Okeelanta Corporation
Sugar Mill and Refinery

Facility ID No. 0990005

New Hope Power Company
Okeelanta Cogeneration Plant

Facility ID No. 0990332

Palm Beach County

Title V Air Operation Permit Revision

Draft/Proposed Permit No. 0990005-038-AV

(4th Revision to Permit No. 0990005-017-AV)

Permitting Authority:

State of Florida
Department of Environmental Protection
South District Office
Engineering/Permitting Division

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

Telephone: (239) 344-5600
Fax: (850) 412-0590

Compliance Authority:

Palm Beach County
Health Department
800 Clematis Street
Post Office Box 29
West Palm Beach, FL 33402-0029

Telephone: (561) 837-5900
Fax: (561) 837-5295

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DRAFT/PROPOSED

PERMITTEE:

Okeelanta Corporation
New Hope Power Company
8001 U.S. Highway 27 South
South Bay, Florida 33493

Permit No. 0990005-038-AV
Okeelanta Corporation
Facility ID No. 0990005
New Hope Power Company
Facility ID No. 0990332
Title V Air Operation Permit Revision
Palm Beach County, Florida

The purpose of this permitting project is to revise the existing Title V air operation permit No. 0990005-034-AV for the above referenced facility to incorporate minor revisions from air construction permit Nos. 0990005-035-AC (added baghouse to the Bulk Load-out Operation (EU-034) and 0990005-037-AC (added four (4) Sugar Packaging Lines No. 16, 17, 18 and 19 with baghouse, to Warehouse No. 3. The facility is operated by the Okeelanta Corporation (ARMS ID No. 0990005) and the New Hope Power Company (ARMS ID No. 0990332). Okeelanta Corporation operates an existing sugar mill (SIC No. 2061) and sugar refinery (SIC No. 2062) and New Hope Power Company operates a cogeneration plant (SIC No. 4911).

The existing facility is located in Palm Beach County at 8001 U.S. Highway 27 South, South Bay, Florida. The map coordinates are UTM Zone 17, 524.90 km East and 2940.10 km North (Latitude 26° 35' 00" North / Longitude 80° 45' 00" 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 and 62-213. The above named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

0990005-017-AV Effective Date: July 17, 2010
0990005-032-AV 1st Revision Effective Date: September 11, 2012
0990005-033-AV 2nd Revision Effective Date: October 11, 2012
0990005-034-AV 3rd Revision Effective Date: August 29, 2013
0990005-038-AV 4th Revision Effective Date: *DRAFT*

Renewal Application Due Date: December 3, 2014
Expiration Date: July 16, 2015

DRAFT/PROPOSED

_____

Jon M. Iglehart
Director of
District Management

JMI/CBE/

FACILITY DESCRIPTION

The facility consists of two adjacent plants. Okeelanta Corporation (ARMS ID No. 0990005) operates an existing sugar mill (SIC No. 2061) and sugar refinery (SIC No. 2062) including sugar packaging and transshipment activities. New Hope Power Company (ARMS ID No. 0990332) operates an existing cogeneration plant that provides process steam for the sugar mill and refinery operations as well as generating electricity for sale to the power grid (SIC 4911). The cogeneration plant, sugar mill, and sugar refinery are all considered a single facility for purposes of the PSD and Title V regulatory programs.

The primary sources of air pollution include: Three (3) - 760 million British thermal units per hour (MMBtu/hr) per hour cogeneration boilers; transfer and storage of wood chip and bagasse fuels; distillate oil storage tanks; transfer and storage of sugar; and a paint spray booth. The facility includes other miscellaneous "unregulated" emissions units and activities.

REGULATORY CATEGORIES

- The facility is a major source of hazardous air pollutants.
- The facility does not operate any units subject to the Title IV acid rain provisions of the Clean Air Act.
- The facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The facility is a major stationary source of air pollution in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.
- The facility is subject to Chapter 62-17, F.A.C. for power plant site certification because it produces more than 75 MW of steam-generated electrical power. [Site Certification No. PA 04-46]
- 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),
- NSPS Part 60, Subpart Da (Electric Utility Steam Generating Units).
- Units are subject to National Emissions Standards for Hazardous Air Pollutants (NESHAP) 40 CFR 63 Subpart A General Provisions.
- Units are subject to 40 CFR 63 Subpart DDDDD-National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters. [Rule 62-213.440, F.A.C.] *Appendix SS provides a summary of the applicable requirements for each regulated unit.*
- Units are subject to National Emissions Standards for Hazardous Air Pollutants (NESHAP) 40 CFR 63 Subpart A – General Provisions.

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}), 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).

Hazardous Air Pollutants

Emissions units at this facility may emit one or more hazardous air pollutants (HAP) as defined in Rule 62-210.200, F.A.C.

SUMMARY OF REGULATED EMISSIONS UNITS

Please refer to the appropriate Permit No., Facility ID No. and Emissions Unit No. on all correspondence, test report submittals, applications, etc.

ARMS ID No. 0990005 - Okeelanta Corporation

EU No.	Emissions Unit Description	Process Area
014	*Boiler No. 16 (DELETED)*	*Sugar Mill and Refinery*
018	Central Vacuum System (listed as insignificant unit)	Transshipment Facility
019	Sugar Packaging Lines 0-9, including 8A and 8B	Transshipment Facility
020	Sugar Grinder/Hopper	Transshipment Facility
021	Rotary Dryer, Central Dust Collection System No. 1 with Rotoclone No. 1	Sugar Refinery
022	Central Dust Collection System No. 2 with Roto-clone (No.2) "B" System	Sugar Refinery
023	Cooler No. 1 with Roto-clone No. 3	Sugar Refinery
024	Cooler No. 2 with Roto-clone No. 4	Sugar Refinery
025	Fluidized Bed Dryer/Cooler with Baghouse	Sugar Refinery
030	Sugar Silos Nos. 1, 2, and 3	Transshipment Facility
031	Railcar Sugar Unloading Receiver 1	Transshipment Facility
032	Railcar Sugar Unloading Receiver 2	Transshipment Facility
034	Bulk Load-Out Operation *with baghouse*	Sugar Refinery
035	Transfer Bulk Load-Out Operation	Sugar Refinery
043	Sugar Refinery Alcohol Usage	Sugar Refinery
045	Powdered Sugar Dryer/Cooler, Packaging Line 8A And 8B	Transshipment Facility
046	Powdered Sugar Hopper	Transshipment Facility
047	Sugar Packaging Lines 12 and 13	Transshipment Facility
048	Paint Booth	Okeelanta Shop
049	Sugar Packaging Line 14	Transshipment Facility
054	"A" System - Wet Roto-clone (No. 6)	Sugar Refinery
055	"C" System - Wet Roto-clone (No. 7)	Sugar Refinery
056	Hi-Vac Industrial Vacuum System	Sugar Refinery
059	*Pkg. Lines 16, 17, 18 & 19 with baghouse*	*Warehouse 3*

{Permitting Note: The original sugar mill boilers (EU-001 - EU-013) and Boiler No. 16 (EU-014) have been permanently shutdown.}

ARMS ID No. 0990332 – New Hope Power Company

EU No.	Emissions Unit Description	Process Area
001	Cogeneration Boiler A	Cogeneration Plant
002	Cogeneration Boiler B	Cogeneration Plant
003	Cogeneration Boiler C	Cogeneration Plant
004	Cogeneration Plant - Material Handling and Storage	Cogeneration Plant

Unregulated Emissions Units and/or Activities

ARMS ID No. 0990005 – Okeelanta Corporation

EU No.	Emissions Unit Description	Process Area
015	*Fuel Storage Tank (Deleted)*	*Sugar Mill and Refinery*
016	*Fuel Storage Tank (Deleted)*	*Sugar Mill and Refinery*
017	*Fuel Storage Tank (Deleted)*	*Sugar Mill and Refinery*
033	Sugar Refinery Miscellaneous Support Equipment	Sugar Refinery
036	Shop Operations	Sugar Mill
037	Sugar Mill Boiler House	Sugar Mill
038	Sugarcane Dumping Area	Sugar Mill
039	Sugarcane Processing Facility	Sugar Mill
040	Fuel Tank Farm	Facility
041	Potable Water System	Facility
042	Sewer Plant	Facility
044	Okeelanta Facility - Miscellaneous Unregulated Activities	Okeelanta Facility
050	Transshipment Facility, Miscellaneous Support Equipment	Transshipment Facility
056	Hi-Vac Industrial Vacuum System	Sugar Refinery

Unregulated Emissions Units and/or Activities

ARMS ID No. 0990332 – New Hope Power Company

EU No.	Emissions Unit Description	Process Area
005	Cogeneration Plant - Miscellaneous Support Equipment	Cogeneration Plant

Subjects contained in "Unregulated and Insignificant" emissions units and activities: (Also summarized in Appendix UI in Section 4 of this permit).

Okeelanta Corporation Sugar Mill and Refinery (ARMS ID No. 0990005)

ID No.	EU Description	Activities/Equipment
033	Sugar Refinery Miscellaneous Support Equipment	• Bagging Machines • Bulk Curing, Wet Sugar and Portable Overflow Bins • Centrifugals • De-Sweeteners • Evaporators and Condensers • Large and Small Heaters • Primary and Secondary Filters • Refined Sugar Handling, Storage Silo, and Sugar/Syrup Mixer • Rotex Screens • Silo Scale • Sugar Refinery Process Tanks (Blackwater, Clarifier, Liquor, Melted Sugar Storage, Melter, Mixer, Reactor, Scums, Secondary Treatment, Sweetwater, Syrup Storage Tanks, and Phosphoric Acid Storage and Distribution System • Vacuum Pans with Condenser and non-Condensable Gas Vent • Isopropyl Alcohol Stored in Drums • Powdered Carbon Mixing Room • Refined Sugar Dust Collectors (Vented Inside Building)
036	Shop Activities	• Surface Coating Operations (Non-RACT Vehicle Painting) • Diesel Engine – Portable Air Compressor • Vehicle Repair (Body Shop) • Crawlers Repair Shop • Hydraulic Oil, Mineral Spirits, and Waste/Used Oil Storage Tanks • Mechanics' Trucks With Portable Air Compressors (Gasoline Engines) • Portable Pressure Cleaners (Gasoline Engines) • Steam Clean Station • Truck, Trailer, Service Vehicles, Wheel Tractor Repair Shops • Cold Cleaning Devices (parts washer) • Containers for Oil/Grease/Used Oil • Oil/Water Separator/Skimmer Equipment • Portable Welders • Pressurized LPG Tanks • Stationary IC Engines • Vacuum Cleaning Systems • Vehicle Generated Dust • Woodworking and Metal Working Operations
037	Sugar Mill Boiler House	• Boiler Blowdown Pipes & Vents • Boiler Water Chemical Prep Tanks • Boiler Water Dearator and Tank
038	Sugar Mill Cane Dumping Area	• Cane Dumping, Handling, and Storage Cane Knives, Shredding, and Conveying • Steam Clean Station • Oil/Water Separator/Skimmer

