# Memorandum

# Florida Department of Environmental Protection

TO:

Trina Vielhauer, Bureau of Air Regulation

THROUGH:

Jeff Koerner, New Source Review Section

DATE:

February 5, 2010

SUBJECT:

Draft/Proposed Permit No. 0510003-032-AV

Draft/Proposed Title V Air Operation Permit Renewal

Draft Permit No. 0510003-031-AC

Draft Air Construction Permit Revision

United States Sugar Corporation Clewiston Sugar Mill and Refinery

This project will renew the Title V air operation permit for the existing facility and concurrently revise several underlying conditions in previously issued air construction permits. This is a revised draft permit package and rescinds the initial draft permit package. Attached are the draft permit documents for the above projects. I recommend your approval of the draft permits.

Attachments

TLV/jfk



# Florida Department of Environmental Protection

Bob Martinez Center 2600 Blair Stone Road Tallahassee, Florida 32399-2400 Charlie Crist Governor

Jeff Kottkamp Lt. Governor

Michael W. Sole Secretary

Mr. Neil Smith, Vice President and General Manager Sugar Processing Operations Clewiston Sugar Mill and Refinery United States Sugar Corporation 111 Ponce DeLeon Avenue Clewiston, FL 33440

Re: Clewiston Sugar Mill and Refinery – Revised Draft Permit Package Draft/Proposed Permit No. 0510003-032-AV

Draft Title V Air Operation Permit Renewal Draft Permit No. 0510003-031-AC

Draft Air Construction Permit Revision

Dear Mr. Smith:

The Department rescinds the draft permit package issued on February 8, 2008 and issues this revised draft permit package to renew the Title V air operation permit for 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. The project also includes a revised draft air construction permit revision that is being processed concurrently with the Title V project. Enclosed are the following documents: Written Notice of Intent to Issue Air Permits, Public Notice of Intent to Issue Air Permits, Statement of Basis, Draft Title V Air Operation Permit and Appendices, Technical Evaluation and Preliminary Determination, and Draft Air Construction Permit Revision. The Public Notice of Intent to Issue Air Permits 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. It combines the notice requirements for both the air construction and Title V air operation permit projects.

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

Sincerely,

Sincerely,

Out of S

**Enclosures** 

TLV/jfk

## P.E. CERTIFICATION STATEMENT (PAGE 1 OF 2)

#### PERMITTEE

United States Sugar Corporation 111 Ponce DeLeon Avenue Clewiston, FL 33440 Clewiston Sugar Mill and Refinery
Revised Draft Permit Package
Draft Permit No. 0510003-032-AV
Draft Title V Air Operation Permit Renewal
Draft Permit No. 0510003-031-AC
Draft Air Construction Permit Revision

#### PROJECT DESCRIPTION

The applicant submitted an application to renew the Title V air operation permit with a concurrent request to make minor changes to some underlying air construction permit conditions. Revisions to the air construction permit include:

# Permit No. PSD-FL-208

• For Boiler 7, remove redundant VOC emissions limit.

## Permit No. PSD-FL-272A

- For Boiler 4, reduce the maximum steam production rates and heat input rates based on a modified steam temperature of 850° F and actual capacity.
- For Boiler 4, revise the wet scrubber monitoring parameters to be consistent with the provisions for the Compliance Assurance Monitoring requirements.
- Remove references to Boiler 3, which was permanently shut down pursuant to the Boiler 8 project.
- For Boilers 1, 2 and 4, remove oil firing provisions made obsolete by Permit 0510003-029-AC, which requires the firing of distillate oil with a maximum sulfur content of 0.05% by weight.
- For Boilers 1 and 2, revise the maximum permitted steam production rates and heat input rates based on actual capacity.
- For Boilers 4 and 7, remove the 24-hour steam production limitations, which were redundant limitations.
- For Boilers 1 and 2, remove the requirement to conduct SO<sub>2</sub> tests before renewal.
- For Boiler 4, allow the general good combustion practices and startup and shutdown procedures identified in Appendix GCP to be updated in subsequent Title V permits without revising this air construction permit.

### Permit No. PSD-FL-333C

- For Boiler 8, reduce SO<sub>2</sub> test frequency from annual to before renewal of the operation permit.
- For Boiler 8, revise the requirement to sample and analyze wood chips from calendar quarters when stored on site to calendar quarters when fired.
- For Boiler 8, remove the requirement for parametric monitoring on the cyclones.

# Permit No. 0510003-029-AC

In Condition 2, remove the fuel maximum fuel oil nitrogen content for Boiler 7.

### Permit No. 0510003-034-AC

• Revise the testing frequency for visible emissions from annual with lime delivered by both railcar and truck to annual with lime delivered by railcar and before permit renewal with lime delivered by truck.

The Title V permit renewal includes the following changes:

• Include a Compliance Assurance Monitoring (CAM) plan for affected units.

# P.E. CERTIFICATION STATEMENT (PAGE 2 OF 2)

- Update unregulated emissions units, permanently shutdown emissions units and insignificant activities.
- Correct the applicability of NSPS Subpart Kb for the distillate oil storage tanks.
- Incorporate Permit No. 0510003-022-AC for off season repairs.
- Incorporate Permit No. 0510003-025-AC for addition of salt silo with baghouse at the molasses plant.
- Incorporate Permit No. 0510003-029-AC for oil burner modifications to Boiler 7.
- Incorporate Permit No. 0510003-031-AC, which is the concurrent air construction permit revision.
- Incorporate Permit No. 0510003-033-AC for a limestone silo with baghouse.
- Incorporate Permit No. 0510003-034-AC for lime storage and truck/rail handling system with baghouse controls.
- Incorporate Permit No. 0510003-037-AC (PSD-FL-333C) to add Boiler 8 and modify the biomass handling system.
- Incorporate Permit No. 0510003-038-AC (PSD-FL-346A) to add white sugar dryer No. 2.
- Incorporate Permit No. 0510003-039-AC, which modifies the oil firing systems for Boilers 1, 2 and 4.
- Incorporate Permit No. 0510003-045-AC to add the rental package boiler.
- Incorporate Permit No. 0510003-044-AC (PSD-FL-389) to add wood chips to Boiler 7.

The applicant provided reasonable assurance of compliance with the applicable permit requirements and the provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297 of the Florida Administrative Code. The Title V permit authorizes operation of the facility shown on the application and approved drawings, plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

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;4,62-204,62-210, 62-212, 62-213, 62-296 and 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 civil, structural, hydrological, geological and meteorological features).

Jeffery F. Koerner, P.E.

Registration Number: 49441

(Date)

#### WRITTEN NOTICE OF INTENT TO ISSUE AIR OPERATION PERMITS

In the Matter of an Application for Air Permit by:

Mr. Neil Smith, Vice President and General Manager Sugar Processing Operations Clewiston Sugar Mill and Refinery United States Sugar Corporation 111 Ponce DeLeon Avenue Clewiston, FL 33440 Revised Draft Permit Package
Clewiston Sugar Mill and Refinery
Hendry County, Florida
Draft/Proposed Permit No. 0510003-032-AV
Draft Title V Air Operation Permit Renewal
Draft Permit No. 0510003-031-AC
Draft Air Construction Permit Revision

Facility Location: The United States Sugar Corporation operates 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.

**Project**: The applicant applied to renew the Title V air operation permit for this facility. The application included a request for concurrent processing of an air construction permit revision that proposed several changes to specific conditions in underlying air construction permits for emissions units at this facility. Details of the project are provided in the application and the enclosed permitting documents.

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.). Applications for Title V air operation permits are subject to review in accordance with the provisions of Chapter 403, F.S. and Chapters 62-4, 62-210 and 62-213, F.A.C. The projects are not exempt from the permitting procedures for air construction or Title V air operation permits. 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.

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 the physical address indicated above for the Permitting Authority. The complete project file includes the Draft/Proposed Permits, the Technical Evaluation and Preliminary Determination, the Statement of Basis, the application and information submitted by the applicant (exclusive of confidential records under Section 403.111, F.S.). Interested persons may contact the Permitting Authority's project engineer for additional information at the address and phone number listed above. In addition, electronic copies of these documents are available on the following web site: http://www.dep.state.fl.us/air/emission/apds/default.asp.

