United States Sugar Corporation
U.S Sugar Clewiston Facility

Facility ID No. 0510003
Hendry County

Title V Air Operation Permit Revision

Permit No. 0510003-057-AV
(2nd Revision of Title V Air Operation Permit No. 0510003-053-AV)

Permitting Authority:

State of Florida
Department of Environmental Protection
South District Office

2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33902-2549

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Compliance Authority:

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Section **Page**

I. Facility Information.

A. Facility Description. 2
B. Summary of Emissions Units. 2

II. Facility-Wide Conditions 5

III. Emissions Units Specific Conditions.

A. Boilers 1 and 2 7
B. Boiler 4 13
C. Boiler 7 20
D. Boiler 8 26
E. Biomass Handling and Storage 34
F. Granular Carbon Regenerative Furnace 35
G. Miscellaneous Sugar Refinery Sources 38
H. White Sugar Dryer 2 41
I. Miscellaneous Material Silos 44
J. Rental Package Boiler 46
K. Degasification Systems 47
L. RICE Emergency Engines ≤ 500 HP constructed before June 12, 2006 49
M. RICE Emergency Engines ≥ 500 HP constructed before December 19, 2002 53

IV. Appendices

Appendix A. Citation Format and Glossary
Appendix B. Identification of Primary State and Federal Regulations
Appendix C. General Testing Requirements
Appendix D. Unregulated and Shutdown Emissions Units
Appendix E. Insignificant Activities
Appendix F. Permit History
Appendix G. Fugitive Dust Precautions
Appendix H. Compliance Assurance Monitoring Plan, General Provisions
Appendix I. Fuel Monitoring
Appendix J. Good Combustion Practices for All Boilers
Appendix K. Startup, Shutdown and Malfunction Plans for Mill Boilers
Appendix L. NSPS Provisions
Appendix M. Title V Conditions
Appendix N. BACT Determination for EU036
Appendix O. NESHAP Provisions

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
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United States Sugar Corporation
111 Ponce de Leon Avenue
Clewiston, Florida 33440

Permit No. 0510003-057-AV
Title V Permit Revision
U.S. Sugar Clewiston Facility
Facility ID No. 0510003
Hendry County, Florida

The purpose of this permit is to revise the Title V air operation permit for the above referenced facility. This Title V air operation permit revision incorporates air construction permit Nos. 0510003-054-AC, 0510003-055-AC and 0510003-056-AC which authorized the use of natural gas in EU-017, construction of a baghouse (EU-045) in the refinery and the replacement of 3 waterwalls in Boiler #7 (EU-014). The existing U.S. Sugar Clewiston Facility is located in Hendry County at W.C. Owens Avenue and S.R. 832, Clewiston, Florida. UTM Coordinates are: Zone 17, 506.1 East and 2956.9 North. Latitude is: 26°44'06" North; and, Longitude is: 80°56'19" 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: DRAFT
Revised Date: DRAFT
Renewal Application Due Date: January 3, 2015
Expiration Date: August 16, 2015

_____
Jon M. Iglehart
Director of
District Management

JMI/NWM

Subsection A. FACILITY DESCRIPTION

This facility is a sugar mill and refinery. Sugarcane is harvested from adjacent, neighboring and remote fields in Glades, Hendry, Martin and Palm Beach counties and transported to the mill by train. In the mill, sugarcane is cut into small pieces and processed in a series of presses to squeeze juice from the cane. The juice undergoes clarification, separation, evaporation, and crystallization to produce raw, unrefined sugar. In the refinery, raw sugar is decolorized, concentrated, crystallized, dried, conditioned, screened, packaged, stored, and distributed as refined sugar. The fibrous byproduct remaining from the sugarcane is called bagasse and is burned as boiler fuel to provide steam and heating requirements for the mill and refinery. Molasses is also produced as a byproduct. Molasses is stored and processed into an animal feed product for sale.

Regulatory Categories

- The existing facility is a major source of hazardous air pollutants (HAP).
- The existing facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The existing facility is a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.
- Existing units are subject to the following New Source Performance Standards (NSPS) in Part 60 of Title 40, the Code of Federal Regulations (CFR): Subpart A (General Provisions), Subpart Db (Industrial-Commercial-Institutional Steam Generating Units) and Subpart Dc (Small Industrial-Commercial-Institutional Steam Generating Units).
- Existing units are subject to the following National Emissions Standards for Hazardous Air Pollutants (NESHAP) in 40 CFR 63: Subpart A (General Provisions), Subpart ZZZZ (Stationary Reciprocating Internal Combustion Engines), and Subpart DDDDD (Industrial Boilers).

Regulated Pollutants

- Criteria Pollutants: Emissions units at this facility may emit one or more of the following criteria air pollutants: carbon monoxide (CO), nitrogen oxides (NO_X), sulfur dioxide (SO_2), particulate matter (PM); particulate matter with a mean particle diameter of 10 microns or less (PM_{10}), particulate matter with a mean particle diameter of 2.5 microns or less ($PM_{2.5}$), volatile organic compounds (VOC) and lead (Pb).
- Other Regulated PSD Pollutants: In addition to the above criteria air pollutants, emissions units at this facility may emit one or more of the following PSD pollutants: fluorides (F); sulfuric acid mist (SAM); hydrogen sulfide (H_2S); total reduced sulfur (TRS), including H_2S; reduced sulfur compounds, including H_2S; and mercury (Hg).
- HAP: Emissions units at this facility may emit one or more HAP as defined in Rule 62-210.200, F.A.C.

Subsection B. SUMMARY OF REGULATED EMISSIONS UNITS

ARMS Facility ID No. 0510003

EU No.	Emissions Unit Description
Sugar Mill	
001	Boiler 1
002	Boiler 2
009	Boiler 4
014	Boiler 7
027	Biomass Handling and Storage
028	Boiler 8
031	Lime Storage and Truck/Rail Handling System
Sugar Refinery	
015	VHP Sugar Dryer
016	White Sugar Dryer No. 1
017	Granular Carbon Regeneration Furnace
018	Vacuum Pickup Systems
019	Conditioning Silos
020	Screening/Distribution and Sugar/Starch Bins
021	Alcohol Usage
022	Packaging Dust Collector
029	White Sugar Dryer No. 2
035	Rental Refinery Package Boiler
045	Bulk Loadout Operations
Facility	
010	Lime Silo with Baghouse at the Water Treatment Plant
030	Limestone Storage Silo with Baghouse at the Molasses Plant
033	Salt Silo with Baghouse at the Molasses Plant
036	Two Hydrogen Sulfide (H_2S) Degasification Systems
037	Emergency Reciprocating Internal Combustion Engine(RICE) (WWTP East Pump Station)
038	Emergency RICE (Fire Pump Building)
039	Emergency RICE (WWP 2nd Floor Pump Room)
040	Emergency RICE (WTP Portable Generator)
042	Emergency RICE (Computer/IT Backup)
041	Emergency RICE (WTP Plant Generator)
046	Existing RICE (Northern Canal Pump)
047	Existing RICE (Southern Pump)
048	New RICE (Southern Canal Pump)

~~*{Permitting Note: This facility includes several hundred agricultural field and cane engines of which some are subject to 40 CFR 63 Subpart ZZZZ. These engines are listed in Appendix E., Insignificant Activities, of this permit. The engines are subject to Subpart ZZZZ and are regulated emission units. The owner or operator shall identify the engines that are subject to Subpart ZZZZ and revise the Title V air operation permit to incorporate these engines prior to the Subpart ZZZZ compliance date, May 3, 2013.}*~~

~~*{Permitting Note: For the above facility, the following emissions units have been permanently shutdown and dismantled: Boiler 3 (EU-003); Boiler 5 (EU-004); Boiler 6 (EU-005); Lime Silo with Baghouse at the Boiling House (EU-011); Diesel Generators 1 (EU-012) and 2 (EU-013); Propane Sock Heaters (EU-023); and Portable Rock Crusher (EU-032).}*~~

Please reference the Permit No., Facility ID No., and corresponding Emissions Unit No. on all correspondence, test report submittals, applications, etc.

PERMITTING AND COMPLIANCE AUTHORITIES

FW.1. Permitting Authority: The Department's Air Resource Section South District Office is the permitting authority for this renewal permit. The permitting authority for subsequent revisions and renewals is the Air Resource Section of the Department's South District Office at: 2295 Victoria Avenue, Suite 364, Fort Myers, Florida 33902-2549. The telephone number is 239/344-5600 and the fax number is 850/412-0590.

FW.2. Compliance Authority: The permittee shall submit all compliance related notifications and reports required of this permit to the Air Resource Section of the Department's South District Office at: 2295 Victoria Avenue, Suite 364, Fort Myers, Florida 33902-2549. The telephone number is 239/344-5600 and the fax number is 850/412-0590.

PERMIT APPENDICES

FW.3. Appendices: The appendices identified as Section 4 in the Table of Contents are attached as an enforceable part of this permit unless otherwise indicated.

ANNUAL REPORTS AND FEES

FW.4. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility in accordance with the requirements in Rule 62-210.370(2), F.A.C. Annual operating reports shall be submitted to the Compliance Authority by April 1st of each year. [Rules 62-210.370(3) and 62-213.440(3)(a)2., F.A.C]

FW.5. Annual Emissions 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.]

EMISSIONS AND CONTROLS

FW.6. Circumvention:
The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]

FW.7. General VOC and OS Emission Limiting Standards: The permittee shall not store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. Nothing was deemed necessary and ordered on a facility-wide basis. [Rule 62-296.320(1)(a), F.A.C.]

FW.8. General Visible Emissions: Unless otherwise specified by this permit, 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. If the presence of uncombined water is the only reason for failure to meet visible emission standards given in this rule, such failure shall not be a violation of this rule. All visible emissions tests performed pursuant to this rule shall be conducted in accordance with EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. This permit condition does not impose any periodic testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]

FW.9. 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. [Rules 62-296.320(2) and 62-210.200(Definitions), F.A.C.; and Permit No. PSD-FL-333D]

FW.10. Unconfined Particulate Emissions: This permit requires the use of fans, filters, pneumatic unloading/loading, ductwork, storage silos and other similar equipment to contain, capture, and/or control particulate matter related to the storage and handling of fuels, raw materials and products. The permittee shall also take the following reasonable precautions to prevent fugitive particulate matter emissions 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 of fuels, raw materials or products.

a. Where practicable, enclose or cover conveyor systems.
b. Minimize drop distances of dry materials when handling.
c. As necessary, provide wind breaks around material handling equipment.
d. Where possible, confine abrasive blasting.
e. Paving and maintenance of roads, parking areas and yards.
f. Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
g. As necessary, provide landscape and/or vegetation.
h. As necessary, remove dust from roads, work areas, parking areas, and other paved areas under the control of the permittee to prevent fugitive dust emissions.
i. As necessary, apply water or other dust suppressants to control emissions from unpaved roads, yards, and other activities such as road grading, land clearing, and the demolition of buildings.

[Rule 62-296.320(4)(c), F.A.C.]

FW.11. Definitions: Unless otherwise specified by permit, startup, shutdown and malfunction are defined as follows.

a. *Startup*: Startup is defined as the commencement of operation of any emissions unit which has shut down or ceased operation for a period of time sufficient to cause temperature, pressure, chemical or pollution control device imbalances, which result in excess emissions.
b. *Shutdown*: Shutdown is defined as the cessation of the operation of an emissions unit for any purpose.
c. *Malfunction*: A malfunction is defined as any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner.

[Rule 62-210.200(Definitions), F.A.C.]

FW.12. 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. All such preventable emissions shall be included in any compliance determinations that are based on data collected from continuous emissions monitoring systems (CEMS). [Rule 62-210.700(4), F.A.C.]

FW.13. Excess Emissions Allowed: (Rule 62-210.700, F.A.C., cannot vary any federal NSPS or NESHAP provisions.) Unless otherwise specified in an emissions unit subsection or Appendices of this permit, excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing:

a. Best operational practices to minimize emissions are adhered to, and
b. The duration of excess emissions shall be minimized but in no case exceed two hours in any 24-hour period.

[Rule 62-210.700(1), F.A.C.]

FW.14. Excess Emissions Notification: In case of excess emissions resulting from malfunctions, the permittee shall notify the Compliance Authority in accordance with Rule 62-4.130, F.A.C. (Plant Operation - Problems). If requested, a full written report on the malfunctions shall be submitted in a quarterly report. [Rule 62-210.700(6), F.A.C.]

FW.15. Plant Operation - Problems: If the permittee is temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately (within one working day) notify the Compliance Authority. Notification shall

include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its 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 Department rules. [Rule 62-4.130, F.A.C.]

ADMINISTRATIVE REQUIREMENTS

FW.16. Renewal Application: The permittee shall submit an application to renew this permit using the appropriate form specified in Rule 62-210.900, F.A.C. prior to 225 days before the expiration of this permit. [Rules 62-4.090, 62-213.420, F.A.C. and 62-213.430, F.A.C]

FW.17. Statement of Compliance: The permittee shall submit the annual statement of compliance using DEP Form No. 62-213.900(7), F.A.C. to the Compliance Authority and EPA within 60 days of the end of the calendar year. [Rules 62-213.440(3)(a)2 & 3, F.A.C.]

FW.18. 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 years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rule 62-213.440(1)(b)2, F.A.C.]

FW.19. Certification by Responsible Official: In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information. [Rule 62-213.420(4), F.A.C.]

FW.20. Reporting to EPA: Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency should be sent to: EPA Region 4 Office; Air, Pesticides & Toxics Management Division; Air and EPCRA Enforcement Branch - Air Enforcement Section; 61 Forsyth Street; Atlanta, Georgia 30303-8960. The telephone number is 404/562-9077 and the fax number is 404/562-9163.

FW.21. Prevention of Accidental Releases (Section 112(r) of CAA):

a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. 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. The permittee shall 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]

Subsection A. Boilers 1 and 2

This subsection addresses the following regulated emissions units.

EU No.	Emissions Unit Description
001	Boiler 1 is a vibrating grate boiler with a maximum steam production rate of 185,000 lb/hour (24-hour average) at 750° F and 600 psig. Bagasse is the primary fuel and distillate oil is a startup and supplemental fuel. Particulate matter emissions are controlled by a Type D, Size 125, Joy Turbulaire wet impingement scrubber. Exhaust gases exit at 150° F with an approximate flow rate of 250,000 acfm from a stack that is 8 feet in diameter and 213 feet tall.
002	Boiler 2 is a vibrating grate boiler with a maximum steam production rate of 185,000 lb/hour (24-hour average) at 750° F and 600 psig. Bagasse is the primary fuel and distillate oil is a startup and supplemental fuel. Particulate matter emissions are controlled by a Type D, Size 125, Joy Turbulaire wet impingement scrubber. Exhaust gases exit at 150° F with an approximate flow rate of 250,000 acfm from a stack that is 8 feet in diameter and 213 feet tall.

CAPACITY, FUELS AND PERFORMANCE RESTRICTIONS

A.1. Permitted Capacity: Boilers 1 and 2 are authorized to fire bagasse as the primary fuel and distillate oil as an auxiliary fuel. Each boiler shall not exceed the permitted capacities specified in the following table.

Parameter	Boiler 1	Boiler 2
Steam Production, lb/hour (24-hour average)	185,000	185,000
Total Heat Input Rate, MMBtu/hour (24-hour average)	397	397
Heat Input Rate from Oil, MMBtu/hour (1-hour average)	130	130
Oil Firing Rate (gallons per hour, maximum)	963	963

[Rules 62-4.070(3) and 62-213.440(4), F.A.C.; and Permit Nos. 0510003-039-AC and PSD-FL-272B]

A.2. Authorized Fuels: Each boiler is authorized to fire the following fuels.

a. *Bagasse*: The primary fuel is bagasse, which is the fibrous byproduct remaining from the sugarcane after milling.
b. *Distillate Oil*: Any oil fired in these boilers shall be new No. 2 distillate oil (or a superior grade) containing no more than 0.05% sulfur by weight. The oil firing system for each boiler consists of the following general equipment: one multi-stage low-NO_X burner (0.17 lb/MMBtu) with a steam-atomized center-fired oil gun; a flame scanner; an igniter with flame proving rod, and an individual burner wind box with an electrically-operated modulating damper.
c. *On-specification Used Oil*: Incidental amounts of on-specification used oil (≤0.05% sulfur by weight) generated on site may be co-fired.
d. *Petroleum-contaminated Soils*: Small quantities of petroleum-contaminated soils not to exceed 500 cubic yards per boiler per season may be co-fired. Such soils shall contain only soil, "virgin" fuels and oils, and/or "on-specification" used oil. Petroleum-contaminated soils shall be fired at a rate of no more than 2% by weight of the bagasse feed rate to the boiler.

Appendix I specifies the fuel monitoring requirements for fuels at this facility.

[Rules 62-210.200(PTE), 62-212.400(12) and 62-213.410, F.A.C.; and Permit Nos. 0510003-039-AC and PSD-FL-272B]

A.3. Restricted Operation: These units operate primarily during the sugarcane crop season (October through April) and the hours of operation are not limited; however, the following restrictions apply.

a. *Off Season*: Boilers 7 and 8 shall operate as the primary units to support the sugar refinery during the off season (May through September). When Boilers 7 and 8 are down for maintenance, repair or during

periods of unusually low steam demand, Boilers 1, 2 and 4 may operate individually or simultaneously as backup units, but the combined total steam production shall not exceed 1,845,000 pounds of steam during any 3-hour period and 10,800,000 pounds of steam during any 24-hour period. An application to modify any of the above steam production limitations shall be accompanied by a revised air quality analysis that demonstrates compliance with the ambient air quality standards and PSD increments for the revised conditions. A request to modify these restrictions shall be accompanied by a new PSD Air Quality Analysis.

b. *Oil Firing*: The combined oil firing from Boilers 1, 2 and 4 shall not exceed 6,000,000 gallons during any consecutive 12 months.

[Rule 62-210.200(PTE); and Permit Nos. PSD-FL-272B and 0510003-039-AC]

A.4. Startup, Shutdown and Malfunction Plans for Mill Boilers: Appendix K of this permit identifies the general procedures that will be used for startup, shutdown, and malfunction of the mill boilers including methods to minimize emissions. [Rules 62-4.070(3) and 62-210.700(1), F.A.C.]

CONTROL EQUIPMENT AND TECHNIQUES

A.5. Wet Scrubbers: For each boiler, the permittee shall operate and maintain a Joy Turbulaire wet impingement scrubber (Type D, Size 125) to control particulate matter emissions and achieve the emissions standards specified in this permit. In accordance with the manufacturer's recommendations, each wet scrubber control system shall be equipped with instrumentation to monitor the total pressure drop across the scrubber (inches of water column) and water flow rate (gpm). Such instrumentation shall be calibrated at least annually, properly maintained and operational at all times, except during periods of breakdown, repair or calibration. Exhaust from the wet scrubber stacks shall be maintained at a minimum of 213 feet in height. The permittee shall operate the wet scrubber in accordance with the CAM provisions of this subsection as well as the general provisions in Appendix H of this permit. [Rule 62-213.440(4), F.A.C.; and Permit No. PSD-FL-272B, 40 CFR 64]

A.6. Other Control Techniques: To minimize emissions of sulfur dioxide and sulfuric acid mist, the boilers shall only fire the authorized low-sulfur fuels specified in this subsection. As provided in Appendix J of this permit, operators shall follow the good combustion practices that are generally applicable to all sugar mill boilers. [Rule 62-210.200(PTE), F.A.C.; and Permit No. PSD-FL-272B]

EMISSION LIMITING STANDARDS

A.7. Opacity Standard: As determined by DEP Method 9, visible emissions from each boiler shall not exceed 30% opacity based on a six-minute average, except for one 2-minute period per hour that shall not exceed 40% opacity. This standard excludes water vapor and applies when firing any combination of authorized fuels. [Rule 62-296.410(1)(b)1, F.A.C.]