ID No.	EU Description	Activities/Equipment
039	Sugarcane Processing Facility	• *Bagacillo Cyclone and Handling Systems* • *Batch Mixers (<30 Cu. Ft.)* • *Carbonaceous Fuel Conveying, Handling, and Storage Piles* • *Cold Cleaning Devices (Non-Halogenated Solvent)* • *Containers For Oils/Wax/Grease* • *Cooling Water Towers, Spray Ponds and Canals* • *Covered Conveyors/Drop Points* • *Diesel, Gasoline, Fuel Oil, Kerosene, Lube Oil, Waste and Used Oil Tanks* • *Electric Ovens For Drying* • *Emergency Generators* • *Gear Boxes, Reducers Vents* • *Ground Water Remediation Stripping Tower* • *Handling Of Raw Sugar* • *Industrial Waste Water Tanks (Non-MACT)* • *Molasses Storage Tanks* • *Mud Ponds* • *Oil/Water Separator/Skimmer Equipment* • *Painting Operations* • *Portable Diesel Air Compressors* • *Portable Electric Generators* • *Portable Welders* • *Pressurized LPG Tanks* • *Process Water Filtration Intake Screens* • *Process Wide Flanges and Valves* • *Pump Operations* • *Scrubber Water Ponds and Troughs* • *Stationary Internal Combustion Engines (General)* • *Vacuum Cleaning Systems* • *Vehicle Generated Dust* • *Vents From Hydraulic/Lube Oil Reservoirs* • *Woodworking and Metal Working Operations* • *Centrifugals With Mixers* • *Crystallizers/Receivers* • *Evaporator Cleaning Operations* • *Evaporators (W/ Non-Condensable Gas Vent)* • *Juice Heaters* • *Mud Filter Condensers Vacuum Pumps* • ***Process Tanks (Batch, Clarified Juice, Coagulant Mix, Flash, Liming, Mingler, Mixer, Mud Mixing, Pan Feed, Magma, Mud Waste, Muriatic, Sugar Receiver, and Syrup Storage)*** • ***Isopropyl alcohol stored in drums*** • *Isopropyl alcohol usage in vacuum pans* • *Rotary Vacuum Filters* • *Vacuum Pans with NCG vents, Condensers, And Pumps* • *Lime Storage Silo and Distribution Systems* • *Lime Silo Baghouse (5% Opacity)* • *Diesel Engines for Operation of IWW Pumps*

ID No.	EU Description	Activities/Equipment
		• *Phosphoric Acid Storage and Distribution Systems* • *Sodium Hydroxide Storage and Distribution Systems* • *Mill Crown Wheel Removal Operations* • *Vertical Molasses Crystallizer* • *Cane Mills* • *Cush-cush Screens/Conveyors and DSM Screens* • *Hydrochloric Acid Tanks* • *Mill Turbines with Vents* • *Carbon Slurry Tank* • *Condensate Tank*
040	Facility Fuel Tank Farm	• *Diesel, Gasoline and Oil Tanks* • *Diesel and Gasoline Pumps and Loading Arms* • *Oil/Water Separator/Skimmer Equipment*
041	Facility Potable Water System	• Hydrogen Sulfide Degasifiers • Membrane Cleaning Chemicals and Process Water Discharge Canal • Sulfuric Acid Storage and Distribution Systems • Disinfection System
042	Facility Sewer Plant	• Sewage Treatment Plant • Collection and Distribution Lift Station
044	Okeelanta Facility - Miscellaneous Unregulated Activities	• Forklift and crane operations • Bagasse conveying to cogeneration boilers or biomass storage
050	Transshipment Facility, Miscellaneous Support Equipment	• Containers for Oil/Grease/Ink • Diesel Fire Pump Engine • Diesel Tank • Vehicle Generated Dust • Refined Sugar Dust Collectors (Vented Inside Building) • Portable Vacuum Cleaners • Propane-Fired Water Heaters for Disinfection Process Vessels • Steam Clean Station • Cold Cleaning Devices (Parts Washer)

The following activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

056	*Hi-Vac Industrial Vacuum System*	• *Sugar Mill & Refinery*
053	*Printing Operation*	• *Trans-shipment*

The following emission units have been determined by the Department to be <u>EXEMPT</u> from permitting.

057	*Specialty Sugar Product*	• *300 hp gas-fired package boiler (Refined Sugar Warehouse No. 3)*
058	*Sugar Bin with Dust*	• *(Refined Sugar Warehouse # 3)*

	Collector	
052	*Bulk Transfer Station*	• *Wet Roto-clone No. 5*
051	*Refined Sugar Silo*	• *Baghouse*
029	*Packaging Line 10*	• *Baghouse (Located in Sugar Refinery)*

Exemptions for temporary jaw crushers:

Exemption permit No. 0990005-028-AC (dated June 17, 2011) and permit No. 0990005-031 (dated December 15, 2011) were issued for temporary jaw crushers, operated by third party, for short term operation pertaining to demolishing of the old carpenter shop and three adjacent concrete slabs. This temporary operation has been completed and these exemptions are no longer applicable.

Unless otherwise specified by the permit, the following conditions apply facility-wide to all emission units and activities:

PERMITTING AND COMPLIANCE AUTHORITIES

1. Permitting Authority: All documents related to applications for permits to operate an emissions unit shall be submitted to the Engineering/Permitting Division 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. Copies shall be sent to each agency identified under Compliance Authority.

2. Compliance Authority: The permittee shall submit all compliance related notifications and reports required of this permit to the Air & Waste Section, Division of Environmental Public Health (4th Floor) of the Palm Beach County Health Department at P.O. Box 29, West Palm Beach, Florida 33402-0029. The telephone number is (561) 837-5900 and the fax number is (561) 837-5295. Copies of all such documents shall be submitted to the Air Resources Section of the Department's South District Office at 2295 Victoria Avenue, Suite 364, Fort Myers, Florida 33901-2549. The telephone number is (239) 344-5600 and the fax number is (850) 412-0590.

PERMIT APPENDICES

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

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, F.A.C. Annual operating reports shall be submitted to the Compliance Authority by April 1st of each year. (Ref. electronic submission to DEP/Tallahassee as specified in Rule 62-210.370(3), F.A.C.).

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

EMISSIONS AND CONTROLS

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.]

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.]

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 percent 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.]

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 PSD-FL-333]

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. As necessary, paving and maintenance of roads, parking areas and yards.

    f. As necessary, 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.

    [Rules 62-4.070(3) and 62-296.320(4)(c), F.A.C.]

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.]

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.]

13. Excess Emissions Allowed: 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, F.A.C., cannot vary any federal NSPS or NESHAP provisions. [Rule 62-210.700(1), F.A.C.]

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.]

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

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

17. 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.]

18. 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)562-9155 and the fax number is (404) 562-9163.

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

    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. The telephone: number is (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]

A. Cogeneration Boilers

This subsection addresses the following emissions units.

EU No.	Emissions Unit Description (ARMS ID No. 0990332)
001 **002** **003**	**Cogeneration Boilers A (EU-001), B (EU-002) and C (EU-003)**: Each cogeneration boiler is a spreader stoker steam boiler manufactured by Zurn and designed to produce approximately 506,100 pounds per hour of steam at 1500 pounds per square inch, gage (psig) and 975 degrees Fahrenheit (°F). The primary fuel is biomass at a heat input rate of 760 MMBtu/hr, which includes bagasse from the adjacent sugar mill and clean wood material delivered to the plant by area subcontractors. Auxiliary fuels include natural gas at a heat input rate of 400 MMBtu/hr and distillate oil at a heat input rate of 490 MMBtu/hr. Pollution control equipment includes low-NO_X burners for gas firing, a selective non-catalytic reduction system to reduce nitrogen oxides emissions, and mechanical dust collectors and an electrostatic precipitator to reduce particulate matter emissions. Good operating practices and the efficient combustion of clean, low-sulfur fuels minimizes emissions of CO, SAM, SO_2, and VOC. Exhaust gases exit a stack that is 10 feet in diameter and at least 199 feet tall with a volumetric flow rate of approximately 319,000 actual cubic feet per minute (acfm) at 352° F.

The following describes the primary applicable requirements for the cogeneration boilers.

Prevention of Significant Deterioration (PSD) of Air Quality, Rule 212.400, F.A.C.: Permit No. PSD-FL-196 (as modified) for which the cogeneration boilers were subject to BACT determinations CO, Fl, NO_X, Pb, PM/PM_{10}, SAM, SO_2, and VOC.

Acid Rain: The cogeneration plant is currently classified as a "Qualifying Cogeneration Facility" under 40 CFR Part 72 and is exempt from Acid Rain permitting. However, to maintain the exemption as a qualifying cogeneration facility, total electrical generation may not exceed 219,000 megawatt-electrical-hours (MWe-h) per unit per year based on a 3-year average. It is possible that the cogeneration boilers will later become subject to the Title IV Acid Rain provisions.

National Emission Standards for Hazardous Air Pollutants (NESHAP) - 40 CFR 63, Subpart DDDDD, Industrial, Commercial, and Institutional Boilers and Process Heaters. [Rule 62-213.440, F.A.C.]

- *NSPS Provisions in 40 CFR 60, incorporated by reference in Rule 62-204.800, F.A.C., including*: Subpart A (General Provisions); Subpart Da (Electric Utility Steam Generating Units for which Construction is Commenced after September 18, 1978) and NSPS Subpart Ea (Applicability for Standards of Performance for Municipal Waste Combustors for which Construction is Commenced after December 20, 1989 and on or Before September 20, 1994).

Specific State Regulations: Rule 62-296.405(2), F.A.C. applies to fossil fuel-fired steam generators with more than 250 MMBtu per hour of heat input. Rule 62-296.410, F.A.C. applies to carbonaceous fuel burning equipment. Rule 62-296.570, F.A.C. applies RACT to major VOC- and NOx-emitting facilities.

Compliance Assurance Monitoring (CAM): Rule 62-213.440(1)(b), F.A.C. applies to the particulate matter standards for the cogeneration boilers.

EQUIPMENT SPECIFICATIONS

1. Production Capacity: The cogeneration plant includes a nominal 75 MW steam turbine electrical generator and a nominal 65 MW steam turbine electrical generator. *{Permitting Note: The cogeneration plant has a nominal generating capacity of 140 MW. Therefore, the facility is subject to the power plant site certification requirements of the Department. Subsequent modifications must be made in accordance with appropriate site certification requirements.}* [Permit No. PSD-FL-196P; Rule 62-4.070(3), F.A.C.]

2. Boiler Design: The cogeneration boilers are spreader stoker units designed to fire biomass as the primary fuel with pipeline natural gas and distillate oil as auxiliary fuels. Natural gas and distillate oil are fired at startup

and shutdown, when necessary to ensure good combustion, to supplement biomass fuel, and for periods when the biomass fuel supply is interrupted. No other fuels are authorized. *{Permitting Note: Each boiler was originally designed to fire low sulfur coal as an emergency backup fuel, but no transfer, crushing, or storage systems were ever installed. The permittee shall obtain an air construction permit before firing any other fuel (including coal) not specifically authorized by this permit.}*

[Permit No. PSD-FL-196P; Rule 62-4.070(3), F.A.C.]

3. Stack: Each cogeneration boiler shall have an individual stack that is at least 199 feet tall. The permanent stack sampling facilities for each stack shall comply with Rule 62-297.310, F.A.C. [Permit No. PSD-FL-196P; Rules 62-4.070(3) and 62-297.310, F.A.C.]

4. Process Monitors: Each cogeneration boiler shall be equipped with instruments to measure the fuel feed rate, heat input, steam production, steam pressure, and steam temperature. [Permit No. PSD-FL-196P; Rule 62-4.070(3), F.A.C.]

5. Control Equipment: Each cogeneration boiler shall be equipped with:

   a. Low-NO_X natural gas burners rated for no more than 0.15 lb of NO_X per MMBtu of heat input. Four burners are installed with one in each corner of the boiler. The maximum heat input rate from all four burners is 400 MMBtu per hour.

   b. Mechanical dust collectors consisting of four, large diameter, multi-tube modules with airfoil vanes or equivalent equipment. The mechanical dust collectors shall be installed and maintained as pre-control devices prior to each electrostatic precipitator and designed for a removal efficiency of at least 85 percent of the particulate matter greater than 10 microns in size (assuming a specific gravity of 2.00).

   c. An electrostatic precipitator designed for at least 98 percent removal of particulate matter.

   d. A selective non-catalytic reduction system designed for at least 40 percent removal of NO_X.