Notice of Intent to Issue Air Permits: The Permitting Authority gives notice of its intent to issue a draft/proposed Title V air operation permit renewal and a concurrent draft air construction permit revision for the projects described above. The applicant has provided reasonable assurance that operation of the facility 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, 62-213, 62-296 and 62-297, F.A.C. The permitting authority will issue final permits in accordance with the conditions of the draft permits unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comments received in accordance with this notice results in a different decision or a significant change of terms or conditions.

**Public Notice Required:** Pursuant to Section 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 Permits (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

# WRITTEN NOTICE OF INTENT TO ISSUE AIR OPERATION PERMITS

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) and (9), F.A.C., the applicant shall provide proof of publication to the Permitting Authority at the above address within seven days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permits pursuant to Rule 62-110.106(11), F.A.C.

Comments: The Permitting Authority will accept written comments concerning the draft air construction permit and the Title V air operation permit for a period of 30 days from the date of publication of the Public Notice. Written comments received must be post-marked by the Permitting Authority at the above address by 5:00 p.m. on or before the end of the 30-day period. As part of his or her comments, any person may also request that the Permitting Authority hold a public meeting on the permitting actions. If the Permitting Authority determines there is sufficient interest for a public meeting, it will publish notice of the time, date, and location in the Florida Administrative Weekly (<a href="http://faw.dos.state.fl.us/">http://faw.dos.state.fl.us/</a>) and in a newspaper of general circulation in the area affected by the permitting action. For additional information, contact the Permitting Authority at the above address or phone number. If written comments or comments received at a public meeting 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 decisions 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 (Telephone: 850/245-2241; Fax: 850/245-2303). Petitions filed by the applicant or any of the parties listed below must be filed within 14 days of receipt of this Written Notice of Intent to Issue Air Permits. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 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 Permits, 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 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 (in a proceeding initiated by another party) 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 (Project No.), 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 when and how each petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact; (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 including an explanation of how the alleged facts relate to the specific rules or statutes; 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.

### WRITTEN NOTICE OF INTENT TO ISSUE AIR OPERATION PERMITS

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 Written Notice of Intent to Issue Air Permits. 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.

**EPA Review**: EPA has agreed to treat the Draft Title V Air Operation Permit as a Proposed Title V Air Operation Permit and to perform its 45-day review provided by the law and regulations concurrently with the public comment period. Although EPA's 45-day review period will be performed concurrently with the public comment period, the deadline for submitting a citizen petition to object to the EPA Administrator will be determined as if EPA's 45-day review period is performed after the public comment period has ended. The final Title V air operation permit will be issued after the conclusion of the 45-day EPA review period so long as no adverse comments are received that result in a different decision or significant change of terms or conditions. The status regarding EPA's 45-day review of this project and the deadline for submitting a citizen petition can be found at the following website address: http://www.epa.gov/region4/air/permits/Florida.htm.

Objections to the Draft Title V Air Operation Permit: Finally, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 days of the expiration of the Administrator's 45-day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to issuance of any Title V Air Operation Permit. Any petition shall be based only on objections to the Title V Air Operation Permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any Title V Air Operation Permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460. For more information regarding objections, visit EPA's Region 4 web site at: <a href="http://epa.gov/region4/air/permits/Florida.htm">http://epa.gov/region4/air/permits/Florida.htm</a>.

Executed in Tallahassee, Florida.

Trina Vielhauer, Chief

Bureau of Air Regulation

## CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Written Notice of Intent to Issue Air Permits package (including the following revised documents: Written Notice of Intent to Issue Air Permits, the Public Notice of Intent to Issue Air Permits, the Technical Evaluation and Preliminary Determination, the Draft Air Construction Permit, the Statement of Basis and the Draft Title V Air Operation Permit with Appendices), or a link to these documents made available electronically on a publicly accessible server, was sent by electronic mail with received receipt requested before the close of business on to the persons listed below.

Mr. Neil Smith, U.S. Sugar (nsmith@ussugar.com)

Mr. Keith Tingberg, U.S. Sugar (ktingberg@ussugar.com)

Mr. David Buff, Golder Associates (dbuff@golder.com)

Mr. Ajaya Satyal, SD Office (ajaya.satyal@dep.state.fl.us)

Ms. Kathleen Forney (forney.kathleen@epa.gov)

Ms. Heather Abrams, U.S. EPA Region 4 (abrams.heather@epa.gov)

Ms. Ana M. Oquendo, EPA Region 4 (oquendo.ana@epa.gov)

Ms. Vickie Gibson, DEP BAR Reading File (victoria.gibson@dep.state.fl.us)

Ms. Barbara Friday, DEP BAR for posting (barbara.friday@dep.state.fl.us)

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.

## PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMITS

Florida Department of Environmental Protection

Notice of Intent to Issue Air Permits

United States Sugar Corporation Clewiston Sugar Mill and Refinery

Draft/Proposed Permit No. 0510003-032-AV Draft/Proposed Title V Air Operation Permit Renewal

Draft Permit No. 0510003-031-AC
Draft Air Construction Permit Revision

**Applicant**: The applicant for this project is the United States Sugar Corporation. The applicant's responsible official is Mr. Neil Smith, Vice President and General Manager of Sugar Processing Operations. The applicant's mailing address is: Clewiston Sugar Mill and Refinery, United States Sugar Corporation, 111 Ponce DeLeon Avenue, Clewiston, Florida 33440.

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

**Project**: Sugarcane is harvested from adjacent, neighboring and remote fields in Glades, Hendry, Martin and Palm Beach counties and transported to the mill by train. In the mill, sugarcane is cut into small pieces and processed in 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. Molasses is also produced as a byproduct. Molasses is stored and processed into an animal feed product for sale.

The primary sources of air pollution consist of five industrial boilers (1, 2, 4, 7 and 8) that fire bagasse as the primary fuel and distillate oil as a startup and supplemental fuel. Boilers 7 and 8 are also permitted to fire wood chips as an auxiliary fuel. Emissions of sulfur dioxide are minimized by the use of low sulfur fuels. Particulate matter emissions from Boilers 1, 2 and 4 are controlled by wet impingement scrubbers. Particulate matter emissions from Boilers 7 and 8 are controlled by cyclones followed by electrostatic precipitators. The largest boiler, Boiler 8, uses a selective non-catalytic reduction system with urea injection to reduce emissions of nitrogen oxides.

United States Sugar Corporation submitted an application to renew the Title V air operation permit for the existing Clewiston sugar mill and refinery, which incorporates subsequent air construction permits. The project also includes the concurrent processing of an air construction permit revision for several underlying conditions including the: removal of obsolete emissions standards, testing and monitoring requirements; removal of several conditions related to higher sulfur oil since all units now fire low sulfur distillate oil; reductions of the maximum permitted steam production and heat input rates for Boilers 1, 2 and 4 based on actual capacities; removal of obsolete test requirements for Boilers 1 and 2; removal of redundant steam production caps for Boilers 4 and 7; revisions of the wet scrubber monitoring requirements for Boiler 4; modification of the general good combustion practices and startup and shutdown procedures for Boiler 4; change in the frequency for sampling and analysis of wood chips for Boilers 7 and 8; reduce the test frequency for sulfur dioxide to before renewal of the operation permit; and revision of the visible emissions test frequency for the lime unloading system.

**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.). Applications for Title V air operation permits are subject to review in accordance with the provisions of Chapter 403, F.S. and Chapters 62-4, 62-210 and 62-213, F.A.C. The projects are not exempt from the permitting procedures for air construction or Title V air operation permits. The Florida Department of Environmental Protection's Bureau of Air Regulation is the Permitting Authority responsible for

#### PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMITS

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.

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 the physical address indicated above for the Permitting Authority. The complete project file includes the Draft/Proposed Permits, the Technical Evaluation and Preliminary Determination, the Statement of Basis, the application and information submitted by the applicant (exclusive of confidential records under Section 403.111, F.S.). Interested persons may contact the Permitting Authority's project engineer for additional information at the address and phone number listed above. In addition, electronic copies of these documents are available on the following web site: <a href="http://www.dep.state.fl.us/air/emission/apds/default.asp">http://www.dep.state.fl.us/air/emission/apds/default.asp</a>.

