Memorandum

Florida Department of Environmental Protection

TO:

Trina Vielhauer, Chief - Bureau of Air Regulation

THROUGH:

Al Linero, Manager of Air Permitting South

FROM:

Jeff Koerner, Air Permitting South

DATE:

December 13, 2004

SUBJECT:

Project No. 0510003-027-AC

U.S. Sugar Corporation, Clewiston Sugar Mill and Refinery

Boilers 1 and 2 - Oil Burner Modifications

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. Day #74 is January 30, 2005. I recommend your approval of the attached Draft Permit for this project.

Attachments

P.E. CERTIFICATION STATEMENT

PERMITTEE

United States Sugar Corporation 111 Ponce DeLeon Avenue Clewiston, FL 33440 Air Permit No. 0510003-027-AC Clewiston Sugar Mill and Refinery Boilers 1/2, Oil Burner Modifications

PROJECT DESCRIPTION

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

U.S. Sugar proposes to replace the existing No. 6 fuel oil burners on existing Boilers 1 and 2 with new Peabody multi-stage combustion (MSC) burners to fire distillate oil. The burners are based on a "low-NOx" design with a maximum NOx emission rate of 0.15 lb/MMBtu. 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. Each boiler will have two oil burners with a maximum heat input rate to each burner of 104 MMBtu/hour. Based on the higher heating value of 19,200 Btu/lb of distillate oil, the maximum firing rates for each boiler will be 1541 gph and 3,500,000 gallons per year. The modified boilers will be able to produce approximately 156,000 pounds of steam per hour from the sole firing of distillate oil. Bagasse will remain the primary fuel with distillate oil used as a startup and supplemental fuel.

The Clewiston sugar mill and refinery is an existing PSD-major facility in accordance with Rule 62-212.400, F.A.C. The project does not result in emissions increases that exceed the PSD significant emission rates specified in Rule 62-212.400, F.A.C. based on the application, past actual emissions, the requested restrictions, and representative emission factors for these units. Therefore, the project is not subject to PSD preconstruction review.

I HEREBY CERTIFY that the air pollution control engineering features described in the above-referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including, but not limited to, the electrical, mechanical, structural, hydrological, geological, and meteorological features).

Jeffery F. Koerner, P.E.

Registration Number: 49441

(Date)



Department of Environmental Protection

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

Colleen M. Castille Secretary

December 30, 2004

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

Re: Draft Air Permit No. 0510003-027-AC
U.S. Sugar Corporation, Clewiston Sugar Mill and Refinery
Boilers 1 and 2 – Oil Burner Modifications

Dear Mr. Raiola:

On September 22, 2004, U.S. Sugar submitted an application to modify the oil burner systems for Boilers 1 and 2 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. William A. Raiola, V.P. of Sugar Processing Operations

Draft Air Permit No. 0510003-027-AC Clewiston Sugar Mill and Refinery Boilers 1/2, Oil Burner Modifications 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: The applicant proposes to replace the existing oil burner systems for Boilers 1 and 2 with new low-NOx burners. The boilers currently fire No. 6 fuel oil containing up to 2.5% sulfur by weight. The new system will fire distillate oil containing no more than 0.05% sulfur by weight. Details of the project are provided in the application and the enclosed "Technical Evaluation and Preliminary Determination".

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 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 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

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

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 Written 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.

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 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 10/30/04 to the persons listed below.

Mr. William A. Raiola, 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

Mr. John Bunyak, NPS

Clerk Stamp

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 PERMIT

Florida Department of Environmental Protection
Draft Air Permit No. 0510003-027-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. William A. Raiola, 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: The applicant proposes to replace the existing oil burner systems for Boilers 1 and 2 with new low-NOx burners. The boilers currently fire No. 6 fuel oil containing up to 2.5% sulfur by weight as a startup fuel and to supplement bagasse. The new system allows the firing of cleaner distillate oil containing no more than 0.05% sulfur by weight. Bagasse will remain the primary fuel with distillate oil used as a startup fuel and to supplement bagasse. These boilers supply steam to the mill during the sugarcane crop season and serve as backup units during the off-crop season for the refinery.