   The permittee shall abide by the O&M plans for the cogeneration plant control equipment specified in Appendix OM of this permit. [Permit Nos. PSD-FL-196M and PSD-FL-196Q; Rules 62-4.070(3) and 62-212.400 (BACT), F.A.C.]

6. Good Combustion Practices: The boiler operators shall follow the procedures for "good combustion practices" identified in Appendix GC of this permit. [Permit No. PSD-FL-196P]

7. Continuous Monitors: For each cogeneration boiler, the permittee shall install, calibrate, maintain, and operate a COMS to continuously measure and record opacity and CEMS to continuously measure and record emissions of CO, NO_X, CO_2, and SO_2 in a manner sufficient to demonstrate compliance with the standards of this permit. The opacity monitor shall be placed in the ductwork between the electrostatic precipitator and the stack or in the stack. [Permit No. PSD-FL-196P; NSPS Subpart Da; Rules62-4.070(3) and 62-212.400 (BACT), F.A.C.]

8. Control Equipment O&M Plan: The permittee shall abide by the operation and maintenance (O&M) plans for the cogeneration plant control equipment specified in Appendix OM of this permit. [Permit No. PSD-FL-196P; Rules 62-4.070(3) and 62-212.400 (BACT), F.A.C.]

CAPACITY, FUELS AND PERFORMANCE RESTRICTIONS

9. Permitted Capacity: The maximum heat input rate to each cogeneration boiler shall not exceed 760 MMBtu/hr when burning 100 percent biomass, 400 MMBtu/hr when burning 100 percent natural gas, and 490 MMBtu/hr when burning 100 percent distillate oil. The steam production rate of each boiler shall not exceed an average of 506,100 pounds per hour at 1,500 psig and 975°F. The operating hours of the cogeneration boilers are not restricted (8760 hours per year). [Permit No. PSD-FL-196P; Rules 62-4.070(3), Rule 62-210.200 (PTE), and 62-212.400 (BACT), F.A.C.]

10. Primary Fuel: The primary fuel for the plant shall be biomass, which shall consist of bagasse and authorized

wood material. Bagasse is the fibrous vegetative residue remaining after the sugarcane milling process. Authorized wood material is clean construction and demolition wood debris, yard trash, land clearing debris, and other clean cellulose and vegetative matter. Each cogeneration boiler shall combust no more than 30 percent by weight yard waste (yard trash) on a calendar quarter basis that is defined as a municipal solid waste in 40 CFR 60.51a. The biomass fuel used at the cogeneration plant shall not contain hazardous substances, hazardous wastes, biomedical wastes, or garbage. The fuel used at the cogeneration plant shall not contain special wastes, except wood, lumber, trees, tree remains, bagasse, cane tops and leaves, and other clean vegetative and cellulose matter. The permittee shall perform a daily visual inspection of any wood material or similar vegetative matter that has been delivered to the plant for use as fuel. Any shipment observed to contain prohibited materials shall not be used as fuel, unless such materials can be readily segregated and removed from the wood material and vegetative matter. The permittee shall abide by the Ash and Fuel Management Plans specified in Appendices AM and FM of this permit. [Permit No. PSD-FL-196P; Rules 62-4.070(3), Rule 62-210.200 (PTE), and 62-212.400 (BACT), F.A.C.]

11. Auxiliary Fuel: The cogeneration boilers shall fire only distillate oil and natural gas as auxiliary fuels. The maximum sulfur content of distillate oil is limited to 0.05 percent by weight. In addition to the primary authorized fuels, each boiler may startup on natural gas or distillate oil. The firing of all fossil fuels (distillate oil and natural gas) shall be less than 25 percent of the total heat input to each cogeneration boiler during any calendar quarter. The permittee shall abide by the Ash and Fuel Management Plans specified in Appendices AM and FM of this permit. [Permit No. PSD-FL-196P; Rules 62-4.070(3), Rule 62-210.200 (PTE), and 62-212.400 (BACT), F.A.C.]

12. Fuel Management Plan: The permittee shall abide by the Fuel Management Plan specified in Appendix FM. [Permit No. PSD-FL-196P]

EMISSION LIMITING STANDARDS

13. Emissions Standards: Unless otherwise specified, the averaging period for an emissions standard is based on the averaging period specified in the applicable test method. Based on the maximum permitted heat input to each cogeneration boiler, stack emissions shall not exceed the standards specified in the following table:

Pollutant	Averaging Period	Emissions Standards per Boiler [i]	
		lb/MMBtu	lb/hr
Carbon Monoxide [a]	30-day rolling CEMS avg.	0.50	380.0
	12-month rolling CEMS avg.	0.35	
Nitrogen Oxides [b]	30-day rolling CEMS avg.	0.15	114.0
Sulfur Dioxide [c]	24-hour rolling CEMS avg.	0.20	152.0
	30-day rolling CEMS avg.	0.10	
	12-month rolling CEMS avg.	0.06	
Stack Opacity [d]	6-minute block average by COMS and EPA Method 9	≤ 20% opacity, except for one 6-minute block per hour ≤ 27% opacity	
Particulate Matter [e]	3-run test avg.	0.026	19.8
Volatile Organic Compounds [f]	3-run test avg.	0.05	38.0
Mercury [g]	3-run test avg.	5.4×10^{-06}	NA

A. Cogeneration Boilers

Pollutant	Averaging Period	Emissions Standards per Boiler [i]	
		lb/MMBtu	lb/hr
Lead and Fluorides[h]	The BACT determination for lead and fluoride emissions is the use of fuels containing low levels of these compounds (bagasse, wood, distillate oil, and natural gas) and prospective removal with the fly ash by the mechanical dust collectors and electrostatic precipitators.		

a. Compliance shall be determined by data collected from the required CO CEMS in terms of "lb/MMBtu of heat input". The 30-day rolling average shall be determined by calculating the arithmetic average of all hourly emission rates for 30 successive boiler operating days and be consistent with the NO_X monitoring requirements below. Compliance with the 12-month standard shall be based on the rolling average for each consecutive 12-month period.

b. Compliance shall be determined by data collected from the required NO_X CEMS in terms of "lb/MMBtu of heat input". The 30-day rolling average shall be determined by calculating the arithmetic average of all hourly emission rates for 30 successive boiler operating days and the requirements of 40 CFR 60.13, 60.44a, 60.46a, 60.47a, 60.48a, and 60.49a. A boiler-operating day is any day in which any authorized fuel is fired. Each cogeneration boiler is also subject to Rule 62-296.405(2)(d), F.A.C. and 40 CFR 60.44a, which limits NO_X emissions to 0.20 lb/MMBtu for gaseous fuels, 0.30 lb/MMBtu for liquid fuels, and 0.60 lb/MMBtu for solid fuels. Compliance with the BACT standard ensures compliance with these standards.

c. Compliance with the SO_2 standards shall be determined by data collected from the required SO_2 CEMS in terms of "lb/MMBtu of heat input". The 24-hour average shall be determined by calculating the arithmetic average of all valid hourly emission rates for 24 successive boiler-operating hours. The 30-day rolling average shall be determined by calculating the arithmetic average of all hourly emission rates for 30 successive boiler-operating days and the requirements of 40 CFR 60.13, 60.43a, 60.46a, 60.47a, 60.48a, and 60.49a. Compliance with the 12-month standard shall be based on the rolling average for each consecutive 12-month period. Valid SO_2 hourly averages shall not be excluded from any compliance average. Each cogeneration boiler is also subject to Rule 62-296.405(2)(c), F.A.C. and 40 CFR 60.43a(d)(2), which limits SO_2 emissions to 1.20 lb/MMBtu for solid fuels and 0.20 lb/MMBtu for liquid or gaseous fuels. Compliance with the BACT standard ensures compliance with these standards. *{Permitting Note: Potential emissions of sulfuric acid mist are minimized by the effective control of SO_2 emissions with the firing of low sulfur fuels. For reporting purposes, sulfuric acid mist emissions shall be estimated as 6 percent of the total measured SO_2 emissions.}*

d. Continuous compliance with the opacity standard shall be determined by data collected from the required COMS in terms of "percent opacity" based on 6-minute block averages. Alternatively, compliance may also be determined by conducting EPA Method 9 observations. Each cogeneration boiler is also subject to Rule 62-296.405(2)(a), F.A.C. and 40 CFR 60.42a, which limits visible emissions to no more than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. Compliance with the BACT standard ensures compliance with these standards.

e. Compliance with the particulate matter standards shall be determined by the average of three test runs conducted in accordance with EPA Method 5. For purposes of reporting PM_{10} emissions, it shall be assumed that all particulate matter emitted is PM_{10}. Each cogeneration boiler is also subject to Rule 62-296.405(2)(b), F.A.C. and 40 CFR 60.42a, which limits particulate matter emissions to 0.03 lb/MMBtu. Compliance with the BACT standard ensures compliance with these standards.

f. Compliance with the VOC standards shall be determined by the average of three test runs conducted in accordance with EPA Method 25A based on propane. In addition, the permittee may choose to conduct EPA Method 18 concurrently with EPA Method 25A to deduct emissions of methane and ethane from the

measured VOC emissions. Otherwise, all emissions measured by EPA Method 25A shall be considered "volatile organic compounds".

g. Compliance with the mercury standards shall be determined by the average of three test runs conducted in accordance with EPA Method 101A or 29. Emissions in excess of this standard shall be a violation of the permit. In addition, if two or more cogeneration boilers exceed the annual mercury emission limit, the permittee shall install and operate a carbon injection system (or equivalent) for all three units within 30 days of the stack test report due date. The minimum carbon injection rate shall be at least 7 pounds per hour. Within 60 days of the stack test report due date, the permittee shall submit to the permitting and compliance authorities a mercury testing protocol designed to establish an effective carbon injection rate to control mercury emissions. Within 60 days of receiving approval for the mercury testing protocol by the permitting authority, the permittee shall begin the approved testing program. At a minimum, the permittee shall submit a full engineering report summarizing the uncontrolled emissions, controlled emissions, fuels, operating capacities, and recommending a minimum activated carbon injection rate to control mercury emissions.

h. The particulate matter standard is also a surrogate standard for lead emissions. *{Permitting Note: For reporting purposes, average lead emissions are expected to be 2.6 x 10^{-05} lb/MMBtu and average fluoride emissions are expected to be 1.9 x 10^{-04} lb/MMBtu when firing bagasse/wood.}*

i. Each boiler shall comply with the standards when firing any combination of authorized fuels. The "lb/hour" rates are based on the highest emission standard shown for that pollutant. Required compliance tests shall be performed in accordance with the requirements of Condition No. 19 and Appendix CT.

[Permit Nos. PSD-FL-196P and PSD-FL-196Q; Rules 62-4.070(3), Rule 62-210.200 (PTE), and 62-212.400 (BACT), F.A.C.]

14. Rule 62-296.405(2), F.A.C.: The cogeneration boilers are considered "Fossil Fuel Steam Generators with More Than 250 Million Btu per Hour Heat Input" and are subject to the following requirements for new units.

(a) Visible Emissions – (See subsection 62-204.800(7), F.A.C., and 40 C.F.R. 60.42 and 60.42a).

(b) Particulate Matter – (See subsection 62-204.800(7), F.A.C., and 40 C.F.R. 60.42 and 60.42a).

(c) Sulfur Dioxide – (See subsection 62-204.800(7), F.A.C., and 40 C.F.R. 60.43 and 60.43a).