Notice of Intent to Issue Air Permits: The Permitting Authority gives notice of its intent to issue a draft/proposed Title V air operation permit renewal and a concurrent draft air construction permit revision for the projects described above. The applicant has provided reasonable assurance that operation of the facility will not adversely impact air quality and that the project will comply with all applicable provisions of Chapters 62-4, 62-204, 62-210, 62-213, 62-296 and 62-297, F.A.C. The permitting authority will issue final permits in accordance with the conditions of the draft/proposed permits unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comments 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 air construction permit and the draft/proposed Title V air operation permit for a period of 30 days from the date of publication of the Public Notice. Written comments received must be post-marked by the Permitting Authority at the above address by 5:00 p.m. on or before the end of the 30-day period. As part of his or her comments, any person may also request that the Permitting Authority hold a public meeting on the permitting actions. If the Permitting Authority determines there is sufficient interest for a public meeting, it will publish notice of the time, date, and location in the Florida Administrative Weekly (<a href="http://faw.dos.state.fl.us/">http://faw.dos.state.fl.us/</a>) and in a newspaper of general circulation in the area affected by the permitting action. For additional information, contact the Permitting Authority at the above address or phone number. If written comments or comments received at a public meeting result in a significant change to the draft permits, 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 at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S. must be filed within 14 days of publication of this Public Notice or receipt of a written notice, 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 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 (in a proceeding initiated by another party) 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 rights will be affected by the

#### PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMITS

agency determination; (c) A statement of when and how the petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; 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 Permits. 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.

**EPA Review**: EPA has agreed to treat the draft Title V air operation permit as a proposed Title V air operation permit and to perform its 45-day review provided by the law and regulations concurrently with the public comment period. Although EPA's 45-day review period will be performed concurrently with the public comment period, the deadline for submitting a citizen petition to object to the EPA Administrator will be determined as if EPA's 45-day review period is performed after the public comment period has ended. The final Title V air operation permit will be issued after the conclusion of the 45-day EPA review period so long as no adverse comments are received that result in a different decision or significant change of terms or conditions. The status regarding EPA's 45-day review of this project and the deadline for submitting a citizen petition can be found at the following website address: <a href="http://www.epa.gov/region4/air/permits/Florida.htm">http://www.epa.gov/region4/air/permits/Florida.htm</a>.

Objections: Finally, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 days of the expiration of the Administrator's 45-day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to the issuance of any Title V air operation permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30-day public comment period provided in the Public Notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460. For more information regarding EPA review and objections, visit EPA's Region 4 web site at http://www.epa.gov/region4/air/permits/Florida.htm.



# **PROJECT**

Draft Air Construction Permit No. 0510003-031-AC
Miscellaneous Air Construction Permit Revisions
Revises Permit Nos. PSD-FL-208, PSD-FL-272A, PSD-FL-333C,
PSD-FL-389, 0510003-029-AC and 0510003-034-AC
Concurrent with Title V Permit No. 0510003-032-AV

# **APPLICANT**

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

ARMS Facility ID No. 0510003

# PERMITTING AUTHORITY

Bureau of Air Regulation
Division of Air Resource Management
Florida Department of Environmental Protection
2600 Blairstone Road, MS #5505
Tallahassee, Florida 32399-2400

#### 1. GENERAL PROJECT INFORMATION

## **Facility Description and Location**

U.S. Sugar operates a sugar mill and refinery in Hendry County located at the intersection of W.C. Owens Avenue and State Road 832 in Clewiston, Florida. The UTM map coordinates are Zone 17, 506.1 East and 2956.9 North. Sugarcane is harvested from adjacent, neighboring and remote fields in Glades, Hendry, Martin and Palm Beach counties and transported to the mill by train. In the mill, sugarcane is cut into small pieces and processed in 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. Molasses is also produced as a byproduct. Molasses is stored and processed into an animal feed product for sale.

- The existing facility is a major source of hazardous air pollutants.
- The existing facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The existing facility is a major stationary source of air pollution in accordance with Rule 62-212.400(PSD), F.A.C.
- Existing units are subject to the following New Source Performance Standards (NSPS) in Part 60 of Title 40, the Code of Federal Regulations (CFR): Subpart A (General Provisions), Subpart Db (Industrial-Commercial-Institutional Steam Generating Units) and Subpart Dc (Small Industrial-Commercial-Institutional Steam Generating Units).
- No units are subject to any National Emissions Standards for Hazardous Air Pollutants (NESHAP) in 40 CFR 63. {Permitting Note: Initially, the boilers were subject to Subpart DDDDD (Industrial Boilers); however, this regulation was vacated and remanded to EPA for reconsideration.}

### 2. PROJECT DESCRIPTION

In conjunction with Project No. 0510003-032-AV, the application requested the concurrent processing of an air construction permit to make miscellaneous changes to the following previously issued air construction permits.

# Permit No. PSD-FL-208

### Boiler 7 (EU-014)

- In Condition 22, remove redundant VOC emissions limit for Boiler 7.
- In Condition 14, revise the NO<sub>X</sub> and VOC testing frequency from annual to before renewal of the operation permit.

# Permit No. PSD-FL-272A

# Subsection III.A. Boiler 4 (EU-009)

- In Condition 3, reduce the maximum steam production rates and heat input rates based on a modified steam temperature of 850° F and actual capacity.
- In Condition 8, revise the wet scrubber monitoring parameters to be consistent with the provisions for the Compliance Assurance Monitoring requirements.
- In Condition 18, revise the NO<sub>X</sub> and VOC testing frequency from annual to before renewal of the operation permit.

# Subsection III.B. Common Conditions for Boilers 1, 2, 4 and 7 (EU-001, 002, 009 and 014)

- In Conditions 1 through 12, revise to delete references to Boiler 3, which was permanently shut down pursuant to the Boiler 8 project.
- In Conditions 4 through 12, revise to remove oil firing provisions made obsolete by Permit No. 0510003-029-AC, which requires the firing of distillate oil (0.05% sulfur by weight maximum).
- In Condition 4, revise the maximum permitted steam production rates and heat input rates for Boilers 1 and 2, which are actually much lower.
- In Condition 7, remove the 24-hour steam production caps for Boiler 4 and 7, which duplicate limitations from Permit Nos. PSD-FL-272 (as amended) and PSD-FL-208 (as amended).
- In Condition 9, remove the requirement to conduct SO<sub>2</sub> tests on either Boiler 1 or 2 before renewal of the operation permit.

# Appendix GCP. Good Combustion Practices Plan for Boiler 4 (EU-009)

Revise to allow the good combustion practices and startup and shutdown procedures identified in this Appendix to be updated in subsequent Title V permits without revising this air construction permit.

#### Permit No. PSD-FL-333C

# Subsection 3A. Boiler 8 (EU-028)

- In Condition 14, revise the SO<sub>2</sub> testing frequency from annual to before renewal of the operation permit.
- In Condition 17b, revise to require sampling and analysis of wood chips during a quarter when wood chips are fired instead of when stored on site during the calendar quarter.
- In Condition 22, remove the parametric monitoring requirement for the cyclones.

### Permit No. 0510003-029-AC

Subsection 3B. Boiler 7 (EU-014)

In Condition 2, remove the obsolete maximum fuel oil nitrogen content.

#### Permit No. 0510003-034-AC

# Subsection 3A. Baghouses - Lime Silo Loading/Unloading (EU-031)

In Condition 4, revise the visible emissions test frequency for the lime unloading system from annual with delivery by both railcar and truck to annual with delivery by railcar and before renewal of the air operation permit with delivery by truck.

# Other Requests

The applicant also requested authorization for more than two hours of excess emissions in any 24-hour period from the boilers due to startup and shutdown.

## 3. APPLICABLE REGULATIONS

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

and regulations defined in the following Chapters of the F.A.C.: 62-4 (Permitting Requirements); 62-204 (Ambient Air Quality Requirements, PSD Increments, and Federal Regulations Adopted by Reference); 62-210 (Permits Required, Public Notice, Reports, Stack Height Policy, Circumvention, Excess Emissions, and Forms); 62-212 (Preconstruction Review, Preconstruction Review for the Prevention of Significant Deterioration of Air Quality and Best Available Control Technology, and Preconstruction Review for Nonattainment Areas and Lowest Achievable Emissions Rate); 62-213 (Title V Air Operation Permits for Major Sources of Air Pollution); 62-296 (Emission Limiting Standards); and 62-297 (Test Methods and Procedures, Continuous Monitoring Specifications, and Alternate Sampling Procedures). The proposed changes do not impose any new specific state regulations and will not result in actual emissions increases. Therefore, the project is not subject to PSD preconstruction review.