The existing Clewiston sugar mill/refinery is a major facility in accordance with Rule 62-212.400, F.A.C., the regulatory program for the Prevention of Significant Deterioration (PSD) of Air Quality. The existing facility is located in Hendry County, which is an area that is currently in attainment with the state and federal Ambient Air Quality Standards (AAQS) or otherwise designated as unclassifiable. The project does not result in emissions increases that exceed the PSD significant emission rates specified in Rule 62-212.400, F.A.C. based on the application, past actual emissions, the requested restrictions, and representative emission factors for these units. Therefore, the project is not subject to PSD preconstruction review.

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

(Public Notice to be Published in the Newspaper)

PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

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.

PROJECT

Draft Air Construction Permit No. 0510003-027-AC Clewiston Boilers 1 and 2 – Oil Burner Modifications

COUNTY

Hendry County

APPLICANT

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

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
Air Permitting South



December 13, 2004

{Filename: 0510003-027-AC - TEPD}

1. GENERAL PROJECT INFORMATION

Applicant Name and Address

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

Processing Schedule

On September 22, 2004, the Department received the initial application to modify the oil burners for Boilers 1 and 2. On September 27, 2004, the Department requested additional information. On November 18, 2004, the Department received the requested additional information making the application complete.

Facility Description and Location

The United States Sugar Corporation (USSC) 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. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to a National Ambient Air Quality Standard (NAAQS).

Standard Industrial Classification Code (SIC)

SIC Nos. 2061, 2062 – Sugarcane processing and refining

Facility Regulatory Categories

<u>Title III</u>: The existing facility is a major source of hazardous air pollutants (HAP).

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

<u>Title V</u>: 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 in accordance with Rule 62-212.400, F.A.C.

Project Description

The existing Clewiston sugar mill includes active Boilers 1, 2, 3, 4, and 7 and proposed Boiler 8 is under construction. Bagasse is the primary fuel for each boiler and oil is a startup and supplemental fuel. Only Boilers 1 and 2 are affected by this project. These units are currently described as follows.

- Boiler 1 is a vibrating grate system rated at 255,000 pounds per hour of steam and a maximum heat input rate of 496 MMBtu per hour. The current maximum heat input rate from oil firing is 208 MMBtu per hour. Particulate matter emissions are controlled by a wet impingement scrubber.
- Boiler 2 is also a vibrating grate system rated at 230,000 pounds per hour of steam and a maximum heat input rate of 447 MMBtu per hour. The current maximum heat input rate from oil firing is 208 MMBtu per hour. Particulate matter emissions are controlled by a wet impingement scrubber.

U.S. Sugar proposes to replace the existing No. 6 fuel oil burners with new Peabody multi-stage combustion (MSC) burners. 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 a new combustion air fan with associated ductwork, a new fuel oil pump set, and a new burner management system. Each boiler will have two oil burners with a maximum heat input rate to each burner of 104 MMBtu/hour. Based on a higher heating value of 18,750 Btu/lb, the maximum distillate oil firing rate will be approximately 770.5 gallons per hour per burner. It is estimated that the modified boilers will produce approximately 156,000 pounds of steam per hour from the sole firing of distillate oil. Bagasse will remain the primary fuel with distillate oil used as a startup and supplemental fuel.

Distillate oil is the authorized fuel for Boilers 4, 7, and 8. Boilers 1, 2, and 3 are currently permitted to fire No. 6 fuel oil, which contains more fuel sulfur. The modified burner systems will allow Boilers 1 and 2 to also fire distillate oil with a maximum fuel sulfur content of 0.05% sulfur by weight. Boiler 3 is scheduled for permanent shutdown once Boiler 8 commences commercial operation. Eventually all of the Clewiston sugar mill boilers will fire only distillate oil.