(d) Nitrogen Oxides – (See subsection 62-204.800(7), F.A.C., and 40 C.F.R. 60.44 and 60.44a).

The units were constructed in accordance with NSPS Subpart Da for Electric Utility Steam Generating Units. These provisions are included in Appendix 60Da of Section 4 of this permit.

15. Rule 62-296.410, F.A.C.: The cogeneration boilers are considered "Carbonaceous Fuel Burning Equipment" and are subject to the following requirements for new units with a maximum heat input rate equal to or greater than 30 MMBtu per hour.

a. Visible Emissions – 30 percent opacity except that a density of 40 percent opacity is permissible for not more than two minutes in any one hour.
b. Particulate Matter – 0.2 lb/MMBtu of heat input of carbonaceous fuel plus 0.1 lb/MMBtu of heat input of fossil fuel.

16. Rule 62-296.570, F.A.C.: The cogeneration boilers operate in Palm Beach County and are subject to the Reasonably Available Control Technology (RACT) Requirements for Major VOC- and NO_X-Emitting Facilities. Emissions of VOC and NO_X from carbonaceous fuel burning facilities, other than waste-to-energy facilities, shall not exceed 5.0 lb/MMBtu and 0.9 lb/MMBtu, respectively.

STARTUP, SHUTDOWN, AND MALFUNCTION

17. Startup, Shutdown, and Malfunction Requirements: The permittee shall comply with the following requirements regarding periods of startup, shutdown, and malfunction for each cogeneration boiler.

a. *Definitions*

1) Excess emissions are emissions of pollutants in excess of those allowed by any applicable air pollution rule of the Department, or by a permit issued pursuant to any such rule or Chapter 62-4, F.A.C. The term applies only to conditions that occur during startup, shutdown, or malfunction.

2) Startup is the commencement of operation of a boiler which has shut down or ceased operation for a period of time sufficient to cause temperature, pressure, chemical or pollution control device imbalances, which may result in excess emissions. Periods of startup for each boiler shall end once steam generation reaches 150,000 pounds per hour. A cold startup is a startup after the boiler has been shutdown for 24 hours or more. A warm startup is a startup after the boiler has been shutdown for less than 24 hours.

3) Shutdown is the cessation of the operation of a boiler for any purpose after steam generation drops below 150,000 pounds per hour.

4) Malfunction is 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.

b. *Prohibition*: Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. Emissions data recorded during such preventable periods shall be included in the compliance averages. [Rule 62-210.700(4), F.A.C.]

c. *Monitoring Data Exclusion*: Each continuous monitoring system shall operate and record data during all periods of operation (including startup, shutdown, and malfunction) except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments. Provided the operators implement best operational practices to minimize the amount and duration of emissions, the following conditions apply. Pursuant to Rules 62-210.700(1) and (5), F.A.C., these conditions consider the variations in operation of the cogeneration boilers.

1) Natural gas or distillate oil shall be fired during startup prior to energizing the electrostatic precipitator (ESP). The ESP shall be placed on line at the earliest possible time during the startup period, consistent with the manufacturer's recommendations, operating experience and safety practices. Once the ESP is placed on line, the boiler shall comply with the specified opacity standard. The ESP shall be on line and functioning properly before firing any biomass. The opacity limit does not apply when the ESP is off line due to warm startup, cold startup, or shutdown. No more than twenty 6-minute block averages of opacity monitoring data shall be excluded in a 24-hour period due to documented malfunctions.

2) Hourly CO and NO_X emission rate values collected during startup, shutdown, or documented malfunction may be excluded from the 30-day and/or 12-month compliance averages. No more than six hourly emission rate values (CO or NO_X) shall be excluded in a 24-hour period due to a cold startup. No more than three hourly emission rate values (CO or NO_X) shall be excluded in a 24-hour period due to a warm startup. No more than two hourly emission rate values (CO or NO_X) shall be excluded in a 24-hour period due to a malfunction. No more than two hourly emission rate values (CO or NO_X) shall be excluded in a 24-hour period due to a shutdown. For each cogeneration boiler, no more than 183 hourly emission rate values shall be excluded during any calendar quarter.

3) All valid hourly SO_2 emission rate values shall be included in all of the compliance averages. [40 CFR 60.46a and 60.49a]

4) To "document" a malfunction, the operator shall notify the Compliance Authority within one working day of the malfunction by phone, facsimile, or electronic mail. The notification shall include the date and time of malfunction, a description of the malfunction and probable cause, steps to taken to minimize emissions, and actions taken to correct the problem. [Rules 62-210.700(6) and 62-4.130, F.A.C.]

d. *Reporting*: In conjunction with the annual operating report, the permittee shall identify the number of startups, the number of shutdowns, and the number of malfunctions that occurred during the year for each boiler. For each boiler's CO and NO_X monitors, the report shall identify the annual hours of emission data excluded from the compliance determination due to each type of incident (startups, shutdowns and documented malfunctions).

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

[Permit No. PSD-FL-196P; Rules 62-4.070(3), 62-210.200, and 62-210.700, F.A.C.; 40 CFR 60.8; and 40 CFR 60.46a]

18. Startup/Shutdown Plan: The following procedures will be used to minimize the magnitude and duration of emissions during startup and shutdown.

a. *Startup Procedures*.

1) The ESP air flushing system and heater are placed in service at least eight hours prior to boiler light off.

2) The boiler is started up on natural gas or distillate oil prior to energizing the ESP.

3) The ESP shall be placed on line at the earliest possible time during the startup period, consistent with the manufacturer's recommendations, operating experience and safety practices. Once the ESP is placed on line, the boiler shall comply with the specified opacity standard. The ESP shall be on line and functioning properly before firing any biomass.

4) Manual controls are used to ensure optimum air-to-fuel ratios during the startup period.

5) The startup fuel is reduced gradually while the biomass firing rate is increased.

b. *Shutdown Procedures*.

1) Manual controls are employed to ensure optimum air-to-fuel ratios during the shutdown period.

2) For shutdown, the ESP is not deactivated until the fuel feed to the furnace is stopped.

[Application No. 0990005-017-AV]

TESTING

19. Stack Testing Requirements

a. *Initial Tests*: Initial tests were initially required for emissions of mercury, particulate matter, and volatile organic compounds. The Department may require these initial tests to be repeated if major physical or operational changes are made that affect main components such as the boiler, fuels, and/or pollution control equipment.

b. *Annual Tests*: At *least* once during each federal fiscal year, the permittee shall conduct compliance tests for emissions of mercury, particulate matter, and volatile organic compounds.

c. *Renewal Tests*: Within the 12-month period prior to submitting an application to renew the Title V air operation permit, the permittee shall conduct compliance tests for emissions of mercury, particulate matter, and volatile organic compounds.

d. *Test Procedures*: The emission compliance tests shall be conducted in accordance with the provisions of Chapter 62-297, F.A.C., 40 CFR 60.46a (NSPS Subpart Da), and as summarized in Appendix CT of this permit. The permittee shall notify the Compliance Authority in writing at least 30 days prior to any initial NSPS performance tests and at least 15 days prior to any other required tests. The biomass fuel feed for each test run shall consist of at least 45 percent wood materials by weight. Testing of emissions shall be conducted with each cogeneration boiler operating at permitted capacity, which is defined as a heat input rate between 684 and 760 MMBtu/hour and firing 100 percent biomass. If it is impracticable to test at permitted capacity, a cogeneration boiler may be tested at less than the maximum permitted capacity; in this case, subsequent operation is limited to 110 percent of the test rate until a new test is conducted. Within three days of completing a test below permitted capacity, the permittee shall provide written notification of the restricted operational capacity to the Compliance Authority. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(7)(a)9, F.A.C. and 40 CFR 60.7, 60.8]

e. *Test Methods*: As necessary, compliance with the emission limits specified in this permit shall be demonstrated using the following EPA Methods (or most recent versions), as contained in 40 CFR Parts 60 and 61.

EPA Method	Description
1	Selection of sample site and velocity traverses
2	Stack gas flow rate when converting concentrations to or from mass emission limits
3A	Gas analysis when needed for calculation of molecular weight or percent O_2
4	Moisture content when converting stack velocity to dry volumetric flow rate for use in converting concentrations in dry gases to or from mass emission limits
5	Particulate matter emissions
6 or 6C	Sulfur dioxide emissions
7 or 7E	Nitrogen oxide emissions
9	Visible emissions determination of opacity *{Permitting Note: Although each unit is required to monitor opacity with a COMS, visible observations may also be used to demonstrate compliance.}*
10	Carbon monoxide emissions
12	Inorganic lead emissions
19	Calculation of sulfur dioxide and nitrogen oxide emission rates
25A	Volatile organic compounds emissions *{Permitting Note: EPA Method 18 may be conducted concurrently with EPA Method 25A to deduct emissions of methane and ethane from the measured VOC emissions. Otherwise, all emissions measured by EPA Method 25A shall be considered "volatile organic compounds".*
29	Multiple metals emissions
30B	Determination of Total Vapor Phase Mercury
101A	Particulate and gaseous mercury emissions

No other methods may be used to demonstrate compliance unless prior written approval is received

from the Department. Other applicable testing requirements are included in Appendix CT of this permit. The permittee shall use CEMS and COMS data to demonstrate compliance with the emissions standards for CO, NO_X, SO_2 and opacity. [Permit No. PSD-FL-196P; Rules 62-204.800 and 62-297.100, F.A.C.; and 40 CFR 60, Appendix A]

MONITORING

20. CEMS and COMS: For each cogeneration boiler, the permittee shall install, calibrate, maintain, and operate a COMS to continuously measure and record opacity and CEMS to continuously measure and record emissions of CO, NO_X, CO_2 (for O_2), and SO_2 in a manner sufficient to demonstrate compliance with the standards of this permit.

    a. *Performance Specifications.* Each monitor shall be located in the ductwork between the electrostatic precipitator and the stack (or in the stack) to obtain emissions measurements representative of actual stack emissions. Each CEMS and COMS shall comply with the corresponding performance specifications that identify location, installation, design, performance, and reporting requirements.

        1) Opacity shall comply with Performance Specification 1 in Appendix B of 40 CFR 60.

        2) The NO_X and SO_2 CEMS shall comply with Performance Specification 2 in Appendix B of 40 CFR 60. The SO_2 reference method for the annual RATA shall be EPA Method 6 (or 6C) in Appendix A of 40 CFR 60. The NO_X reference method for the annual RATA shall be EPA Method 7 (or 7E) in Appendix A of 40 CFR 60.

        3) The CO_2 CEMS shall comply with Performance Specification 3 in Appendix B of 40 CFR 60. The CO_2 reference method for the annual RATA shall be EPA Method 3A Appendix A of 40 CFR 60.

        4) The CO CEMS shall meet Performance Specification 4 or 4A in Appendix B of 40 CFR 60. The CO reference method for the annual RATA shall be EPA Method 10 in Appendix A of 40 CFR 60.

    b. *Data Collection.* Each CEMS and COMS shall record emissions data at all times including episodes of startup, shutdown, and malfunction. Emissions data recorded during periods of startup, shutdown, or malfunction may only be excluded from the compliance averages in accordance with the requirements specified in Condition 17 of this subsection. To the extent practicable, the permittee shall minimize the duration of data excluded for startup, shutdown and malfunctions.

