Sugar Cane Growers Cooperative of Florida
Glades Sugar House

Facility ID No. 0990026
Palm Beach County

Title V Air Operation Permit Renewal

Permit No. 0990026-016-AV
(Renewal of Title V Air Operation Permit No. 0990026-012-AV)

Permitting Authority:

State of Florida
Department of Environmental Protection
Air Resource Management, South District

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Permit No. 0990026-016-AV
Glades Sugar House
Facility Id No. 0990026
Title V Air Operation Permit Renewal

The purpose of this permit is to renew the Title V air operation permit for the above referenced facility. This renewal permit incorporates revisions and modifications in Permit No. 0990026-015-AC/PSD-FL-077A. The existing Glades Sugar House is located in Palm Beach County at 1500 West Sugar House Road, Belle Glade, Florida. UTM Coordinates are: Zone 17, 534.9 East and 2953.3 North. Latitude is: 26/42/06 North; and, Longitude is: 80/38/57 West.

The Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213. The above named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

Effective Date: **PROPOSED**
Renewal Application Due Date: **PROPOSED**
Expiration Date: **PROPOSED**

PROPOSED

_____

Jon M. Iglehart
Director of
District Management

JMI/SRM/jw

SECTION I. FACILITY INFORMATION.

Subsection A. Facility Description.

This facility consists of a sugar mill and a boiling house. During crop season (November through March), harvested cane is crushed and the juice is extracted in the processing mill. The raw juice then goes through a series of process units, which include heaters, clarifiers, evaporators, vacuum pans, crystallizers and centrifuges, to produce two (2) products, which are sugar crystals and molasses. All of the bagasse is delivered to either the boilers for fuel or to bagasse stockpiles.

The facility operates on steam produced from six (6) boilers. The total steam generating capacity of the boilers is 1,181,854 lb/hr while the six (6) boilers are operating at rated capacity. The boilers are capable of burning carbonaceous fuel (bagasse and residue), fuel oil, and small quantities of on-spec used oil. The boilers are equipped with dust collectors and wet scrubbers to control particulate matter (PM) emissions. During the off-season, operation of the boilers is restricted and limited to only Boilers 1, 2, 4, 5, and 8. There is a painting facility at the site. The facility has miscellaneous unregulated/insignificant emissions units and/or activities.

Subsection B. Summary of Emissions Units.

EU No.	Brief Description
Regulated Emissions Units	
001	Boiler No. 1
002	Boiler No. 2
003	Boiler No. 3
004	Boiler No. 4
005	Boiler No. 5
006	Boiler No. 8
007	Spray Booth

Subsection C. Applicable Regulations.

Based on the Title V air operation permit renewal application received January 12, 2011, this facility is a major source of hazardous air pollutants (HAP). The existing facility is a PSD major source of air pollutants in accordance with Rule 62-212.400, F.A.C. A summary of applicable regulations is shown in the following table.

Regulation	EU No(s).
62-213.440	001, 002, 003, 004, 005, 006, 007
62-296.320	001, 002, 003, 004, 005, 006, 007
62-210.370	001, 002, 003, 004, 005, 006, 007
62.213.205	001, 002, 003, 004, 005, 006, 007
62-297.310	001, 002, 003, 004, 005, 006, 007
62-296.410	001, 002, 003, 004, 005, 006, 007
62-296.570	001, 002, 003, 004, 005, 006, 007
40 CFR 64	001, 002, 003, 004, 005, 006
62-210.300	001, 002, 003, 004, 005, 006, 007
62.213.420	001, 002, 003, 004, 005, 006, 007
62-4.030	001, 002, 003, 004, 005, 006, 007

62-4.160	001, 002, 003, 004, 005, 006, 007
62-4.050	001, 002, 003, 004, 005, 006, 007
62-213.410	001, 002, 003, 004, 005, 006, 007
62-210.650	001, 002, 003, 004, 005, 006, 007
62-296.100	001, 002, 003, 004, 005, 006, 007
62-213.430	001, 002, 003, 004, 005, 006, 007

The following conditions apply facility-wide to all emission units and activities:

FW1. Appendices. The permittee shall comply with all documents identified in Section IV, Appendices, listed in the Table of Contents. Each document is an enforceable part of this permit unless otherwise indicated. [Rule 62-213.440, F.A.C.]

Emissions and Controls

FW2. Not federally Enforceable. Objectionable Odor Prohibited. No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rule 62-296.320(2) and 62-210.200(Definitions), F.A.C.]

FW3. General Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to 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.]

{Permitting Note: Nothing is deemed necessary and ordered at this time.}

FW4. General Visible Emissions. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]

FW5. Unconfined Particulate Matter. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction; alteration; demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

a. The use of covered conveyors on the bagasse fuel handling systems.
b. The use of enclosed material transfer points where feasible.
c. Minimization of the distance bagasse fuel is dropped during handling.
d. The use of windbreaks around the material handling equipment.
e. Daily removal of any dust forming material spilled within the area.
f. The use of water to control boiler ash dust during disposal.
g. Maintenance of paved areas as needed.
h. The use of baghouses (7) to control fugitive particulate matter emissions from the bagasse conveying system.