#### 4. DEPARTMENT REVIEW

#### PERMIT NO. PSD-FL-208

This permitting action authorized the construction of Boiler 7.

Affected Emissions Unit: Boiler 7 (EU-014)

Condition 22. This condition states, "... Emissions of non-methane volatile organic compounds shall not exceed 1.7 lb/ton of wet bagasse or 0.21 lb/MMBtu as determined by EPA Method 25 or 25A in conjunction with EPA Method 18 and in accordance with 40 CFR 60, Appendix A." However, Condition 1 specifies VOC limits of 0.212 lb/MMBtu of heat input and 157 lb/hour. Permits typically include a mass emissions rate (lb/hour) in addition to an industry standard. For boilers, the industry standard is generally recognized as "lb/MMBtu". A third limit of lb/ton of wet bagasse fired is redundant and really represents an equivalent for the lb/MMBtu limit based on an assumed heating value of bagasse for Boiler 7. The Department agrees that the limit in terms of "lb/ton of wet bagasse" is unnecessary and it was removed. The VOC limit in terms of "lb/MMBtu" in Condition 22 was revised from "0.21" to "0.212" lb/MMBtu to be consistent with Condition 1.

Condition 14. This condition requires annual stack testing for  $NO_X$  and VOC emissions from Boiler 7. The applicant provided information showing that the boiler has continually demonstrated compliance with the applicable standards for many years. Since there are no controls for these pollutants, the applicant requests that the testing frequency be reduced from annual testing to testing prior to permit renewal (every 5 years).

Potential emissions of  $NO_X$  and VOC are each well over 100 tons/year. Emissions of these pollutants are a function of the combustion process, which is controlled by the boiler operators. The BACT determinations require the use of good combustion practices. Although there is no add-on control equipment for these pollutants, annual tests verify that operators are able to satisfactorily use "good combustion practices" to achieve the BACT emissions standards. Therefore, no changes were made to the permit.

#### PERMIT NO. PSD-FL-272A

This PSD permitting action established conditions for the modification of Boiler 4. It also included permit requirements for many miscellaneous mill and refinery units that were being added or modified within the contemporaneous period.

# Subsection III.A. Boiler 4

Affected Emissions Unit: Boiler 4 (EU-009)

Condition 3. The applicant provided additional information that Boiler 4 now produces steam at 600 psig and 850° F instead of 750°. Based on these steam conditions and the given feedwater conditions (900 psig and 250° F), the net enthalpy was revised from 1160 to 1215 Btu/lb of steam. This slightly reduced the maximum 1-hour and 24-hour steam production rates. Condition 3 was revised accordingly.

Condition 8. This condition establishes monitoring requirements for the wet scrubber including the scrubber

pressure differential and water flow rate. Monitoring the line pressure was determined unnecessary and deleted. Since the CAM Plan will specify excursion levels and monitoring frequencies, this condition was revised to defer to the CAM Plan provisions for Boiler 4.

Condition 18. This condition requires annual stack testing for  $NO_X$  and VOC emissions from Boiler 4. The applicant provided information showing that the boiler has continually demonstrated compliance with the applicable standards for many years. Since there are no controls for these pollutants, the applicant requests that the testing frequency be reduced from annual testing to testing prior to permit renewal (every 5 years).

Potential emissions of  $NO_X$  and VOC are each well over 100 tons/year. Emissions of these pollutants are a function of the combustion process, which is controlled by the boiler operators. The BACT determinations require the use of good combustion practices. Although there is no add-on control equipment for these pollutants, annual tests verify that operators are able to satisfactorily use "good combustion practices" to achieve the BACT emissions standards. Therefore, this request is rejected and no changes were made to the air permit.

### Subsection III.B Common Conditions for Boilers 1 - 7

Affected Emissions Units: Boilers 1, 2, 4 and 7 (EU-001, 002, 009 and 014)

Conditions 1 through 12: Permit No. PSD-FL-333 (as amended) for Boiler 8 required the permanent shutdown of Boiler 3. The Boiler 8 project also provided a new air quality analysis for the remaining boilers. Therefore, Conditions 1 through 12 in this subsection were revised accordingly.

Condition 4 through 12: Permit No. PSD-FL-272A authorized Boilers 1 and 2 to fire oil with a maximum sulfur content of up to 2.5% by weight and Boiler 4 to fire oil with a maximum sulfur content of up to 0.7% by weight. However, Permit No. 0510003-039-AC established federally enforceable requirements to fire only distillate oil in Boilers 1, 2 and 4 with a maximum sulfur content of 0.05% by weight. Boilers 7 and 8 were originally permitted to fire only distillate oil with a maximum sulfur content of 0.05% by weight. Higher sulfur (S) fuel oil is no longer fired at this facility. Based on the typical properties for distillate oil, the maximum SO<sub>2</sub> emission factor is estimated as follows.

$$(0.05 \text{ lb S})$$
 (lb oil) (2 lb SO<sub>2</sub>) (10<sup>+06</sup> Btu)  
 $SO_2 = \frac{1}{(100 \text{ lb oil})}$  x  $\frac{1}{(19,910 \text{ Btu})}$  x  $\frac{1}{(100 \text{ lb oil})}$  = 0.05 lb SO<sub>2</sub>/MMBtu (lb S) (MMBtu)

For the Clewiston sugar mill, a maximum  $SO_2$  emission factor of 0.06 lb/MMBtu has been developed from past  $SO_2$  emissions tests on boilers firing bagasse. This emissions factor has been used in air quality modeling analyses performed for this facility. This means that bagasse firing now results in the maximum  $SO_2$  emission rates from the boilers. The requirements established due to the higher sulfur levels in fuel oil are considered obsolete and Conditions 4 through 12 were revised accordingly.

Condition 4: In addition to the previously established 24-hour capacities, Permit No. PSD-FL-272A established additional maximum 1-hour steam production rates, heat input rates and oil firing rates for Boilers 1 and 2 based on SO<sub>2</sub> emissions in the air quality analysis for that project. The applicant provided revised 24-hour maximum capacities that were approximately 25% lower than these rates and based on actual operating data. Based on the large reductions in actual capacities and the use of distillate oil (0.05% sulfur by weight, maximum), the condition was revised to recognize the 24-hour permitted maximum capacities for Boilers 1, 2, 4 and 7. The maximum oil firing rates remained at 1-hour averages since these rates represent the physical capacities of the burners. Boiler 4 retains a 1-hour maximum capacity as specified in Subsection III.A of Permit No. PSD-FL-272 (as amended) and Boiler 7 retains a 1-hour maximum capacity as specified in Permit No. PSD-FL-208 (as amended).

Condition 7: This condition established 24-hour steam production limitations for Boiler 4 and 7; however, the caps were merely duplicate limitations from Permits No. PSD-FL-272 (as amended) and PSD-FL-208 (as amended). Therefore, the redundant performance limitations were removed from this condition.

Condition 9: This condition requires either Boilers 1 or 2 to be tested for SO<sub>2</sub> emissions prior to renewal for informational purposes. To date, tests indicate SO<sub>2</sub> emissions below the established emissions factor of 0.06 lb/MMBtu. Since there are no SO<sub>2</sub> limits for Boilers 1 and 2 and the data has been collected, the requirement to conduct a test on either Boiler 1 or 2 for SO<sub>2</sub> emissions before renewal of the operation permit was removed.

# Section IV. Appendix GCP. Good Combustion Practices Plan

Affected Emissions Unit: Boiler 4 (EU-009)

This Appendix identifies "good combustion practices" and "startup and shutdown procedures" for Boiler 4. Since some of these methods may change over time, the following sentence was added to the very beginning, "The good combustion practices and startup and shutdown procedures identified in this Appendix may be updated in Title V permits without revising this air construction permit." Note that Condition 9 in Subsection III.A continues to specify the critical "good combustion practices" for Boiler 4 that represent BACT for controlling CO and VOC emissions.

### PERMIT NO. PSD-FL-333C

This permitting action authorized the construction of Boiler 8.