    Each CEMS shall be designed and operated to sample, analyze, and record emissions data evenly spaced over a 1-hour period. Each 1-hour average shall be computed using at least one data point in each fifteen minute quadrant of the 1-hour block during which the unit combusted fuel. Notwithstanding this requirement, each 1-hour average shall be computed from at least two data points separated by a minimum of 15 minutes. All valid measurements or data points collected during a 1-hour block shall be used to calculate the 1-hour emission averages. CO, NOx, and SO_2 CEMS shall express the 1-hour emission averages in terms of "lb/MMBtu of heat input". The CO_2 CEMS shall express the 1-hour emission average (CO_2 and O_2) in terms of "percent by volume". A 30-day rolling emission average shall be the average of all valid 1-hour emission averages collected during the 30-day period. A 12-month rolling emission average shall be the average of all valid 1-hour emission averages collected during the 12-month period. NO_X and SO_2 CEMS shall comply with NSPS Subpart Da in 40 CFR 60.

    Each COMS shall be designed and operated to complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period. Opacity shall be recorded in 6-minute block averages.

    c. *Quality Assurance Procedures*. Each CEMS shall comply with the applicable quality assurance procedures specified in Appendix F of 40 CFR 60. These procedures include methods such as calibration, calibration drift, data recording, accuracy assessment, calculations, audit procedures, preventive maintenance, corrective actions, and reporting.

d. *Monitor Availability*. Monitor availability shall not be less than 95 percent in any calendar quarter. In the event 95 percent availability is not achieved, the permittee shall provide the Department with a report identifying the problems in achieving 95 percent availability and a plan of corrective actions that will be taken to achieve 95 percent 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.

e. *Other Applicable Requirements*: Each CEMS shall comply with the following applicable requirements Rules 62-204.800 (Federal Rule Adopted by Reference) and 62-297.520, F.A.C. (Continuous Monitor Performance Specifications); 40 CFR 60.13 (Subpart A - Monitoring Requirements); 40 CFR 60.47a (Subpart Da - Emissions Monitoring); 40 CFR 60.48a (Subpart Da - Compliance Determination Procedures and Methods); 60.49a (Subpart Da - Reporting Requirements).

[Permit No. PSD-FL-196P; Rules 62-4.070 and 62-212.400 (BACT), F.A.C.]

21. Process and Control Parameters: The permittee shall install, calibrate, maintain, and operate continuous monitoring systems to measure and record the following process and control equipment parameters:

a. *Power Output.* The net power generation (MW) delivered for sale to the electrical power grid shall be continuously monitored and recorded in 1-hour block averages.

b. *Fuel Feed Rate.* Fuel flow meters equipped with totalizers are required to monitor and record the fuel feed rates for distillate oil (gallons) and natural gas (million cubic feet). Biomass feed rates (tons of bagasse and tons of wood) shall be calculated and recorded based on actual fuel flows. The permittee shall continuously monitor the fuel throughput rates based on the fuel flow monitors and calculate the actual heat input rates (24 hour average) for each fuel during each day of operation.

c. *Steam Parameters.* Each cogeneration boiler shall be equipped with monitors to measure and record the steam temperature (° F), steam pressure (psig), and steam production (pounds).

d. *Urea Injection Rate (SNCR System).* The urea injection rate shall be continuously monitored and recorded for each cogeneration boiler. The urea injection rate shall be compared to actual NO_X emissions data recorded by the CEMS. The permittee shall identify minimum urea injection rates for various load conditions that ensure compliance with the NO_X standards. Should the NO_X CEMS be unavailable, the urea injection rate shall be maintained at an appropriate minimum level.

~~e.~~ *Activated Carbon Injection Rate (Mercury Control System).* If the mercury injection system is installed, the carbon injection rate shall be continuously monitored and recorded. Based on the testing required in this permit, the permittee shall identify and maintain minimum carbon injection rates to ensure effective control of mercury emissions.

The permittee shall maintain written procedures for inspecting, calibrating, and maintaining the process and control monitoring equipment. [Permit No. PSD-FL-196P and PSD-FL-196Q; Rules 62-4.070 and 62-212.400 (BACT), F.A.C.]

22. Power Generation: In conjunction with the Annual Operating Report, the permittee shall report the annual power generation (MWe-hours per year) for the previous calendar year and the 3-year average for the previous three calendar years. The report shall identify whether the cogeneration plant remains a "Qualifying Cogeneration Facility" as specified in 40 CFR Part 72 and is exempt from Acid Rain permitting. [40 CFR 72; Rule 62-4.070(3), F.A.C.]

RECORD KEEPING AND REPORTING

23. Fuel Records: The permittee shall maintain a daily log of the amounts and types of fuels used. The amount, heating value, and sulfur content of each fuel oil delivery shall be kept in a log for at least five years. For each calendar month, the actual monthly SO_2 emissions and the 12-month rolling total SO_2 emissions shall be determined and kept in a log. In addition, the permittee shall abide by the Ash and Fuel Management Plans specified in Appendices AM and FM. [Permit No. PSD-FL-196P; Rules 62-4.070 and 62-212.400 (BACT), F.A.C.]

24. Quarterly Reports: For each cogeneration boiler, the permittee shall submit a quarterly report for each required continuous emissions and opacity monitoring system in accordance with the requirements specified in the "Quarterly Report" included in Appendix QR of this permit. In addition to the information identified in this report, the permittee shall also submit a quarterly summary of the fuel analyses, fuel usage, and equipment malfunctions. For each malfunction, the report shall identify the cause (if known), and corrective actions taken. The authorized representative shall certify that the information provided in each quarterly report is true, accurate, and complete to the best of his/her knowledge. The quarterly reports and summaries shall be submitted to the Compliance Authority no later than 30 days following each calendar quarter. [Permit No. PSD-FL-196P; Rules 62-4.070 and 62-212.400 (BACT), F.A.C.]

OTHER APPLICABLE REQUIREMENTS

25. NSPS Provisions: In accordance with Rule 62-204.800(8), F.A.C., the cogeneration boilers are subject to the applicable requirements of 40 CFR 60, including: Subpart A (General Provisions), Subpart Da (Standards of Performance for Electric Utility Steam Generating Units), Subpart DDDD, Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units, and NSPS Subpart Ea (Applicability for Standards of Performance for Municipal Waste Combustors for which Construction is Commenced after December 20, 1989 and on or Before September 20, 1994), and Subpart Ea (Applicability for Municipal Waste Combustors). The applicable provisions are specified in Appendices 60A, 60Da, 60DDDD, and 60Ea in Section 4 of this permit.

26. CAM Plan: Pursuant to Rule 62-213.440(1)(b)1.a., F.A.C. and 40 CFR 64, the cogeneration boilers shall comply with the CAM plan specified in Appendix CM in Section 4 of this permit.

27. Subpart DDDDD Applicability: The cogeneration boilers are subject to the applicable provisions for existing units of NESHAP Subpart DDDDD in 40 CFR 63 for Industrial, Commercial, and Institutional Boilers and Process Heaters for major sources of HAP. The applicable requirements are contained in Appendix 63DDDDD in Section 4 of this permit. [NESHAP 40 CFR 63, Subpart DDDDD (dated January 31, 2013) and permit No. PSD-FL-196Q]

B. Material Handling and Storage Operations - Cogeneration Plant

This subsection addresses the following emissions units.

EU No.	Emissions Unit Description
004	**Cogeneration Plant - Material Handling and Storage** includes unloading operations, stockpiles, transfer operations, conveyors, screens, crushers, hoppers and silos.

The materials handling and storage operations include authorization for truck and railcar unloading operations, storage piles, transfer operations, conveyors, screens, crushers, hoppers and silos. The materials authorized to be handled and stored include bagasse, authorized wood, fly ash, bottom ash, and a mercury removal agent (e.g., activated carbon). Unconfined particulate matter emissions from the operations shall be controlled by the use of the BACT controls and reasonable precautions specified in the following conditions.

EQUIPMENT SPECIFICATIONS

1. Equipment: The authorized methods of operation include the following:

   a. *Biomass Handling and Storage Operations*: The permittee is authorized to handle and store biomass fuels. The following activities are associated with these operations: truck unloading (dumps #1 and #2, unloading bay); chain conveyors (#1 and #2); unloading conveyor; disk screen; hogger; storage conveyor; radial stacker; biomass storage pile (active and inactive); underpile chain reclaimers (#1 and #2); boiler feed conveyor; boiler feed conveyor hopper; sugar mill bagasse feed conveyor; sugar mill bagasse conveyor hopper; chain distribution conveyors (#1 and #2); boiler meter bins; recycle conveyor; and the fixed recycle stacker.

   b. *Fly Ash Handling and Storage Operations*: The permittee is authorized to handle and store fly ash. The following activities are associated with these operations: boiler bank hoppers; air preheater hoppers; electrostatic precipitator hoppers; enclosed drag chain conveyors; fly ash storage silo (1,500 tons); fly ash pug-mill conditioners; fly ash truck load-out; mechanical dust collector hoppers; mixed (bottom and fly) ash conveyor belt; and mixed ash bunker. *{Permitting Note: The fly ash silo, fly ash pug mill conditioners and fly ash truck load-out have not operated for several years and the plant currently sends fly ash to the mixed ash conveyor belt and then to the mixed ash bunker.}*

   c. *Activated Carbon Handling and Storage Operations*: In the event that an Activated Carbon Injection system (ACI) is required to meet the permitted mercury emission limit, the mercury control system reactant storage silo(s) shall be maintained at a negative pressure while operating with the exhaust vented to a filter control system. Visible emissions from any storage silo shall not exceed 5 percent opacity based on a 6-minute block average. A visible emissions test (EPA Method 9) shall be performed at least annually for each silo that is loaded with carbon during the federal fiscal year.

      {Permitting Notes: If two or more cogeneration boilers exceed the annual mercury emission limit, the carbon injection system will be installed for all three boilers within 30 days of the stack test report due date.}

   d. *Bottom Ash Handling and Storage Operations*: The permittee is authorized to handle and store bottom ash. The following activities are associated with these operations: submerged and enclosed drag chain conveyors; transfer conveyor; collection conveyor; three-walled storage bunker; and bottom ash truck load-out.

   [Permit No. 0990332-020-AC (PSD-FL-196Q) Condition 17.(c.); Rules 62-4.160(2), 62-210.200 (Definitions), and 62-210.300, F.A.C.]

2. Baghouses: The fly ash storage silo shall be controlled by a baghouse and the three activated carbon silos shall be controlled by a single, common baghouse. Each baghouse shall be designed, operated and maintained to achieve an outlet dust loading of no greater than 0.01 grains per actual cubic feet of exhaust. New and

replacement bags shall meet this equipment specification based on vendor design information. No particulate matter emissions tests are required. When the mercury control system is operating, the activated carbon storage silos shall be maintained at a negative pressure with the exhaust vented through the baghouse. *{Permitting Note: The fly ash silo and fly ash silo baghouse have not been operated for several years and the plant currently sends fly ash to the mixed ash conveyor belt and then to the mixed ash bunker. In addition, the activate carbon silos have not been used for several years since the mercury limit can be met without the injection of activated carbon.}* [Permit No. PSD-FL-196P; Rules 62-4.070(3) and 62-212.400 (BACT), F.A.C.]

3. Ash and Fuel Management Plans: The permittee shall abide by the Ash and Fuel Management Plans specified in Appendix AM and FM, respectively. [Permit No. PSD-FL-196P]

4. Control Equipment O&M Plan: The permittee shall abide by the operation and maintenance (O&M) plans for the cogeneration plant control equipment specified in Appendix OM of this permit. [Permit No. PSD-FL-196P; Rules 62-4.070(3) and 62-212.400 (BACT), F.A.C.]

PERFORMANCE RESTRICTIONS

5. Hours of Operation: The permittee is authorized to operate the materials handling and storage operations continuously (8760 hours per year). [Rule 62-210.200 (PTE), F.A.C.]