[Rule 62-296.320(4)(c), F.A.C.; and, proposed by applicant in Title V air operation permit application received January 12, 2011]

Annual Reports and Fees

See Appendix RR, Facility-wide Reporting Requirements for additional details.

FW6. 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 April 1st of each year. [Rule 62-210.370(3), F.A.C.]

FW7. Annual Emissions Fee Form and Fee. The annual Title V emissions fees are due (postmarked) by March 1st of each year. The completed form and calculated fee shall be submitted to: Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070. The forms are available for download by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site: http://www.dep.state.fl.us/air/emission/tvfee.htm. [Rule 62-213.205, F.A.C.]

FW8. Annual Statement of Compliance. The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit within 60 days after the end of each calendar year during which the Title V permit was effective. [Rules 62-213.440(3)(a)2. & 3. and (3)(b), F.A.C.]

FW9. Prevention of Accidental Releases (Section 112(r) of CAA). If and when the facility becomes subject to 112(r), the permittee shall:

a. Submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.

b. Submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.
[40 CFR 68]

The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
001	Boiler No. 1
002	Boiler No. 2
003	Boiler No. 3
004	Boiler No. 4
005	Boiler No. 5

Emissions unit 001 is a boiler with a water cooled, pin-hole grate. The boiler is fired by bagasse, residue and fuel oil. The boiler produces steam for use in the production of raw sugar. Control equipment includes a multiple cyclone dust collector and an impingement type wet scrubber. The stack on the scrubber is 150 feet high, has an exit diameter of 7.0 feet, an exit temperature of 161 °F, an actual volumetric flow rate of 99,895 acfm and 32% water vapor.

Emissions unit 002 is a boiler with a water cooled, pin-hole grate. The boiler is fired by bagasse, residue and fuel oil. The boiler produces steam for use in the production of raw sugar. Control equipment includes a multiple cyclone dust collector and an impingement type wet scrubber. The stack on the scrubber is 150 feet high, has an exit diameter of 7.0 feet, an exit temperature of 151 °F, an actual volumetric flow rate of 111,160 acfm and 26% water vapor.

Emissions unit 003 is a boiler with a water cooled, pin-hole grate. The boiler is fired by bagasse, residue and fuel oil. The boiler produces steam for use in the production of raw sugar. Control equipment includes an impingement type wet scrubber. The stack on the scrubber is 180 feet high, has an exit diameter of 5.3 feet, an exit temperature of 150 °F, an actual volumetric flow rate of 81,844 acfm and 27% water vapor.

Emissions unit 004 is a boiler with a traveling grate. The boiler is fired by bagasse, residue and fuel oil. The boiler produces steam for use in the production of raw sugar. Control equipment includes a low efficiency dust collector and two (2) impingement type wet scrubbers. Both wet scrubbers exhaust to a single stack that is 180 feet high, has an exit diameter of 9.5 feet, an exit temperature of 171 °F, an actual volumetric flow rate of 214,618 acfm and 32% water vapor.

Emissions unit 005 is a boiler with a traveling grate. The boiler is fired by bagasse, residue and fuel oil. The boiler produces steam for use in the production of raw sugar. Control equipment includes a multiple cyclone dust collector and two (2) impingement type wet scrubbers. Both wet scrubbers exhaust to a single stack that is 150 feet high, has an exit diameter of 7.0 feet, an exit temperature of 163 °F, an actual volumetric flow rate of 135,162 acfm and 26% water vapor.

{Permitting Note(s): These emissions units are regulated under Rule 62-210.200, F.A.C. (Potential to Emit); Rule 62-213.440(1)(b), F.A.C. (Periodic Monitoring); Rule 62-296.570, F.A.C. (Reasonably Available Control Technology for NO_x and VOC; and Rule 62-296.410, F.A.C. (Carbonaceous Fuel Burning Equipment.) and 40 CFR 64, Compliance Assurance Monitoring}.

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum permitted capacity for the operating steam production rate at 400 psig and 585 ºF (or thermodynamically equivalent) and which are to be used to establish a 100% load for testing purposes is as follows:

EU No.	Steam Production Rate (Lbs/hr)	Averaging Period
001	139,700	24 hour
002	138,154	24 hour
003	110,000	8 hour
004	300,000	24 hour
005	230,000	24 hour

[Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), Permit No. 0990026-015-AC]

A.2. Methods of Operation.

a. *Fuels.* The fuels that are allowed to be burned in these units are:
   1. Carbonaceous fuel (bagasse and residue),
   2. No. 6 residual oil,
   3. Small quantities of on-spec used oil, (See Specific Conditions **A.6** and **A.28**) and
   4. Small quantities of non-hazardous waste contaminated soil that is generated on-site (See Specific Conditions **A.6** and **A.28**).