A.8. PM Standard: As determined by EPA Method 5, PM emissions shall not exceed 0.25 lb/MMBtu of heat input from firing bagasse plus 0.1 lb/MMBtu of heat input from firing oil. When burning a mixture of bagasse and oil, the emissions standard shall be prorated based on the portion of heat input provided from each fuel. A separate compliance test when firing only distillate oil is not required. [Rule 62-296.410(1)(b)2, F.A.C., Permit No. PSD-FL-208A]

TESTING

A.9. General Testing Requirements: The boilers are subject to the applicable provisions in Appendix C of this permit, which specifies the general requirements for test frequencies, test notifications, sampling facilities, test procedures, and test reports. [Rule 62-297.310, F.A.C.]

A.10. Test Methods: If required, stack tests shall be performed in accordance with the following methods or the most recent versions of these methods.

EPA Method	Description of Method and Comments
1 - 4	Determination of Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content. Methods shall be performed as necessary to support other methods.
5	Determination of PM Emissions from Stationary Sources
9	Visual Determination of the Opacity. The minimum observation period shall be no less than 60 minutes.

The above methods are specified in Appendix A of 40 CFR 60, 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. [Rules 62-204.800 and 62-297.401, F.A.C.; and 40 CFR 60, Appendix A]

A.11. Annual Compliance Tests: During each federal fiscal year (October 1 - September 30), the permittee shall conduct compliance tests for PM and VE from each boiler. See Condition A.12 for an alternative to the visible emissions test when there are combined plumes. For each test run, the permittee shall record the following: steam production rate, temperature and pressure; feedwater flow rate, temperature and pressure; and, at 15 minute intervals, the scrubber pressure drop and water flow rate. For each PM test run, the heat input rate shall be calculated from the steam production data and by assuming a 55% thermal efficiency for the boiler. [Rules 62-213.440(1)(b), 62-296.410(3), 62-297.310(4)(a)2 and 62-297.401, F.A.C.]

A.12. 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 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), 62-213.440(1)(b) and 62-297.310(7)(a)4, F.A.C.]

MONITORING, RECORD KEEPING AND REPORTING

A.13. Monitoring Equipment: In accordance with the manufacturer's recommendations, the permittee shall install, operate and maintain equipment to continuously monitor the following parameters: the steam production (lb/hour), pressure (psig) and temperature (° F); the feed water flow rate (gpm), pressure (psig) and temperature (° F); the scrubber flow rate (gpm) and pressure drop (inches of water column); and the total distillate oil fired (gallons). Each device shall be calibrated at least annually and calibration records maintained in a written or electronic log. [Rule 62-213.440(4), F.A.C.; and Permit Nos. PSD-FL-272B and 0510003-039-AC]

A.14. Daily Operational Records: To demonstrate compliance with the performance requirements of this permit, the permittee shall record the following information in daily logs.

a. *Boiler Operations*: The permittee shall record the time and date the boiler undergoes startup, shutdown, or malfunction. The permittee shall also log the time the boiler has achieved or regained normal operation. Chart recorders shall continuously record the steam pressure (psig), steam temperature (° F), and steam production rate (lb/hour).
b. *Wet Scrubber Parameters*: The wet scrubber shall be equipped with a manometer (or equivalent) to monitor the scrubber pressure drop (inches of water column) and a flow meter to monitor the scrubber water flow rate (gpm). The permittee shall comply with the applicable CAM Plan monitoring requirements in this subsection and Appendix H of this permit.

All records shall indicate the date and time the information was recorded, and in the case of manual recordings, the name of the person who recorded the information. For data that indicates operation outside of the specified permitted levels of the above parameters, the permittee shall record a summary of the incident

and any corrective actions taken to regain proper operation, if any. Automated recorders may be used to satisfy the monitoring requirements.

[Rule 62-210.200(PTE), F.A.C.; and Permit No. 0510003-039-AC]

A.15. CAM Plan, Wet Scrubbers: The permittee shall comply with the following CAM plan for each boiler.

CAM Criteria	**Indicator #1**	**Indicator #2**
Indicator	Pressure drop across scrubber	Total scrubber water flow rate
Measurement Approach	Manometer (or equivalent)	Flow meter
Indicator Range	An excursion is defined as any pressure drop **below 6.5 inches of water column for Boiler 1 and 5.5 inches of water column for Boiler 2**. Excursions trigger inspection, corrective action, record keeping and reporting.	An excursion is defined as any flow rate **below 200 gallons per minute for each boiler**. Excursions trigger inspection, corrective action, record keeping and reporting.
Data Representativeness	Manometer measures scrubber pressure drop with a minimum accuracy of ± 0.5 inches of water column (gage).	Flow meter measures scrubber flow rate with a minimum accuracy of ± 5% of total water flow.
Verification of Operational Status	NA	NA
QA/QC Procedures	Maintain equipment in accordance with manufacturer's recommendations.	Maintain equipment in accordance with manufacturer's recommendations.
Monitoring Frequency	Continuous readout	Continuous readout
Data Collection Procedures	Recorded at 4-hour intervals.	Recorded at 4-hour intervals.
Averaging Period	NA	NA

In addition, the permittee shall comply with the general CAM provisions specified in Appendix H of this permit. Automated recorders may be installed to satisfy the recording requirements. The permittee shall record any problems with operation of the wet scrubber and corrective actions taken in the Daily Operational Records required by this permit. [Rules 62-204.800 and 62-213.440(1)(b)1.a, F.A.C.; and 40 CFR 64]

A.16. Fuel Monitoring Provisions: The permittee shall comply with the applicable fuel monitoring requirements specified in Appendix I (Fuel Monitoring) for each authorized fuel. [Rule 62-210.200(PTE), F.A.C.; and Permit No. 0510003-039-AC]

A.17. Operating Records:

a. *Steam Production*: The permittee shall maintain records of the steam production suitable for review.
b. *Scrubber Parameters*: The permittee shall comply with the CAM plan specified in this subsection as well as the general provisions in Appendix H of this permit.

[Rules 62-213.440(1)(b) and 62-213.440(1)(d)4, F.A.C.; and Permit Nos. PSD-FL-272B and 0510003-039-AC]

A.18. Test Notifications, Records and Reports - General Requirements: Appendix C of this permit specifies the general requirements for test notifications, records and reports. [Rule 62-297.310, F.A.C.]

OTHER APPLICABLE REQUIREMENTS

A.19. NESHAP Provisions: Boilers 1 and 2 are subject to the National Emission Standards for HAPs, Subparts A and DDDDD in 40 CFR 63 for "Industrial-Commercial-Institutional Steam Generating Units) and Subpart Dc

(Small Industrial-Commercial-Institutional Steam Generating Units". Appendix O of this permit summarizes these provisions. [Rule 62-204.800, F.A.C.]

Subsection B. Boiler 4

This subsection addresses the following regulated emissions unit.

EU No.	Emissions Unit Description
009	Boiler 4 is a traveling grate boiler manufactured by Foster Wheeler with a maximum steam production rate of 271,604 lb/hour at 850° F and 600 psig. Bagasse is the primary fuel and distillate oil is a startup and supplemental fuel. Particulate matter emissions are controlled by a Type D, Size 200 Joy Turbulaire wet impingement scrubber. Exhaust gases exit a stack that is 150 feet tall and 8.2 feet in diameter at 160° F with an approximate flow rate of 281,000 acfm.

CAPACITY, FUELS AND PERFORMANCE RESTRICTIONS

B.1. Permitted Capacity: Boiler 4 is authorized to fire bagasse as the primary fuel and distillate oil as an auxiliary fuel. Boiler 4 shall not exceed the permitted capacities specified in the following table.

Averaging Period	Steam Pressure [a]	Steam Temperature [a]	Steam Production (lb/hour)	Heat Input [b] (MMBtu/hour)	Wet Bagasse Firing [b] (tons/hour)
1-hour	600 psig	850° F	286,543	633	88
24-hour	600 psig	850° F	271,604	600	83

a. *Steam Parameters*. Steam temperature and pressure are design parameters. Prior to modifying the steam parameters, the permittee shall notify to the Department. Such changes may require a permit modification.

b. *Bagasse Heat Input Parameters*. The maximum heat input and bagasse firing rates are estimated based on 55% thermal efficiency of the boiler; wet bagasse containing 55% moisture and a heat content of 3600 Btu/lb; and 1215 Btu (net) per pound of steam at 600 psig and 850° F with standard feed water conditions of 900 psig and 250° F.

c. *Distillate Oil Heat Input Parameters*. The maximum heat input rate is 326 MMBtu per hour from firing a maximum of 2417 gallons per hour of distillate oil, which produces approximately 225,000 pounds of steam per hour from the sole firing of distillate oil.

The permittee shall maintain continuous monitoring records of the steam temperature, steam pressure, and steam production rate. [Rules 62-210.200(PTE) and 62-212.400(PSD), F.A.C.; and Permit Nos. PSD-FL-272B and 0510003-039-AC]

B.2. Authorized Fuels: Boiler 4 is authorized to fire the following fuels.

a. *Bagasse*: The primary fuel is bagasse, which is the fibrous byproduct remaining from the sugarcane after milling.

b. *Distillate Oil*: Any oil fired in these boilers shall be new No. 2 distillate oil (or a superior grade) containing no more than 0.05% sulfur by weight. The oil firing system consists of the following general equipment: two multi-stage low-NO_X burners (~ 0.17 lb/MMBtu) with flame scanners; fuel/steam valve train; steam-atomized center-fired oil gun with igniter and flame proving rod; a multi-burner wind box; a fuel oil pump set; and a burner management control system.

c. *On-specification Used Oil*: Incidental amounts of on-specification used oil (≤0.05% sulfur by weight) generated on site may be co-fired.

[Rules 62-210.200(PTE) and 62-212.400(PSD), F.A.C.; and Permit Nos. PSD-FL-272B and 0510003-039-AC]

B.3. Restricted Operation: Boiler 4 operates primarily during the sugarcane crop season (October through April) and the hours of operation are not limited; however, the following restrictions apply.

a. *Annual Heat Input Rate Limit*: In addition, the total heat input to this boiler shall not exceed 2,880,000 MMBtu during any consecutive 12 months (equivalent to approximately 400,000 tons of bagasse).

b. *Oil Firing*: The combined oil firing from Boilers 1, 2 and 4 shall not exceed 6,000,000 gallons during any consecutive 12 months.

c. *Off Season*: Boilers 7 and 8 shall operate as the primary units to support the sugar refinery during the off season (May through September). When Boilers 7 and 8 are down for maintenance, repair or during periods of unusually low steam demand, Boiler Nos. 1, 2 and 4 may operate individually or simultaneously as backup units, but the combined total steam production shall not exceed 1,845,000 pounds of steam during any 3-hour period and 10,800,000 pounds of steam during any 24-hour period. An application to modify any of the above steam production limitations shall be accompanied by a revised air quality analysis that demonstrates compliance with the ambient air quality standards and PSD increments for the revised conditions. A request to modify these restrictions shall be accompanied by a new PSD Air Quality Analysis.

[Rules 62-210.200(PTE) and 62-212.400(PSD); and Permit Nos. PSD-FL-272B and 0510003-039-AC]

B.4. Startup, Shutdown and Malfunction Plans for Mill Boilers: Appendix K of this permit identifies the general procedures that will be used for startup, shutdown, and malfunction of the mill boilers including methods to minimize emissions. [Rule 62-210.700(1), F.A.C.; and Permit No. PSD-FL-272B]

CONTROL EQUIPMENT AND TECHNIQUES

B.5. Wet Scrubber: To control emissions of particulate matter, the permittee shall install, operate, and maintain a Type D, Size 200 Joy Turbulaire wet impingement scrubber. In accordance with the manufacturer's recommendations, the wet scrubber control system shall be equipped with instrumentation to monitor the total pressure drop across the scrubber (inches of water column) and water flow rate (gpm). Such instrumentation shall be calibrated at least annually, properly maintained and operational at all times, except during periods of breakdown, repair or calibration. The permittee shall operate the wet scrubber in accordance with the CAM provisions of this subsection as well as the general provisions in Appendix H of this permit. [Rule 62-212.400(PSD), F.A.C.; and Permit No. PSD-FL-272B; 40 CFR 64]

B.6. Other Control Techniques: To minimize emissions of sulfur dioxide and sulfuric acid mist, the boilers shall only fire the authorized low-sulfur fuels specified in this subsection. As provided in Appendix J of this permit, operators shall follow the good combustion practices that are generally applicable to all sugar mill boilers. In addition, operators shall use the following good combustion practices to minimize CO and VOC emissions while optimizing NO_X emissions from Boiler 4.

a. *O_2 and CO Monitoring*. The permittee shall calibrate, operate, and maintain process monitors to indicate the oxygen and carbon monoxide content of the exhaust flue gas in the boiler furnace. The oxygen process monitor shall include an alarm with a set point at 1.5% (minimum) flue gas oxygen content based on a 1-hour block average. The CO process monitor shall include an alarm with a set point at 3000 ppm (maximum) flue gas CO concentration based on a 1-hour block average. Each monitor shall display both the instantaneous and the 1-hour block average. Readouts of these process monitors shall be provided in the boiler control room.

b. *Operator Training*. All boiler operators and supervisors shall be properly trained to operate the boiler and pollution control equipment in accordance with the guidelines and procedures established by each equipment manufacturer. Power plant management shall instruct operations and maintenance personnel in proper boiler and scrubber operations so as to minimize stack emissions. This includes instruction for observing the oxygen and carbon monoxide process monitors to promote good combustion as well as adjusting operations in response to an alarm condition. All boiler operators and team leaders shall possess an operator certification from an independent agency equivalent to NIULPE 4th class.

c. *Operator Responsibilities*. The boiler operator will maintain steam rate at optimal or desired rate by controlling feed of bagasse fuel into the boiler. Combustion air to the boiler will be maintained at the highest possible level (resulting in sufficient excess air whenever feasible) in order to promote good combustion. The boiler operators shall periodically observe each process monitor and adjust the boiler operation, consistent with good combustion practices. The boiler operator, shift supervisor, and roving

operator shall periodically view the smoke stack plume to visually confirm that good combustion is taking place. If an abnormal plume is observed, the operator will immediately take corrective action. The boiler operator will log the occurrence and duration of all such events in the boiler operation log, along with the corrective action taken.

d. *Process Monitor Alarm Response*. If the alarm is tripped for either process monitor (low oxygen content or high CO concentration), the boiler operator shall take corrective actions consistent with good combustion practices. Corrective actions include, but are not limited to, adjusting the air-to-fuel ratio, adjusting the ratio of under-fire air to over-fire air, and firing some fuel oil in place of bagasse. For each such incident, the operator shall summarize the corrective actions taken and the approximate time when operation within the target parameter was regained. It is noted that the monitored flue gas carbon monoxide content is for the purpose of determining efficient combustion and may not be representative of the actual CO emissions from the stack. Operation outside of the specified operating range for either monitored parameter is not a violation of this permit, in and of itself. However, continued or frequent operation outside of the specified operating range for either monitored parameter without corrective action may be considered circumvention of "good combustion practices".

e. *NO_X Optimization*. NO_X emissions are to be optimized by the proper application of good combustion practices. However, the practices to minimize CO and VOC emissions may result in increased NO_X emissions due to more excess air and higher combustion temperatures. Therefore, the practices to optimize NO_X emissions are considered to be the same practices used to minimize CO and VOC emissions, as described above.

f. *Good Combustion Practices*. Appendix J of this permit specifies operational, maintenance and monitoring procedures that are generally applicable to all sugar mill boilers for maintaining good combustion.

[Rules 62-4.070(3), 62-210.200(PTE) and 62-212.400(PSD), F.A.C.; and Permit No. PSD-FL-272B]

EMISSION LIMITING STANDARDS

B.7. CO Standard: As determined by EPA Method 10, CO emissions shall not exceed 6.5 lb/MMBtu of total heat input based on a 3-run test average. [Rule 62-212.400(BACT), F.A.C. and Permit No. PSD-FL-272B]

B.8. NOx Standard: As determined by EPA Method 7 or 7E, NO_X emissions shall not exceed 0.20 lb/MMBtu of heat input from firing bagasse based on a 3-run test average. [Rule 62-212.400(BACT), F.A.C. and Permit No. PSD-FL-272B]

B.9. Opacity Standard: As determined by DEP Method 9, visible emissions shall not exceed 20% opacity based on a six-minute average, except for one two-minute period per hour that shall not exceed 40% opacity. This standard excludes water vapor. [Rule 62-212.400(BACT), F.A.C. and Permit No. PSD-FL-272B]

{Permitting Note: This standard is more stringent than that imposed by Rules 62-296.410(2)(b)1, F.A.C. for carbonaceous fuel burning equipment.}

B.10. PM Standard: Particulate matter emissions shall not exceed 0.15 lb/MMBtu of heat input from bagasse firing nor 0.10 lb/MMBtu of heat input from oil firing based on a 3-run test average as determined by EPA Method 5. Compliance when firing both fuels shall be determined by prorating the emissions standards based on the heat input from each fuel. [Rule 62-212.400(BACT), F.A.C. and Permit No. PSD-FL-272B]

{Permitting Note: This standard is more stringent than that imposed by Rules 62-296.410(2)(b)2, F.A.C. for carbonaceous fuel burning equipment.}

B.11. SO2 Standard: Sulfur dioxide emissions shall not exceed 0.06 lb/MMBtu of heat input from bagasse firing based on a 3-run test average as determined by EPA Methods 6, 6C or 8. This standard shall also serve as a surrogate for sulfuric acid mist (SAM) emissions, which are estimated to be 0.01 lb/MMBtu of heat input from bagasse firing as determined by EPA Method 8. Emissions of SO_2 and SAM from fuel oil firing are limited by the sulfur content restrictions specified by this permit. [Rule 62-212.400(BACT), F.A.C. and Permit No. PSD-FL-272B]

B.12. VOC Standard: Volatile organic compound emissions shall not exceed 0.50 lb/MMBtu of total heat input (as propane) based on a 3-run test average as determined by EPA Method 18 and EPA Method 25A, modified to include a means of sample dilution. However, the sample shall not be diluted below the minimum detection limit for the flame ionization detector. Total VOC emissions shall be determined by EPA Method 25A and reported in terms of lb/MMBtu (as propane). EPA Method 18 shall be used to determine emissions of methane and reported in terms of lb/MMBtu (as propane). Emissions of regulated VOC shall be defined as the difference between the total VOC emissions and methane emissions reported in terms of lb/MMBtu (as propane). [Rule 62-212.400(BACT), F.A.C.; Permit No. PSD-FL-272B; and ASP No. 96-H-01]

TESTING

B.13. General Testing Requirements: The boilers are subject to the applicable provisions of Appendix C, which specifies the general requirements for test frequencies, test notifications, sampling facilities, test procedures, and test reports. [Rule 62-297.310, F.A.C.]

B.14. Test Methods: If required, stack tests shall be performed in accordance with the following methods or the most recent versions of these methods.