EMISSION LIMITING STANDARDS

6. Baghouse Vents: As determined by EPA Method 9, visible emissions from each baghouse vent shall not exceed 5 percent opacity. [Permit No. PSD-FL-196P; Rules 62-4.070(3) and 62-212.400 (BACT), F.A.C.]

7. Fugitive Dust from Material Handling: The following conditions apply to the biomass and ash handling facilities.

   a. Except for those associated with the stacker/reclaimer, all conveyors and conveyor transfer points shall be enclosed to prevent fugitive particulate matter emissions.

   b. Water sprays, chemical wetting agents, and/or stabilizers shall be applied to storage piles, handling equipment, unenclosed transfer points, etc. during dry periods and as necessary to prevent visible emissions. When adding, moving or removing material from the storage pile, visible emissions shall not exceed 20 percent opacity.

   c. The fly ash handling system including all transfer points and the storage bin shall be enclosed. Bottom ash and fly ash shall be wetted and transferred in enclosed conveyors to the enclosed ash storage building. Alternatively, the ash shall be wetted and discharged to the ash storage silo.

   d. The distance that biomass fuel is dropped during handling shall be minimized.

   e. Windbreaks around the material handling equipment shall be used as necessary.

   f. Maintenance of paved areas as needed.

   [Permit No. PSD-FL-196P; Rules 62-4.070(3), 62-296.320(4)(c), and 62-212.400 (BACT), F.A.C.]

TEST REQUIREMENTS

8. Baghouse Vents: At least once during each federal fiscal year (October 1st through September 30th), the permittee shall test each silo baghouse vent in accordance with EPA Method 9. Due to infrequent use, the baghouse vent for the fly ash storage silo shall be tested during any federal fiscal year in which the fly ash storage silo operates more than 400 hours, and if the activated carbon injection system are installed and operate, the baghouse vent for the activated carbon silos shall be tested during any federal fiscal year in which the activated carbon injection system operates more than 400 hours. The baghouse vent for the activated

carbon silos shall be tested during a delivery of activated carbon. Tests shall be conducted in accordance with the applicable requirements in Appendix CT of this permit. The minimum observation period for an opacity test shall be 30 minutes. [Permit Nos. PSD-FL-196P and PSD-FL-196Q; Rules 62-4.070(3) and 62-212.400 (BACT), F.A.C.]

9. Test Reports: For each visible emissions test conducted, the permittee shall file a test report with the Department as soon as practical, but no later than 45 days after the last sampling run of each test is completed. Each test report shall include the information specified in Rule 62-297.310(8), F.A.C. as summarized in Appendix CT of this permit. [Rules 62-297.310(8), F.A.C.]

D. Sugar Refinery

This subsection addresses the following emissions units.

EU No.	Emissions Unit Description
021	Rotary Dryer, Central Dust Collection System No. 1 with Rotoclone No. 1
022	Central Dust Collection System No. 2 with Rotoclone No. 2 – "B" System
023	Cooler No. 1 with Rotoclone No. 3
024	Cooler No. 2 with Rotoclone No. 4
025	Fluidized Bed Dryer/Cooler with Baghouse
034	Bulk Load-Out Operation w/ Baghouse
035	Transfer Bulk Load-out Station
043	Sugar Refinery Alcohol Usage
054	Wet Roto-clone No. 6 – "A" System (Permit No.0990005-027-AC)
055	Wet Roto-clone No. 7 - "C" System (Permit No. 0990005-027-AC)
059	Dust Collection System (Baghouse) – (Emissions control for Pkg. Lines 16, 17, 18 and 19)

{Permitting Note: The sugar refinery was last modified by Permit No. 0990005-030-AC.} (0990005-031-AC was a short term exemption for a temporary jaw crusher used in demolition of the carpenter shop and three adjacent concrete slabs). Permit No. 0990005-035-AC added a baghouse (EU-034) to the Bulk Load-Out, and Permit No. 09900050-037-AC added a baghouse and Packaging Lines No. 16, 17, 18 and 19 to Warehouse No.3. One of these was the original Packaging Line No. 5 in the Transhipment Facility (which is replaced by a brown Sugar packaging line of same capacity and re-designated as Packaging Line No. 5).

Miscellaneous Process Descriptions

The sugar refinery consists of several miscellaneous emissions units that handle, process, store, and transfer a variety of sugar products. These units and activities can generate emissions of particulate matter, mostly sugar. In 2008, Permit No. 0990005-021-AC authorized the expansion of the mill boiling house by installing new process equipment to produce specialty sugars products. The permit authorized: 1) an increase in the capacity of total refined sugar production; 2) an increase in the capacity of refined sugar production from the Fluidized Bed Dryer/Cooler baghouse system, the Bulk Load-out Station, and the Transfer Bulk Load-out Station; 3) a modification of Central Dust Collection System Nos. 1 and 2; an overall reduction in particulate matter emissions; and 5) alternative methods of operation for the Fluidized Bed Dryer/Cooler and the Rotary Dryer/Cooler systems.

The primary sugar drying system is a Fluidized Bed Dryer/Cooler (EU-025) with a design equipment capacity of approximately 1350 tons per day. Steam is used for the necessary heat and no fuels are fired in the dryer. The exhaust is controlled by a high efficiency baghouse manufactured by BETH GmbH, 23556 LÜB-beck (Type BETHPULS 6.60 x 7.5.10). The baghouse exhausts through a stack 93 feet above grade.

A Rotary Dryer (EU-021) is used for specialty sugars and when the fluidized bed dryer is off line for repairs. Steam is used for the necessary heat and no fuels are fired in the dryer. Dust emissions from the rotary dryer are controlled with the use of a skimmer followed by wet Rotoclone No. 1, (uses 2 gpm water injection), which exhausts 89 feet above grade. Sugar from the rotary dryer is directed to two coolers (EU-023 and EU-024), each with a design capacity of 1350 tons per day. The exhaust from Cooler No. 1 is controlled by Rotoclone No. 3 vented 80 feet above grade. The exhaust from Cooler No. 2 is controlled by Rotoclone No. 4 vented 80 feet above grade. The 3-stage high-production mode (rotary dryer followed by two coolers operating in series) is needed when producing approximately 1000 tons per day of refined white sugar and 600 tons per day of specialty sugars. When operating the rotary system in the low-production mode (< 1000 tons white sugar per day or < 600 tons specialty sugar per day), Cooler No. 1 (EU-023) functions as the dryer followed in series by Cooler No. 2 (EU-

024) and the rotary dryer remains shutdown. The Rotary System may operate simultaneously with the Fluidized Bed Dryer/Cooler.

Dust collection System "A", *Roto-clone No. 6* (EU-054) controls fourteen (14) drop points at the fluidized Bed System and fourteen (14) drop points at the Rotary Dryer System. The drop points include the following:

- Belt Conveyors 11(B) and GG(x2)
- Screw Conveyors Q1, 25, 25A, 28, 19, 46, Q2 and S1
- Bulk Curing Bins 1, 2, 3, or 7
- Bucket Elevators 10, 16, B, GG#5
- Sweco Shaker Screen
- Rotex Screen 9346 (to GG#8)

Dust Collection, System "B", Roto-clone No. 2 (EU-022) which exhausts 86 feet above grade, is used to control dust emissions from several miscellaneous sources. Total drop points controlled are twenty (20) at the Fluidized Bed System, and four (4) at the Rotary Dryer System. The drop points include the following:

- Belt Conveyor 19, 11(T), GG8(x2)
- Screw Conveyors 12(x3), 14, 20, 40, 45 and S2
- Packing Room Bins (5 pound and 100 pound)
- Bulk Curing Bins 4, 5, or 6
- Bucket Elevators 43 and 15
- Production Scale, Silo Scale, HN-1, Rotex

Dust Collection, System "C", *Roto-clone No. 7* (EU-055), controls twelve (12) drop points in the Fluidized Bed System, and one (1) drop point in the Rotary Dryer System. The drop points include the following:

- Belt Conveyors A(x2) and B(x2)
- Screw conveyors 20A, 26, 27, 29, 30, 42, and N
- Reject Chute

The Bulk Load-Out Operation (EU-034) with a design equipment capacity of 600 tons per day is used to load sugar into either trucks or railcars. The operation includes a silo and a three-sided building. Emissions of fugitive particulate matter are controlled by a *baghouse that was authorized to be constructed by Air Construction permit No. 0990005-035-AC.*

The Transfer Bulk Load-Out Station (EU-035) with a design equipment capacity of 1200 tons per day is used to supply sugar to the Transshipment Facility. The operation includes four enclosed conveyors in series feeding refined sugar from the storage silo or bulk curing bins to an enclosed load-out building. Emissions of fugitive particulate matter are controlled by use of the enclosure and high-pressure air curtains.

The expansion project extended by 40 feet the south end of the sugar refinery building (now 40 feet by 120 feet), which houses the following associated process equipment: The following equipment will be housed in the expansion: two melters, two syrup tanks, two grain receiver tanks, two vacuum pans, two magma/cut tanks, two batch centrifuges, two molasses tanks, two screw conveyors, one magma mingler, one run-off tank, a motor control center room, and various pumps and piping systems. The other portion of the existing sugar refinery building houses the following associated process equipment: a 1700-cubic feet vacuum pan, a vacuum pan condenser, two centrifugals, syrup and molasses feed tanks, final liquor syrup storage tanks, one 5000 gallon condensate collection tank, one 1000 gallon centrifugal wash water tank, two 1200 cubic feet seeder cutover tanks, a motor control center room, the motor control center and centrifugal controller room, a refined sugar conveying system, one 2000 cubic feet receiver and various pumps.

Two types of alcohol, isopropyl alcohol and organic ethanol, are used in the sugar refinery to aid in the crystallization process in the vacuum pans (EU-043). Isopropyl alcohol is used in the production of standard refined sugar and is the primary source of VOC emissions. Organic ethanol is used in the production of organic sugar.

D. Sugar Refinery

A Baghouse (Dust Collection System (EU-059) and four (4) sugar packaging lines (Packaging Lines No. 16, 17, 18 and 19), are located in Warehouse No. 3. The additional packaging lines are a separate operation from the existing speciality Sugar production in Warehouse No. 3. Two (2) rooms are built into the interior of the warehouse. Two (2) packaging lines to package artificial sweeteners are installed in one (1) room (Packaging Lines No. 16 and 17) and two (2) packaging lines for speciality sugars are housed in the second room (Packaging Lines No. 18 and 19). (One (1) of these packaging lines is actually the existing packaging line No. 5 located in the Transshipment Facility which is relocated to Warehouse No.3. It is replaced in the Transshipment Facility by a brown sugar packaging line of the same capacity and it is re-named as Packaging Line No. 5).
(Permit No. 0990009-037-AC).

The potential emissions from the packaging lines consists of particulate matter (PM) in the form of sugar dust, and all four (4) packaging lines are controlled by one (1) dust collector (baghouse) (EU-059).

For the sugar refinery, dust-generating activities that are completely enclosed and vented within the building are not classified as air pollution sources.