[Rule 62-210.200(PTE), F.A.C., Permit No. 0990026-015-AC]

A.3. Hours of Operation.

a. *Annual Hours*. The hours of operation for each emissions unit shall not exceed 7296 hours/year.
b. *Operation Limitation*. From 16 April through 12 October plant operations shall be restricted to no more than three (3) boilers of unit numbers 1, 2, 4, 5, or 8 and to no more than 120 days. During this period of restricted operation, steam production shall not exceed a maximum daily average of 450,000 pounds per hour.
c. *Notification of Boiler 3 Operation Outside of Crop Season*. The Department shall be notified if Boiler No. 3 is operated between April 16 and October 12, and the justification for operating the boiler.
   [Permit Nos. AC50-42467/PSD-FL-077 and 0990026-011-AC]

A.4. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

A.5. Required Water Meter Installation. The owner or operator shall install and maintain water flow meters just prior to each individual scrubber associated with Boilers No. 4 and No. 5. Each of the two (2) scrubbers for Boiler 4 and each of the two (2) scrubbers for Boiler 5 shall be equipped with its own water flow meter. The water flow rate to each scrubber shall be continuously measured. The water meters shall be installed before the beginning of the 2012 crop season or before October 12, 2012, whichever comes first. [Permit No. 0990026-015-AC]

{Permitting Note: Boilers No. 1, No. 2 and No. 3 each have only one scrubber that is equipped with a continuously measuring water flow meter.}

A.6. On-Specification Used Oil – These emissions units are authorized to burn on-specification used oil. Used oil which fails to comply with any of the following specification levels is off-specification used oil as defined in 40 CFR 279.11, Subpart B:

a. Arsenic shall not exceed 5 ppm
b. Cadmium shall not exceed 2 ppm
c. Chromium shall not exceed 10 ppm
d. Lead shall not exceed 100 ppm
e. Total Halogens shall not exceed 1,000 ppm*
f. Flash point shall not be less than 100° F

***Note:** Used oil containing more than 1,000 ppm but less than 4,000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under 40 CFR 279.10(b)(1). Such oil shall not be burned unless the owner or operator demonstrates through the use of DEP approved analytical methods that the used oil does not constitute a hazardous waste.
[Permit No. 0990026-015-AC]

Emission Limitations and Standards

Unless otherwise specified, the averaging time(s) for Specific Conditions **A.7.-A.11**. are based on the specified averaging time of the applicable test method.

A.7. Visible Emissions (VE). VE from each boiler shall not exceed Number 1.5 on the Ringelmann Chart (30% opacity) except that a density of Ringelmann Number 2 (40 percent opacity) is permissible for not more than two minutes in any one hour. [Rule 62-296.410(1)(b)1., F.A.C.; Permit No. 0990026-011-AC]

A.8. Nitrogen Oxides (NO_X) Emissions. NO_x emissions from each boiler shall not exceed 0.45 lbs/mmBtu heat input when burning bagasse. NO_X emissions from each boiler shall not exceed 0.65 lbs/mmBtu heat input when burning residue. [Permit No. 0990026-015-AC]

A.9. Particulate Matter (PM) Emissions.

a. *EU001, EU002, EU003, EU005*. PM emissions from each boiler (EU001, EU002, EU003, EU005) shall not exceed 0.25 lbs/mmBtu heat input of carbonaceous fuel plus 0.1 lbs/mmBtu heat input of fossil fuel for each boiler. [Permit No. AC50-42476\PSD-FL-077]

b. *EU004*. PM emissions from EU004 shall not exceed 0.20 lbs/mmBtu of heat input of carbonaceous fuel plus 0.1 lbs/ mmBtu heat input of fossil fuel for each boiler. [Permit Nos. AO50-2334 and 0990026-015-AC]

A.10. Volatile Organic Compounds (VOC) Emissions. VOC emissions from each boiler shall not exceed 0.7 lbs/mmBtu heat input. [Permit No. 0990026-015-AC]

A.11. Sulfur Dioxide (SO_2). The total SO_2 emissions for all boilers combined (EU001, EU002, EU003, EU004, EU005 and EU008) shall not exceed 14 tons per day (TPD). [Permit Nos. AC50-42476/PSD-FL-077 and 0990026-011-AC]

A.12. Fuel Oil Limitation and Fuel Oil Sulfur Content Limitations and Calculations. The permittee shall meter daily fuel oil consumption by Boiler No. 8 individually. The total quantity of fuel oil consumed on a daily basis by Boiler No. 8 shall be replaced by the addition to the system of an equal or greater amount of 1% or less sulfur fuel oil within 72 hours (excluding weekends). Records shall be retained for five (5) years. The balance of the oil in the system should not exceed 2.4% sulfur. For the purpose of simplicity, the fuel purchase scheme above will be in compliance when the total plant wide fuel oil consumption that does not exceed 31,500* gallons per day. In the event that the daily consumption of oil exceeds 31,500 gallons, the permittee must demonstrate compliance with the 14 ton per day limit by providing the amounts of bagasse, residue, and oil combusted, and the sulfur content of the oil for each such day. The demonstration of compliance shall be based on the same assumptions used to derive the threshold oil consumption figure except that the actual sulfur content of the oil for each day shall be substituted for the 1.15% value.