Subsection 3A. Boiler 8

Affected Emissions Unit: Boiler 8 (EU-028)

Condition 14. At a permit limit of 0.06 lb/MMBtu, potential SO<sub>2</sub> emissions are well above 100 tons per year with emissions being primarily a function of the sulfur content of bagasse and wood. Some reductions occur when SO<sub>2</sub> is adsorbed on fly ash particles and removed by the ESP. However, there are no adjustments made to the control device to reduce emissions other than operate the particulate control device. For 15 previous test runs, 13 test runs were 0.03 lb/MMBtu or lower. The two highest test runs were 0.037 and 0.045 lb/MMBtu. The BACT determination for Boiler 4 only required testing before renewal of the operation permit because the initial test showed SO<sub>2</sub> emissions below 0.03 lb/MMBtu. The BACT determination for Boiler 7 required an initial test and testing before renewal of the operation permit. Based on this information, the Department will revise the SO<sub>2</sub> test frequency for Boiler 8 from annual to before renewal of the operation permit.

Condition 17. Paragraph "b" of this condition requires the sampling and analysis of wood chips during any calendar quarter wood chips are stored on site. Typically, wood chips are fired in the off-season to supplement bagasse if it is running low. It is reasonable to conduct sampling and analysis during any calendar quarter that wood chips are actually fired. This condition was revised accordingly.

Condition 22. Cyclones are used to remove sand as well as large ash particles prior to the electrostatic precipitator to protect the induced draft fan. Condition 22 requires recording of the flow rate and pressure drop every eight hours. The cyclones are static devices and the pressure drop is a function of the volumetric exhaust flow rate. The pressure drop cannot be otherwise adjusted for performance. The primary purpose of injecting water into the cyclones is to wash particulate buildup from the cyclones walls and not necessarily for particulate control. Continually recording these parameters is unnecessary.

Although the cyclones are pre-controls for the electrostatic precipitator, the function of particulate removal is more dependent on the exhaust flow rate and cyclone design rather than the water injection rate. The exhaust flow rate is a function of the boiler load, which is dependent on steam demand. The exhaust flow and water injection rates are not adjusted to tune the cyclone particulate removal efficiency. Therefore, it is not necessary to continually record the pressure drop and water flow rate of the cyclones to ensure adequate performance. However, the monitoring devices can be used during the required tests and at other times to troubleshoot potential problems with the overall control system. Therefore, the condition will be revised to only require recording of the pressure drop at 15-minute intervals during required stack tests.

#### PERMIT NO. PSD-FL-389

Subsection 3A. Boiler 7 (EU-014)

Affected Emissions Unit: Boiler 7 (EU-014)

<u>Condition 8</u>. This permit condition requires the sampling and analysis of wood chips during any calendar quarter wood chips are stored on site. Typically, wood chips are fired in the off-season to supplement bagasse if it is running low. It is reasonable to conduct sampling and analysis during any calendar quarter that wood chips are actually fired. This condition was revised accordingly.

Condition 10. This permit condition requires recording a monthly summary within seven days following each calendar month. This requirement was revised to "ten days" to be consistent with the similar requirement for Boiler 8.

### PERMIT NO. 0510003-029-AC

This permitting action established new oil firing conditions for Boilers 4 and 7. Subsequently, Boiler 4 was modified by Permit No. 0510003-039-AC to also fire distillate oil.

# Subsection 3B, Condition 2

Affected Emissions Unit: Boiler 7 (EU-014)

Condition 2. In Permit No. PSD-FL-208, Condition 6 states, "Nitrogen oxides emissions will be controlled by over-fire air and good combustion practices; and, will be minimized using low-nitrogen fuel oil (max. 0.015% N content, by weight)." This nitrogen (N) content limit was repeated in Condition 21 of Permit No. PSD-FL-208 (as amended) and was carried over to Condition 2 in Permit No. 0510003-029-AC, which superseded all previous conditions for oil firing for Boiler 7. A test conducted in 2003 indicated NO<sub>X</sub> emissions of 0.158 lb/MMBtu while firing 100% distillate oil (<0.05% sulfur by weight) near capacity, which is well below the permit limit of 0.20 lb/MMBtu. The nitrogen content is typically very low for distillate oil, which is primarily used as a startup and supplemental fuel restricted to an annual capacity factor of less than 10%. In comparison, the primary fuel of bagasse may have a nitrogen content of approximately 0.35% by weight. Also, the majority of NO<sub>X</sub> emissions generated from firing distillate oil will be thermal NO<sub>X</sub> and not fuel NO<sub>X</sub>.

The Department agrees that distillate oil contains very low levels of fuel nitrogen. For comparison, Boiler 7 is also subject to NSPS Subpart Db for industrial boilers and 40 CFR 60.41b defines *distillate oil* as "fuel oils that contain 0.05 weight percent nitrogen or less and comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society of Testing and Materials in ASTM D396 (incorporated by reference, see §60.17)." However, 40 CFR 60.49b(r)(1) also states, "For the purposes of this section, the distillate oil need not meet the fuel nitrogen content specification in the definition of distillate oil." Record keeping of the fuel nitrogen content by fuel analysis is only required for residual oil. This indicates that fuel nitrogen at these levels contributes little to overall NO<sub>X</sub> emissions. Therefore, Condition 2 was revised to remove the nitrogen content specification.

### PERMIT NO. 0510003-034-AC

# Subsection 3A. Baghouses - Lime Silo Loading/Unloading (EU-031)

Affected Emissions Unit: Lime Storage and Truck/Rail Handling System (EU-031)

Condition 4. Lime is typically delivered to the mill by railcar and less than 20% of the time by truck. Condition 4 states, "Separate (visible emissions) tests shall be conducted while unloading lime from a truck and unloading lime from a railcar unless these systems can be used simultaneously." Due to the infrequent delivery of lime by truck, it is difficult to schedule tests when lime is being delivered by both railcar and truck. The Department agrees to revise the condition to require annual tests for delivery by railcar and a test before renewal of the air operation permit for delivery by truck.

## OTHER REQUESTS

# Request to Authorize Excess Emissions from All Boilers during Startup and Shutdown

The applicant states that startup and shutdown of the boilers last much longer than 2 hours and emissions during startup and shutdown may exceed the emissions limits for the given unit. Therefore, the applicant requests authorization for excess emissions during startup and shutdown for the duration defined under startup and shutdown procedures (as high as 12 hours).

When compliance is continuously demonstrated by CEMS data, allowances for excess emissions may be provided for specific periods of operation in which the emissions unit, control device or technique may not be fully functional or has not achieved steady-state operation. Similarly, an alternate standard may be specified for opacity during startup and shutdown because compliance is readily observable. For pollutants with compliance by stack tests, the compliance status will not be known since such tests are only performed during steady state operations at permitted capacity.

Only Boiler 8 has CEMS for which this issue has been addressed. Although emissions may be elevated during startup and shutdown, the applicant has not provided any emissions data to support this claim. There may be reason to believe that the mass emission rates (lb/hour) of these pollutants may not exceed the specified standards due to the reduced fuel firing rates for operation at low loads. Except for opacity, compliance with the standards is generally unknown. For opacity, the boilers operate control devices once bagasse is being fired and have relatively high opacity standards. The startup and shutdown plans for each boiler will be included in the Title V air operation permit and will identify the estimated duration for startup and shutdown. This is sufficient to address this issue and no changes were made to any air construction permits.

#### 5. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the draft permit. No air quality modeling analysis is required because the project does not result in a significant increase in emissions.

# DRAFT PERMIT REVISION

## **PERMITTEE**

United States Sugar Corporation
111 Ponce DeLeon Avenue
Clewiston, FL 33440
Authorized Representative:
Mr. Neil Smith, Vice President and General Manager
Sugar Processing Operations

Permit No. 0510003-031-AC Clewiston Sugar Mill and Refinery ARMS ID No. 0510003 Miscellaneous Permit Revisions Hendry County, Florida

# PROJECT AND LOCATION

Enclosed is the final air construction permit revision processed concurrently with renewal Title V Permit 0510003-032-AV to revise specific conditions in the following air construction permits: PSD-FL-208, PSD-FL-272A, PSD-FL-333C, 0510003-029-AC and 0510003-034-AC. This permit revision shall be filed with each of the referenced permits and shall become part of those permits. The affected emissions units operate at the existing Clewiston Sugar Mill and Refinery (SIC Nos. 2061 and 2062), which is located in Hendry County at the intersection of W.C. Owens Avenue and State Road 832 in Clewiston, Florida. The UTM map coordinates are Zone 17, 506.1 East and 2956.9 North. This final permit is organized into the following sections: Section 1 (General Information) and Section 2 (Permit Revisions). As noted in the Final Determination provided with this final permit, only minor changes and clarifications were made to the draft permit.