EQUIPMENT SPECIFICATIONS

1. Baghouse Specifications:

FLUIDIZED BED DRYER (EU-025)

To control emissions from the fluidized bed dryer (EU-025), the permittee shall operate and maintain a baghouse control system with the following specifications:

Parameter	Specification
Design exhaust flow rate	70,620 acfm
Filtering area	9041 ft^2
Air-to-cloth ratio	7.81 cfm/ft^2
Control efficiency	99.8% (PM and PM_{10})

[Rule 62-4.070(3), F.A.C. and Permit No. 0990005-021-AC]

BULK LOAD-OUT OPERATION (EU-034)

The 3,400 acfm Baghouse (Dust Collection System) controls particulate emissions (PM)

To control particulate emissions from the Bulk Load-Out Operation (EU-034), the permittee shall operate and maintain a baghouse control system with the following specifications:

Parameter	Specification
Design exhaust flow rate	3,400 acfm
Filtering area	1436 ft^2
Air-to-cloth ratio	2.2:1 cfm/ft^2
Control efficiency	99.8% (PM and PM_{10})

[Rule 62-4.070(3), F.A.C. and Permit No. 0990005-035-AC]

PACKAGING LINES No. 16, 17, 18 & 19 (EU-059)

The 3,400 acfm Baghouse (Dust Collection System) controls particulate emissions (PM)

To control particulate emissions from Packaging Lines No. 16, 17, 18 and 19 in Warehouse No. 3, the permittee shall operate and maintain a baghouse control system with the following specifications:

Parameter	**Specification**
Design exhaust flow rate	3,400 acfm
Filtering area	1436 ft^2
Air-to-cloth ratio	2.2:1 cfm/ft^2
Control efficiency	99.8% (PM and PM_{10})

2. Cyclonic Control Devices: The permittee shall operate and maintain the following emission units and corresponding control equipment in accordance with the specifications identified in the table below:

EU No.	**Description**	**Control Type**	**Design Flow Rates acfm**	**Water Injection Rate (gpm, min.)**	**Control Efficiency**	
					PM	**PM_{10}**
021	Rotary Dryer, Central Dust Collection System No. 1	Roto-clone No. 1	15,000	2	99.9%	99%
022	"B" System	Roto-clone No. 2	14,770	2	99.9%	99%
023	Cooler No. 1	Roto-clone No. 3	15,000	2	99.9%	99%
024	Cooler No. 2	Roto-clone No. 4	15,000	2	99.9%	99%
054	"A" System	Roto-clone No. 6	15,078	2	99.9%	99%
055	"C" System	Roto-Clone No. 7	12,895	2	99.9%	99%

[Rule 62-4.070(3), F.A.C. and Permit No. 0990005-021-AC and 0990005-027-AC]

CAPACITY AND PERFORMANCE RESTRICTIONS

3. Permitted Capacities: Total refined sugar production (Fluidized Bed Dryer (EU-025), Rotary Dryer (EU-021), Cooler No. 1 (EU-023) and Cooler No. 2 (EU-024) shall not exceed 490,000 tons during any consecutive 52-week period, and:

   a. The Rotary System (EU-021, EU-023 and EU-024) shall not process more than 130,000 tons during any consecutive 52-week period.

   b. The Bulk Load-Out Operation (EU-034) shall not process more than 139,000 tons of refined sugar during any consecutive 52-week period. [Rules 62-4.210, 62-4.070(3) and 62-210.200(PTE), F.A.C and Permit No. 0990005-035-AC]

   c. The Transfer Bulk Load-Out Station (EU-035) shall not process more than 351,000 tons of refined sugar during any consecutive 52-week period.

   d. Isopropyl alcohol usage (EU-043) from the sugar refinery shall not exceed 78,040 pounds during any consecutive 52-week period.

   e. Production rate for the four (4) combined packaged Sugar/Sweeteners (Packaging Lines No. 16, 17, 18 and 19) is 181.2 Tons Per Day (TPD). [Permit No. 0990005-037-AC].

   [Rules 62-4.210 and 62-4.070(3), F.A.C.; and Permit No. 0990005-021-AC, 0990005-027-AC, 0990005-035-AC and 0990005-037-AC]

4. Hours of Operation: Operation of the sugar refinery is limited by the limitations on processing capacities. The hours of operation are not limited (8,760 hours per year). [Permit No. 0990005-021-AC, 0990005- 027-AC And 0990005-035-AC]

METHODS OF OPERATION

5. Method of Operation: The owner or operator is authorized to operate the dryers in any of the following methods.

   a. The Fluidized Bed Dryer (EU-025) only;

   b. Rotary System only:

      1) 3-Stage High-Production Mode: The Rotary Dryer (EU-021) is operated with Cooler No. 1 (EU-023) and Cooler No. 2 (EU-024) in series. In this mode, high production rates are approximately 1000 tons per day for white refined sugar and above 600 tons per day for specialty sugars.

      2) 2-Stage Low-Production Mode: The Rotary Dryer (with Rotoclone No. 1, EU-021) is off and Cooler No. 1 (with Rotoclone No. 3, EU-023) is operated as a dryer followed by Cooler No. 2 (with Rotoclone No. 4, EU-024) in series. In this mode, low production rates are below 500 tons per day for specialty sugars.

   c. The Fluidized Bed Dryer (EU-025) and Rotary System (EU-021, EU-023 and EU-024) may be operated simultaneously. The dryers and sugar refinery are subject to the production and processing limitations specified in Specific Condition No. 3 of this subsection. [Permit No. 0990005-021-AC and -027-AC.

EMISSION LIMITING STANDARDS

6. Visible Emissions:

   a. Visible emissions shall not exceed 5 percent opacity from the following exhaust points: Rotary Dryer, Central Dust Collection System No. 1 with Roto-clone No. 1 (EU-021); Central Dust Collection System No. 2 with "B" System Roto-clone No. 2 (EU-022); Cooler No. 1 with Roto-clone No. 3 (EU-023); Cooler No. 2 with Rotoclone No.4 (EU-024); Also "A" System "Roto-clone No. 6 (EU-054), "C" System Roto-clone No. 7, (EU-055), Fluidized Bed, Dryer/Cooler Baghouse (EU-025) and Baghouse for Packaging Lines No. 16, 17, 18 and 19. (EU-059).

   b. Visible emissions shall not exceed 5 percent opacity from the following areas: the Bulk Load-Out Operation (EU-034), the Transfer Bulk Load-out Station (EU-035) and fugitive emissions at the sugar refinery.

   [Rules 62-296.320(4) and 62-297.620(4), F.A.C.; and Permit No. 0990005-035-AC]

7. PM/PM10 Emissions): The sum of emissions shall not exceed 19.77 tons of PM per year and 2.9 tons of PM_{10} per year from the following emission units: the Rotary Dryer, Central Dust Collection System No. 1 with Rotoclone No. 1 (EU-021); the Central Dust Collection System No. 2 ("B" System) with Rotoclone No. 2 (EU-022); the Cooler No. 1 with Rotoclone No. 3 (EU-023); the Cooler No. 2 with Rotoclone No.4 (EU-024); the Fluidized Bed Dryer/Cooler with Baghouse (EU-025); "A" System Roto-clone No. 6 (EU-054); "C" System Roto-clone No. 7 (EU-055); the Bulk Load-Out Operation (EU-034); and the Transfer Bulk Load-out Station (EU-035). [Rule 62-210.200(PTE), F.A.C. and Permit No. 0990005-035-AC]

8. Potential PM/PM10 Emissions: For informational purposes only, the following table summarizes the potential emissions from the sugar refinery emissions units:

EU No.	Description	Tons/Year	
		PM	PM_{10}
021	Rotary Dryer, Central Dust Collection System No. 1 with Roto-clone No. 1	4.09	1.645
022	Central Dust Collection System No. 2 with Roto-clone No. 2 ("B" System)	0.44	0.174
023	Cooler No. 1 with Roto-clone No. 3	4.09	1.64
024	Cooler No. 2 with Roto-clone No.4	0.45	0.18
025	Fluidized Bed Dryer/Cooler with Baghouse	14.70	0.588
034	Bulk Load-Out Operation	3.63	0.15
035	Transfer Bulk Load-out Station	1.83	0.07
054	Roto-clone No. 6 ("A"System)	0.51	0.205
055	Roto-clone No. 7 ("C" System)	0.38	0.154
059	*Baghouse, Pkg. Lines 16, 17, 18 & 19*	1.28	0.520

[Permit No. 0990005-021-AC, 0990005-035-AC and 0990005-037-AC]

9. PM/PM10 Emission Factors: The permittee shall use the following emission factors to calculate PM/PM_{10} emissions (including calculations for the Annual Operating Report).

EU No.	Description	PM		PM_{10}	
		Uncontrolled	Control Efficiency	Uncontrolled	Control Efficiency
021	Rotary Dryer, Central Dust Collection System No. 1 with Rotoclone No. 1	3.150% (from dryer)	99.9%	0.125% (from dryer)	99.0%
022	Central Dust Collection System No. 2 with Rotoclone No. 2 ("B" System)	1.777 lb/ton	99.9%	0.071 lb/ton	99.0%
023	Cooler No. 1 with Rotoclone No. 3	0.175%	99.9%	0.007%	99.0%
024	Cooler No. 2 with Rotoclone No.4	0.175%	99.9%	0.007%	99.0%
025	Fluidized Bed Dryer/Cooler with Baghouse	1.5%	99.8%	0.060%	99.8%
034	Bulk Load-Out Operation *with Baghouse*	0.105 lb/ton	50%	0.00418 lb/ton	50%
035	Transfer Bulk Load-out Station	0.105 lb/ton	90%	0.00418 lb/ton	90%
054	Roto-clone No. 6 ("A" System)	1.045 lb/ton	99.9%	0.042 lb/ton	99.0%
055	Roto-clone No. 7 ("C" System)	0.105 lb/ton (Rotary Dryer) 1.463 lb/ton (Fluidizer Drying)	99.9%	0.0042 lb/ton (Rotary Dryer) 0.059 lb/ton (Fluidizer Drying)	99.0 %
059	*Pkg. Lines 16, 17, 18 & 19 with Baghouse (Warehouse 3).*	0.105 lb/ton	99.9%	0.00418 lb/ton	99.9%

[Permit No. 0990005-021-AC, 0990005-027-AC, 0990005-035-AC and 0990005-037-AC]

10. Alcohol Usage: VOC emissions from alcohol usage shall not exceed 39.00 tons during any consecutive 52-week period. *(Permitting Note: VOC emissions are contributed mainly from isopropyl alcohol.)* [Permit No. 0990005-021-AC]

TESTING REQUIREMENTS

11. Annual Compliance Tests: During each federal fiscal year (October 1st to September 30th), the following baghouse and Roto-clone exhaust points shall be tested to demonstrate compliance with the (VE) opacity standard specified in this subsection: Rotary Dryer, Central Dust Collection System No. 1 with Roto-clone No. 1 (EU-021); Central Dust Collection System No. 2 ("B" System) with Roto-clone No. 2 (EU-022); Cooler No. 1 with Roto-clone No. 3 (EU-023); Cooler No. 2 with Roto-clone No.4 (EU-024); Fluidized Bed Dryer/Cooler with Baghouse (EU-025); Bulk Load-Out Operation (EU-034),"A" System with Roto-clone No. 6 (EU-054); "C" System with Roto-clone No. 7 (EU-055) and Baghouse, Pkg. Lines 16, 17, 18 & 19 (EU-059).

[Rule 62-297.310(7)(a)4, F.A.C. and Permit No.0990005-021-AC, 0990005 -027-AC, 099005-035-AC and 0990005-037-AC].

12. Tests Prior to Renewal: Within the 12-month period prior to renewing the operation permit, the following baghouse and Rotoclone exhaust points shall be tested to demonstrate compliance with the (VE) opacity standard specified in this subsection: Rotary Dryer, Central Dust Collection System No. 1 with Roto-clone No. 1 (EU-021); Central Dust Collection System No. 2 with "B" System Roto-clone No. 2 (EU-022); Cooler No. 1 with Rotoclone No. 3 (EU-023); Cooler No. 2 with Rotoclone No.4 (EU-024); and Fluidized Bed Dryer/Cooler with Baghouse (EU-025). Bulk Load-Out Operation (EU-034), "A" System Roto-clone No. 6 (EU-054)"C" System Roto-clone No. 7 (EU-055) and Baghouse, Pkg. Lines 16, 17, 18 & 19 (EU-059). [Rule 62-297.310(7) (a) 3, F.A.C.]