{*This threshold oil consumption figure is based upon the assumptions that the bagasse, residue and oil sulfur contents are 0.2%, 0.5% and 1.15%, respectively, and also SO_2 emissions from bagasse and residue are 40% below the amounts calculated stoichiometrically and all sulfur in fuel oil is emitted as SO_2. If further tests show that the foregoing assumptions are significantly incorrect, the 31,500 gallons per day shall be adjusted accordingly.}
[Permit Nos. AC50-42476\PSD-FL-077 and 0990026-011-AC]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

A.13. Excess Emissions Allowed. Excess emissions resulting from malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two (2) hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C. and Permit No. 0990026-015-AC]

A.14. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C. and Permit No. 0990026-015-AC]

A.15. Reporting of Excess Emissions. In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department 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. and Permit No. 0990026-015-AC]

Monitoring of Operations

A.16. Fuel Monitoring. Instruments shall be installed to continuously measure the total amount of fuel oil used by Boiler~~s~~ Nos. 1 through 5, and the total amount of residue used in all boilers. Bagasse consumption shall be calculated from steam consumption. [Permit Nos. AC 50-42476/PSD-FL-077]

A.17. Scrubber Monitoring Equipment. Each scrubber control system shall be equipped with instrumentation to monitor total pressure drop of the flue gas stream across each scrubber and total water flow to each scrubber. Such instrumentation shall be properly maintained so as to be functional at all times. [Permit No. 0990026-015-AC]

{Permitting Note: Pressure drop and total water flow monitoring required for Compliance Assurance Monitoring Plan. See CAM Plan in appendix CAM for monitoring requirements.}

A.18. CAM Plan. These emissions units are subject to the Compliance Assurance Monitoring (CAM) requirements contained in the attached Appendix CAM. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emissions limitation; however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(7)(b), F.A.C. [40 CFR 64; Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.]

Test Methods and Procedures

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

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
5	Determination of Particulate Emissions from Stationary Sources
7	Determination of Nitrogen Oxide Emissions from Stationary Sources
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
18	Measurement of Gaseous Organic Compound Emissions by Gas Chromatography
25	Determination of Total Gaseous Non-methane Organic Emissions as Carbon
25A	Method for Determining Gaseous Organic Concentrations (Flame Ionization)

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-297.401, F.A.C.]

A.19. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

A.20. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), each emissions unit shall be tested to demonstrate compliance with the emissions standards for **VE, PM, NO_X, and VOC**. [Rule 62-297.310(7), F.A.C. and Permit No. 0990026-011-AC]

A.21. Compliance Tests Prior To Renewal. Compliance tests shall be performed for **VE, PM, NO_X, and VOC** once every 5 years. The tests shall occur prior to obtaining a renewed operating permit to demonstrate compliance with the emission limits in Specific Conditions **A.7. – A.10.** [Rules 62-210.300(2)(a) and 62-297.310(7)(a), F.A.C.]

A.22. VOC Testing. The test method for VOC shall be EPA Method 25 or EPA method 25A modified to incorporate a sample dilution system as approved by the Department under the provisions of Rule 62-297.620, F.A.C. If EPA Method 25A is employed, EPA Method 18 may be used to quantify and subtract the methane fraction in the exhaust gases. Each test run shall be conducted in accordance with 40 CFR 60 Appendix A using the method specified. [Permit No. 0990026-011-AC]

A.23. NO_X Test Method. The test method for NO_X shall be EPA Method 7 or 7E. Each test run shall be conducted in accordance with 40 CFR 60 Appendix A using the method specified. [Permit No. 0990026-011-AC]

A.24. PM Test Methods. Compliance for PM emissions shall be determined using EPA Methods 1, 2, 3, 4, and 5 in accordance with 40 CFR 60, Appendix A. Emissions units incorporating a scrubber for control of particulate matter shall use an acetone wash. [Permit No. 0990026-011-AC]

A.25. Computing Emissions Limits to Determine Compliance. Compliance with the Specific Conditions **A.8, A.9, and A.10.** (NO_X, PM and VOC emission limits) shall be determined by computing the heat input from the steam output (lb/hr) and the net steam enthalpy. Thermal efficiency while burning bagasse shall be assumed to be 55 percent. Thermal efficiency while burning residue or fuel oil shall be assumed to be 62.5 percent. [Permit No. 0990026-011-AC]

A.26. VE Test Methods. All visible emissions tests performed pursuant to the requirements of this shall comply with the following provisions:

a. *Test Method*. The test method for visible emissions shall be EPA Method 9.
b. *Test Procedures*. The test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.
c. *Test Period*. The required minimum period of observation for an EPA Method 9 compliance test shall be sixty (60) minutes. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur.

[Permit No. 0990026-015-AC]

A.27. Fuel Oil Sulfur Content Compliance Demonstration. For this facility, compliance with fuel oil sulfur limits may be determined based on either:

a. *Vendor Certification*. Certification from the fuel supplier, where the fuel supplier certification shall include the following information:
(i) The name of the oil supplier; and
(ii)A statement from the oil supplier listing the actual sulfur content of the oil and the place where the sample was collected, or

b. *Fuel Analysis*. Based on analysis by one of the following methods: ASTM Method D129-91, D1552, D2622-94, D4294-90, or comparable Department approved method.
[Permit No. 0990026-011-AC]

A.28. On-Site Generated Used Oil. On-site generated used oil shall be accumulated alternately in one of two tanks. When a tank is full, the second tank will be used and the first shall be analyzed for the following:
a. heating value as generated (BTU/lb),
b. arsenic,
c. cadmium,
d. chromium,
e. lead,
f. total halogens, and
g. flash point using ASTM approved methods.