EPA Method	Description of Method and Comments
1 - 4	Determination of Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content. Notes: Methods shall be performed as necessary to support other methods.
5	Determination of PM Emissions from Stationary Sources
6 or 6C	Measurement of SO2 Emissions (Instrumental)
7 or 7E	Measurement of NOx Emissions (Instrumental)
8	Determination of SAM and SO2 Emissions from Stationary Sources
9	Visual Determination of the Opacity. The minimum observation period shall be no less than 60 minutes.
10	Measurement of CO Emissions (Instrumental). The CO test method shall be based on a continuous sampling train.
18	Measurement of Gaseous Organic Compound Emissions (Gas Chromatography). Optionally, EPA Method 18 may be used concurrently with EPA Method 25A to deduct emissions of methane and ethane from the THC emissions measured by Method 25A; otherwise, all THC emissions measured by EPA Method 25A will be assumed to be regulated VOC.
19	Calculation Method for NOx, PM, and SO2 Emission Rates. Method shall be performed as necessary to support other methods.
25A	Measurement of Gaseous Organic Concentrations (Flame Ionization). Method may be modified to include a means of sample dilution. However, the sample shall not be diluted below the minimum detection limit for the flame ionization detector.

The above methods are specified in Appendix A of 40 CFR 60, 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. [Rules 62-204.800 and 62-297.401, F.A.C.; 40 CFR 60, Appendix A; and Permit No. PSD-FL-272B]

B.15. 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 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), 62-213.440(1)(b) and 62-297.310(7)(a)4, F.A.C.]

B.16. Annual Compliance Tests: During each federal fiscal year (October 1st to September 30th), the permittee shall conduct annual performance tests for CO, NO_X, PM, VOC and opacity to demonstrate compliance with the emissions standards specified in this subsection. All CO and NO_X tests shall be conducted concurrently. [Rules 62-4.070(3), 62-212.400(PSD), and 62-297.310(7)(a)4, F.A.C.; and Permit No. PSD-FL-272B]

B.17. Compliance Tests Prior to Renewal: The permittee shall conduct tests for CO, NO_X, PM, SO_2, VOC, visible emissions and boiler thermal efficiency to demonstrate compliance with the emissions standards and conditions specified in this subsection.

a. All CO and NO_X tests shall be conducted concurrently.
b. During each SO_2 performance test, the permittee shall sample and analyze the bagasse fuel for sulfur content. The sulfur content shall be used to calculate the potential uncontrolled SO_2 emissions as well as the control efficiency during the test. This information shall be submitted in the test report.
c. The boiler thermal efficiency shall be determined with the ASME boiler efficiency short form method or other equivalent method. This test shall demonstrate, in part, adherence to the maintenance provisions of the good combustion practices plan. If the test for boiler thermal efficiency indicates an efficiency of less than 50%, the permittee shall begin conducing annual tests. If maintenance and repair result in regaining a boiler thermal efficiency of 50% or more, testing may revert back to the federal fiscal year prior to renewal.

[Rules 62-212.400(PSD), and 62-297.310(7)(a)4, F.A.C.; and Permit No. PSD-FL-272B]

B.18. Tests After Substantial Modifications: Additional performance tests may be required after any substantial modification and appropriate shake-down period of the boiler or air pollution control equipment. Shakedown periods shall not exceed 90 days after re-starting the unit. [Rule 62-297.310(7)(a)4, F.A.C.; and Permit No. PSD-FL-272B]

B.19. Monitoring of Test Parameters: During any required test, the permittee shall monitor and record the scrubber pressure drop, the scrubber water flow rate, the flue gas oxygen content, and the flue gas carbon monoxide content at 15 minute intervals. The permittee shall monitor and record the steam production rate, steam temperature, steam pressure, feed water flow rate, feed water temperature, feed water pressure, and oil flow rate and calculate and record the bagasse consumption rate and the heat input rate for each run. For each test run, the heat input rate shall be calculated from the steam production data and by assuming a 55% thermal efficiency for the boiler. [Rule 62-297.310(5), F.A.C.; and Permit No. PSD-FL-272B]

MONITORING, RECORD KEEPING AND REPORTING

B.20. Monitoring Equipment: In accordance with the manufacturer's recommendations, the permittee shall calibrate, operate and maintain all monitoring equipment including: steam flow meters, steam integrators, strip chart recorders, pressure gages, manometers, scrubber water flow meters, fuel oil flow meters, and all other monitoring devices used to demonstrate compliance with the conditions of this permit. Each device shall be calibrated at least annually. All calibrations and repairs shall be recorded as part of the Daily Operational Records. [Rule 62-212.400(PSD), F.A.C.; and Permit Nos. PSD-FL-272B and 0510003-039-AC]

B.21. Daily Operational Records: To demonstrate compliance with the performance requirements of this permit, the permittee shall record the following information in daily logs.

a. *Boiler Operations*: The permittee shall record the time and date the boiler undergoes startup, shutdown, or malfunction. The permittee shall also log the time the boiler has achieved or regained normal operation. Chart recorders shall continuously record the steam pressure (psig), steam temperature (° F) and steam production rate (pounds per hour). Alternatively, the permittee may install an automated device to record these parameters.
b. *Flue Gas Parameters*: The permittee shall record the oxygen and carbon monoxide contents of flue gas once normal operation is established after startup and at least once per hour of operation. Alternatively, the permittee may install an automated device to record these parameters.

c. *Wet Scrubber Parameters*: Once normal operation is established after startup, the permittee shall record the scrubber pressure drop (inches of water column) and water flow rate (gpm). Thereafter, the permittee shall record this information in accordance with the CAM provisions in this subsection and the general provisions in Appendix H of this permit. Alternatively, the permittee may install an automated device to record these parameters.

d. *Calibrations*: The permittee shall record in the daily log any monitoring equipment calibrations and repairs.

e. *Daily Summary*: For each day of operation, the permittee shall calculate and record the following by the end of the next workday.
(1) Operation: hours/day;
(2) Steam production rate: lb/day and lb/hour (daily average);
(3) Heat input: MMBtu/day and MMBtu/hour (daily average); and
(4) Fuel Oil Consumption: gallons/day.

All records shall indicate the date and time the information was recorded, and in the case of manual recordings, the name of the person who recorded the information. For data that indicates operation outside of the specified permitted levels of the above parameters, the permittee shall record a summary of the incident and any corrective actions taken to regain proper operation, if any.
[Rules 62-212.400(PSD), F.A.C.; and Permit Nos. PSD-FL-272B and 0510003-039-AC]

B.22. Monthly Operations Summary: Within ten calendar days of the end of each month, the permittee shall calculate and record the following information in a written or electronic log to demonstrate compliance with the performance requirements of this permit: hours of operation; steam production rate (lb); heat input rate (MMBtu); wet bagasse consumption rate (tons); total oil fired (gallons); and for any monitored parameters with missing records, the data availability (percent) for the month. These records shall indicate the amounts for the previous month and the consecutive 12-month rolling total. All records shall indicate the date and time the information was recorded, and in the case of manual recordings, the name of the person who recorded the information. For data that indicates operation outside of the specified permitted levels of the above parameters, the permittee shall record a summary of the incident and any corrective actions taken to regain proper operation, if any. [Rules 62-212.400(BACT), F.A.C.; and Permit Nos. PSD-FL-272B and 0510003-039-AC]

B.23. Fuel Monitoring Provisions: The permittee shall comply with the applicable fuel monitoring requirements specified in Appendix I (Fuel Monitoring) for each authorized fuel. [Rules 62-210.200(PTE), F.A.C.; and Permit No. 0510003-039-AC]

B.24. CAM Plan for Wet Scrubber: The permittee shall comply with the following CAM plan requirements as well as the general provisions specified in Appendix H of this permit.

CAM Criteria	**Indicator #1**	**Indicator #2**
Indicator	Pressure drop across scrubber	Total scrubber water flow rate
Measurement Approach	Manometer (or equivalent)	Flow meter
Indicator Range	An excursion is defined as any pressure drop **below 6.0 inches of water column**. Excursions trigger inspection, corrective action, record keeping and reporting.	An excursion is defined as any flow rate **below 220 gallons per minute**. Excursions trigger inspection, corrective action, record keeping and reporting.
Data Representativeness	Manometer measures scrubber pressure drop with a minimum accuracy of ± 0.5 inches of water column (gage).	Flow meter measures scrubber flow rate with a minimum accuracy of ± 5% of total water flow.
Verification of Operational Status	NA	NA

CAM Criteria	Indicator #1	Indicator #2
QA/QC Procedures	Maintain equipment in accordance with manufacturer's recommendations.	Maintain equipment in accordance with manufacturer's recommendations.
Monitoring Frequency	Continuous readout	Continuous readout
Data Collection Procedures	Recorded at 4 hour intervals.	Recorded at 4 hour intervals.
Averaging Period	NA	NA

In addition, the permittee shall comply with the general CAM provisions specified in Appendix H of this permit. Automated recorders may be installed to satisfy the recording requirements. The permittee shall record any problems with operation of the wet scrubber and corrective actions taken in the Daily Operational Records required by this permit. [Rules 62-204.800 and 62-213.440(1)(b)1.a, F.A.C.; and 40 CFR 64]

B.25. Test Notifications, Records and Reports - General Requirements: Appendix C of this permit specifies the general requirements for test notifications, records and reports. [Rule 62-297.310, F.A.C.]

OTHER APPLICABLE REQUIREMENTS

B.26. NESHAP Provisions: Boiler 4 is subject to the National Emission Standards for HAPs, Subparts A and DDDDD in 40 CFR 63 for "Industrial-Commercial-Institutional Steam Generating Units) and Subpart Dc (Small Industrial-Commercial-Institutional Steam Generating Units". Appendix O of this permit summarizes these provisions. [Rule 62-204.800, F.A.C.]

Subsection C. Boiler 7

This subsection addresses the following regulated emissions unit.

EU No.	Emissions Unit Description
014	Boiler 7 is an Alpha Conal Model No. ATT-203-18 spreader-stoker, ~~vibrating~~ hybrid suspension-grate boiler with a maximum steam production rate of 385,000 pounds per hour at 750° F and 600 psig. It fires primarily bagasse with distillate oil as a supplemental and alternate fuel. Particulate matter emissions are controlled by two parallel wet sand separators followed by an ABB electrostatic precipitator. Exhaust gases exit a stack that is 8.0 feet in diameter and 225 feet tall at 312° F with an average flow rate of 296,657 acfm.

CAPACITY, FUELS AND PERFORMANCE RESTRICTIONS

C.1. Permitted Capacity: Boiler 7 is authorized to fire bagasse as the primary fuel with wood chips and distillate oil used as auxiliary fuels. Boiler 7 shall not exceed the permitted capacities specified in the following table.

Averaging Period	Steam Pressure [a]	Steam Temperature [a]	Steam Production (lb/hour)	Heat Input [b] (MMBtu/hour)	Wet Bagasse Firing [b] (tons/hour)
1-hour	600 psig	750° F	385,000	812	113
24-hour	600 psig	750° F	350,000	738	103

a. *Steam Parameters*. Steam temperature and pressure are design parameters. Changes to these parameters shall be reported to the Department and may require a permit modification.

b. *Bagasse Heat Input Parameters*. The maximum heat input and bagasse firing rates are estimated based on 55% thermal efficiency of the boiler; wet bagasse containing 55% moisture and a heat content of 3600 Btu/lb; and 1160 Btu (net) per pound of steam at 600 psig and 750° F with standard feed water conditions of 900 psig and 250° F.

c. *Distillate Oil Heat Input Parameters*. The maximum distillate oil firing rate is 2417 gallons per hour, which produces approximately 225,000 pounds of steam per hour from the sole firing of distillate oil at a heat input rate of 326 MMBtu per hour.

d. *Wood Chip Burning Parameters*. Wood chips shall be fired at a heat input rate of no more than 369 MMBtu per hour based on a 24-hour average. The heat input rate from firing wood chips shall not exceed 1,616,220 MMBtu during any consecutive 12 months (equivalent to 25% of the maximum annual heat input rate).

The permittee shall maintain continuous monitoring records of the steam temperature, steam pressure, and steam production rate.

[Rules 62-210.200(PTE) and 62-212.400(PSD), F.A.C.; EPA alternative opacity monitoring plan approval dated February 1, 2008; and Permit Nos. PSD-FL-208A, 0510003-018-AC and PSD-FL-389A]

C.2. Authorized Fuels: Boiler 7 is authorized to fire the following fuels.

a. *Bagasse*: The primary fuel is bagasse, which is the fibrous byproduct remaining from the sugarcane after milling.

b. *Wood Chips*: Wood chips may be fired as a startup and restricted auxiliary fuel. Wood chips shall consist of clean dry wood and vegetative materials. The wood chips shall be substantially free of plastics, rubber, glass, painted wood, chemically treated wood, and non-combustible materials. The firing of any household garbage, hazardous wastes, or toxic materials is prohibited.

c. *Distillate Oil*: Any oil fired in this boiler shall be new No. 2 distillate oil (or a superior grade) containing no more than 0.05% sulfur by weight. The oil firing system consists of multi-stage low-NO_X burners and a burner management control system.

d. *On-specification Used Oil*: Incidental amounts of on-specification used oil (≤0.05% sulfur by weight) generated on site may be co-fired.

[Rules 62-210.200(PTE) and 62-212.400(PSD), F.A.C.; and Permit Nos. PSD-FL-208A, 0510003-029-AC and PSD-FL-389A]

C.3. Restricted Operation: Boiler 7 operates primarily during the sugarcane crop season (October through April) and may operate during the off season (May through September) to support the sugar refinery. The hours of operation are not limited (8760 hours per year); however, no more than 4,500,000 gallons of distillate oil shall be fired during any consecutive 12-month period.

[Rules 62-210.200(PTE) and 62-212.400(12), F.A.C.; 40 CFR 60.44b(l)(1); and Permit Nos. PSD-FL-208A and 0510003-029-AC]

{Permitting Note: The annual oil firing limit ensures that the annual capacity factor (as defined in 40 CFR 60.41b) remains below 10% and avoids applicability of the NO_X standard in accordance with 40 CFR 60.44b(l)(1).}

C.4. Startup, Shutdown and Malfunction Plans for Mill Boilers: Appendix K of this permit identifies the general procedures that will be used for startup, shutdown, and malfunction of the mill boilers including methods to minimize emissions. [Rules 62-4.070(3) and 62-210.700(1), F.A.C.]

CONTROL EQUIPMENT AND TECHNIQUES

C.5. Sand Separators: The permittee shall operate and maintain two wet sand separators to remove large particles prior to the electrostatic precipitator. [Rule 62-210.200(PTE); and Permit No. PSD-FL-208A]

C.6. Electrostatic Precipitator: The permittee shall operate and maintain an electrostatic precipitator to achieve the PM standards specified in this subsection. The original design control efficiency is 98%. Exhaust from the outlet stack shall be maintained at a minimum of 225 feet in height. [Rule 62-210.200(PTE); and Permit No. PSD-FL-208A]

C.7. Other Control Techniques:

a. *Low-Sulfur Fuels*: To minimize emissions of sulfur dioxide and sulfuric acid mist, the boilers shall only fire the authorized low-sulfur fuels specified in this subsection.
b. *Good Combustion Practices*: Appendix J of this permit specifies operational, maintenance and monitoring procedures that are generally applicable to all sugar mill boilers for maintaining good combustion.

[Rules 62-210.200(PTE) and 62-212.400(PSD), F.A.C.; and Permit No. PSD-FL-208A]

EMISSION LIMITING STANDARDS

The "lb/hour" standards in the following conditions are based on the maximum 24-hour maximum heat input rate.

C.8. CO Standards: As determined by EPA Method 10, CO emissions shall not exceed 0.70 lb/MMBtu of heat input, 516 lb/hour and 2262 tons/year when firing bagasse. [Permit No. PSD-FL-208A]

C.9. NOx Standards: As determined by EPA Methods 7 or 7E, NO_X emissions shall not exceed 0.25 lb/MMBtu of heat input, 185 lb/hour and 809 tons/year when firing bagasse. As determined by EPA Method 7E, NO_X emissions shall not exceed 0.31 lb/MMBtu of heat input and 228.8 lb/hour when firing wood chips alone or in combination with other fuels. As determined by EPA Methods 7 or 7E, NO_X emissions shall not exceed 0.20 lb/MMBtu of heat input when firing distillate oil. No periodic testing for oil firing is required. [Rules 62-204.800, and 62-212.400(BACT), F.A.C.; 40 CFR 60.43b(f); and Permit Nos. PSD-FL-208A and 0510003-029-AC]

C.10. Opacity Standard: As determined by COMS or EPA Method 9, visible emissions shall not exceed 20% opacity based on a 6-minute average except for one 6-minute period per hour that shall not exceed 27% opacity. This standard excludes water vapor and applies when firing any combinations of fuels. [Rules 62-204.800, and 62-212.400(BACT), F.A.C.; 40 CFR 60.43b(f); and Permit Nos. PSD-FL-208A, 0510003-029-

AC and PSD-FL-389A]

C.11. PM/PM10 Standard: As determined by EPA Method 5 or 17, PM emissions shall not exceed 0.03 lb/MMBtu of heat input, 22 lb/hour and 97 tons/year when firing any combinations of fuels. *{Permitting Note: All PM shall be assumed to be PM_{10}.}* [Rules 62-204.800, 62-296.410 and 62-212.400(BACT), F.A.C.; 40 CFR 60.43b; and Permit Nos. PSD-FL-208A, 0510003-029-AC and PSD-FL-389A]

C.12. SAM Standards: As determined by EPA Method 8, SAM emissions shall not exceed 0.017 lb/MMBtu of heat input, 13 lb/hour and 55 tons/year when firing bagasse. Compliance with the fuel sulfur specifications and SO_2 emissions limits shall serve as indicators of compliance. No periodic tests are required. [Rule 62-212.400(BACT), F.A.C. and Permit No. PSD-FL-208A]

C.13. SO2 Standards: As determined by EPA Methods 6, 6C or 8, SO_2 emissions shall not exceed 0.17 lb/MMBtu, 125 lb/hour and 550 tons/year when firing any combinations of fuels. [Rules 62-204.800, 62-296.410 and 62-212.400(BACT), F.A.C.; 40 CFR 60.43b; and Permit Nos. PSD-FL-208A and 0510003-029-AC]

C.14. VOC Standards: As determined by EPA Methods 18 and 25 or 25A, VOC emissions shall not exceed 0.212 lb/MMBtu of heat input, 157 lb/hour and 685 tons/year when firing bagasse. [Rule 62-212.400(BACT), F.A.C. and Permit Nos. PSD-FL-208A and 0510003-029-AC]

TESTING

C.15. Test Methods: If required, stack tests shall be performed in accordance with the following methods or the most recent versions of these methods.

EPA Method	Description of Method and Comments
1 - 4	Determination of Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content. Methods shall be performed as necessary to support other methods.
5 or 17	Determination of PM Emissions from Stationary Sources
6 or 6C	Measurement of SO_2 Emissions (Instrumental)
7 or 7E	Measurement of NO_X Emissions (Instrumental)
8	Determination of SAM and SO_2 Emissions from Stationary Sources
9	Visual Determination of the Opacity
10	Measurement of CO Emissions (Instrumental). The CO test method shall be based on a continuous sampling train.}
18	Measurement of Gaseous Organic Compound Emissions (Gas Chromatography). Optionally, EPA Method 18 may be used concurrently with EPA Method 25A to deduct emissions of methane and ethane from the THC emissions measured by Method 25A; otherwise, all THC emissions measured by EPA Method 25A will be assumed to be regulated VOC.
19	Calculation Method for NOx, PM, and SO_2 Emission Rates. Method may be used to supplement other methods.
25A	Measurement of Gaseous Organic Concentrations (Flame Ionization). Method may be modified to include a means of sample dilution. However, the sample shall not be diluted below the minimum detection limit for the flame ionization detector.