No changes are being requested for the firing of bagasse. Boilers 1 and 2 fire oil as a startup fuel and to supplement bagasse. Bagasse is available from the sugar milling process and is not purchased. Due to the additional cost of fuel oil, the facility minimizes oil firing to the extent possible. The proposed distillate oil will have even higher costs, but lower air emissions. For these reasons, the review of this project will be limited to a comparison of the current No. 6 oil firing capabilities with the proposed distillate oil firing.

2. APPLICABLE REGULATIONS

Federal Regulations

The Environmental Protection Agency establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 identifies New Source Performance Standards (NSPS) for a variety of industrial activities. Part 61 specifies the National Emissions Standards for Hazardous Air Pollutant (NESHAP) based on specific pollutants. Part 63 identifies National Emissions Standards for Hazardous Air Pollutant (NESHAP) base on the Maximum Achievable Control Technology (MACT) for given source categories. These regulations are adopted by reference in Florida Rule 62-204.800, F.A.C. The applicant identified no federal regulations as applicable to this project.

Applicability of Federal NSPS Standards

Boilers may be regulated by one of the New Source Performance Standards specified in 40 CFR 60 as Subparts D, Da, Db, or Dc. Boilers 1 and 2 are not subject to these regulations for the following reasons.

- NSPS Subpart D applies to each fossil fuel fired steam generator with a maximum heat input rate greater than 250 MMBtu per hour and for which construction commenced after August 17, 1971. This regulation does not apply because the boilers were constructed before this date and the maximum heat input rates from oil firing are less than 250 MMBtu per hour.
- NSPS Subpart Da applies to each electric utility steam generating unit with a maximum heat input rate
 greater than 250 MMBtu per hour of heat input from fossil fuel (either alone or in combination with any
 other fuel) constructed or modified after September 18, 1978. This regulation does not apply because the
 boilers are not considered electric utility steam generating units.
- NSPS Subpart Db only applies to each steam generator that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity greater than 100 MMBtu per hour. Although Boilers 1 and 2 were constructed prior to 1984, this regulation is potentially applicable for modification or reconstruction projects. It regulates emissions of nitrogen oxides, sulfur dioxide, or particulate matter. The project does not constitute a "modification" as defined by the NSPS requirements because the hourly emissions of nitrogen oxides, sulfur dioxide, or particulate matter will not increase as shown in the following table.

NSPS Pollutant	Maximum Emission	ons Rates (lb/hour)	I
NSFS FORMant	Current (No. 6 Oil)	Future (Distillate Oil)	Increase?
Nitrogen Oxides	22.8	3.1	No
Sulfur Dioxide	172.5	11.1	No
Particulate Matter	70.5	31.2	No

The project does not constitute "reconstruction" as defined by the NSPS requirements because the total capital costs for the project (\$400,000 per boiler) will not exceed 50% of the capital costs for a new boiler (\$7 million per boiler). Therefore, the regulation does not apply.

 NSPS Subpart Dc applies to each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 100 MMBtu per hour or less, but greater than or equal to 10 MMBtu per hour. This rule does not apply because the maximum heat input rates to the boilers are more than 100 MMBtu per hour.

State Regulations

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

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

Applicability of Rule 62-296.406, F.A.C.

This rule applies to new and existing fossil fuel fired steam generators with a maximum heat input rate of less than 250 MMBtu per hour unless exempt from permitting (Rule 62-210.300(3), F.A.C.) or considered insignificant (Rule 62-213.300(2)(a)1 or 62-213.430(6)(b), F.A.C.). The state rule requires BACT determinations for particulate matter and sulfur dioxide, which typically result in a limitation on the fuel sulfur content to a maximum of 0.05% sulfur by weight for oil-fired boilers. The requirements apply unless otherwise specified by rule, or by order or permit issued prior to July 15, 1989.

