000	0.3	1.1
Lead (Pb)	9.0E-06	5	130	834,000	1.2E-03	3.8E-05
Beryllium (Be)	3.0E-06	5	130	834,000	3.9E-04	1.3E-05
Mercury (Hg)	3.0E-06	5	130	834,000	3.9E-04	1.3E-03

References:

1. Factors for No. 2 fuel oil combustion: AP-42 Tables 1.3-1 and 1.3-3 (9/98). For sulfuric acid mist, factor shown is for SO_3. Convert to H_2SO_4 by multiplying by 98/80. Factors were converted to lb/MMBtu by dividing by 135,000 Btu/gal (min).
   PM = 2 lb/1000 gal
   CO = 5 lb/1000 gal
   SO_3 = 5.7S lb/1000 gal, where S = 0.05 VOC = 0.2 lb/1000 gal
2. Factors for distillate fuel oil, PM_{10} is 50% of PM based on AP-42, Table 1.3-6 (9/98).
3. Based on stochiometric calculation: 7.2 lbs/gal; 135,000 Btu/gal (min); 0.05% sulfur.
4. Based on stack testing conducted on Boiler No. 1 and 2 on Feb. 10-11, 2006.
5. Factors for No. 2 fuel oil combustion, AP-42 Table 1.3-10 (9/98).

Footnotes:

[a] Based on maximum heat input due to No. 2 fuel oil combustion, from manufacturer specifications.

[b] Based on No. 2 fuel oil usage of 6,000,000 gallons per year and heating value of 139,000 Btu/gal (max).

TABLE C-2
FUTURE POTENTIAL EMISSIONS DUE TO FUEL OIL FIRING, BOILER NO. 2,
U. S. Sugar Corporation Clewiston

Regulated Pollutant	No. 2 Fuel Oil Combustion					
	Emission Factor (lb/MMBtu)	Ref.	Activity Factor		Hourly Emissions (lb/hr)	Annual Emissions (TPY)
			Hourly[a] MMBtu/hr	Annual[b] MMBtu/yr		
Particulate Matter (PM)	0.015	1	130	834,000	1.9	6.2
Particulate Matter (PM_{10})	0.007	2	130	834,000	1.0	3.1
Sulfur dioxide (SO_2)	0.053	3	130	834,000	6.9	22.2
Nitrogen oxides (NO_x)	0.17	4	130	834,000	22.1	70.9
Carbon monoxide (CO)	0.037	1	130	834,000	4.8	15.4
Volatile Organic Compounds (VOC)	1.5E-03	1	130	834,000	0.2	0.62
Sulfuric acid mist (SAM)	0.0026	1	130	834,000	0.3	1.1
Lead (Pb)	9.0E-06	5	130	834,000	1.2E-03	3.8E-05
Beryllium (Be)	3.0E-06	5	130	834,000	3.9E-04	1.3E-05
Mercury (Hg)	3.0E-06	5	130	834,000	3.9E-04	1.3E-03

References:

1. Factors for No. 2 fuel oil combustion: AP-42 Tables 1.3-1 and 1.3-3 (9/98). For sulfuric acid mist, factor shown is for SO_3. Convert to H_2SO_4 by multiplying by 98/80. Factors were converted to lb/MMBtu by dividing by 135,000 Btu/gal (min).
   PM = 2 lb/1000 gal
   CO = 5 lb/1000 gal
   SO_3 = 5.7S lb/1000 gal, where S = 0.05 VOC = 0.2 lb/1000 gal
2. Factors for distillate fuel oil, PM_{10} is 50% of PM based on AP-42, Table 1.3-6 (9/98).
3. Based on stochiometric calculation: 7.2 lbs/gal; 135,000 Btu/gal (min); 0.05% sulfur.
4. Based on stack testing conducted on Boiler No. 1 and 2 on Feb. 10-11, 2006.
5. Factors for No. 2 fuel oil combustion, AP-42 Table 1.3-10 (9/98).

Footnotes:

[a] Based on maximum heat input due to No. 2 fuel oil combustion, from manufacturer specifications.

[b] Based on No. 2 fuel oil usage of 6,000,000 gallons per year and heating value of 139,000 Btu/gal (max).