The above methods are specified in Appendix A of 40 CFR 60, 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. [Rules 62-204.800 and 62-297.401, F.A.C.; 40 CFR 60, Appendix A; and Permit Nos. PSD-FL-272B and 0510003-018-AC]

C.16. Initial Compliance Tests: The emissions unit shall be tested to demonstrate initial compliance with the emissions standards for **CO, NO_X, PM, VOC and opacity**. The initial tests shall be conducted before

December 31, 2013. If wood chips are fired, separate compliance tests when firing wood are required for NO_X, PM and VE. Since bagasse is the worst-case fuel with regard to PM, tests for PM and VE when firing bagasse may also be used to demonstrate compliance with the standards for firing wood chips. Tests for PM and opacity shall be conducted simultaneously unless approval is obtained from the Compliance Authority [Rules 62-4.070(3) and 62-297.310(7)(a)1, F.A.C.]

C.17. General Testing Requirements: The boilers are subject to the applicable provisions of Appendix C, which specifies the general requirements for test frequencies, test notifications, sampling facilities, test procedures, and test reports. [Rule 62-297.310, F.A.C.]

C.18. Annual Compliance Tests: During each federal fiscal year (October 1 - September 30), the permittee shall conduct performance tests when firing bagasse for CO, NO_X, PM, VOC and opacity to demonstrate compliance with the applicable standards. If wood chips are fired during the federal fiscal year, separate compliance tests when firing wood are required for nitrogen oxides, particulate matter and visible emissions. Since bagasse is the worst-case fuel with regard to particulate matter, annual tests for particulate matter and visible emissions when firing bagasse may also be used to demonstrate compliance with the standards for firing wood chips. Tests for PM and opacity shall be conducted simultaneously unless approval is obtained from the Compliance Authority. [Rule 62-297.310(7)(a), F.A.C. and Permit Nos. PSD-FL-208A, 0510003-029-AC and PSD-FL-389A]

C.19. Renewal Compliance Tests: The permittee shall conduct performance tests when firing bagasse for CO, NO_X, PM, SO_2, VOC and opacity to demonstrate compliance with the applicable standards prior to renewing the Title V permit (at least every 5 years). Tests for PM and opacity shall be conducted simultaneously unless approval is obtained from the Compliance Authority. Before conducting any emissions tests for renewal, the permittee shall determine the thermal efficiency of the boiler using the ASME short-form or equivalent procedure. The results of the emissions and thermal efficiency tests shall be provided with the application to renew the operation permit. [Rule 62-297.310(7)(a), F.A.C. and Permit No. 0510003-029-AC]

C.20. Parametric Monitoring for Tests: The permittee shall continuously monitor and record the oil flow rate and production rate, temperature and pressure of the steam. At no less than 15-minute intervals, permittee shall record the: flow rate to the wet cyclones; the flow rate, temperature and pressure of the feed water; and the amperage and voltage to the electrostatic precipitator. For each test run, the permittee shall monitor and record the bagasse firing rate. For each test run, the permittee shall calculate and record: the heat input rate based on the thermal efficiency and the steam and feedwater parameters; and the total power input to the electrostatic precipitator based on the monitored amperage and voltage. If the most recent thermal efficiency test indicates a thermal efficiency below 50%, the test results shall be used to determine the heat input rate from firing bagasse; otherwise, a default value of 55% may be used. [Rule 62-297.310(5), F.A.C.; and Permit No. PSD-FL-208A]

MONITORING, RECORD KEEPING AND REPORTING

C.21. Monitoring Equipment: In accordance with the manufacturer's recommendations, the permittee shall calibrate, operate, and maintain the monitoring devices used to demonstrate compliance with the conditions of this permit, including: flow meters with integrators, pressure monitors, temperature monitors, strip chart recorders, oil flow meters, etc. Each device shall be calibrated at least annually. [Rule 62-212.400(PSD), F.A.C.; and Permit No. PSD-FL-208A]

C.22. Daily Operational Records: To demonstrate compliance with the performance requirements of this permit, the permittee shall record the following information in daily logs.

a. *Boiler Operations*: Chart recorders shall continuously record the steam pressure (psig), steam temperature (° F), and steam production rate (pounds per hour). Alternatively, the permittee may install an automated device to record these parameters.

b. *ESP Parameters*: The permittee shall maintain records of the amperage, voltage and total secondary power input to the electrostatic precipitator. The permittee shall comply with the CAM plan specified in this subsection as well as the general provisions in Appendix H of this permit.
c. *Wood Chip Usage Recordkeeping*. For each 24-hour block of operation (midnight to midnight), the permittee shall maintain records of the amount of wood chips fired to demonstrate compliance with the heat input restrictions of this permit.
d. *Wood Chips Heat Input Recordkeeping*. For each 24-hour block of operation (midnight to midnight), the permittee shall calculate and record the heat input rate from wood chips.

All records shall indicate the date and time the information was recorded, and in the case of manual recordings, the name of the person who recorded the information. For data that indicates operation outside of the specified permitted levels of the above parameters, the permittee shall record a summary of the incident and any corrective actions taken to regain proper operation, if any.

[Rule 62-212.400(BACT), F.A.C. and Permit No. PSD-FL-389A]

C.23. Alternative Opacity Monitoring Plan: In lieu of the continuous opacity monitoring requirements of 40 CFR 60.48b, EPA Region 4 approved an alternative opacity monitoring plan as specified in the CAM provisions of this subsection. The Department may require the permittee to install and operate a continuous opacity monitoring system for failure to regularly comply with the opacity standard. [Rule 62-212.400(PSD), F.A.C.; 40 CFR 60.13(i) and 60.48b(a); Permit Nos. PSD-FL-208A and PSD-FL-389A; and EPA approval dated February 1, 2008]

C.24. Monthly Operations Summary: Within ten calendar days of the end of each month, the permittee shall calculate and record the following information in a written or electronic log to demonstrate compliance with the performance requirements of this permit: hours of operation; steam production rate (lb); heat input rate (MMBtu); wet bagasse consumption rate (tons); and total oil fired (gallons). These records shall indicate the amounts for the previous month and the consecutive 12-month rolling total. [Rule 62-212.400(PSD), F.A.C.; and Permit No. PSD-FL-208A]

C.25. Fuel Monitoring Requirements: The permittee shall comply with the applicable fuel monitoring requirements specified in Appendix I (Fuel Monitoring) for each authorized fuel. [Rule Permit No. 0510003-029-AC]

C.26. Power Production: The permittee shall maintain records of the amount of any electrical power (MW) and the percentage of electrical power output distributed to any utility power distribution system. [Permit No. PSD-FL-208A]

C.27. CAM Plan, ESP: The permittee shall comply with the following CAM plan.

CAM Criteria	**Indicator #1**
Indicator	Total ESP secondary power input
Measurement Approach	Total secondary power input is calculated from the secondary current and voltage to each ESP field as monitored with an amp/volt meter.
Indicator Range	An excursion is defined as any total secondary power input **below 38 kW**. Excursions trigger inspection, corrective action, record keeping and reporting.
Data Representativeness	Accuracy of amp/volt meter is ± 1 milliampere (mA) and ± 1 kilovolt (kV)
Verification of Operational Status	NA
QA/QC Procedures	Maintain equipment in accordance with manufacturer's recommendations.
Monitoring Frequency	Continuous monitoring of secondary current and voltage to each ESP field
Data Collection	Based on continuous monitoring data, calculate and record a 3-hour block average.

CAM Criteria	Indicator #1
Procedures	
Averaging Period	3-hour block average

In addition, the permittee shall comply with the general CAM provisions specified in Appendix H of this permit. The permittee shall record any problems with operation of the ESP and corrective actions taken in the Daily Operational Records required by this permit.
[Rules 62-204.800 and 62-213.440(1)(b)1.a, F.A.C.; 40 CFR 64; and EPA Region 4 approval dated February 1, 2008]

C.28. Test Notifications, Records and Reports - General Requirements: Appendix C of this permit specifies the general requirements for test notifications, records and reports. For each test run, the report shall also indicate the total heat input rate, the heat input rate from firing each fuel, the steam production rate, and the secondary power input to the electrostatic precipitator. [Rule 62-297.310, F.A.C. and Permit No. PSD-FL-389A]

C.29. Semiannual Report - Oil Firing: Within 30 days following each semiannual period (January to June and July to December), the permittee shall submit to the Compliance Authority: the distillate oil consumption for each month and the 12-month rolling total (gallons); and the certified vendor fuel analysis for each delivery of distillate oil during the reporting period. [40 CFR 60.49b(w)]

C.30. Test Notifications, Records and Reports – Initial Demonstration of Compliance: The permittee shall submit the results of the Initial Compliance Tests referenced in Condition C.16. to the Department by January 31, 2014. [Rule 62-213.440(2)(b), F.A.C.]

OTHER APPLICABLE REQUIREMENTS

C.31. NSPS Provisions: Boiler 7 is subject to the New Source Performance Standards of Subparts A and Db in 40 CFR 60 for "Industrial-Commercial-Institutional Steam Generating Units". Appendix L of this permit summarizes these provisions. [Rule 62-204.800, F.A.C.]

C.32. NESHAP Provisions: Boiler 7 is subject to 40 CFR 63 Subparts A and DDDDD, General Conditions and Industrial, Commercial, and Institutional Boilers and Process Heaters. Appendix O of this permit summarizes these provisions. [Rule 62-204.800, F.A.C.; 40 CFR 63 Subparts A and DDDDD]

Subsection D. Boiler 8

This subsection addresses the following regulated emissions unit.

ID	Emission Unit Description
028	Boiler 8 is a membrane-wall boiler with balanced-draft stoker, over-fire air, rotating feeders, and pneumatic spreaders. At a maximum heat input rate of 1077 MMBtu per hour (24-hour average), the maximum continuous steam production is 575,000 pounds per hour (24-hour average) of superheated steam at 600 psig and 750° F for use in the sugar mill and refinery. The primary fuel is bagasse. Wood chips are fired as an alternate or supplemental fuel. Distillate oil is fired as a restricted alternate fuel for startup and supplemental uses. Bottom ash is removed to ash ponds by a submerged conveyor. Particulate matter is controlled by cyclone collectors followed by an ESP. Nitrogen oxides are reduced by a urea-based selective non-catalytic reduction system. Exhaust gases exit a stack with a maximum diameter of 10.9 feet and a minimum height of 199 feet at 255° F. At capacity, the approximate flow rate is 437,000 acfm at 5.5% oxygen (245,258 dscfm at 7% oxygen). Emissions of carbon monoxide and nitrogen oxides are monitored and recorded by continuous emissions monitoring systems (CEMS).

CAPACITY, FUELS AND PERFORMANCE RESTRICTIONS

D.1. Boiler Capacities and Restrictions: Rotating feeders, pneumatic spreaders, a traveling grate, and overfire air are used to fire the primary fuel of bagasse and/or wood chips. Low-NO_X burners are used to fire distillate oil as a restricted alternate fuel for startup and supplemental uses. The maximum oil firing rate is 4161 gallons per hour (equivalent to 562 MMBtu per hour). With a thermal efficiency of 62%, Boiler 8 is designed to generate 633,000 pounds per hour from a heat input rate of 1185 MMBtu per hour (1-hour averages). The hours of operation are not restricted (8760 hours/year). Boiler 8 shall not exceed the following operational levels.

a. *Daily Steam Production Limit.* 13,800,000 pounds of steam per day (equivalent to 575,000 pounds of steam per hour and 1077 MMBtu per hour based on 24-hour averages);
b. *Annual Steam Production Limit*. 3.6135 x 10^{+09} pounds of steam per consecutive 12 months (equivalent to 6,767,100 MMBtu per year);
c. *Annual Heat Input Limit for Wood Chips*. 2,830,356 MMBtu of heat input per consecutive 12 months from firing wood chips (equivalent to 30% of the maximum annual heat input rate);
d. *Daily Distillate Oil Limit*. 99,864 gallons of distillate oil per day (equivalent to 13,488 MMBtu per day); and
e. *Annual Distillate Oil Limit*. 6,073,600 gallons of distillate oil per consecutive 12 months (equivalent to 819,936 MMBtu per year).

[Rules 62-212.400(PSD) and 62-210.200(PTE), F.A.C.; NSPS Subpart Db; EPA alternative opacity monitoring plan approval dated May 13, 2008; and Permit No. PSD-FL-333D]

{Permitting Note: The short-term restrictions form the basis of the Air Quality Analysis. The restriction on annual steam production is a surrogate for heat input and allowed the project to avoid PSD applicability for CO emissions. The annual oil firing restriction results in an annual capacity factor of 10% or less, which avoids specific requirements in NSPS Subpart Db.}

D.2. Authorized Fuels: Boiler 8 is authorized to fire the following fuels.

a. *Bagasse*: The primary fuel is bagasse, which is the fibrous byproduct remaining from the sugarcane after milling.
b. *Wood Chips*: Wood chips may be fired as a startup and auxiliary fuel. Wood chips shall consist of clean dry wood and vegetative materials. The wood chips shall be substantially free of plastics, rubber, glass, painted wood, chemically treated wood, and non-combustible materials. The firing of any household garbage, hazardous wastes, or toxic materials is prohibited.
c. *Distillate Oil*: Any oil fired in this boiler shall be new No. 2 distillate oil (or a superior grade) containing no more than 0.05% sulfur by weight.

d. *On-specification Used Oil*: Incidental amounts of on-specification used oil (≤0.05% sulfur by weight) generated on site may be co-fired.

[Rules 62-212.400(PSD) and 62-210.200(PTE), F.A.C.; and Permit No. PSD-FL-333D]

D.3. Startup, Shutdown and Malfunction Plans for Mill Boilers: Appendix K of this permit identifies the general procedures that will be used for startup, shutdown, and malfunction of the mill boilers including methods to minimize emissions. [Rules 62-4.070(3) and 62-210.700(1), F.A.C.]

CONTROL EQUIPMENT AND TECHNIQUES

D.4. Air Pollution Control Equipment: Emissions from Boiler 8 are controlled by the following equipment.

a. *Cyclone Collectors*: The permittee shall operate and maintain cyclone collectors as a pre-control device prior to the electrostatic precipitator (ESP) to remove entrained sand and large particles in the flue gas. The pre-control device prevents excessive equipment wear and overloading of the ESP. Two wet and one dry cyclone collectors are installed in parallel before the induced draft fan.

b. *ESP*: The permittee shall operate and maintain an electrostatic precipitator (ESP) to remove particulate matter from the flue gas exhaust and achieve the particulate matter standards specified in this permit. The ESP shall include an automated rapping system that can adjust rapping frequency and intensity to prevent re-entrainment of fly ash. The ESP shall be on line and functioning properly whenever bagasse and/or wood chips are fired.

c. *SNCR*: The permittee shall operate and maintain a urea-based selective non-catalytic reduction (SNCR) system to reduce NO_X emissions in the flue gas exhaust and achieve the nitrogen oxides emissions standards specified in this permit. The system includes automated control of urea injection for at least three injection zones to respond to varying load and flue gas conditions. Urea injection rates and zones are determined based on parameters such as the current injection rate, furnace temperature profile, fuels, steam load, oxygen level, CO level and NO_X emissions.

[Rule 62-212.400 (PSD), F.A.C.; and Permit No. PSD-FL-333D]

D.5. Other Control Techniques: To minimize emissions of sulfur dioxide and sulfuric acid mist, the boilers shall only fire the authorized low-sulfur fuels specified in this subsection. As provided in Appendix J of this permit, operators shall follow the good combustion practices that are generally applicable to all sugar mill boilers. To the extent practicable, the permittee shall maintain the following flue gas levels as good combustion practices.

a. *Oxygen Levels*: The permittee shall maintain and operate a flue gas oxygen monitor on Boiler 8. When firing bagasse during normal operation, the oxygen content of the boiler exhaust is expected to range from 3% and 6%. High fuel moisture, high ash content, and low load conditions may result in higher flue gas oxygen contents (5% - 7%). When firing only distillate oil, the oxygen content of the boiler exhaust is expected to range from 4% to 5% due to tramp air required for cooling of the stoker, pneumatic distributors, and overfire air nozzles. Operators shall ensure that the flue gas oxygen content is sufficient for good combustion.

b. *CO Levels*: Carbon monoxide is an indicator of incomplete fuel combustion. In addition to insufficient oxygen, high fuel moisture, high ash content and low load conditions may result in elevated levels of carbon monoxide. When firing bagasse and/or wood chips during normal operation, the boiler exhaust CO content is expected to average approximately 400 ppmvd @ 7% oxygen. The operator shall use the measured CO emissions at the stack as an indicator of the combustion efficiency and adjust boiler operating conditions as necessary. The stack exhaust is expected to be 1% - 2% oxygen content higher than the boiler exhaust due to infiltration from the entire system.

The stack exhaust oxygen content is expected to be 1% - 2% higher than the boiler exhaust due to infiltration from the entire system. When firing bagasse and/or wood chips, many factors may affect efficient combustion. The above levels represent adherence to good combustion practices under normal operating conditions. Operation outside these levels is not a violation in and of itself. Repeated operation beyond these

levels without taking corrective actions to regain good combustion could be considered "circumvention" in accordance with Rule 62-210.650, F.A.C.

[Rules 62-210.200(PTE) and 62-212.400 (PSD), F.A.C.; and Permit No. PSD-FL-333D]

EMISSION LIMITING STANDARDS

D.6. Standards Based on Compliance Tests: The following emission standards apply when firing bagasse, wood chips, distillate oil, or a combination of these fuels under normal operation at steady-state conditions. The mass emission rates (pounds per hour) are based on the maximum 24-hour heat input rate. Unless otherwise specified, compliance with these standards shall be based on the average of three test runs conducted under steady-state conditions at permitted capacity.

a. *Ammonia Slip Standard*: As determined by EPA Conditional Test Method CTM-027, ammonia slip shall not exceed 20 ppmvd @ 7% oxygen.
b. *CO Standard*: To the extent practicable, short term emissions of CO emissions shall be controlled by implementing the good combustion and operating practices identified in this subsection.
c. *Opacity Standard*: As determined by COMS or EPA Method 9 observations, visible emissions shall not exceed 20% based on a 6-minute average. This standard excludes water vapor and applies when firing any combinations of fuels.
d. *PM Standard*: As determined by EPA Method 5 stack test, PM emissions shall not exceed 0.025 lb/MMBtu and 26.9 pounds per hour.
e. *SO_2 Standard*: As determined by EPA Method 6C stack test, SO_2 emissions shall not exceed 0.06 lb/MMBtu and 64.6 pounds per hour. This emission standard serves as a surrogate for sulfuric acid mist (SAM) emissions.
f. *VOC Standard*: As determined by EPA Methods 18 and 25A stack tests, VOC emissions shall not exceed 0.05 lb/MMBtu and 53.9 pounds per hour measured as propane. For this permit, "VOC" emissions shall be defined as the total hydrocarbons (THC) measured by EPA Method 25A less the sum of the methane and ethane emissions as measured by EPA Method 18 on a concurrent sample. Alternatively, the permittee may elect to assume that all THC are regulated VOC emissions.