Based on the application, Boilers 1 and 2 were originally constructed at the Clewiston Mill in 1968. Although installation predated the air construction permit program, subsequent air operation permits restricted the maximum fuel sulfur content for these boilers. The current Title V permit limits the No. 6 fuel oil sulfur content to a maximum of 2.5% sulfur by weight (October – April) and to a maximum of 1.6% sulfur by weight (May – September). This was the result of an air quality modeling analysis provided as part of the application for Permit No. PSD-FL-272A. The requirements of Rule 62-296.406, F.A.C. do not apply because the boilers were previously regulated by permit before July 15, 1989.

Applicability of Rule 62-296.410, F.A.C.

Rule 62-296.410, F.A.C. applies to new and existing carbonaceous fuel burning equipment. For existing units in operation before July 1, 1974, the rule includes particulate matter emissions limits of "0.30 lb/MMBtu" of heat input from carbonaceous fuel and "0.10 lb/MMBtu" of heat input from the firing of fossil fuel. The oil-firing limit is specified in case a boiler fires fuel oil with bagasse while conducting a stack test for particulate matter. A combined particulate matter emissions standard is calculated based on the prorated amounts of each fuel. Boilers 1 and 2 remain subject to this rule.

Prevention of Significant Deterioration (PSD) of Air Quality

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 (Table 62-212.400-1, F.A.C.), or 5 tons per year of lead.

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

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. Therefore, the sugar mill and refinery is an existing PSD-major facility as defined in Rule 62-212.400, F.A.C. and the project must be reviewed for the applicability of PSD preconstruction review. The following table shows the applicant's estimated maximum annual emissions increases that will result from this project.

	Boilers 1 and 2			Project	
Pollutant*	Past Actual TPY	Future Potential TPY	Increase TPY	PSD SER TPY	PSD?
СО	3.43	17.5	14.1	100	No
NOx	32.24	70.9	38.6	40	No
PM	10.48	7.0	-3.5	25	No
PM10	8.91	3.5	-5.4	15	No
SAM	3.5	1.2	-2.3	7	No
SO ₂	79.30	25.2	-54.1	40	No
VOC	0.19	0.70	0.51	40	No

<u>Table 2A</u>. Applicant's PSD Applicability Summary

- Past actual emissions are based on fuel oil firing for 2002-2003, the Annual Operating Reports for 2002-2003, and AP-42 emissions factors. Boiler 1 fired 804,298 gallons of oil in 2002 and 666,974 gallons of oil in 2003. Boiler 2 fired 732,805 gallons of oil in 2002 and 539,742 gallons of oil in 2003.
- Future potential emissions are based on: the requested fuel oil firing rate of 3.5 million gallons per boiler; AP-42 emission factors for CO, PM, PM10, and VOC emissions; the vendor guarantee of 0.15 lb/MMBtu for NOx emissions; and the stoichiometric calculation from fuel sulfur for SO2 and SAM emissions.
- The boilers also emit trace amounts of lead, beryllium, and mercury from oil firing.

Based on the applicant's estimated emissions increases, the project to modify the oil firing systems of Boilers 1 and 2 do not trigger PSD preconstruction review. It is noted that the applicant has requested a limit on distillate oil firing (3.5 million gallons per boiler) to keep the project just below the PSD significant emissions rate (40 tons per year). Over the last two years, Boilers 1 and 2 have each fired less than 1 million gallons per year.

Based on the historical actual operation of Boilers 1 and 2, it is expected that the project will result in much lower annual emissions than predicted above.

3. DRAFT PERMIT CONDITIONS

The project is not subject to PSD preconstruction review or any new requirements pursuant to state or federal regulations. NOx is the only pollutant that approaches the PSD significant emissions rate. This is primarily because the applicant is requesting the ability to fire a substantial quantity of distillate oil (3.5 million gallons per year per boiler) compared to past historical operations (~ 700,000 gallons per year per boiler for the last 2 years). Oil firing for most sugar mill boilers is a function of bagasse quality, weather, and mill interruptions. However, Boilers 1 and 2 are also used as backup boilers during the refinery season; therefore, oil firing for these units is also a function of the refinery demands as well as the availability of the primary units used during the refinery season (Boilers 4 and 7).