If the oil meets the specifications in Specific Condition A.6 and in 40 CFR 279.11, it can be blended with the residual oil for the boiler. [Permit No. 0990026-011-AC]

A.29. Combined Plumes, Alternate Method for Stack Opacity. It is possible that combined plumes from adjacent boilers will prevent a reliable determination of compliance with the opacity standard. If the permittee is unable to perform the scheduled annual visible emissions test because of combined plumes, the permittee shall record the scrubber pressure drop and the water flow rate during each test run for particulate matter (PM) at 15-minute intervals. The test report shall note the attempt to perform the annual visible emissions test, the reason for not being able to complete the test and shall identify scrubber pressure drops and water flow rates recorded during each test run for particulate matter (PM). [Rules 62-4.070(3), 62-297.310(7)(a)(4), 62-213.440(1)(b), F.A.C.; Permit No. 0990026-015-AC]

Recordkeeping and Reporting Requirements

A.30. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

A.31. Fuel Sulfur Content Recordkeeping. Records of the percent (%) sulfur content of all fuel burned and the quantities of fuel burned shall be kept. The basis of these records of sulfur content shall be either as-shipped analysis from the vendor, analysis of shipments by the permittee, or in the case of on-site blending, analysis of a fuel sample from the fuel storage tank(s) each time a shipment of fuel is received.
[Permit No. 0990026-011-AC]

A.32. Steam Flow Recordkeeping. A record shall be kept of each boilers' hours of operation and the steam flow to determine the heat input for the purpose of compliance with the emission limits in Specific Conditions **A.8., A.9., and A.10**. (NO_X, PM and VOC). **[**Permit No. 0990026-011-AC**]**

A.33. Fuel Recordkeeping. The records of fuel oil, residue, on-spec used oil and bagasse shall be kept by the owner or operator, available for Department inspection for five years. [Permit Nos. AC 50-42476/PSD-FL-077 and 0990026-011-AC]

Subsection B. Emissions Unit 006

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
006	Boiler No. 8

Emissions unit 008 is a boiler with a traveling grate. The boiler is fired by bagasse, residue and fuel oil. The boiler produces steam for use in the production of raw sugar. Control equipment includes a multiple cyclone dust collector and two impingement type wet scrubbers. The stack on the scrubber is 155 feet high, has an exit diameter of 9.5 feet, an exit temperature of 150 °F, an actual volumetric flow rate of 201,588 acfm and 24% water vapor.

{Permitting Note(s): This emission unit is regulated under Rule 62-210.200, F.A.C. (Potential to Emit); Rule 62-213.440(1)(b), F.A.C. (Periodic Monitoring); Rule 62-296.570, F.A.C. (Reasonably Available Control Technology for NO_x and VOC; Rule 62-296.410, F.A.C. (Carbonaceous Fuel Burning Equipment.) and Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD) and Best Achievable Control Technology (BACT).}

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The maximum steam production rates shown in the table below shall not be exceeded.

Steam Production (lb/hrs)	Steam Pressure (psig)	Steam Temperature (°F)	Fuel Burned	Heat Input (mmBtu/hr)	Amount of Fuel Consumed (lb/hr)
264,000	400	585	Bagasse Residue	504.0 (a) 443.5 (b)	63,000 (a) 49,831 (b)
242,100	600	740	Bagasse Residue	504.0 (a) 443.5 (b)	63,000 (a) 49,831 (b)
240,000	400	740	Bagasse Residue	504.0 (a) 443.5 (b)	63,000 (a) 49,831 (b)

(a) Based upon 55% thermal efficiency and 8,000 Btu/lb (dry) while burning bagasse.
(b) Based upon 62.5% thermal efficiency and 8,900 Btu/lb (dry) while burning residue.
[Permit No. AC50-250421/PSD-FL-213 and BACT dated June 3, 1996]

B.2. Methods of Operation - Boiler No. 8 is fired with carbonaceous fuel (bagasse and residue), and No. 6 residual oil, small quantities of on-spec used oil, and small quantities of non-hazardous waste contaminated soil generated on-site. [Rule 62-213.410, F.A.C.; Permit No. 0990026-015-AC]

B.3. Oxygen Level Alarm. The permittee shall install, maintain and operate an alarm system on Boiler No. 8 that will be triggered whenever the boiler oxygen level drops below 4 percent. The time the boiler operates with less than 4 percent oxygen shall be logged and may be used as a basis to modify the operation and maintenance plan. The permittee shall use the operation and maintenance plan for carbon monoxide control for Boiler 8. [Permit Nos. AC50-250421/PSD-FL-213 and BACT dated June 3, 1996 and 0990026-015-AC]

{*Permitting Note: An operation and maintenance plan shall be maintained and kept up-to-date onsite by the owner or operator.}*

B.4. Hours of Operation.

a. *Annual Hours*. The hours of operation for this emissions unit shall not exceed 7296 hours/year.

b. *Operation Limitation*. From 16 April through 12 October plant operations (off-season) shall be restricted to no more than three (3) boilers of unit numbers 1, 2, 4, 5, or 8 and to no more than 120 days. During this period of restricted operation, steam production shall not exceed a combined maximum daily average of 450,000 pounds per hour. Crop season operation may last a maximum of 184 days.