[Rule 62-212.400 (PSD), F.A.C.; and Permit No. PSD-FL-333D]

{Permitting Note: The standards for ammonia slip, opacity, PM, SO_2 and VOC are BACT standards. The SO_2 standard also serves as a surrogate BACT for SAM emissions.}

D.7. Standards Based on CEMS: The following emission standards apply when firing bagasse, wood chips, distillate oil or a combination of these fuels and under all load conditions.

a. *CO Standards*:
   1) As determined by CEMS data, CO emissions shall not exceed 400 ppmvd @ 7% oxygen based on a 30-day rolling average excluding the following periods: startup, shutdown, malfunction and operation at less than 50% of permitted capacity.
   2) As determined by CEMS data, CO emissions shall not exceed 1285 tons during any consecutive 12 months including periods of startup, shutdown and malfunction. *{Permitting Note: Compliance with the annual mass emission standard ensures that the original project is not subject to PSD preconstruction review for CO emissions.}*
b. *NOx Standard*: As determined by CEMS data, NOx emissions shall not exceed 0.14 lb/MMBtu based on a 30-day rolling average.

[Rule 62-212.400 (BACT), F.A.C.; and Permit No. PSD-FL-333D]

D.8. Excess Emissions for CO, NOx, and Opacity: As provided by the authority in Rule 62-210.700(5), F.A.C., the following conditions supersede the provisions in Rule 62-210.700(1), F.A.C.

a. *CO Emissions*:
   1) Each 30-day rolling average shall include all valid CEMS data except data collected during the

following periods: periods of monitoring malfunctions, associated repairs, out-of-control periods, required quality assurance or control activities or operation at less than 50% of its permitted capacity. Any period for which the monitoring system is out of control and data are not available for required calculations constitute a deviation from the monitoring requirements.

2) Each 12-month rolling total shall include all valid CEMS data including startup, shutdown and malfunction.

b. *NOx Emissions*: NO_X CEMS data collected during startup, shutdown, malfunction and authorized periods of uncontrolled NO_X monitoring (item #4 below) may be excluded from the determination of compliance with the 30-day rolling emissions standard, provided:

1) Best operational practices are used to minimize emissions;
2) For startups and shutdowns, the SNCR system has not yet attained proper operating conditions and is not functional;
3) For malfunctions, excluded data shall not exceed two hours in any 24-hour period (up to eight 15-minute CEMS blocks or quadrants of an hour). The permittee shall notify the Compliance Authority within one working day of detecting the malfunction; and
4) For two hours each month, the permittee may operate the boiler without the SNCR system in order to collect uncontrolled NO_X emissions data with the CEMS. For purposes of collecting uncontrolled NO_X emissions data to adjust the SNCR system, excluded data shall not exceed two, 1-hour values during any calendar month. *{Permitting Note: Based on the final design specifications, uncontrolled NO_X emissions are expected to be 0.30 lb/MMBtu. Uncontrolled NO_X data collected during these periods will be used to adjust the SNCR system as necessary.}*

c. *Opacity*: During startup and shutdown, the stack opacity shall not exceed 20% opacity based on a 6-minute block average, except for one 6-minute block per hour that shall not exceed 27% opacity. This alternate opacity standard does not impose a separate annual testing requirement.

CO and NO_X CEMS data excluded due to startup, shutdown, malfunction or authorized periods of uncontrolled NO_X monitoring shall be summarized and reported in the "Quarterly CO and NO_X Emissions Report" required by this permit.

{Permitting Note: Because compliance is continuously demonstrated by CEMS data, allowances for CO and NO_X are provided during specific periods of operation in which the control device or technique may not be fully functional. Similarly, an alternate standard is identified for opacity during startup and shutdown because compliance is readily observable. As SO_2 emissions are a function of the fuel sulfur, it is not expected that startups or shutdowns would cause excess emissions of this pollutant. During startups and shutdowns, it is possible that PM and VOC emissions could exceed the "lb/MMBtu" emissions standards. However, there is reason to believe that the mass emission rates (lb/hour) of these pollutants will not exceed the specified standards due to the reduced fuel firing rates. In any case, the specified test methods are generally applicable only during steady-state operation. Therefore, no alternate emissions standards are specified and compliance shall be determined by the test methods and procedures specified in this subsection. The Department's rules and permits cannot waive or supersede a federal requirement.}

TESTING

D.9. Test Methods: If required, stack tests shall be performed in accordance with the following methods or the most recent versions of these methods.

EPA Method	Description of Method and Comments
CTM-027	Measurement of Ammonia Slip. This is an EPA conditional test method. The minimum detection limit shall be 1 ppm.
1 - 4	Determination of Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content. Methods shall be performed as necessary to support other methods.
5	Determination of Particulate Emissions from Stationary Sources

EPA Method	Description of Method and Comments
6C	Measurement of SO_2 Emissions (Instrumental)
7E	Measurement of NO_X Emissions (Instrumental)
9	Visual Determination of the Opacity
10	Measurement of Carbon Monoxide Emissions (Instrumental). The CO test method shall be based on a continuous sampling train.
18	Measurement of Gaseous Organic Compound Emissions (Gas Chromatography). Optionally, EPA Method 18 may be used concurrently with EPA Method 25A to deduct emissions of methane and ethane from the THC emissions measured by Method 25A.
19	Calculation Method for NOx, PM, and SO2 Emission Rates. Method may be used to supplement other methods.
25A	Measurement of Gaseous Organic Concentrations (Flame Ionization)

Method CTM-027 is published on EPA's Technology Transfer Network Web Site at "http://www.epa.gov/ttn/emc/ctm.html". The other methods are specified in Appendix A of 40 CFR 60, 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. [Rules 62-204.800, F.A.C.; 40 CFR 60, Appendix A and Permit No. PSD-FL-333D]

D.10. General Testing Requirements: The boilers are subject to the applicable provisions of Appendix C, which specifies the general requirements for test frequencies, test notifications, sampling facilities, test procedures, and test reports. [Rule 62-297.310, F.A.C.]

D.11. Annual Stack Tests: During each federal fiscal year (October 1st to September 30th), the permittee shall conduct compliance stack tests for ammonia slip, PM, VOC and opacity. Tests shall be conducted between 90% and 100% of the maximum 24-hour continuous heat input rate when firing only bagasse or bagasse with wood chips. Data from the CO CEMS shall be reported for each run of the required tests for NO_X and VOC emissions. Data from the NO_X CEMS shall be reported for each run of the required tests for ammonia slip. The Department may require the permittee to repeat some or all of these initial stack tests after major replacement or major repair of any air pollution control or process equipment. [Rules 62-212.400 (PSD) and 62-297.310(7)(a) and (b), F.A.C.; and Permit No. PSD-FL-333D]

D.12. Renewal Compliance Tests: Before renewal of this Title V air operation permit, the permittee shall conduct a compliance test for SO_2 emissions when firing only bagasse. In addition, the permittee shall determine the thermal efficiency of the boiler when firing only bagasse using the ASME short-form or equivalent procedure before conducting the SO_2 test and any required annual compliance tests in the year before renewal of the Title V air operation permit. The results of the emissions and thermal efficiency tests shall be provided with the application to renew the Title V air operation permit. [Permit No. PSD-FL-333D]

D.13. Parametric Monitoring for Tests: The permittee shall continuously monitor and record the oil flow rate and production rate, temperature and pressure of the steam. At no less than 15-minute intervals, permittee shall record the: flow rate and pressure drop to the wet cyclones; the flow rate, temperature and pressure of the feed water; and the amperage and voltage to the electrostatic precipitator. The bagasse and wood chip fuel firing rate (tons per hour) shall be calculated and recorded based on the steam parameters and the heating value of this fuel. For each test run, the permittee shall calculate and record: the heat input rate based on the thermal efficiency and the steam and feedwater parameters; and the total power input to the electrostatic precipitator based on the monitored amperage and voltage. The actual heat input rate shall be determined using two methods: (a) steam parameters with enthalpies and the measured thermal efficiency, and (b) steam parameters with enthalpies and the boiler thermal efficiency. If the most recent thermal efficiency test indicates a thermal efficiency below 56%, the test results shall be used to determine the heat input rate from firing bagasse;

otherwise, a default value of 62% may be used. [Rule 62-297.310(5), F.A.C.; and Permit No. PSD-FL-333D]

MONITORING, RECORD KEEPING AND REPORTING

D.14. CEMS: The permittee shall calibrate, operate and maintain continuous emission monitoring systems (CEMS) to measure and record concentrations of CO, NO_X, and oxygen in the exhaust of Boiler 8 in a manner sufficient to demonstrate continuous compliance with the CEMS standards specified in this permit. The permittee shall notify the Compliance Authority within one working day of discovering emissions in excess of a CEMS standard subject to the specified averaging period.

a. *CO Monitors*: The CO monitor shall meet the requirements of Performance Specification 4 or 4A in Appendix B of 40 CFR 60. The required RATA tests shall be performed using EPA Method 10 in Appendix A of 40 CFR 60 and shall be based on a continuous sampling train. Quality assurance procedures shall conform to the requirements of Appendix F in 40 CFR 60.
b. *NO_X Monitors*: The NO_X monitor shall meet the requirements of Performance Specification 2 in Appendix B of 40 CFR 60. The required RATA tests shall be performed using EPA Method 7E in Appendix A of 40 CFR 60. NO_X shall be expressed "as NO_2." Quality assurance procedures shall conform to the requirements of Appendix F in 40 CFR 60. The monitor shall have a maximum span value of 250 ppmvd.
c. *Diluent Monitors*: An oxygen monitor shall be installed at each CO and NO_X monitor location to correct measured CO and NO_X emissions to the required oxygen concentrations. The oxygen monitor shall meet the requirements of Performance Specification 3 in Appendix B of 40 CFR 60. The required RATA tests shall be performed using EPA Method 3A in Appendix A of 40 CFR 60. Quality assurance procedures shall conform to the requirements of Appendix F in 40 CFR 60.
d. *1-Hour Averages*: Each 1-hour block average shall begin at the top of an hour. Each 1-hour average shall be computed using at least one data point in each fifteen-minute quadrant of an hour, where the unit combusted fuel during that quadrant of an hour. Notwithstanding this requirement, a 1-hour average shall be computed from at least two data points separated by a minimum of 15 minutes. If less than two such data points are available, the 1-hour average is not valid. Except for data authorized to be excluded, the permittee shall use all valid measurements or data points collected during an hour to calculate the 1-hour averages. The CEMS shall be designed and operated to sample, analyze, and record data evenly spaced over the hour. If the CEMS measures concentration on a wet basis, the permittee shall use at least one of the following methods:
   1) The CEMS shall include provisions to determine the moisture content of the exhaust gas and an algorithm to enable correction of the monitoring results to a dry basis (0% moisture), or
   2) The permittee may estimate the flue gas moisture content as 26.0% for the crop season (high load operation) and 22.7% for the off-crop season (low-load operation). In addition to annual emissions compliance tests conducted at capacity, the permittee shall conduct three tests runs (30 minutes per test run) to determine the flue gas moisture content (EPA Method 4) at low-load operation (less than 50% of permitted capacity) during each federal fiscal year. Whenever new data for the flue gas moisture content becomes available, the permittee shall adjust these estimates for use in determining emissions rates and report the new moisture content estimates to the Compliance Authority. [Letter of Authorization No. 0510003-047-AC]

   Alternatively, the owner or operator may develop through manual stack test measurements a curve of moisture contents in the exhaust gas versus load for each allowable fuel, and use these typical values in an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). Final results shall be recorded in terms of the applicable emissions standard.
e. *Data Exclusion*: Except for monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, each CEMS shall monitor and record emissions during all operations including episodes of startups, shutdowns, and malfunctions. Certain emissions data recorded during specifically defined episodes may be excluded from the corresponding compliance demonstration subject to the provisions of Condition No. D.8 in this subsection. All periods of data excluded shall be consecutive for each such episode. The permittee shall minimize the duration of data excluded for such episodes to the extent

practicable.

f. *30-Day Averages*: The 30-day rolling average shall be determined by averaging all 1-hour averages for 30 successive boiler operating days. A boiler operating day begins and ends at midnight of each day and includes any day that fuel is combusted. Final results shall be recorded in terms of the applicable emissions standard.

g. *CO Emissions Cap*: For each day (midnight to midnight), the CEMS shall record the total CO mass emissions rate (pounds per day). The 12-month rolling total shall be the sum of the daily mass emission rates reported as "tons per consecutive 12 months".

h. *Availability*: Monitor availability for each CEMS shall be 95% or greater in any calendar quarter. The quarterly excess emissions report shall be used to demonstrate monitor availability. In the event 95% availability is not achieved, the permittee shall provide the Department with a report identifying the problems in achieving 95% availability and a plan of corrective actions that will be taken to achieve 95% availability. The permittee shall implement the reported corrective actions within the next calendar quarter. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of this permit, except as otherwise authorized by the Department's Compliance Authority.

[Rule 62-212.400 (PSD), F.A.C.; and Permit No. PSD-FL-333D]

D.15. Alternative Opacity Monitoring Plan: In lieu of the continuous opacity monitoring requirements of 40 CFR 60.48b, EPA Region 4 approved an alternative opacity monitoring plan as specified in the CAM provisions of this subsection. The Department may require the permittee to install and operate a continuous opacity monitoring system for failure to regularly comply with the opacity standard. [Rule 62-212.400(PSD), F.A.C.; 40 CFR 60.13(i) and 60.48b(a); Permit No. PSD-FL-333D; and EPA approval dated May 13, 2008]

D.16. SNCR Urea Injection: In accordance with the manufacturer's specifications, the permittee shall calibrate, operate and maintain a flow meter to measure and record the urea injection rate for the SNCR system. The permittee shall document the general range of urea flow rates required to meet the NO_X standard over the range of load conditions by comparing NO_X emissions with urea flow rates. During NO_X monitor downtimes or malfunctions, the permittee shall operate at a urea flow rate that is consistent with the documented flow rate for the given load condition. [Rule 62-212.400 (PSD), F.A.C.; and Permit No. PSD-FL-333D]

D.17. Cyclones: In accordance with the manufacturer's recommendations, the permittee shall calibrate, operate and maintain the following equipment: flow meter to monitor the water flow rate (gph) for each wet cyclone and a manometer (or equivalent) to monitor the pressure drop (inches of water) across each cyclone. [Rule 62-212.400 (PSD), F.A.C.; and Permit No. PSD-FL-333D]

D.18. Steam Parameters: In accordance with the manufacturer's recommendations, the permittee shall calibrate, operate and maintain continuous monitoring and recording devices for the following parameters: steam temperature (° F), steam pressure (psig), and steam production rate (lb/hour). Records shall be maintained on site and made available upon request. [Rule 62-212.400 (PSD), F.A.C.; and Permit No. PSD-FL-333D]

D.19. Fuel Monitoring Requirements: The permittee shall comply with the applicable fuel monitoring requirements specified in Appendix I (Fuel Monitoring) for each authorized fuel. [Rule 62-210.370(3), F.A.C. and Permit No. PSD-FL-333D]

D.20. CAM Plan for ESP: The permittee shall comply with the following CAM plan.

CAM Criteria	**Indicator #1**
Indicator	Total ESP secondary power input
Measurement Approach	Total secondary power input is calculated from the secondary current and voltage to each ESP field as monitored with an amp/volt meter.
Indicator Range	An excursion is defined as any total secondary power input **below 25 kW during the crop season (October through April) and 18 kW during the off season (May through September)**. Excursions trigger inspection, corrective action, record keeping and reporting.

CAM Criteria	Indicator #1
Data Representativeness	Accuracy of amp/volt meter is ± 1 milliampere (mA) and ± 1 kilovolt (kV)
Verification of Operational Status	NA
QA/QC Procedures	Maintain equipment in accordance with manufacturer's recommendations.
Monitoring Frequency	Continuous monitoring of secondary current and voltage to each ESP field.
Data Collection Procedures	Based on continuous monitoring data, calculate and record a 3-hour block average.
Averaging Period	3-hour block average

In addition, the permittee shall comply with the general CAM provisions specified in Appendix H of this permit. The permittee shall record any problems with operation of the ESP and corrective actions taken in the Daily Operational Records required by this permit. [Rules 62-204.800 and 62-213.440(1)(b)1.a, F.A.C.; and 40 CFR 64]

D.21. Monthly Operations Summary: By the tenth calendar day of each month, the permittee shall record the following for each fuel in a written or electronic log for the previous month of operation: hours of operation, distillate oil consumption, pounds of steam per month, and the updated 12-month rolling totals for each of these operating parameters. The Monthly Operations Summary shall be maintained on site and made available for inspection when requested by the Department. [Rules 62-4.070(3) and 62-212.400 (PSD), F.A.C.]

D.22. Test Notifications, Records and Reports: Appendix C of this permit specifies the general requirements for test notifications, records and reports. In addition to the information required in Rule 62-297.310(8), F.A.C., each stack test report shall also include the following information: steam production rate (lb/hour), heat input rate (MMBtu/hour), calculated bagasse firing rate (tons/hour), wood chip firing rate (tons/hour), and emission rates (lb/MMBtu and ppmvd @ 7% oxygen). [Rule 62-297.310, F.A.C. and Permit No. PSD-FL-333D]

D.23. Quarterly Report - CO and NOx Emissions: Within 30 days following the end of each calendar quarter, the permittee shall submit a report to the Compliance Authority summarizing CO and NO_X emissions including periods of startups, shutdowns, malfunctions, authorized uncontrolled NO_X emissions monitoring and CEMS systems monitor availability for the previous quarter. If CO or NO_X CEMS data is excluded from a compliance determination during the quarter due to a malfunction, the permittee shall include a description of the malfunction, the actual emissions recorded, and the actions taken to correct the malfunction. See Appendix L of this permit for the reporting format. [Rules 62-4.070(3), 62-4.130, and 62-210.400(5)(c), F.A.C.]

D.24. Semiannual Report - Oil Firing: Within 30 days following each semiannual period (January to June and July to December), the permittee shall submit to the Compliance Authority: the distillate oil consumption for each month and the 12-month rolling total (gallons); the certified vendor fuel analysis for each delivery of distillate oil during the reporting period. [40 CFR 60.49b(w)]

OTHER APPLICABLE REQUIREMENTS

D.25. NSPS Provisions: Boiler 8 is subject to the New Source Performance Standards of Subparts A and Db in 40 CFR 60 for "Industrial-Commercial-Institutional Steam Generating Units". Appendix L of this permit summarizes these provisions. [Rule 62-204.800, F.A.C.; 40 CFR 60, NSPS Subpart A and Db; and Permit No. PSD-FL-333D]

D.26. NESHAP Provisions: Boiler 8 is subject to 40 CFR 63 Subparts A and DDDDD, General Conditions and Industrial, Commercial, and Institutional Boilers and Process Heaters Appendix O of this permit summarizes these provisions. [Rule 62-204.800, F.A.C.; 40 CFR 63 Subparts A and DDDDD; and Permit No. PSD-FL-333D]

Subsection E. Biomass Handling and Storage

This subsection addresses the following regulated emissions unit.

EU No.	Emission Unit Description
027	Biomass handling and storage

EQUIPMENT AND CONTROL TECHNIQUES

E.1. Biomass Handling and Storage Equipment: To minimize fugitive particulate matter, conveyors shall be covered and landing zones provided for conveyor transfer points. The conveyor system shall be completely covered or enclosed except for the transfer points to/from the material stockpile and the point associated with conveying material from conveyor C9A to C9B in the drying mill. The existing bagacillo system pneumatically collects a small fraction of bagasse from the conveyor system and transfers fine particles suspended in the gas stream to the Boiling House. The bagacillo cyclone separates particles from the gas stream, which are used as part of the cake material on the vacuum filters. The bagacillo system is an existing, unregulated emissions unit. [Rule 62-212.400 (BACT), F.A.C. and Permit Nos. PSD-FL-333D and PSD-FL-389A]

Subsection F. Granular Carbon Regenerative Furnace

This subsection addresses the following regulated emissions unit.