The maximum NOx emissions from each boiler are estimated to be only 35 tons per year. In addition, the boilers almost always fire oil in combination with bagasse, which would tend to further inhibit NOx emissions. At the Department's request, the applicant provided a vendor guarantee of 0.15 lb NOx/MMBtu from Peabody, the burner manufacturer. Because the entire burner system is being replaced and the burners are used primarily for startup and to supplement bagasse firing, the Department believes the manufacturer's guarantee provides reasonable assurance that actual NOx emissions will not exceed the PSD significant emission rates. Therefore, the following "performance tests" are required.

For each boiler, the permittee shall conduct an initial performance test to validate the actual installed capacity of the burner system (208 MMBtu per hour, maximum) and the design low-NOx burner specification (0.15 lb/MMBtu hour, maximum). The test shall be conducted for at least 60 consecutive minutes when firing only distillate oil. During the test, the following parameters shall be recorded: firing rate (gallons), density (lb/gallon) and heating value of the distillate oil (Btu/lb); and production rate (lb/hour), temperature (° F), and pressure (psig) of the steam. The heat input rate shall be calculated based on the recorded oil firing rate and an actual fuel analysis of the distillate oil. The tests shall be conducted within 120 days of first firing oil with the modified system. Results of the test shall be submitted to the Department within 45 days of the test date. If the results of the performance test show potential NOx emissions greater than 40 tons per year, the permittee shall submit a PSD permit application or an application to modify this permit to avoid PSD preconstruction review. Applications shall be filed within 90 days of submitting the test report. [Rule 62-4.070(3), F.A.C.]

In addition, the draft permit specifies the burner modifications and includes the following primary requirements for each boiler.

- Any oil fired in Boilers 1 and 2 shall be No. 2 distillate oil (or a superior grade) containing no more than 0.05% sulfur by weight. [Application; Design; Rule 62-212.400(2)(g), F.A.C.]
- For each boiler, the maximum heat input rate from distillate oil is 208 MMBtu per hour. {Permitting Note: The maximum steam production rate from firing 100% distillate oil is approximately 156,000 lb/hour.} [Application; Design; Rules 62-120.200(PTE) and 62-212.400(2)(g), F.A.C.]
- For each boiler, distillate oil firing shall not exceed 1541 gallons per hour and 3,500,000 gallons during any consecutive 12-month period. The permittee shall install, calibrate, operate, and maintain an individual fuel oil flow meter with integrator. {Permitting Note: The above hourly oil firing restriction supersedes the restriction of "1500" gallons per hour specified in Condition 4, Subsection IIIB, in Permit No. PSD-FL-272A.} [Application; Design; Rule 62-212.400(2)(g), F.A.C.]
- Visible emissions shall not exceed 30% opacity based on a 6-minute average except for two minutes per hour during which the opacity shall not exceed 40% as determined by DEP Method 9. [Rule 62-296.410, F.A.C.]

- Emissions of particulate matter shall not exceed 0.1 lb/MMBtu of heat input from the firing of distillate oil
 as determined by EPA Method 5. This standard is used to prorate the corresponding final standard if a
 compliance test is conducted while firing a combination of bagasse and oil. A separate emissions
 performance test on oil only is not required. [Rule 62-296.410, F.A.C.]
- This permit does not impose any new emissions compliance test requirements. The permittee shall continue to perform emissions compliance testing in accordance with the requirements of the current Title V air operation permit. [Rules 62-4.070(3) and 62-297.310, F.A.C.]
- This permit supplements all previously issued air construction and operation permits for this emissions unit. Except for changes specified in the above conditions, the unit remains subject to the conditions of all other valid air construction and operations permits. [Rule 62-4.070, F.A.C.]