[Permit No. AC50-42467/PSD-FL-077 and BACT dated 10/28/1981; Permit No. AC50-250421/PSD-FL-213 and BACT dated June 3, 1996]

B.5. Fuel Oil Limitation and Fuel Oil Sulfur Content Limitations and Calculations. The permittee shall meter daily fuel oil consumption by Boiler No. 8 individually. The total quantity of fuel oil consumed on a daily basis by Boiler No. 8 shall be replaced by the addition to the system of an equal or greater amount of 1% or less sulfur fuel oil within 72 hours (excluding weekends). Records shall be retained for five (5) years. The balance of the oil in the system should not exceed 2.4% sulfur. For the purpose of simplicity, the fuel purchase scheme above will be in compliance when the total plant wide fuel oil consumption does not exceed 31,500* gallons per day. In the event that the daily consumption of oil exceeds 31,500 gallons, the permittee must demonstrate compliance with the 14 ton per day limit by providing the amounts of bagasse, residue, and oil combusted, and the sulfur content of the oil for each such day. The demonstration of compliance shall be based on the same assumptions used to derive the threshold oil consumption figure except that the actual sulfur content of the oil for each day shall be substituted for the 1.15% value.

{*This threshold oil consumption figure is based upon the assumptions that the bagasse, residue and oil sulfur contents are 0.2%, 0.5% and 1.15%, respectively, and also SO_2 emissions from bagasse and residue are 40% below the amounts calculated stoichiometrically and all sulfur in fuel oil is emitted as SO_2. If further tests show that the foregoing assumptions are significantly incorrect, the 31,500 gallons per day shall be adjusted accordingly.}
[Permit No. AC50-42476\PSD-FL-077 and BACT dated 10/28/1981]

B.6. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

B.7. Scrubber Monitoring Equipment. Each scrubber control system shall be equipped with a manometer or equivalent instrument to measure the total pressure drop of the flue gas stream across each scrubber and with a flow meter or equivalent device (weir) to measure the total quantity of water flow to each scrubber. Data from these instruments shall be recorded each shift (every 8 hours) and available for regulatory agencies inspection for five years. [Permit No. AC50-42476\PSD-FL-077 and BACT dated 10/28/1981; Permit No. 0990026-015-AC/PSD-FL-077A]

{Permitting Note: Boiler No. 8 has two scrubbers that are each equipped with continuously measuring water flow meters.}

B.8. Maximum Fuel Oil Consumption. The maximum fuel oil consumption of the boiler is limited to the quantity equivalent to 250 mmBtu/hr (1,667 gallons per hour, if the heating value of the fuel oil is 18,500 Btu/lb. [Permit No. AC50-42476\PSD-FL-077 and BACT dated 10/28/1981, Permit No. 0990026-015-AC]

Emission Limitations and Standards

Unless otherwise specified, the averaging time(s) for Specific Conditions **B.9.-B.15**. are based on the specified averaging time of the applicable test method.

B.9. Emissions Limitations**.** The boiler's maximum emission rates shall not exceed the emission limits listed below:

	Maximum Allowable Emissions			
Pollutant	**Lb/mmBtu**	**Lb/hr**	**TPD**	**TPY[1]**
PM	--------	75.6 (95.0)[1]	---------	276
SO_2	--------	----------	14.0[2]	---------
CO	5.5[3]	2,772	---------	10,112
VOC	--------	140	---------	511
NO_X	--------	123	---------	449

[1]The air quality impact analysis was conducted on the basis of the emissions contained in parentheses. The numbers not contained in parentheses are based upon the BACT determination. The BACT determination gives the permittee the right to seek revision if the 0.15 lb/mmBtu input limit cannot be met on a

continuous basis. However, any revision of the BACT emission cannot exceed the 0.20 lb/mmBtu input Florida new source limit, nor will the allowable lb/hr and ton/yr emissions be allowed to exceed the numbers contained in the parentheses.

[2]SO_2 emissions for all boilers from Units 1 through 8.