### 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.). This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality. A copy of this permit modification shall be filed with the referenced permit and shall become part of the permit.

Upon issuance of this final permit, 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 30 days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida

(DRAFT)	
Joseph Kahn, Director Division of Air Resource Management	(Date)

# **CERTIFICATE OF SERVICE**

The undersigned duly designated	I deputy agency clerk	chereby certifies that this Fina	al Air Permit package
(including the Final Determination	on and Final Permit I	Revision) was sent by electror	nic mail, or a link to these
documents made available electr	onically on a publicl	y accessible server, with recei	ved receipt requested before
the close of business on	(DRAFT)	to the persons listed be	low.
Mr. Neil Smith, U.S. Sugar (nsm Mr. Keith Tingberg, U.S. Sugar ( Mr. David Buff, Golder Associat Mr. Ajaya Satyal, SD Office (aja Ms. Kathleen Forney (forney.kat Ms. Ana M. Oquendo, EPA Reg Ms. Vickie Gibson, DEP BAR R Ms. Barbara Friday, DEP BAR f	(ktingberg@ussugar. tes (dbuff@golder.co ya.satyal@dep.state. thleen@epa.gov) ion 4 (oquendo.ana@ eading File (victoria	om) fl.us) (epa.gov) .gibson@dep.state.fl.us)	
·	Cler	k Stamp	
	purs desig	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.	
		(DRAFT)	
		(Clerk)	(Date)

#### **FACILITY DESCRIPTION**

U.S. Sugar operates a sugar mill and refinery in Hendry County located at the intersection of W.C. Owens Avenue and State Road 832 in Clewiston, Florida. The UTM map coordinates are Zone 17, 506.1 East and 2956.9 North. Sugarcane is harvested from adjacent, neighboring and remote fields in Glades, Hendry, Martin and Palm Beach counties and transported to the mill by train. In the mill, sugarcane is cut into small pieces and processed in 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. Molasses is also produced as a byproduct. Molasses is stored and processed into an animal feed product for sale.

# **REGULATORY CATEGORIES**

- The existing facility is a major source of hazardous air pollutants.
- The existing facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The existing facility is a major stationary source of air pollution in accordance with Rule 62-212.400(PSD), F.A.C.
- Existing units are subject to the following New Source Performance Standards (NSPS) in Part 60 of Title 40, the Code of Federal Regulations (CFR): Subpart A (General Provisions), Subpart Db (Industrial-Commercial-Institutional Steam Generating Units) and Subpart Dc (Small Industrial-Commercial-Institutional Steam Generating Units).
- No units are subject to any National Emissions Standards for Hazardous Air Pollutants (NESHAP) in 40 CFR 63. {Permitting Note: Initially, the boilers were subject to Subpart DDDDD (Industrial Boilers); however, this regulation was vacated and remanded to EPA for reconsideration.}

## SUMMARY OF AFFECTED EMISSIONS UNITS

EU No.	Emissions Unit Description
001	Boiler 1
002	Boiler 2
009	Boiler 4
014	Boiler 7
028	Boiler 8
031	Lime Storage and Truck/Rail Handling System

This permit revises several underlying conditions in previously issued air construction permits for the Clewiston Sugar Mill and Refinery. All construction is complete and no further construction is authorized by this action. Deletions are shown as strikethrough and additions with <u>double underline</u>. The permits and conditions are revised as follows. All other conditions are unchanged and the affected emissions units remain subject to the applicable requirements.

#### PERMIT NO. PSD-FL-208A

Affected Emissions Unit: Boiler 7 (EU-014)

22. Carbon monoxide and volatile organic compounds emissions shall be maintained at the lowest possible level through the implementation of an Operation and Maintenance plan that has been approved by the Department. Emissions of carbon monoxide shall not exceed 0.70 lb/million Btu as determined by EPA Method 10 and in accordance with 40 CFR 60, Appendix A. Emissions of non-methane volatile organic compounds shall not exceed 1.7 lb/ton of wet bagasse or 0.212 lb/MMBtu as determined by EPA Method 25 or 25A in conjunction with EPA Method 18 and in accordance with 40 CFR 60, Appendix A.

PERMIT REVISED: PERMIT NO. PSD-FL-272B

Subsection III.A. Boiler 4 (EU-009)

Affected Emissions Unit: Boiler 4 (EU-009)

3. <u>Permitted Capacity</u>: Steam production, heat input, and bagasse firing shall not exceed the following limits.

Averaging Period	Steam Pressure <sup>a</sup>	Steam Temperature a	Steam Production (lb / hour)	Heat Input b (MMBtu/hour)	Wet Bagasse Firing <sup>b</sup> (tons/hour)
1-hour	600 psig	<del>750</del> <u>850</u> ° F	<del>300,000</del> <u>286,543</u>	633	88
24-hour	600 psig	<del>750</del> <u>850</u> ° F	<del>285,000</del> <u>271,604</u>	600	83

Steam temperature and pressure are design parameters. Changes to these parameters resulting from boiler aging or modification shall be reported to the Department and may require a permit modification.

Based on: 55% thermal efficiency of the boiler when firing bagasse; wet bagasse containing 55% moisture and a heat content of 3600 BTU/lb; and 1160 1215 BTU (net) per pound of steam at 600 psig and 750 850° F with standard feed water conditions of 900 psig and 250° F.

No more than 400,000 tons of bagasse shall be fired during any consecutive 12 months. In addition, the total heat input to this boiler shall not exceed 2,880,000 mmBTU during any consecutive 12 months. Compliance with the steam limits shall be determined by continuous monitoring of the steam temperature, steam pressure, and steam production rate. The heat input and bagasse consumption limits shall be calculated and recorded in accordance with the record keeping requirements of this permit. [Rule 62-210.200, F.A.C., Definitions – PTE; and Permit No. PSD-FL-272B]

- 8. Wet Scrubber: To control emissions of particulate matter, the permittee shall install, operate, and maintain a Type D, Size 200 Joy Turbulaire wet impingement scrubber. To ensure the annular throttling gap is being properly maintained, this system shall provide constant make up water overflow to the scrubber as indicated by the weir box. The wet scrubber shall also be equipped with the following monitoring equipment.
  - a. A manometer (or equivalent) shall be installed to measure the scrubber pressure drop in inches of water column. The pressure drop across the scrubber shall be maintained between 8 and 11 inches of water column.

- b. A pressure gage shall be installed to monitor the water supply pressure to the scrubber nozzles. This pressure shall be maintained between 40 and 55 psi.
- be. A flow meter shall be installed to measure the water flow rate to the scrubber spray nozzles. This flow rate shall be maintained above 375 gallons per minute, based on a 3-hour block average.

The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations. The monitoring provisions for the minimum scrubber pressure differential and flow rate shall be established in the Title V air operation permit as part of the required CAM Plan for Boiler 4. The permittee shall read and record each scrubber parameter once normal operations have been established after startup and at least once every 3 hours. Should any monitored parameter fall outside the specified operating range, the permittee shall investigate the cause and take corrective action to regain operation within the specified range. In addition, the permittee shall begin reading and recording all monitored parameters at 30 minute intervals until successive readings indicate operation within the specified range. The permittee may elect to install an automated recorder to satisfy the recording requirements. The permittee shall record any problems with operation of the wet scrubber and corrective actions taken in the Daily Operational Records required by this permit. Operation outside of the specified operating range for any monitored parameter is not a violation of this permit, in and of itself. However, continued operation outside of the specified operating range for any monitored parameter without corrective action may be considered circumvention of the air pollution control equipment. [Applicant Request; Rule 62-4.070(3); Rule 62-212.400 (BACT), F.A.C.; Permit No. PSD-FL-272B]

# Subsection III.B. Common Conditions for Boilers 1 - 7

Affected Emissions Units: Boilers 1, 2, 4 and 7 (EU-001, 002, 009 and 014)

The emissions unit descriptions in this subsection are revised as follows.