The application also requested acknowledgement that Boilers 1 and 2 could co-fire the dewatered filter material from the Dissolved Aeration Flotation (DAF) system with other authorized fuels. The firing of this material was reviewed in Project No. 0510003-024-AC (Permit No. PSD-FL-333A). The conclusion was that the amount of material would be incidental and would result in insignificant impacts. The permit includes the following requirement in Condition 1 of Appendix I, "The permittee may co-fire incidental amounts de-watered DAF filter material. To the extent practicable, the de-watered DAF filter material shall be commingled with bagasse in the existing conveyor system and distributed among the operational boilers. [Rule 62-4.070, F.A.C.]" This condition was included in the draft permit for this project to clarify that the DAF filter material may also be fired in Boilers 1 and 2.

4. PRELIMINARY DETERMINATION

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

DRAFT PERMIT

PERMITTEE:

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

Authorized Representative:

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

Clewiston Sugar Mill and Refinery Air Permit No. 0510003-027-AC Facility ID No. 0510003 Boilers 1/2, Oil Burner Modifications Permit Expires: January 30, 2006

PROJECT AND LOCATION

This permit authorizes replacement of the oil burner systems for Boilers 1 and 2 to fire distillate oil. The boilers are installed 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 supplements all previously issued air construction and operation 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 PERMIT)

Michael G. Cooke, Director (Effective Date)

Division of Air Resource Management

FACILITY DESCRIPTION

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

The primary air pollution sources are the five existing boilers firing bagasse and fuel oil. A sixth unit, Boiler 8, is under construction. Particulate matter emissions are controlled with wet scrubbers for Boilers 1 through 4 and with electrostatic precipitators for 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 and 2 (Emissions Units 001 and 002).

FACILITY REGULATORY CLASSIFICATIONS

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

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

<u>Title V:</u> 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 as defined in Rule 62-212.400, 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. <u>Permitting Authority</u>: 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.
- 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. <u>Modifications</u>: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
- 6. Relaxations of Restrictions on Pollutant Emitting Capacity: If a previously permitted facility or modification becomes a facility or modification which would be subject to the preconstruction review requirements of this rule if it were a proposed new facility or modification solely by virtue of a relaxation in any federally enforceable limitation on the capacity of the facility or modification to emit a pollutant (such as a restriction on hours of operation), which limitation was established after August 7,1980, then at the time of such relaxation the preconstruction review requirements of this rule shall apply to the facility or modification as though construction had not yet commenced on it. [Rule 62-212.400(2)(g), F.A.C.]
- 7. <u>Title V Permit</u>: This permit authorizes construction of the permitted emissions units 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. The application shall be submitted to the Department's South District Office. [Rules 62-4.030, 62-4.050, 62-4.220 and Chapter 62-213, F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Boilers 1 and 2

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 a 213 feet tall stack at 150° F with an approximate flow rate of 204,000 acfm.
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 a 213 feet tall stack at 150° F with an approximate flow rate of 201,000 acfm.

EQUIPMENT

1. Oil Firing Modifications: For each boiler, the permittee is authorized to replace the existing oil burners with new Peabody 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 0.15 lb/MMBtu. Each boiler will have two oil burners with a maximum heat input rate to each burner of 104 MMBtu/hour. Based on a higher heating value of 18,750 Btu/lb, the maximum distillate oil firing rate will be approximately 770.5 gallons per hour per burner. The modified boilers are estimated to produce approximately 156,000 pounds of steam per hour from the sole firing of distillate oil. Bagasse will remain the primary fuel and distillate oil will be fired as a startup and supplemental fuel. This permit only addresses the oil firing aspects of these boilers. [Application; Design]

PERFORMANCE RESTRICTIONS

- 2. Oil Specification: Any oil fired in Boilers 1 and 2 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(2)(g), F.A.C.]
- 3. <u>Permitted Capacity on Oil</u>: For each boiler, the maximum heat input rate from distillate oil is 208 MMBtu per hour. *{Permitting Note: The maximum steam production rate from firing 100% distillate oil is approximately 156,000 lb/hour.}* [Design; Rules 62-120.200(PTE) and 62-212.400(2)(g), F.A.C.]
- 4. Restrictions on Oil: For each boiler, distillate oil firing shall not exceed 1541 gallons per hour and 3,500,000 gallons during any consecutive 12-month period. The permittee shall install, calibrate, operate, and maintain an individual fuel oil flow meter with integrator. {Permitting Note: The above hourly oil firing restriction supersedes the restriction of "1500" gallons per hour specified in Condition 4, Subsection IIIB, in Permit No. PSD-FL-272A.} [Application; Design; Rule 62-212.400(2)(g), F.A.C.]