EU No.	Emission Unit Description
017	Granular carbon regenerative furnace is used to remove colorants and VOC emissions during the decolorization process in the sugar refinery. The granular carbon regenerative furnace is designed for a capacity of 40,000 pounds of cane sugar per day. The furnace then drives off colorants and VOC emissions from the carbon and regenerates the carbon for reuse. A direct flame afterburner controls VOC emissions and a wet venturi/tray scrubber system controls PM emissions. The plant identifies this point source as S-12. *Afterburner*: Zero Hearth Type (10'-9" OD x 8 HTH) furnace manufactured by BSP Thermal Systems, Inc. designed for the following specifications: 1200° F to 1400° F design temperature; 10,600 to 16,300 acfm flow rate; 0.5 to 0.75 seconds exhaust gas residence time; and a 92% destruction efficiency. The furnace and afterburner will fire approximately ~~90 gallons~~ 15,763 cubic feet per hour and a maximum of ~~788,400 gallons~~ 138.08 million cubic feet per year. *Wet Scrubber System*: High energy venturi wet scrubber with tray type wet scrubber designed for the following specifications: 160° F and 4300 acfm outlet gas flow; 12 to 30 inches of water across venturi scrubber with a 36 gpm flow rate; 3 to 8 inches of water across the tray scrubber with 230 gpm flow rate; and a 97% particulate removal efficiency.

CAPACITY, FUELS AND PERFORMANCE RESTRICTIONS

F.1. Authorized Fuel: Only ~~distillate oil containing no more than 0.05% sulfur by weight~~ natural gas shall be fired in the granular carbon regenerative furnace and associated afterburner. [Rule 62-212.400(BACT), F.A.C. and Permit Nos. PSD-FL-272B and 0510003-054-AC]

F.2. Hours of Operation: The hours of operation for this unit are not restricted (8760 hours per year). [Rule 62-210.200(PTE), F.A.C. and Permit Nos. PSD-FL-272B and 0510003-054-AC]

CONTROL EQUIPMENT AND TECHNIQUES

F.3. GCRF Afterburner: The permittee shall operate and maintain an afterburner designed to destroy at least 92% of the VOC emissions during regeneration of the carbon bed as part of the decolorization process. The afterburner shall be designed with a control temperature of between 1200° F and 1400° F and an exhaust gas residence time of between 0.5 and 0.75 seconds. Excluding initial startup, shutdown, and malfunction, the afterburner temperature shall be maintained at 1200° F or higher except for up to 6 total minutes each hour during which the temperature shall not fall below 1000°F. [Rule 62-212.400(BACT), F.A.C. and Permit Nos. PSD-FL-272B and 0510003-054-AC]

F.4. GCRF Wet Scrubber: The permittee shall install, operate, and maintain a wet venturi/ tray scrubber system designed to control at least 97% of the maximum particulate emissions during regeneration of the carbon bed as part of the decolorization process. The venturi scrubber shall be designed for a pressure drop of between 12 to 30 inches of water column. The wet tray scrubber shall be designed for a pressure drop of between 3 to 8 inches of water column. Separate manometers (or equivalent devices) shall be installed, operated, and maintained to indicate the pressure drop across each control device. Operation outside of the specified operating range for any monitored parameter is not a violation of this permit, in and of itself. However, continued operation outside of the specified operating range for any monitored parameter without corrective action may be considered circumvention of the air pollution control equipment. [Rule 62-212.400(BACT), F.A.C. and Permit Nos. PSD-FL-272B and 0510003-054-AC]

EMISSION LIMITING STANDARDS

F.5. PM Standard: As determined by EPA Method 5, PM emissions shall not exceed 0.7 pounds per hour from the granular carbon regenerative furnace. [Rule 62-212.400 (BACT), F.A.C. and Permit Nos. PSD-FL-272B and 0510003-054-AC]

F.6. Opacity Standard: As determined by EPA Method 9, visible emissions shall not exceed 10% opacity excluding water vapor. [Rule 62-212.400 (BACT), F.A.C. and Permit Nos. PSD-FL-272B and 0510003-054-AC]

F.7. VOC Standard: As determined by EPA Method 25A, VOC emissions shall not exceed 1.0 pound per hour (reported as propane) from the granular carbon regenerative furnace. Optionally, EPA Method 18 may be conducted concurrently to deduct methane. [Rule 62-212.400(BACT), F.A.C. and Permit Nos. PSD-FL-272B and 0510003-054-AC]

TESTING

F.8. General Testing Requirements: The emissions unit is subject to the applicable provisions of Appendix C, which specifies the general requirements for test frequencies, test notifications, sampling facilities, test procedures, and test reports. [Rule 62-297.310, F.A.C. and Permit No. and 0510003-054-AC]

F.9. Test Methods: If required, stack tests shall be performed in accordance with the following methods or the most recent versions of these methods.

EPA Method	Description of Method and Comments
1 - 4	Determination of Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content. Methods shall be performed as necessary to support other methods.
5	Determination of Particulate Emissions from Stationary Sources
9	Visual Determination of the Opacity
18	Measurement of Gaseous Organic Compound Emissions (Gas Chromatography). Optionally, EPA Method 18 may be used concurrently with EPA Method 25A to deduct emissions of methane and ethane from the THC emissions measured by Method 25A.
25A	Measurement of Gaseous Organic Concentrations (Flame Ionization)

These methods are specified in Appendix A of 40 CFR 60, 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. [Rules 62-204.800, F.A.C.; 40 CFR 60, Appendix A; Permit No. 0510003-054-AC]

F.10. Annual Stack Tests: During each federal fiscal year (October 1st to September 30th), the permittee shall conduct compliance tests for opacity. Compliance with the PM and VOC emissions standards shall be assumed as long as the emissions unit remains in compliance with the opacity standard as well as the control equipment monitoring requirements for the afterburner and wet scrubbing system. [Rules 62-212.400 (PSD) and 62-297.310(7), F.A.C.; and Permit Nos. PSD-FL-272B and 0510003-054-AC]

F.11. Renewal Compliance Tests: Prior to renewal of the Title V permit, the permittee shall conduct compliance stack tests for opacity, PM and VOC emissions. The tests shall occur prior to obtaining a renewed operating permit to demonstrate compliance with the emission limits in Specific Conditions ***F5., F.6. and F.7.*** [Rules 62-212.400 (PSD) and 62-297.310(7), F.A.C.; and Permit Nos. PSD-FL-272B and 0510003-054-AC]

F.12. Tests After Substantial Modifications: All performance tests shall also be conducted after any substantial modification and appropriate shake-down period of the emission unit or air pollution control equipment. Shakedown periods shall not exceed 90 days after re-starting the unit. [Rule 62-297.310(7)(a)4., F.A.C. and Permit Nos. PSD-FL-272B and 0510003-054-AC]

F.13. Monitoring of Test Parameters: During any required test, the permittee shall monitor and record the afterburner temperature and wet scrubber pressure differentials at 15-minute intervals. [Rule 62-297.310(5), F.A.C. and Permit Nos. PSD-FL-272B and 0510003-054-AC]

MONITORING, RECORD KEEPING AND REPORTING

F.14. CAM Plan, Wet Scrubbers: The permittee shall comply with the following CAM plan.

CAM Criteria	Indicator #1 (Venturi Scrubber)	Indicator #2 (Wet Tray Scrubber)
Indicator	Pressure drop across venturi scrubber	Pressure drop across wet tray scrubber
Measurement Approach	Manometer (or equivalent)	Manometer (or equivalent)
Indicator Range	An excursion is defined as any pressure drop **below 20 inches of water column**. Excursions trigger inspection, corrective action, record keeping and reporting.	An excursion is defined as any pressure drop ***below 4.4 inches of water column***. Excursions trigger inspection, corrective action, record keeping and reporting.
Data Representativeness	Manometer measures scrubber pressure drop with a minimum accuracy of ± 0.5 inches of water column (gage).	Manometer measures scrubber pressure drop with a minimum accuracy of ± 0.5 inches of water column (gage).
Verification of Operational Status	NA	NA
QA/QC Procedures	Maintain equipment in accordance with manufacturer's recommendations.	Maintain equipment in accordance with manufacturer's recommendations.
Monitoring Frequency	Continuous readout	Continuous readout
Data Collection Procedures	*Once per 8 hour shift.*	*Once per 8 hour shift.*
Averaging Period	NA	NA

In addition, the permittee shall comply with the general CAM provisions specified in Appendix H of this permit. The permittee shall record any problems with operation of the wet scrubbers and corrective actions taken in the Daily Operational Records required by this permit. [Rules 62-204.800 and 62-213.440(1)(b)1.a, F.A.C.; and 40 CFR 64]

F.15. Operations Log: At least once per *8 hour* shift, the permittee shall observe and record the afterburner temperature and the wet scrubber pressure differentials. The permittee may install automated equipment to continuously record these parameters. For any monitored parameters with missing records, the permittee shall calculate and record the data availability (in percent) for each month. [Rule 62-4.070(3), F.A.C. and Permit Nos. PSD-FL-272B and 0510003-054-AC]

F.16. Test Notifications, Records and Reports - General Requirements: Appendix C of this permit specifies the general requirements for test notifications, records and reports. [Rule 62-297.310, F.A.C.]

Subsection G. Miscellaneous Sugar Refinery Sources

This subsection addresses the following regulated emissions units.

EU No.	Emissions Unit Description
015	VHP sugar dryer controlled by baghouse (S-11)
016	White sugar dryer No. 1 controlled by baghouse (S-10)
018	Vacuum systems with baghouses for: screening/distribution system (S-1); 100 lb bagging operation (S-2); and 5 lb bagging operation (S-3)
019	Conditioning silos consisting of three silos controlled by baghouses (S-7, S-8 and S-9)
020	Screening/distribution system consisting of powdered sugar/starch bins controlled by baghouses (S-5 and S-6)
021	Alcohol Usage
022	Sugar packaging line controlled by a baghouse ~~(S-4)~~(S-17)
045	Baghouse –Sugar Packaging Line (S-4)

CAPACITY AND PERFORMANCE RESTRICTIONS

G.1. Production Restrictions: No more than 2000 tons of refined sugar per day and no more than 730,000 tons of refined sugar per consecutive 12 months shall be packaged at this facility. In addition, no more than 2250 tons of refined sugar per day and no more than 803,000 tons of refined sugar per consecutive 12 months shall be loaded out from this facility. There are no limits on the hours of operation (8760 hours per year) of these emissions units. [Rules 62-210.200 (PTE) and 62-212.400(PSD), F.A.C.; and Permit Nos. PSD-FL-272B, ~~and~~ PSD-FL-346A and 0510003-055-AC]

G.2. Alcohol Emissions: Alcohol usage from the sugar refinery shall not exceed 30,000 pounds per consecutive 12 months. [Rule 62-212.400(PSD), F.A.C. and Permit No. PSD-FL-272B]

CONTROL EQUIPMENT AND TECHNIQUES

G.3. Baghouses: The permittee shall operate and maintain high-efficiency baghouses designed to control at least 99.9% of the particulate matter emitted from each emissions unit and point. [Rule 62-212.400(PSD), F.A.C. and Permit No. PSD-FL-272B]

EMISSION LIMITING STANDARDS

G.4. Baghouse: The following table identifies the PM limits for ~~the baghouses~~ each baghouse.

EU No.	Point ID	dscfm	Equivalent Emissions	
			lb/hour	Ton/Year
015	S-11	110,042	1.63	7.14
016	S-10	94,488	1.44	6.30
018	S-1	990	0.06	0.28
	S-2	872	0.06	0.28
	S-3	984	0.06	0.28
019	S-7	2641	0.06	0.25
	S-8	2641	0.06	0.25
	S-9	2641	0.06	0.25
020	S-5	2668	0.06	0.25
	S-6	8735	0.19	0.82
022	~~S-4~~S-17	~~9589~~ 14927	~~0.21~~ 0.38	~~0.90~~ 1.66
045	S-4	9589	0.21	0.92

EU No.	Point ID	dscfm	Equivalent Emissions	
			lb/hour	Ton/Year
Totals			~~3.89~~ 4.27	~~17.0~~ 18.68

Compliance with the above PM standards is assumed if compliance with the opacity standard is demonstrated. [Rules 62-210.200(PTE), F.A.C., ~~and~~ Permit Nos. PSD-FL-272B and 0510003-055-AC]

G.5. Opacity Standard: As a surrogate for particulate matter, visible emissions shall not exceed 5% opacity from any of these emissions units or points. [Rule 62-212.400(PSD), F.A.C., ~~and~~ Permit Nos. PSD-FL-272B and 0510003-055-AC]

TESTING

G.6. General Testing Requirements: The unit is subject to the applicable provisions of Appendix C, which specifies the general requirements for test frequencies, test notifications, sampling facilities, test procedures, and test reports. [Rule 62-297.310, F.A.C.]

G.7. Test Methods: Any required stack tests shall be performed in accordance with the following methods.

EPA Method	Description of Method and Comments
1 - 4	Determination of Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content *{Notes: Methods shall be performed as necessary to support other methods.}*
5	Determination of Particulate Emissions from Stationary Sources
9	Visual Determination of the Opacity

These methods are specified in Appendix A of 40 CFR 60, 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. [Rules 62-204.800, F.A.C.; 40 CFR 60, Appendix A]

G.8. Initial Compliance Tests: EU No. 022 and EU No. 45 shall be tested to demonstrate initial compliance with the emissions standards for Visible Emissions (VE). The initial tests shall be conducted by December 31, 2013. [Rules 62-4.070(3) and 62-297.310(7)(a)1, F.A.C. and Permit No. 0510003-005-AC]

G.9. Annual Compliance Tests ~~Required~~: During each federal fiscal year (October 1st to September 30th), the permittee shall conduct visible emissions tests on each baghouse exhaust. Compliance with the PM standards shall be assumed as long as the emission unit remains in compliance with the opacity standard. [Rule 62-297.310(7)(a)1, F.A.C. and Permit Nos. PSD-FL-272B and 0510003-055-AC]

G.10. Renewal Compliance Tests: Prior to renewal of the Title V permit, the permittee shall also conduct compliance tests for Visual Emissions (VE) opacity. (Visual emissions (VE) test (only), is allowed to demonstrate compliance with the particulate matter (PM) standard. [Rules 62-212.400 (PSD) and 62-297.310(7), F.A.C.; and Permit PSD-FL-346A]

MONITORING, RECORD KEEPING AND REPORTING

G.11. CAM Plan, Baghouses (EU-018): The permittee shall comply with the following CAM plan.

CAM Criteria	Indicator #1
Indicator	Opacity of each of baghouse vents (S-1, S-2 and S-3) on the vacuum systems (EU-018)
Measurement Approach	In accordance with EPA Method 22, observer conducts a 1-minute observation of each baghouse vent.
Indicator Range	An excursion is defined as any observed visible emissions. Excursions trigger inspection, corrective action, record keeping and reporting.

CAM Criteria	Indicator #1
Data Representativeness	Visible emissions are either present or not.
Verification of Operational Status	Verify operation of vacuum system before observations are made.
QA/QC Procedures	EPA Method 22 procedures are specified in Appendix A of 40 CFR 60.
Monitoring Frequency	One minute observations made once per day for each baghouse vent.
Data Collection Procedures	Daily observations shall be recorded in a log.
Averaging Period	NA

In addition, the permittee shall comply with the general CAM provisions specified in Appendix H of this permit. The permittee shall record any problems with operation of the baghouses and corrective actions taken in the Daily Operational Records required by this permit. [Rules 62-204.800 and 62-213.440(1)(b)1.a, F.A.C.; and 40 CFR 64]

G.12. Monthly Records: Within ten days following each month, the permittee shall calculate the refined sugar packaging rate, the refined sugar load out rate and the alcohol usage rate. The permittee shall record each monthly rate and the 12-month rolling total in a written log. Calculation of the alcohol usage shall be determined by the purchase records and the appropriate Material Data Safety Sheets. [Rule 62-212.400(PSD), F.A.C. and Permit No. PSD-FL-272B]

G.13. Test Notifications, Records and Reports - General Requirements: Appendix C of this permit specifies the general requirements for test notifications, records and reports. [Rule 62-297.310, F.A.C.]

G.14. Test Notifications, Records and Reports – Initial Demonstration of Compliance: The permittee shall submit the results of the Initial Compliance Tests referenced in Condition G.8 to the Department by January 31, 2014. [Rule 62-213.440(2)(b), F.A.C.]

Subsection H. White Sugar Dryer 2

This subsection addresses the following regulated emissions unit.

EU No.	Emissions Unit Description
029	White sugar dryer 2 is a fluidized bed-type dryer/cooler with a rated capacity of 85 tons per hour of refined sugar. After wet refined sugar is centrifuged, the dryer will be used to drive off remaining moisture. Sugar with a moisture content of approximately 1.5% by weight enters the dryer between 120° - 140° F and is suspended in a fluidized bed with jets of hot, conditioned air. A maximum of 11,000 pounds per hour of low pressure steam (12 psig) from the existing mill boilers supply heat for the process; no fuel is fired. Sugar exits the dryer with a moisture content of approximately 0.03% by weight and a temperature between 92° F to 102° F. The refined sugar is then transferred to the conditioning silos. Particulate matter emissions from the dryer are controlled by a set of four high-efficiency cyclone collectors in parallel followed by a wet scrubber. Flue gas exhaust at 90° F exits a stack approximately 82 feet above ground level with a with a volumetric flow rate of 90,000 acfm. The rectangular stack is 7.0 feet by 6.0 feet. The scrubber pressure drop and scrubber water recirculation flow rate are continuously monitored.

CAPACITY AND PERFORMANCE RESTRICTIONS

H.1. Permitted Capacity: The maximum design capacity of the sugar dryer is 85 tons per hour of sugar. [Rule 62-210.200(PTE), F.A.C. and Permit No. PSD-FL-346A]

CONTROL EQUIPMENT AND TECHNIQUES

H.2. Air Pollution Control Equipment:

a. *Cyclone Collectors*: In accordance with the manufacturer's recommendations, the permittee shall operate and maintain a set of four high-efficiency cyclone collectors in parallel (Entoleter, LLC Model 6600 or equivalent) with a design removal efficiency of at least 99% of the particulate loading from the new white sugar dryer based on the following inlet conditions: inlet temperature of 110° F; inlet flow rate of 105,000 acfm; inlet dust loading of 14 grains per dscf of inlet gas (11,760 lb/hour); and a pressure drop across the cyclone collectors of 6 inches of water column. In accordance with the manufacturer's recommendations, the permittee shall calibrate, operate and maintain a manometer (or equivalent) to monitor the pressure differential across each cyclone collector. Although no periodic records of the pressure differential are required, the devices shall be properly maintained and functional to provide operational data for evaluating problems.

b. *Wet Scrubber*: In accordance with the manufacturer's recommendations, the permittee shall operate and maintain a wet scrubber (Entoleter, LLC Centrifield Vortex Model 1500 or equivalent) with a design removal efficiency of at least 96% of the particulate loading from the new cyclone collectors. The design control efficiency is based on the following inlet conditions: inlet temperature of 113° F; inlet flow rate of 105,000 acfm; inlet dust loading of 0.14 grains per dscf of inlet gas (118 lb/hour); a scrubber water recirculation flow rate of 500 gpm; a scrubber make-up water flow rate of 12 gpm; and a pressure drop of 8 inches of water column. In accordance with the manufacturer's recommendations, the permittee shall calibrate, operate and maintain devices to continuously monitor and record the wet scrubber water recirculation rate (gpm) and the pressure differential across the wet scrubber (inches of water column).