[3]Assuming a thermal efficiency of 55% when burning bagasse

[Permit No. AC50-42476\PSD-FL-077 and letter amendment dated 11/16/1981; and BACT dated 10/28/1981 and AC50-250421/PSD-FL-213; BACT dated June 3, 1996]

B.10. Visible Emissions (VE). Visible emissions from the bagasse handling system shall not exceed 10 percent opacity over any six (6) minute period as measured by EPA Method 9. [Permit No. AC50-42476\PSD-FL-077 and BACT dated 10/28/1981]

B.11. Visible Emissions (VE). VE from EU006 shall not exceed Number 1.5 on the Ringelmann Chart (30% opacity) except that a density of Ringelmann Number 2 (40 percent opacity) is permissible for not more than two (2) minutes in any one (1) hour. [Rule 62-296.410(1)(b)1., F.A.C.; Permit No. AC50-42476\PSD-FL-077]

B.12. CO Emissions. CO emissions shall not exceed 5.5 lbs/mmBtu heat input (assuming a boiler has a thermal efficiency of 55% when burning bagasse), 2,772 lb/hr (average of three runs of a minimum of 1 hour per run by EPA Method 10 as described in 40 CFR 60, Appendix A), and 10,112 TPY based on a maximum of 7,296 hours per year operation. Emissions of CO shall be maintained at the lowest possible level through good combustion control. [Permit No. AC50-42476\PSD-FL-077 and BACT dated 10/28/1981; Permit No. AC50-250421/PSD-FL-213 and BACT dated June 3, 1996]

B.13. VOC Emissions. Emissions of VOC shall be maintained at the lowest possible level through good combustion control. [Permit No. AC50-42476\PSD-FL-077 and BACT dated 10/28/1981]

B.14. Particulate Matter (PM) Emissions. PM emissions shall not exceed 0.15 lbs/mmBtu of heat input of carbonaceous fuel plus 0.1 lbs/ mmBtu heat input of fossil fuel. [Permit No. AC50-42476\PSD-FL-077 and BACT dated 10/28/1981]

B.15. Sulfur Dioxide (SO_2). The total SO_2 emissions for all boilers combined (EU001, EU002, EU003, EU004, EU005 and EU008) shall not exceed 14 TPD. [Permit No. AC50-42476/PSD-FL-77 and BACT dated 10/28/81]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

B.16. Excess Emissions Allowed. Excess emissions resulting from malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and 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. and Permit No. 0990026-015-AC]

B.17. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C. and Permit No. 0990026-015-AC]

B.18. Reporting of Excess Emissions. In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department 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. and Permit No. 0990026-015-AC]

Monitoring of Operations

B.19. Fuel Monitoring. Instruments shall be installed to continuously measure the amount of fuel oil consumed by Boiler 8 and the total amount of residue used in all boilers. Bagasse consumption shall be calculated from steam consumption. [Permit No. AC 50-42476/PSD-FL-077 and BACT dated 10/28/1981]

B.20. Flue Gas Oxygen or CO_2 Monitor. This emissions unit shall be equipped with an operational flue gas oxygen or CO_2 monitor. [Permit No. AC50-42476\PSD-FL-077 and BACT dated 10/28/1981; Permit No. AC50-250421/PSD-FL-213 and BACT dated June 3, 1996]

B.21. CAM Plan. This emissions unit is subject to the Compliance Assurance Monitoring (CAM) requirements contained in the attached Appendix CAM. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emissions limitation; however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(7)(b), F.A.C. [40 CFR 64; Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.]

Test Methods and Procedures

B.22. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
5	Determination of Particulate Emissions from Stationary Sources
7	Determination of Nitrogen Oxide Emissions from Stationary Sources
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources
18	Measurement of Gaseous Organic Compound Emissions by Gas Chromatography
25	Determination of Total Gaseous Non-methane Organic Emissions as Carbon
25A	Method for Determining Gaseous Organic Concentrations (Flame Ionization)

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-297.401, F.A.C.; Permit No. AC50-250421/PSD-FL-213; BACT dated June 3, 1996,]

B.23. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

B.24. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), EU006 shall be tested to demonstrate compliance with the emissions standards for **VE, PM, NO_X, CO** and **VOC**. [Rule 62-297.310(7), F.A.C.; Permit Nos. 0990026-011-AC and AC50-250421/PSD-FL-213; BACT dated June 3, 1996]

B.25. Compliance Tests Prior To Renewal. Compliance tests shall be performed for **VE, PM, NO_X, CO** and **VOC** once every 5 years. The tests shall occur prior to obtaining a renewed operating permit to demonstrate compliance with the emission limits in Specific Conditions **B.9. – B.14.** [Rules 62-210.300(2)(a) and 62-297.310(7)(a), F.A.C.]

B.26. General Testing Requirements. Compliance with the emission limits required in Specific Condition No. **B.9 – B.14.** shall be determined by performance tests. The performance tests shall be conducted in accordance with EPA Methods (40 CFR 60 Appendix A) and the provisions of 40 CFR 60.8 and 40 CFR 60.46. [Permit No. AC50-42476/PSD-FL-077 and BACT dated 10/28/1981]

B.27. PM Test Methods. Compliance with PM emissions limits shall be determined using EPA Methods 1, 2, 3, 4, and 5 in accordance with 40 CFR 60, Appendix A. Emissions units incorporating a scrubber for control of particulate matter shall use an acetone wash. PM emissions tests shall be made while burning bagasse with the minimal amount of oil necessary to reach test capacity. [Permit No. AC50-42476/PSD-FL-77 and BACT dated 10/28/1981 and Permit No. 0990026-011-AC]