EMISSIONS STANDARDS

- 5. <u>Visible Emissions on Oil</u>: Visible emissions shall not exceed 30% opacity based on a 6-minute average except for two minutes per hour during which the opacity shall not exceed 40% as determined by DEP Method 9. [Rule 62-296.410, F.A.C.]
- 6. Particulate Matter Emissions on Oil: Emissions of particulate matter shall not exceed 0.1 lb/MMBtu of heat input from the firing of distillate oil as determined by EPA Method 5. This standard is used to prorate the corresponding final standard if a compliance test is conducted while firing a combination of bagasse and

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Boilers 1 and 2

EMISSIONS PERFORMANCE TESTING

- 7. Performance Tests: For each boiler, the permittee shall conduct an initial performance test to validate the actual installed capacity of the burner system (208 MMBtu per hour, maximum) and the design low-NOx burner specification (0.15 lb/MMBtu hour, maximum). The test shall be conducted for at least 60 consecutive minutes when firing only distillate oil. During the test, the following parameters shall be recorded: firing rate (gallons), density (lb/gallon) and heating value of the distillate oil (Btu/lb); and production rate (lb/hour), temperature (° F), and pressure (psig) of the steam. The heat input rate shall be calculated based on the recorded oil firing rate and an actual fuel analysis of the distillate oil. The tests shall be conducted within 120 days of first firing oil with the modified system. Results of the test shall be submitted to the Department within 45 days of the test date. If the results of the performance test show potential NOx emissions greater than 40 tons per year, the permittee shall submit a PSD permit application or an application to modify this permit to avoid PSD preconstruction review. Applications shall be filed within 90 days of submitting the test report as necessary. [Rule 62-4.070(3), F.A.C.]
- 8. Emissions Compliance Tests: This permit does not impose any new emissions compliance test requirements. The permittee shall continue to perform emissions compliance testing in accordance with the requirements of the current Title V air operation permit. [Rules 62-4.070(3) and 62-297.310, F.A.C.]
- 9. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]

RECORDS AND REPORTS

10. Oil Firing Records: 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. 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 heating value in Btu/lb, 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. 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. 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

- 11. <u>Previous Permits</u>: This permit supplements all previously issued air construction and operation permits for this emissions unit. Except for changes specified in the above conditions, the unit remains subject to the conditions of all other valid air construction and operations permits. [Rule 62-4.070, F.A.C.]
- 12. <u>DAF Filter Material</u>: The permittee may co-fire incidental amounts of de-watered filter material from the Dissolved Aeration Flotation (DAF) system with other authorized fuels. To the extent practicable, the dewatered DAF filter material shall be commingled with bagasse in the existing conveyor system and distributed among the operational boilers. [Rule 62-4.070, F.A.C.] *[Permitting Note: The firing of this material was reviewed in Project No. 0510003-024-AC and Permit No. PSD-FL-333A includes the above requirement. See Appendix I of Permit No. PSD-FL-333A for other requirements.]*

Filename: 0510003-027-AC - Draft Permit

SECTION 4. APPENDICES

CONTENTS

Appendix CF. Citation Format

Appendix GC. General Conditions

Appendix SC. Standard Conditions

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.

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

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

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

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

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

SECTION 4. APPENDIX GC

GENERAL CONDITIONS

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

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

EMISSIONS AND CONTROLS

- 1. Plant Operation Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]
- 2. <u>Circumvention</u>: 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. <u>VOC or OS Emissions</u>: 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. <u>General Visible Emissions</u>: 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. <u>Unconfined Particulate Emissions</u>: 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.]

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