EU No.	Emissions Unit Description
001	Bagasse Boiler No. 1 with wet serubber (255,000 pounds of steam per hour)
002	Bagasse Boiler No. 2 with wet scrubber (230,000 pounds of steam per hour)
003	Bagasse Boiler No. 3 (inactive, permanently shut down) with wet scrubber (130,000 pounds of steam per hour)
004	Bagasse Boiler No. 5 (inactive, permanently shut down)
005	Bagasse Boiler No. 6 (inactive, permanently shut down)
009	Bagasse Boiler No. 4 with wet scrubber (300,000 pounds of steam per hour)
014	Bagasse Boiler No. 7 with electrostatic precipitator (385,000 pounds of steam per hour)

The 12 original conditions of this subsection are revised as follows.

- 1. <u>Permanent Shutdown</u>: Boiler Nos. <u>3</u>, 5 and 6 shall remain permanently shut down and rendered incapable of operation. These units are no longer available as "standby" units. Any proposed future operation of either boiler would require a preconstruction review permit as a "new" unit. [Applicant Request, Supporting Air Quality <u>Analyses Analysis</u> for <u>Permit Nos.</u> PSD-FL-272A and PSD-FL-333B]
- 2. <u>Modified Stack Heights</u>: The stacks for Boiler Nos. 1, and 2, and 3 shall be maintained at a minimum of 213 feet in height. [Design, Applicant Request, Supporting Air Quality <u>Analyses Analysis</u> for <u>Permit Nos.</u> PSD-FL-272A and PSD-FL-333B]
- 3. <u>Crop Season</u>: For this facility, the sugarcane crop season is defined as October through April and the off-season is defined as May through September. [Applicant Request, Supporting Air Quality <u>Analyses Analysis</u>

for Permit Nos. PSD-FL-272A and PSD-FL-333B]

- 4. Capacities: For each boiler, the maximum 1-hour operating permitted capacities are shall not exceed:
  - a. Boiler No. 1: 255,000 185,000 pounds of steam per hour, 495 397 MMBtu per hour of total heat input, and 1500 gallons of oil per hour;
  - b. Boiler No. 2: 230,000 185,000 pounds of steam per hour, 447 397 MMBtu per hour of total heat input, and 1500 gallons of oil per hour;
  - e. Boiler No. 3: 130,000 pounds of steam per hour, 265 MMBtu per hour of total heat input, and 900 gallons of oil per hour
  - d c. Boiler No. 4: 300,000 271,604 pounds of steam per hour, 633 600 MMBtu per hour of total heat input, and 1500 gallons of oil per hour; and
  - e d. Boiler No. 7: 385,000 350,000 pounds of steam per hour, 812 738 MMBtu per hour of total heat input, and 1839 gallons of oil per hour.

The maximum steam production rates and heat input rates are based on 24-hour averages. The maximum oil firing rates are 1-hour averages. {Permitting Note: No additional record keeping requirements are imposed by these conditions. The steam production chart records are sufficient to demonstrate compliance with these requirements.} [Design, Supporting Air Quality <u>Analyses Analysis Permit Nos.</u> for PSD-FL-272A and PSD-FL-333B]

## 5. Fuel Oil Sulfur Contents

- a. Boiler Nos. 1-3, Crop Season: From October through April of each year, any fuel oil fired in Boiler Nos. 1-3 shall contain no more than 2.50% sulfur by weight.
- b. Boiler Nos. 1 3, Off-Season: From May through September of each year, any fuel oil fired in Boiler Nos. 1 3 shall contain no more than 1.60% sulfur by weight. In April of each year, a composite sample from the common tank shall be taken and analyzed for the sulfur content. Within 5 days of obtaining the results, a report of the fuel sulfur content shall be submitted to the Compliance Authority. If the sulfur content is higher than 1.60% sulfur by weight, the permittee shall purchase additional oil to blend down to the permit limit before any fuel from the common tank is authorized for firing during the off season. An additional composite sample shall be taken from the common tank after blending and analyzed for the fuel sulfur content. Within 5 days of obtaining the results, a report of the fuel sulfur content shall be submitted to the Compliance Authority. It is a violation of this permit to fire fuel from the common tank without filing a report with the Compliance Authority that demonstrates compliance with the lower fuel sulfur limit. Thereafter, only fuel oil containing no more than 1.60% sulfur by weight shall be purchased and added to the common tank during the off-season. It is the permittee's responsibility to appropriately plan for and stage fuel purchases to comply with this condition.
- e. Boiler No. 4: Any fuel oil fired in Boiler No. 4 shall contain no more than 0.70% sulfur by weight.
- d. Boiler No. 7: Any distillate oil fired in Boiler No. 7 shall contain no more than 0.05% sulfur by weight.

The permittee shall maintain fuel records that indicate compliance with the above conditions for each fuel oil purchase at each tank. The sulfur content shall be determined by ASTM Methods D-129, D-1552, D-2622, D-4294, or equivalent methods approved by the Department. For each shipment, a certified analysis supplied by the fuel oil vendor is sufficient to demonstrate compliance. [Applicant Request, Supporting Air Quality Analysis for PSD-FL-272A]

6. Fuel Oil Consumption:

- a. Boiler Nos. 1 4, Crop Season: From October through April of each year, the total fuel oil consumption for Boiler Nos. 1 4 shall not exceed 16,200 gallons during any 3 hour period and 88,800 gallons during any 24 hour period.
- b. Boiler Nos. 1 4, Off-Season: From May through September of each year, the total fuel oil consumption for Boiler Nos. 1 4 shall not exceed 11,700 gallons during any 3 hour period and 54,000 gallons during any 24 hour period.

The permittee shall install, calibrate, operate, and maintain individual fuel oil flow meters with integrators. [Applicant Request, Supporting Air Quality Analysis for PSD FL 272A]

# 57. Steam Production Off-Season (May through September)

- a. Crop Season and Off-Season
  - (1) Boiler No. 4 shall not produce more than 6,840,000 pounds of steam during any 24 hour period.
  - (2) Boiler No. 7 shall not produce more than 8,400,000 pounds of steam during any 24 hour period.
- b. Off-Season (May through September)
- <u>a.</u> (1)—During the off-season, Boiler Nos. 7 and 8 shall be operated as the primary unit to meet the steam demands of the refinery. As restricted by the conditions of this permit, other mill boilers may serve as backup units when Boiler No. 7 is these boilers are down for maintenance, repair or during periods of unusually low steam demand.
- b. (2) For Boiler Nos. 1-4 1, 2 and 4, no more than three of these boilers shall may operate simultaneously.
- <u>c.</u> (3) For Boiler Nos. 1–4 1, 2 and 4, the total steam production shall not exceed 1,845,000 pounds of steam during any 3-hour period.
- <u>d.</u> (4)—For Boiler Nos. 1–4 1, 2 and 4, the total steam production shall not exceed 10,800,000 pounds of steam during any 24-hour period.

The permittee shall install, calibrate, operate, and maintain equipment to continuously record the steam production rates. The permittee shall also install, calibrate, operate, and maintain a steam flow integrator to record the accumulated steam flow rate. [Applicant Request, Supporting Air Quality <u>Analyses Analysis</u> for Permit Nos. PSD-FL-272A and PSD-FL-333B]

- 68. Modifications: A request to modify any of these conditions shall be accompanied by a revised Air Quality Analysis that demonstrates compliance with the Ambient Air Quality Standards and PSD increments for the revised conditions. [Rule 62-4.070(3), F.A.C.]
- 9. <u>SO2 Tests</u>: To validate the SO2 emission factor for Boiler Nos. 1 3, the permittee shall conduct emissions performance tests in accordance with EPA Method 6 or 6C for at least one of these boilers when firing only bagasse. The initial test shall be conducted between October 1, 2000 and February 1, 2001. Thereafter, at least one of these boilers shall be tested within the 12-month period prior to renewal of the air operation permit. Tests need not be conducted on the same boiler. Based on the results of the performance tests, the Compliance Authority may require additional testing or an additional Air Quality Analysis.

{Permitting Note: The expected emission factor is 0.06 pounds of SO<sub>2</sub> per mmBTU when firing only bagasse. This is <u>not a permit limit for Boiler Nos. 1 - 3</u>. Performance tests, notifications, reports, etc., are subject to the requirements listed in Section III.G. of this permit.} [Supporting Air Quality Analysis for PSD-FL-272A]

<u>710.</u> <u>Steam Production Off-Season:</u>

a. Crop Season and Off Season: For each 24-hour block of operation, the permittee shall record the total steam production rates (pounds, each) for Boiler Nos. 4 and 7 to demonstrate compliance with Condition No. 7 of this section.