The combined design removal efficiency of the two particulate control devices shall be no less than 99.96% based on the above conditions.

[Rule 62-212.400(BACT), F.A.C.; and Permit No. PSD-FL-346A]

EMISSION LIMITING STANDARDS

H.3. PM Standard: As determined by EPA Method 201A stack test, particulate matter emissions less than 10 microns (PM_{10}) shall not exceed 0.005 grains per dscf and 4.2 pounds per hour based on the average of three test runs. As determined by EPA Method 5 stack test, particulate matter emissions shall not exceed 15.0 pounds per hour based on the average of three test runs. [Design; Rule 62-212.400(BACT), F.A.C. and Permit

No. PSD-FL-346A]

H.4. Opacity Standard: Visible emissions from the wet scrubber stack shall not exceed 10% opacity excluding water vapor. [Rule 62-212.400(PSD), F.A.C. and Permit No. PSD-FL-346A]

TESTING

H.5. General Testing Requirements: The emissions unit is subject to the applicable provisions of Appendix C, which specifies the general requirements for test frequencies, test notifications, sampling facilities, test procedures, and test reports. [Rule 62-297.310, F.A.C.]

H.6. Test Methods: If required, stack tests shall be performed in accordance with the following methods or the most recent versions of these methods.

EPA Method	Description of Method and Comments
1 - 4	Determination of Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content *{Notes: Methods shall be performed as necessary to support other methods.}*
5	Determination of Particulate Emissions from Stationary Sources
9	Visual Determination of the Opacity
201A	Determination of PM_{10} Emissions from Stationary Sources

These methods are specified in Appendix A of 40 CFR 60, 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. [Rules 62-204.800, F.A.C.; 40 CFR 60, Appendix A]

H.7. Annual Compliance Tests: During each federal fiscal year (October 1st to September 30th), the permittee shall conduct compliance tests for opacity. [Rules 62-212.400 (PSD) and 62-297.310(7), F.A.C.; and Permit No. PSD-FL-346A]

H.8. Renewal Compliance Tests: Prior to renewal of the Title V permit, the permittee shall also conduct compliance tests for PM emissions and opacity. [Rules 62-212.400 (PSD) and 62-297.310(7), F.A.C.; and Permit No. PSD-FL-346A]

H.9. Monitoring of Test Parameters: During any required test, the permittee shall monitor and record the following information at the beginning and end of each test run: sugar processing rate through the dryer (tons per hour); the scrubber water recirculation rate (gpm); the scrubber water sugar content in brix; the pressure differential across each cyclone collector (inches of water column); and the pressure differential across the wet scrubber (inches of water column). [Rule 62-297.310(5), F.A.C. and Permit No. PSD-FL-346A]

MONITORING, RECORD KEEPING AND REPORTING

H.10. CAM Plan, Wet Scrubber: The permittee shall comply with the following CAM plan.

CAM Criteria	Indicator #1	Indicator #2
Indicator	Total scrubber water flow rate	Pressure drop across scrubber
Measurement Approach	Flow meter	Manometer (or equivalent)
Indicator Range	An excursion is defined as any flow rate **below 500 gallons per minute**. Excursions trigger inspection, corrective action, record keeping and reporting.	An excursion is defined as any pressure drop **below 8 inches of water column**. Excursions trigger inspection, corrective action, record keeping and reporting.
Data Representativeness	Flow meter measures scrubber flow rate with a minimum accuracy of ± 5% of total	Manometer measures scrubber pressure drop with a minimum accuracy of ± 0.5 inches of

CAM Criteria	Indicator #1	Indicator #2
	water flow.	water column (gage).
Verification of Operational Status	NA	NA
QA/QC Procedures	Maintain equipment in accordance with manufacturer's recommendations.	Maintain equipment in accordance with manufacturer's recommendations.
Monitoring Frequency	Continuous readout	Continuous readout
Data Collection Procedures	Based on continuous monitoring data, calculate and record a 3-hour block average.	Based on continuous monitoring data, calculate and record a 3-hour block average.
Averaging Period	3-hour block average	3-hour block average

The scrubber system shall be operated so that fresh water makeup will be added to maintain a maximum sugar content of 15 brix in the recirculated scrubber water. In addition, the permittee shall comply with the general CAM provisions specified in Appendix H of this permit. The permittee shall record any problems with operation of the wet scrubber and corrective actions taken in the Daily Operational Records required by this permit. [Rules 62-204.800 and 62-213.440(1)(b)1.a, F.A.C.; 40 CFR 64; and Permit No. PSD-FL-346A]

H.11. Test Notifications, Records and Reports - General Requirements: Appendix C of this permit specifies the general requirements for test notifications, records and reports. [Rule 62-297.310, F.A.C.]

Subsection I. Miscellaneous Material Silos

This subsection addresses the following regulated emissions units.

EU No.	Emissions Unit Description
010	Lime silo with baghouse at the water treatment plant.
030	Limestone storage silo with baghouse (IAC Model No. 58TB-BVI-16, style 2) at the molasses plant. Limestone is delivered by truck and unloaded pneumatically into the silo at an approximate rate of 33 tons per hour. Limestone is unloaded from the silo via gravity drop to a mechanical auger that conveys it to the molasses plant. The maximum throughput rate is 5000 tons per year. Particulate matter emissions are estimated as 0.126 lb/hour and 0.55 tons/year. [Permit No. 0510003-033-AC]
031	Lime storage and truck/rail handling system at the sugar refinery consists of two lime silos, truck and railcar pneumatic unloading and conveying equipment, three associated baghouse control systems and a lime slaker system (as necessary). Each baghouse control system is designed for a flow rate of approximately 500 acfm and an outlet grain loading of 0.02 grains per dscf. The estimated maximum PM emissions from each baghouse are 0.08 pounds per hour and 0.35 tons per year. [Permit No. 0510003-034-AC]
033	Salt silo with baghouse (IAC Model No. 58TB-BVI-16:S6) at the molasses plant. The maximum process rate for salt loading is 33 tons/hour and the maximum estimated PM emissions are 0.13 lb/hour and 0.57 tons/year. [Permit No. 0510003-025-AC]

Process Description for Lime Storage and Handling System (EU-031): A combination of lime and flocculants are used to clarify raw sugarcane juice, which is then evaporated, crystallized, and centrifuged to form raw sugar. Some of the raw sugar is sold and some of it is processed into white sugar at the refinery on site. Lime is delivered by railcar and/or truck and unloaded into two new storage silos. Lime is unloaded from the silos via bottom drop into a lime slaker. Water is mixed with the lime and pumped to a lime slurry storage tank and agitator for use in the process. The total lime throughput is approximately 5000 tons/year.

Lime is unloaded pneumatically from trucks to the silos by a blower system at a rate of approximately 33 tons per hour. A 25-ton truck can be unloaded in about 45 minutes. Lime is unloaded from railcars by a separate vacuum-type system, which includes a collection bin, rotary airlocks, and transporter blower to pneumatically transport lime to the silos at a rate of approximately 5 tons per hour. It can take about 18 hours to unload 180,000 pounds of lime from a railcar. The silos and the collection bin are controlled by a baghouse. The silos are controlled with a bin vent filter to remove particulate matter during silo loading and unloading. Emissions from the collection bin are controlled by a filter receiver to remove particulate matter during railcar unloading. Each baghouse is designed for a flow rate of less than 500 acfm and an outlet grain loading of 0.02 grains per dscf.

EQUIPMENT

I.1. Equipment: To control PM emissions when loading and unloading, each silo shall be equipped with a baghouse. [Rules 62-4.070(3), 62-210.200(PTE), F.A.C.]

PERFORMANCE RESTRICTIONS

I.2. Permitted Capacity:

a. The maximum loading rate for the limestone storage silo (EU 030) is 33 tons/hour. [Permit No. 0510003-033-AC]
b. The maximum operating rate of the salt silo (EU 033) is approximately 33 tons per hour. [Permit No. 0510003-025-AC]

I.3. Restricted Operation: The hours of operation of are not limited (8760 hours per year). [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

EMISSIONS STANDARDS

I.4. Opacity Standards: As determined by EPA method 9, emissions from each baghouse vent shall not exceed 5% opacity. [Rules 62-4.070(3), 62-210.200(PTE), 62-296.320(4)(a) and 62-296.620(4), F.A.C.]

EMISSIONS PERFORMANCE TESTING

I.5. Compliance Tests: During each federal fiscal year (October 1st to September 30th), the permittee shall conduct visible emissions tests in accordance with EPA Method 9 on each baghouse vent to demonstrate compliance with the opacity standard. The minimum observation period shall be at least 30 minutes or, if the operation is normally completed in less than 30 minutes and does not recur within that time, the test shall last for the length of the silo loading operation. Tests shall be conducted at a material transfer rate representative of the typical operation used throughout the year. For each test, the permittee shall record and report the material handling rate, pneumatic line pressure and pressure differential across the baghouse. For the lime storage and handling system (EU-031), annual tests shall be conducted while unloading lime from a railcar. Prior to renewing the air operation permit, a test shall also be conducted while unloading lime from a truck (EU-031). [Rules 62-4.070(3), 62-296.320(4)(a) and 62-296.620(4), F.A.C.]

MONITORING, RECORD KEEPING AND REPORTING

I.6. Test Notifications, Records and Reports - General Requirements: Appendix C of this permit specifies the general requirements for test notifications, records and reports. [Rule 62-297.310, F.A.C.]

Subsection J. Rental Refinery Package Boiler

This section of the permit addresses the following emissions unit.

EU No.	Emissions Unit
035	Rental refinery package boiler with a maximum heat input rate of 12 MMBtu per hour from firing distillate oil

EQUIPMENT

J.1. Refinery Package Boiler: In accordance with the conditions of this subsection, the permittee is authorized to install and operate a rental package boiler rated at 300 horsepower that will fire distillate oil. The package boiler will be a rental unit and may be a different unit each year. Depending on the original manufacture date, the selected rental boiler may be subject to the applicable provisions in Subpart Dc of 40 CFR 60 and Subpart DDDDD of 40 CFR 63. [Permit No. 0510003-045-AC]

PERFORMANCE RESTRICTIONS

J.2. Permitted Capacity: The maximum heat input rate of the boiler is 12 MMBtu per hour from firing distillate oil at approximately 85 gallons per hour (gph). [Rule 62-210.200(PTE), F.A.C. and Permit No. 0510003-045-AC]

J.3. Authorized Fuel: The boiler is authorized to fire distillate oil or on-specification used oil with a maximum sulfur content of 0.05% by weight. On-specification used oil shall meet the additional requirements specified in Appendix I (Fuel Monitoring) of this permit. [Rule 62-210.200(PTE), F.A.C. and Permit No. 0510003-045-AC]

J.4. Operational Restrictions: The boiler shall only operate during the period of June 1st through September 30th of each year. It shall only operate during this period when all other mill boilers are shutdown (or in the process of shutting down) due to repair or maintenance. The refinery package boiler shall not fire more than 63,240 gallons of distillate oil during the authorized period of operation. [Rule 62-210.200(PTE), F.A.C. and Permit No. 0510003-045-AC]

EMISSIONS STANDARDS

J.5. Opacity Standard: As determined by EPA method 9, visible emissions shall not exceed 20% opacity except for one six-minute period per hour during which opacity shall not exceed 27%. [Rule 62-296.406, F.A.C.]

J.6. BACT Determinations: Particulate matter and sulfur dioxide emissions shall be minimized by the efficient combustion of distillate oil containing a maximum fuel sulfur content of 0.05% by weight. [Rule 62-296.406, F.A.C.]

TESTING REQUIREMENTS

J.7. Annual Compliance Tests: During each refinery season (June 1st through September 30th) in which it is operated, the refinery package boiler shall be tested to demonstrate compliance with the visible emissions standard in accordance with EPA Method 9. [Rule 62-297.310(7)(a)4, F.A.C.]

J.8. Test Requirements: The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required tests. Tests shall be conducted in accordance with the applicable requirements specified in Appendix C (General Testing Requirements) of this permit. [Rule 62-297.310(7)(a)9, F.A.C.]

MONITORING, RECORD KEEPING AND REPORTING

J.9. Monitoring Equipment: In accordance with the manufacturer's recommendations, the permittee shall install, operate and maintain equipment to continuously monitor the oil flow rate. The device shall be calibrated at least annually and calibration records maintained in a written or electronic log. [Rule 62-213.440(4), F.A.C.; and Permit No. 0510003-045-AC]

J.10. Fuel Monitoring Requirements: The permittee shall comply with the applicable fuel monitoring requirements specified in Appendix I (Fuel Monitoring) for each authorized fuel. [Rule 62-210.370(3), F.A.C. and Permit No. 0510003-045-AC]

J.11. Test Notifications, Records and Reports - General Requirements: Appendix C of this permit specifies the general requirements for test notifications, records and reports. [Rule 62-297.310, F.A.C.]

J.12. Notification: Within three days of bringing a rental boiler on site, the permittee shall notify the Compliance Authority of the following: make and model, maximum heat input rate (MMBtu/hour), the applicability of NSPS Subpart Dc, and preliminary plans for conducting a visible emissions test. [Rule 62-4-070(3), F.A.C.]

OTHER APPLICABLE REQUIREMENTS

J.13. Federal Requirements: If the boiler was originally manufactured, modified or reconstructed after June 9, 1989, it is subject to and shall comply with the applicable federal requirements in NSPS Subpart Dc of 40 CFR 60. The boiler will be a rental unit and may be a different unit each year. See Appendix L (NSPS Provisions) of this permit. [Rule 62-204.800, F.A.C. and Subpart Dc of 40 CFR 60]

J.14. NSPS Provisions: If the Refinery Package Boiler was originally manufactured, modified or reconstructed after June 4, 2010, it is subject to and shall comply with the applicable federal requirements in 40 CFR 63 Subparts A and DDDDD, General Conditions and Industrial, Commercial, and Institutional Boilers and Process Heaters. Appendix O of this permit summarizes these provisions. [Rule 62-204.800, F.A.C.; 40 CFR 63 Subparts A and DDDDD]

K. Degasification Systems

This section of the permit addresses the following emissions unit.

EU No.	Emission Unit Description
036	Two Hydrogen Sulfide Degasification Systems

{Permitting Note: In accordance with Rule 62-212.400(PSD), F.A.C., the above emission unit is subject to a Best Available Control Technology (BACT) determination for hydrogen sulfide (H_2S). The final BACT determination is presented in Appendix N of this permit.

EQUIPMENT

K.1. Degasification Systems: The permittee is authorized to install and operate two (2) H_2S degasification systems for the associated water wells. [Permit Nos. 0510003-048-AC/PSD-FL-415 and 0510003-050-AC]

K.2. Water Use: The permittee shall install, calibrate and operate flow meters (or equivalent devices) with integrators to monitor the water flow rate from each water well. [Rule 62-212.400(BACT), F.A.C.; Permit Nos. 0510003-048-AC/PSD-FL-415 and 0510003-050-AC]

PERFORMANCE RESTRICTIONS

K.3. Hours of Operation: The hours of operation are not limited (8760 hours per year). [Rule 62-210.200(PTE), F.A.C.; Permit Nos. 0510003-048-AC/PSD-FL-415 and 0510003-050-AC]

EMISSIONS STANDARDS

K.4. Hydrogen Sulfide: The emissions of H_2S from the combined degasification systems shall not exceed 18.0 tons per consecutive 12-month rolling total based on monthly raw well water flow rates and quarterly water sampling to determine the H_2S concentration in the raw water entering the degasification units. If the facility receives valid odor complaints associated with the degasification systems as verified by the Compliance Authority, the permittee may be requested to revisit the determination of BACT for H_2S emissions from degasification systems. [Rule 62-212.400(BACT), F.A.C.; Permit Nos. 0510003-048-AC/PSD-FL-415 and 0510003-050-AC]

K.5. 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" is defined as 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." The draft permit will also include a requirement to revisit BACT should the facility receive valid odor complaints from the degasification systems. [Rule 62-296.320(2), F.A.C.; Permit Nos. 0510003-048-AC/PSD-FL-415 and 0510003-050-AC]

MONITORING AND RECORD KEEPING REQUIREMENTS

K.6. Water Wells Sampling/Analysis: On at least a quarterly basis, the permittee shall obtain representative samples of the water going to the degasification units. The samples shall be taken no earlier than 60 days apart. Each sample shall have an analysis conducted to determine the H_2S concentration. [Rule 62-212.400(BACT), F.A.C.; Permit Nos. 0510003-048-AC/PSD-FL-415 and 0510003-050-AC]

K.7. Monthly Records: Within ten calendar days following each month, the permittee shall observe and record the total monthly water pumped from the water wells to each degasification unit. This information shall be used in conjunction with the measured H_2S concentration for the given quarter to determine the H_2S emissions for the month and the previous 12 months, rolling total. [Rule 62-212.400(BACT), F.A.C.; Permit Nos. 0510003-048-AC/PSD-FL-415 and 0510003-050-AC]

L. RICE Emergency Engines ≤ 500 HP constructed before June 12, 2006

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

E.U. ID No.	Brief Description
037	Emergency Reciprocating Internal Combustion Engine(RICE) (WWTP East Pump Station)
038	Emergency RICE (Fire Pump Building)
039	Emergency RICE (WWP 2nd Floor Pump Room)
040	Emergency RICE (WTP Portable Generator)
042	Emergency RICE (Computer/IT Backup)

EU037 is an existing 231 bhp emergency compression ignition (CI) RICE located at the WWTP east pump station. This diesel CAT 3306 engine (engine number 64Z31005) was manufactured in 2000. The displacement is 1.75 liters/cylinder (l/cyl). This engine operates approximately 60 hours per year and is subject to 40 CFR 63 Subpart ZZZZ.

EU038 is an existing 231 bhp emergency RICE located at the Fire Pump Building. This diesel CAT 3306 engine (engine number 64Z28872) was manufactured in 1999. The displacement is 1.75 liters/cylinder (l/cyl). This engine operates approximately 60 hours per year and is subject to 40 CFR 63 Subpart ZZZZ.

EU039 is an existing 230 bhp emergency RICE located at the WWP 2nd floor pump room. The diesel CAT 3126DITA engine (engine number 9ZRO3166) was manufactured in 2005. The displacement is 0.90 liters/cylinder (l/cyl). This engine operates approximately 60 hours per year and is subject to 40 CFR 63 Subpart ZZZZ.

EU040 is an existing 231 bhp emergency potable RICE located at the WTP. The diesel CAT 3306T engine (engine number 8JJ00301) was manufactured in 1996. The displacement is 1.75 liters/cylinder (l/cyl). This engine operates approximately 60 hours per year and is subject to 40 CFR 63 Subpart ZZZZ.

EU042 is an existing 36 bhp emergency RICE located at the WTP. The diesel Perkins 3.1524 engine (engine number 147769) was manufactured in 1981. The displacement is 0.83 liters/cylinder (l/cyl). This engine operates approximately 60 hours per year and is subject to 40 CFR 63 Subpart ZZZZ.