B.28. VOC Test Method. The test method for VOC shall be EPA Method 25 or EPA method 25A modified to incorporate a sample dilution system as approved by the Department under the provisions of Rule 62-297.620, F.A.C. If EPA Method 25A is employed, EPA Method 18 may be used to quantify and subtract the methane fraction in the exhaust gases. Each test run shall be conducted in accordance with 40 CFR 60 Appendix A using the method specified. [Permit No. 0990026-015-AC/PSD-FL-077A]

B.29. Stack Sampling Requirements. The stack sampling configuration of the boiler shall comply with the minimum of 2D downstream and 0.5D upstream distances to the sampling ports required to use EPA Method 2. [Permit No. AC50-42476/PSD-FL-077 and BACT dated 10/28/1981]

B.30. CO Test Method. The CO emissions from Boiler 8 shall be measured annually by EPA Method 10 as described in 40 CFR 60 Appendix A. [Permit No. AC50-250421/PSD-FL-213; BACT dated June 3, 1996]

B.31. NO_X Test Methods. Compliance with NO_X emissions limits shall be determined using EPA Method 7 or 7E as described in 40 CFR 60, Appendix A. [Permit No. 0990026-011-AC]

B.32. VE Test Methods. Compliance with VE emissions limit shall be demonstrated using EPA Method 9. [Permit No. AC50-42476\PSD-FL-077 and BACT dated 10/28/1981]

B.33. Combined Plumes, Alternate Method for Stack Opacity. It is possible that combined plumes from adjacent boilers will prevent a reliable determination of compliance with the opacity standard. If the permittee is unable to perform the scheduled annual visible emissions test because of combined plumes, the permittee shall record the scrubber pressure drop and the water flow rate during each test run for particulate matter at 15-minute intervals. The test report shall note the attempt to perform the annual visible emissions test, the reason for not being able to complete the test and shall identify scrubber pressure drops and water flow rates recorded during each test run for particulate matter. [Rules 62-4.070(3), 62-297.310(7)(a)(4), 62-213.440(1)(b), F.A.C.; Permit No. 0990026-015-AC]

Recordkeeping and Reporting

B.34. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

B.35. Fuel Recordkeeping. The records of fuel oil, residue, on-spec used oil and bagasse shall be kept by the owner or operator, available for Department inspection for five years. [Permit No. AC 50-42476/PSD-FL-077 and BACT dated 10/28/1981]

B.36. Fuel Sulfur Content Recordkeeping. Records of the percent sulfur content of all fuel burned and the quantities of fuel burned shall be kept. The basis of these records of sulfur content shall be either as-shipped analysis from the vendor, analysis of shipments by the permittee, or in the case of on-site blending, analysis of a fuel sample from the fuel storage tank(s) each time a shipment of fuel is received. [Permit No. 0990026-011-AC]

B.37. Steam Flow Recordkeeping. A record shall be kept of each boilers' hours of operation and the steam flow to determine the heat input for the purpose of compliance with the emission limits specified in this subsection. **[**Permit No. 0990026-011-AC**]**

Subsection C. Emissions Unit 007

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
007	Paint house

Emissions unit 007 is an open frame structure where sugar cane trailers and sugar cane wagons can be maneuvered to allow the application of a petroleum based protective coating with an airless sprayer to all exposed surfaces of the trailers and wagons.

Essential Potential to Emit (PTE) Parameters

C.1. Hours of Operation. The hours of operation for this emissions unit shall not exceed 10 hours per day, 5 days per week and 32 weeks per year (1,600 hours/year). [Rules 62-4.160(2) and 62-210.200 (PTE), F.A.C. and Permit No. 0990026-011-AC]

Emission Limitations and Standards

C.2. During any consecutive twelve month period the facility shall not emit more than 24 tons/year volatile organic compounds (VOCs). [Permit No. 0990026-015-AC]

{*Permitting Note: This emissions unit emits insignificant amounts of HAP.*}

Record Keeping and Reporting Requirements

C.3. Recordkeeping Requirements. The facility shall keep a log with the following information:

a. The number of hours the spray booth (EU008) is in use (actual on a daily basis);
b. The dates of operation;
c. A monthly inventory of the VOC and HAP containing materials, solvents and HAP containing materials used in the spray booth (EU007). The monthly inventory shall utilize the mass balance approach. The permittee shall calculate the VOCs emitted on a monthly basis by assuming that all VOCs and HAP in the coatings and cleanup solvents are evaporated. The mass fraction of VOCs and HAP from each coating material (and cleanup solvents) shall be determined from the MSDS supplied from the vendors. The monthly inventory recordkeeping shall include the identification of all VOC and HAP containing material, the amount of material used, the percent or by weight composition of VOC or HAP in each material from the MSDS, and the monthly total amount of VOC and HAP emitted.

[Permit No. 0990026-015-AC]

SECTION IV. APPENDICES.

The Following Appendices Are Enforceable Parts of This Permit:

Appendix A, Glossary.
Appendix CAM, Compliance Assurance Monitoring Plan.
Appendix I, List of Insignificant Emissions Units and/or Activities.
Appendix RR, Facility-wide Reporting Requirements.
Appendix TR, Facility-wide Testing Requirements.
Appendix TV, Title V General Conditions.