#### b. -Off-Season:

- <u>a.</u> (1)-From May through September, the permittee shall record the individual and total steam production rates (pounds) for Boiler Nos. 1-4 1, 2 and 4 for each 3-hour block when three of the boilers are in of operation.
- <u>b.</u> (2)—From May through September, the permittee shall record the individual and total steam production rates (pounds) for Boiler Nos. 1–4 1, 2 and 4 for each 24-hour block of operation.

[Rule 62-4.070(3), F.A.C.; and Permit No. PSD-FL-272B]

- 11. <u>Fuel Oil Consumption</u>: For Boiler Nos. 1 4, the permittee shall record the oil firing rates (gallons) for each 3 hour block of operation. From this data, the permittee shall calculate and record the combined oil firing rates (gallons) for each 3 hour and each 24 hour block of operation for Boiler Nos. 1 4. [Rule 62-4.070(3), F.A.C.]
- 12. Fuel Sulfur Content: For each fuel oil delivery, the permittee shall record and retain the following: the date, identification of the tank, the gallons of fuel delivered, the fuel oil analysis including 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. This condition applies to each tank supplying fuel to any boiler. [Rule 62 4.070(3), F.A.C.]

# Section IV. Appendix GCP. Good Combustion Practices Plan

Affected Emissions Unit: Boiler 4 (EU-009)

The following is added as the first sentence in Appendix GCP.

The good combustion practices and startup and shutdown procedures identified in this Appendix may be updated in subsequent Title V permits without revising this air construction permit. [Permit No. PSD-FL-272B]

## PERMIT NO. PSD-FL-333D

Subsection 3A. Boiler 8 (EU-028)

Affected Emissions Unit: Boiler 8 (EU-028)

14. <u>Initial and Annual Stack Tests</u>: In accordance with test methods specified in this permit, Boiler 8 shall be tested to demonstrate initial compliance with the emission standards for ammonia slip, NOx, PM, SO2, VOC, and opacity. The tests shall be conducted within 60 days after achieving the maximum production rate, but not later than 180 days after the initial startup. Subsequent compliance stack tests for ammonia slip, PM, SO2, VOC, and opacity shall also be conducted during each federal fiscal year (October 1st to September 30th). Subsequent compliance stack tests for SO2 shall be conducted before renewal of the operation permit. Tests shall be conducted between 90% and 100% of the maximum 24-hour continuous heat input rate when firing only bagasse or bagasse with wood chips. CO CEMS data shall be reported for each run of the required tests for NOx and VOC emissions. NOx CEMS data shall be reported for each run of the required tests for ammonia slip. Also, CEMS data for NOx emissions may be used to demonstrate compliance with the initial stack test standards for this pollutant. The Department may require the permittee to repeat some or all of these initial stack tests after major replacement or major repair of any air pollution control or process equipment.

The remainder of Condition 14 remains unchanged.

- 17. <u>Fuel Monitoring</u>: The permittee shall monitor each fuel in accordance with the following provisions. [Rules 62-4.070(3) and 62-212.400 (PSD), F.A.C.; and Permit No. PSD-FL-333D]
  - a. Distillate Oil: In accordance with the manufacturer's recommendations, the permittee shall install, calibrate, operate and maintain an oil flow meter with integrator. At the end of each day that oil is fired, the oil flow meter integrator shall be read and recorded in a written (or electronic) log. Initial compliance with the distillate oil sulfur limit shall be demonstrated by taking a sample, analyzing the sample for fuel sulfur, and reporting the results to the Compliance Authority. During each federal fiscal year (October 1st to September 30th), the permittee shall take a sample from the storage tank and analyze for the fuel sulfur content. Sampling for the fuel oil sulfur content shall be conducted in accordance with ASTM D4057-88, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, and one of the following test methods for sulfur in petroleum products: ASTM D129-91, ASTM D1552-90, ASTM D2622-94, or ASTM D4294-90 (or more recent versions when available). For each delivery of distillate oil, the permittee shall maintain a permanent record of each certified fuel sulfur analysis provided by the fuel vendor. Records shall specify the date of delivery, the gallons delivered, the fuel sulfur content and test method.
  - b. Bagasse/Wood Chips: Representative samples of bagasse and/or wood chips (if stored on site) shall be taken during each calendar quarter that a fuel is fired and analyzed for the following: heating value (Btu/lb, as fired and dry); moisture content (percent by weight); sulfur content (percent by weight, dry); and ash content (percent by weight, dry). Records of the results of these tests shall be maintained on site and made available upon request.
- 22. <u>Cyclones</u>: In accordance with the manufacturer's recommendations, the permittee shall install, calibrate, operate and maintain the following equipment: flow meter to monitor the water flow rate (gph) for each wet cyclone and a manometer (or equivalent) to monitor the pressure drop (inches of water) across each cyclone. At least once each 8-hour work shift, <u>During each stack test conducted</u>, the flow rate and pressure drop shall be observed at 15-minute intervals and recorded in a written log. [Permit No. PSD-FL-333D]

#### PERMIT PSD-FL-389A

Subsection 3A. Boiler 7 (EU-014)

Affected Emissions Unit: Boiler 7 (EU-014)

- 8. Fuel Monitoring: The permittee shall maintain the following records for wood chips.
  - a. Representative samples of wood chips shall be taken each calendar quarter wood chips are fired and analyzed for the heating value (modified ASTM D3286 in Btu/lb as fired) and moisture content (ASTM D3173 in percent by weight). Analytical results shall be determined and available for review within 30 days of the end of each calendar quarter. Such analysis is not required if no wood chips are stored on site If no wood chips were fired during the calendar quarter, the report shall indicate that no wood chips were fired as boiler fuel during the given quarter.
  - b. For each 24-hour block of operation (midnight to midnight), the permittee shall maintain records of the amount of wood chips fired to demonstrate compliance with the heat input restrictions of this permit.
  - c. For each 24-hour block of operation (midnight to midnight), the permittee shall calculate and record the heat input rate from wood chips.

All records shall be maintained on site and made available upon request. [Rules 62-4.070(3) and 62-212.400(PSD), F.A.C. and Permit No. PSD-FL-389A]

10. Monthly Operations Summary: Within 7-10 calendar days following each month, the permittee shall

calculate and record the amount of wood chips fired (tons) and the corresponding heat input rate (MMBtu) from firing wood chips for the previous month and the previous consecutive 12 months. Records shall be maintained on site and made available upon request. [Rule 62-4.070(3), F.A.C. and Permit No. PSD-FL-389A]

#### PERMIT 0510003-029-AC

Subsection 3B. Boiler 7

Affected Emissions Unit: Boiler 7 (EU-014)

Oil Specification: Any fuel oil fired in this boiler shall be No. 2 distillate oil (or a superior grade) containing no more than 0.05% sulfur by weight as determined by ASTM Methods D-129, D-1552, D-2622, D-4294, or equivalent methods approved by the Department. The nitrogen content of the distillate oil shall not exceed 0.015% nitrogen by weight as determined by ASTM Method D4629 or equivalent methods approved by the Department. [Permit No. 0510003-029-AC No. PSD-FL 208; Rules 62-212.400 and 62-296.405, F.A.C.; and 40 CFR 60.42b(j)]

### PERMIT 0510003-034-AC

Subsection 3A. Baghouses - Lime Silo Loading/Unloading (EU-031)

Affected Emissions Unit: Lime Storage and Truck/Rail Handling System (EU-031)

4. Compliance Tests: In accordance with EPA Method 9, each baghouse vent shall be tested to demonstrate compliance with the emissions standards specified. Initial tests shall be conducted within 60 days after achieving permitted capacity, but not later than 180 days after initial operation of the unit. Subsequently, each baghouse vent shall be tested annually to demonstrate compliance with the opacity standards during each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>). The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required tests. Separate tests shall be conducted while unloading lime from a truck and unloading lime from a railcar unless these systems can be used simultaneously. For the lime storage and handling system (EU-031), annual tests shall be conducted while unloading lime from a railcar. Prior to renewing the air operation permit, a test shall also be conducted while unloading lime from a truck (EU-031). Tests shall be conducted at a lime unloading rate representative of the typical operation used throughout the year. [Rule 62-297.310(7)(a), F.A.C.; and Permit No. 0510003-034-AC]