The following table provides important details for these emissions units:

E.U. ID No.	Engine Brake HP	Date of Construction	Model Year	Primary Fuel	Type of Engine	Displace-ment liters/cylin der (l/c)	Serial #	Date of last mod. or reconst.
037	231	----------	2000	Diesel	Emer-gency	1.75	64Z31005	N/A
038	231	----------	1999	Diesel	Emer-gency	1.75	64Z28872	
039	230	----------	2005	Diesel	Emer-gency	0.90	9ZRO3166	N/A
040	231	----------	1996	Diesel	Emer-gency	1.75	8JJ00B01	N/A
042	36		1981	Diesel	Emer-gency	0.83	147769	N/A

L. RICE Emergency Engines ≤ 500 HP constructed before June 12, 2006

{Permitting Note: These emissions units, compression ignition (CI) engines, are regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE adopted in Rule 62.204.800(11)(b), F.A.C. This permit section addresses "existing" stationary CI RICE less than or equal to 500 HP that are located at a major source of HAP and that have not been modified or reconstructed after 6/12/2006. Unless the RICE is modified or reconstructed after 7/11/2005, NSPS 40 CFR 60, Subpart IIII, will not apply. The permittee shall comply with the following emissions and operating limitations no later than May 3, 2013.}

Essential Potential to Emit (PTE) Parameters

L.1. Hours of Operation

a. *Emergency Situations*. There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 63.6640(f)(1)]

b. *Maintenance and Testing*. Each RICE is authorized to operate for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. [40 CFR 63.6640(f)(1)]

c. *Non-emergency Situations*. Each RICE is authorized to operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. [40 CFR 63.6640(f)(1)]

d. *Other Situations*. Each RICE cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph, as long as the power provided by the financial arrangement is limited to emergency power. [40 CFR 63.6640(f)(1)]

e. *Engine Startup*. During periods of startup the owner or operator must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for the appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63.6625(h)]

Emission Limitations and Operating Requirements

L.2. Work or Management Practice Standards

a. *Oil*. Change oil and filter every 500 hours of operation or annually, whichever comes first. [40 CFR 63 Table 2c(1)(a)]

b. *Air Cleaner*. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first. [40 CFR 63 Table 2c(1)(b)]

c. *Hoses and Belts*. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR 63 Table 2c(1)(c)]

d. *Operation and Maintenance*. Operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions or develop and follow your own maintenance plan which must provide, to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution, control practice for minimizing emissions. [40 CFR 63.6625(e)]

e. *Oil Analysis*. The owner or operator has the option of using oil analysis to extend the change requirement. The oil analysis must be performed at the same frequency specified for changing the oil in **L.2.a**. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent of water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent of water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63.6625(i)]

Monitoring of Operations

L.3. Hour Meter. The owner or operator must install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f)]

Compliance

L.4. Continuous Compliance. Each unit shall be in compliance with the emission limitations and operating standards in Subpart ZZZZ at all times. [40 CFR 63.6605(a)]

{Permitting Note: As long as the owner or operator operates the stationary RICEs in accordance with the requirements under 40 CFR 63.6640(f)(i) thru (iii), there are no required pollutant emissions limits.)

L.5. Operation and Maintenance of Equipment. At all times the owner or operator must operate and maintain, any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the compliance authority which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.6605(b)]

Recordkeeping Requirements

L.6. Notification, Performance and Compliance Records. The owner or operator shall keep the following:

a. A copy of each notification and report that the owner or operator submitted to comply with this section, including all documentation supporting any Initial Notification or Notification of Compliance Status that the owner or operator submitted.
b. Records required in specific condition **L.2.(d)** of this section to show continuous compliance with each emission limitation or operating requirement.
c. The owner or operator must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.

[40 CFR 63.6655(a)(1), (d), (f)]

L.7. Malfunction Records.

a. Records of the occurrence and duration of each malfunction of operation (i.e. process equipment) or the air pollution control and monitoring equipment.
b. Records of actions taken during periods of malfunction to minimize emissions in accordance with specific condition **L.5.** of this section including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

[40 CFR 63.6655(a)(2) and (5)]

L.8. Maintenance Records.

a. Records of all required maintenance performed on the air pollution control and monitoring equipment.
b. The owner or operator must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the stationary RICE and after-treatment control device (if any) are operated and maintained according to its own maintenance plan.

[40 CFR 63.6655(a)(4) and (e)]

L.9. Record Retention.

a. The owner or operator must keep records in a suitable and readily available form for expeditious reviews.
b. The owner or operator must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.

[40 CFR 63.6660 and 40 CFR 63.10(b)(1)]

Reporting Requirements

L.10. Emergency Situation. If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in specific condition **L.2.** of this section, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable. [40 CFR 63 Table 2c, footnote 1]

OTHER APPLICABLE REQUIREMENTS

L.11. NESHAP Provisions: Emissions units 037, 038, 309, 040 and 042 are subject to the National Emission Standards for HAPs, Subparts A and ZZZZ in 40 CFR 63 for "Reciprocating Internal Combustion Engines". Appendix O of this permit summarizes these provisions. [Rule 62-204.800, F.A.C and 40 CFR 63.6665]

L.12. The owner or operator must comply with the general provisions in 40 CFR 63 Subpart A. []

M. RICE Emergency Engines ≥ 500 HP constructed before December 19, 2002

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

E.U. ID No.	Brief Description
041	1064 bhp Emergency Reciprocating Internal Combustion Engine (WTP plant generator)

EU041 is an existing 1064 bhp emergency RICE located at the WTP. The diesel Detroit 800ROZD71 engine (engine number 378320) was manufactured in 1998. The displacement is 1.50 liters/cylinder (l/cyl). This engine operates approximately 60 hours per year and is subject to 40 CFR 63 Subpart ZZZZ.

The following table provides important details for these emissions units:

E.U. ID No.	Engine Brake HP	Date of Construction	Model Year	Primary Fuel	Type of Engine	Displacement liters/cylinder (l/c)	Serial #	Date of last mod. or reconst.
041	1064	----------	1998	Diesel	Emer-gency	1.50	378320	N/A

{Permitting Note: This emissions unit, compression ignition (CI) engine, is regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE adopted in Rule 62.204.800(11)(b), F.A.C. This permit section addresses "existing" stationary CI RICE that are greater than 500 HP that are located at a major source of HAP and that have not been modified or reconstructed after 12/19/2002. Unless the RICE is modified or reconstructed after 7/11/2005, NSPS 40 CFR 60, Subpart IIII, will not apply. The permittee shall comply with the following emissions and operating limitations no later than May 3, 2013.}

Essential Potential to Emit (PTE) Parameters

M.1. Hours of Operation The owner or operator of an emergency stationary RICE with a site rating of more than 500 bhp located at a major source of HAP emissions that was installed prior to June 12 2006, must operate the engine according to the conditions in **M.1.a**. – **c**. If the engine is not operated according to the requirements, the engine will not be considered an emergency engine under 40 CFR 63 Subpart ZZZZ and will need to meet all requirements for non-emergency situations.

a. *Emergency Situations*. There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 63.6640(f)(2)(i)]

b. *Maintenance and Testing*. Each RICE is authorized to operate for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized, but there is no time limit on the use of emergency stationary RICE in emergency situations and for routine testing and maintenance. [40 CFR 63.6640(f)(2)(ii)]

c. *Non-emergency Situations*. Each RICE is authorized to operate an additional 50 hours per year in non-emergency situations. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 63.6640(f)(2)(iii)]

[40 CFR 63.6640(f)]

General Provisions

M.2. The owner or operator must comply with the general provisions in 40 CFR 63 Subpart A. [40 CFR 63.6665]

N. RICE Non-Emergency Engines < 500 HP constructed before June 12, 2006

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

E.U. ID No.	Brief Description
046	Northern Canal Pump Reciprocating Internal Combustion Engine(RICE)
047	Existing Southern Canal Pump RICE

EU046 is an existing 120 bhp compression ignition (CI) RICE Detroit Model 3-71 located east of the wastewater treatment ponds on the northern side of the canal (latitude 26°43'05", longitude 80°55'36"). This engine is subject to 40 CFR 63 Subpart ZZZZ.

EU047 is an existing 135 bhp CI RICE Perkins Model 1006 located east of the wastewater treatment ponds on the southern side of the canal (latitude 26°43'03", longitude 80°55'36"). This engine subject to 40 CFR 63 Subpart ZZZZ.

The following table provides important details for these emissions units:

E.U. ID No.	Engine Brake HP	Date of Construction	Primary Fuel	Type of Engine	Displacement liters/cylinder (l/c)	Serial #	Date of last mod. or reconst.
046	120	1980	Diesel	Non-Emergency	1.17	3A95995	N/A
047	135	1998	Diesel	Non-Emergency	1.00	5426-8415	N/A

Essential Potential to Emit (PTE) Parameters

N.1. Hours of Operation.

a. *Normal Operation*. The stationary RICE may operate continuously (8,760 hours a year) if needed.

b. *Engine Startup*. During periods of startup the owner or operator must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63.6625(h)]

Emission Standards and Limitations

N.2. CO Emissions. The carbon monoxide (CO) emissions in the stationary RICE exhaust shall not exceed 230 parts per million by volume, dry (ppmvd) at 15 percent O_2. [40 CFR 63.6602, Table 2c]

Compliance Requirements

N.3. Continuous Compliance. Each unit shall be in compliance with the emission limitations and operating standards in this section at all times. [40 CFR 63.6605(a)]

N.4. Operation and Maintenance of Equipment. At all times the owner or operator must operate and maintain, any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the compliance authority which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.6605(b)]

Monitoring, Installation, Collection, Operation and Maintenance Requirements

N.5. Work or Management Practice Standards.
Operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions or develop and follow your own maintenance plan which must provide, to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution, control practice for minimizing emissions. [40 CFR 63.6640(a) & Table 6.9.a.]

Testing Requirements

N.6. Initial Compliance Testing. The owner or operator has demonstrated initial compliance when the average CO concentration, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the CO emission limitation. [40 CFR 63.6630 Table 5]

N.7. Initial Compliance Testing The owner or operator shall conduct the initial performance test prior to July 1, 2014. [40 CFR 63.6612(a) 62-213.440(2)]

N.8. Measurements to Determine O_2, Moisture and CO.

a. *Measurements to Determine O_2.* The owner or operator must measure the O_2 concentration of the exhaust using Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522-00 Measurements to determine O_2 must be made at the same time as the measurements for CO concentration.

b. *Measurements to Determine Moisture Content.* The owner or operator must measure the moisture content of the exhaust using Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03. Measurements to determine moisture content must be made at the same time as the measurements for CO concentration.

c. *Measurements to Determine CO.* The owner or operator must measure the CO concentration of the exhaust using Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03. [40 CFR 63.6620 Table 4]

N.9. Initial Compliance Testing. The owner or operator must conduct three separate test runs for each performance test required in this section. Each test run must last at least 1 hour. Each run shall be conducted for the time and under the conditions specified in the relevant standard. For the purpose of determining compliance with a relevant standard, the arithmetic mean of the results of the three runs shall apply. Upon receiving approval from the Administrator, results of a test run may be replaced with results of an additional test run in the event that:

a. A sample is accidentally lost after the testing team leaves the site; or
b. Conditions occur in which one of the three runs must be discontinued because of forced shutdown; or
c. Extreme meteorological conditions occur; or
d. Other circumstances occur that are beyond the owner or operator's control.

N.10. Initial Compliance Testing – Engine Load. The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided. [40 CFR 63.6620 (i)]

N.11. The owner or operator shall notify the Department in writing within 15 days of the initial performance test that the performance test has been conducted. [62-213.440(2)]

N.12. Initial Compliance Testing - Notification of Compliance Status. The owner or operator must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in 40CFR 63.7(b) and (c), and 63.9(b) through (e) by the dates specified. [40 CFR 63.6630(c)]

Recordkeeping Requirements

N.13. Notification, Performance and Compliance Records. The owner or operator must keep a copy of each notification and report that the owner or operator submitted to comply with this section, including all documentation supporting any Initial Notification or Notification of Compliance Status that the owner or operator submitted. [40 CFR 63.6655]

N.14. Malfunction Records.

a. The owner or operator must keep records of the occurrence and duration of each malfunction of operation (i.e. process equipment) or the air pollution control and monitoring equipment.

b. The owner or operator must keep records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b) of this section including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

[40 CFR 63.6655]

N.15. Maintenance Records.

a. The owner or operator must keep records of all required maintenance performed on the air pollution control and monitoring equipment.

b. The owner or operator must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the stationary RICE and any after-treatment control device are operated and maintained according to its own maintenance plan.

[40 CFR 63.6655]

N.16. Performance Records. The owner or operator must keep records of performance tests and performance evaluations as required. [40 CFR 63.6655]

N.17. Record Retention.

a. The owner or operator must keep records in a suitable and readily available form for expeditious reviews.

b. The owner or operator must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.

[40 CFR 63.6660 and 40 CFR 63.10(b)(1)]

Reporting Requirements

N.18. Notification Requirements. The owner or operator must submit all of the notifications in 40CFR 63.7(b) and (c), and 63.9(b) through (e) by the dates specified. [40 CFR 63.6645(a)]

N.19. Notification of Intent to Conduct a Performance Test. The owner or operator must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in 40 CFR 63.7(b)(1). [40 CFR 63.6645(g)]

N.20. Notification of Compliance Status. The owner or operator is required to submit a Notification of Compliance Status before the close of business on the 60th day following the completion of the relevant compliance demonstration activity. [40 CFR 63.6645(h)]

N.21. Compliance Report. The owner or operator must submit a semiannual Compliance Report.

a. The Report must contain:

(1) Company name and address.
(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report
(3) Date of report and beginning and ending dates of the reporting period.
(4) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.
(5) If you had a startup, shutdown, malfunction or deviation during the reporting period, the compliance report must include:
    1. The information in § 63.10(d)(5)(i).
    2. The total operating time of the RICE at which the deviations occurred during the reporting period
    3. The number, duration and causes of the deviations
    4. The corrective actions taken.

b. The first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.6595.
c. The first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.6595.
d. Each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
e. Each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

[40 CFR 63.6650]

N.22. The owner or operator shall report each instance in which the CO emission limit is exceeded. [63.6640(b)]

N.23. The owner or operator shall report each instance in which the requirements in Table 8 of Subpart ZZZZ, Part 63 are not met. Table 8 is included in Appendix O of this permit. [63.6640(e)]

N.24. The owner or operator shall report every deviation from permit requirements to the permit authority in accordance with all reporting requirements contained within this permit. [40 CFR 63.6650 (f)]

OTHER REQUIREMENTS

N.25. NESHAP Provisions: Emissions units 046 and 047 are subject to the National Emission Standards for HAPs, Subparts A and ZZZZ in 40 CFR 63 for "Reciprocating Internal Combustion Engines". Appendix O of this permit summarizes these provisions. [Rule 62-204.800, F.A.C and 40 CFR 63.6665]

O. RICE Non-Emergency Engines < 500 HP constructed after June 12, 2006

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

E.U. ID No.	Brief Description
048	New Southern Canal Pump Reciprocating Internal Combustion Engine(RICE)

EU048 is a new 193 bhp CI RICE Perkins Model 1006D-E66TA located east of the wastewater treatment ponds on the southern side of the canal (latitude 26°43'03", longitude 80°55'36"). This engine subject to 40 CFR 60 Subpart IIII.

The following table provides important details for this emissions unit:

E.U. ID No.	Engine Brake HP	Date of Construction	Primary Fuel	Type of Engine	Displacement liters/cylinder (l/c)	Serial #	Date of last mod. or reconst.
048	193	2008	Diesel	Non-Emergency	1.1	PJ38439U O18853S	N/A

Essential Potential to Emit (PTE) Parameters

O.1. Hours of Operation. The stationary RICE may operate continuously (8,760 hours a year) if needed.

O.2. Authorized Fuel: Only diesel fuel containing no more than 15 parts per million sulfur. and with a minimum Cetane index value of 40 or a maximum aromatic content of 35 volume percent shall be used in the engine.{40 CFR 60.4207(b)]

Emission Standards and Limitations

O.3. NMHC+NOx Emissions. The nonmethane hydrocarbons and oxides of nitrogen (NMHC+NOx) emissions in the stationary RICE exhaust shall not exceed 5.0 g/kW-hr. [40 CFR 60.4212(c)]

O.4. CO Emissions. The carbon monoxide (CO) emissions in the stationary RICE exhaust shall not exceed 4.4 g/kW-hr. [40 CFR 60.4212(c)]

O.5. PM Emissions. The particulate matter (PM) emissions in the stationary RICE exhaust shall not exceed 0.25 g/kW-hr. [40 CFR 60.4212(c)]

O.6. Smoke Emission: Exhaust opacity from the emission unit shall not exceed:

a. 20 percent during the acceleration mode

b. 15 percent during the lugging mode; and

c. 50 percent during the peaks in either the acceleration or lugging modes

Opacity levels are to be measured and calculated as set forth in 40 CFR part 86, subpart I. [40 CFR 89.113]

O.7. The owner or operator must comply with the emission standards for new CI engine in §60.4201. [40 CFR 60.4204(b)]

O.8. The owner or operator must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 over the entire life of the engine. [40 CFR 60.4206]

Monitoring, Installation, Collection, Operation and Maintenance Requirements

O.9. If the RICE engine is equipped with a diesel particulate filter to comply with the emission standards and limitations, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. [40 CFR 60.4209(b)]

O.10. The owner or operator shall operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions. [40 CFR 60.4211(a)]

O.11. The owner or operator shall change only those emission-related settings that are permitted by the manufacturer. [40 CFR 60.4211(a)]

O.12. The engine must be installed and configured according to the manufacturer's emission-related specifications. [40 CFR 60.4211(c)(3)]

O.13. If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance by keeping a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintaining and operating the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards by May 15, 2015, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. [40 CFR 60.4211(g)]

O.14. Engine Certification The engine must be certified to the emission standards in §60.4204(b) for the same model year and maximum engine power. [40 CFR 60.4211(c)]

Testing Requirements

O.15. Performance Testing: Exhaust emissions of oxides of nitrogen, carbon monoxide, hydrocarbon, and nonmethane hydrocarbon are measured using the procedures set forth in subpart E of 40 CFR 89. The procedures may be downloaded from the hyperlink in Condition O.19: [40 CFR 89.112]

O.16. Performance Testing: Exhaust emission of particulate matter is measured using the California Regulations for New 1996 and Later Heavy-Duty Off-Road Diesel Cycle Engines. This procedure is incorporated by reference. [40 CFR 89.112]

Recordkeeping Requirements

O.17. If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached [40 CFR 60.4214(c)]

OTHER REQUIREMENTS

O.18. NSPS Provisions: Emissions unit 048 is subject to the Standards of Performance for New Stationary Sources, Subparts A and IIII in 40 CFR 60 for "Stationary Compression Ignition Internal Combustion Engines". Appendix L of this permit summarizes these Subpart A. [Rule 62-204.800, F.A.C and 40 CFR 60.4200]

O.19. Emissions unit 048 is subject to 40 CFR Part 89, "Control of Emissions from New and In-Use Compression-Ignition Engines" The Part may be downloaded from the following hyperlink: http://www.ecfr.gov/cgi-bin/text-idx?SID=6227a22e2d5ed906da4381e9ea2f030b&node=40:21.0.1.1.3&rgn=div5#40:21.0.1.1.3.2.1.13 [40 CFR 60.4211(a)]