    Test Method: Tests to determine visible emissions shall be conducted in accordance with EPA Method 9, which is described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. [Rules 62-204.800 and 62-297.310(4), F.A.C.; 40 CFR 60, Appendix A; and Permit No. 0990005-021-AC, 0990005-027.

13. PM Testing: The PM compliance test requirements are waived in lieu of the alternative opacity standard of 5 percent for: Rotary Dryer, Central Dust Collection System No. 1 with Roto-clone No. 1 (EU-021); Central Dust Collection System No. 2 with Roto-clone No. 2 (EU-022) "B" System; Cooler No. 1 with Rotoclone No. 3 (EU-023); Cooler No. 2 ,with Roto-clone No.4 (EU-024); Fluidized Bed Dryer/Cooler with Baghouse (EU-025); Bulk Load-Out Operation (EU-034),"A" System with Roto-clone No. 6 (EU-054); "C" System with Roto-clone No. 7 (EU-055) and Baghouse, Pkg. Lines 16, 17, 18 & 19 (EU-059).

14. If the Department has reason to believe that the particulate weight emission standard applicable to the emission unit is not being met, it shall require that compliance be demonstrated by the test method specified in the applicable rule. [Rule 62-297.620(4), F.A.C. and 62-4.070(3), F.A.C.]

15. Test Procedures:

    a. Tests shall be conducted in accordance with the applicable requirements specified in Appendix CT (Compliance Testing Requirements).

    b. The minimum observation period for a visible emissions compliance test shall be 30 minutes.

    c. The observation period shall include the period during which the highest opacity can reasonably be expected to occur.

    d. The permittee shall record the actual sugar processing rate for the emissions units being controlled and tested. [Rule 62-297.310, F.A.C. and Permit No.: 0990005-021-AC]

16. Test Notification: At least 15 days prior to the date on which each formal compliance test is to begin, the permittee shall notify the Compliance Authority of: the test to be conducted; the date, time and the place of the test; and the contact person who will be responsible for coordinating and having the test conducted. [Permit No. 0990005-021-AC; Rule 62-297.310(7), F.A.C.]

RECORDKEEPING AND REPORTING REQUIREMENTS

17. Test Reports: For each visible emissions test conducted, the permittee shall submit a test report to each Compliance Authority as soon as practical, but no later than 45 days after the last sampling run of each test is completed. Each test report shall include the information specified in Rule 62-297.310(8), F.A.C. [Rule 62-297.310(8), F.A.C. and Permit No. 0990005-021-AC, 0990005-035-AC and 0990005-037-AC].

18. Operational Data: The permittee shall maintain daily and weekly records to demonstrate compliance with the permit limitations specified in Specific Condition No. 3 of this permit. The daily and weekly records shall include, at a minimum, the following: the date; the hours of operation; the total refined sugar produced; the refined sugar produced from the fluidized bed sugar drying system; the refined sugar production from the rotary sugar dryer system (including coolers); quantity of refined sugar handled through the bulk load out area; quantity of refined sugar handle through the transshipment load out area; weekly use of isopropyl alcohol and

organic ethanol; and weekly rolling consecutive 52-week period total for all permitted refined sugar production limits. [Rule 62-4.070(3), F.A.C. and Permit No. 0990005-021-AC, 0990005-027-AC and 0990005-035-AC].

E. Transshipment Facility

This section of the permit addresses the following emissions units.

ID	Emission Unit Description	ID	Emission Unit Description
018	Central vacuum system No. 1	**045**	Powdered sugar dryer/cooler, packaging Line 8A and 8B
019	Sugar packaging Lines 0-9, including 8A and 8B	**046**	Powdered sugar hopper
020	Sugar grinder	**047**	Sugar packaging lines (12-14)
030	Sugar silos Nos. 1, 2, and 3 (Points #1101-1103)	**049**	Baghouse (Currently inactive).
031	Railcar sugar unloading receiver No. 1		
032	Railcar sugar unloading receiver No. 2		

{Permitting Note: Permit Nos. 0990005-019-AC and 0990005-023-AC re-defined the equipment and capacity of the transshipment facility.}

Process Description

Sugar received at the transshipment facility is either directly packaged or temporarily stored before packaging. Extra-fine granulated sugar from the refinery is delivered to the transshipment facility at one of three locations. At the east truck receiving dock, trucks are pneumatically unloaded into a main sugar receiver, which pneumatically transfers sugar into surge bins above the packaging lines. At the north side of the facility, trucks are unloaded at a bulk receiving station by locking a boot mechanism against the truck's hopper and sugar is transferred from trucks by screw conveyors to a bucket elevator feeding one of three storage silos (EU-030). At the north railcar receiving station just west of the sugar silos, railcars will be pneumatically unloaded into two sugar receivers (EU-031 and EU-032) for transfer by screw conveyor to a bucket elevator feeding one of three storage silos. Each sugar receiver is controlled by a baghouse. The west receiver will also transfer sugar directly to a surge bin for packaging line "0", which will be used to fill totes north of packaging line "1" in the existing packaging room.

Each of the three storage silos (EU-030) is 12 feet in diameter of 12 feet, 68 feet tall, and has a volume of approximately 4,600 cubic feet. Each silo is controlled by a baghouse. Sugar is transferred from each silo by screw conveyor into surge bins located above packaging lines.

Sugar is packaged in one of 14 packaging lines, which are controlled by baghouse systems (Lines 0-8A and 8B-9 (EU-019), Lines 12, 13 and 14 (EU-047). Packaging Lines 8A and 8B vent to the baghouses associated with EU-019 and EU-045. Packaging Line 11 vents to the main sugar receiver. Baghouse (EU-049) is currently inactive. Sugar is metered from surge bins above the packaging lines for processing into a variety of packages and containers for wholesale and retail distribution.

The Trans-Shipment Facility, Packaging line 10 Baghouse is <u>EXEMPT</u> (Permit No. 0990005-029-AC and -030-AC) as it is vented to outside of the refinery building with minimal emissions. (The total emissions from this baghouse are calculated at 0.15 pound/hr. and 0.64 tons/year).

A small portion of extra-fine granulated sugar is conveyed to the sugar grinder (EU-020) and mixed with starch to produce powdered sugar. The sugar grinder is used to reduce the sugar solids to a desired particle size. The grinder has a design capacity of approximately 4 tons per hour. The powdered sugar dryer/cooler (EU-045) and the powdered sugar hopper (EU-046) are also used in this process. In addition, brown sugar may be produced by mixing light or dark molasses with the extra fine granulated sugar. All units are controlled by baghouse systems.

A central vacuum system (EU-018) is used periodically for house keeping purposes. The system includes various pick-up points throughout the transshipment facility and is equipped with a cyclonic separator followed by a baghouse. The system has no restrictions on the number or types of pick-up points.

EQUIPMENT SPECIFICATIONS

1. Baghouse Design Specifications: Each of the following emissions units shall be controlled by a baghouse that is designed, operated, and maintained to achieve the particulate matter baghouse design specification (grains/scf) identified in the following table.

ID	Emission Unit Description	Baghouse Specification [a] grains/scf	Exhaust Rate scfm	Stack/Vent Height Feet	Maximum Emissions [b]	
					lb/hour	tons/year
018	Central vacuum system No. 1	0.01	280	8	0.024	0.11
019	Sugar packaging Lines 0-9, including 8A and 8B	0.01	9869	27	0.85	3.71
020	Sugar grinder	0.0005	2961	39	0.013	0.06
030	Sugar silo No. 1 (Point #S1101)	0.02	500	65	0.086	0.38
	Sugar silo No. 2 (Point #S1102)	0.02	500	65	0.086	0.38
	Sugar silo No. 3 (Point #S1103)	0.02	500	65	0.086	0.38
031	Railcar unloading receiver No. 1	0.02	615	5	0.11	0.46
032	Railcar unloading receiver No. 2	0.02	615	5	0.11	0.46
045	Powdered sugar dryer/cooler, packaging Lines 8A and 8B	0.01	8640	48	0.74	3.24
046	Powdered sugar hopper	0.01	1728	42	0.15	0.68
047	Sugar packaging Lines 12, 13 and 14	0.01	3629	48	0.49	2.16
049	Baghouse (currently inactive)	0.02	2212	9	0.38	1.66
					Total	13.68

a. New and replacement bags shall meet these specifications based on vendor information. No particulate matter emissions tests are required.

b. These rates represent the maximum expected emissions based on the baghouse design specification, the maximum exhaust flow rates, and 8,760 hours of operation per year. These rates are not enforceable emissions standards.

[Permit Nos. 0990005-019-AC and 0990005-023-AC]

CAPACITY AND PERFORMANCE RESTRICTIONS

2. Permitted Capacity: The maximum sugar packaging rate is 1,300 tons per day. [Permit Nos. 0990005-019-AC and 0990005-023-AC and Title V application received May 15, 2012]; Rule 62-210.200 (PTE), F.A.C.]

3. Restricted Operation: The hours of operation of are not limited (8,760 hours per year). [Permit Nos. 0990005-019-AC and 0990005-023-AC; and Rule 62-210.200 (PTE), F.A.C.]

EMISSION LIMITING STANDARDS

4. Opacity Standard: As determined by EPA Method 9 observations, visible emissions from each baghouse exhaust point shall not exceed 5 percent opacity. [Permit Nos. 0990005-019-AC and 0990005-023-AC; and Rule 62-4.070(3), F.A.C.]

TESTING

5. Annual Compliance Tests: During each federal fiscal year (October 1st to September 30th), each baghouse exhaust point shall be tested to demonstrate compliance with the specified opacity standard. [Rule 62-297.310(7)(a)4, F.A.C.]

6. Tests Prior to Renewal: Within the 12-month period prior to renewing the operation permit, each baghouse exhaust point shall be tested to demonstrate compliance with the specified opacity standard. [Rule 62-297.310(7)(a)3, F.A.C.]

7. Test Notification: The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required test. [Rule 62-297.310(7)(a)9, F.A.C.]

8. Test Method: All tests shall be conducted in accordance with EPA Method 9, which is described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. Tests shall also comply with the applicable requirements of Rule 62-297.310, F.A.C. See Appendix CT. [Rules 62-204.800 and 62-297.100, F.A.C.; 40 CFR 60, Appendix A]

9. Test Procedures: Tests shall be conducted in accordance with all applicable requirements of Chapter 62-297, F.A.C. as specified in Appendix CT. The minimum observation period for a visible emissions compliance test shall be 30 minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur. The permittee shall record the actual sugar processing rate for the emissions unit being controlled and tested. [Rule 62-297.310(4) and (5), F.A.C.]

10. Test Notification: At least 15 days prior to the date on which each formal compliance test is to begin, the permittee shall notify the Compliance Authority of: the date, time, and place of the test; and the contact person who will be responsible for coordinating and having the test conducted. [Rule 62-297.310(7)(a)9, F.A.C.]

RECORD KEEPING AND REPORTING

11. Test Reports: For each visible emissions test conducted, the permittee shall file a test report including the information specified in Rule 62-297.310(8), F.A.C. with the Compliance Authority as soon as practical, but no later than 45 days after the last sampling run of each test is completed. See Appendix CT in Section 4 of this permit. [Rules 62-297.310(8), F.A.C.]

12. Operational Data: The permittee shall maintain daily and monthly records to demonstrate compliance with the specified maximum sugar packaging rate. [Permit Nos. 0990005-019-AC and 0990005-023-AC; and Rule 62-4.070(3), F.A.C.]

OTHER APPLICABLE REQUIREMENTS

13. Compliance Plan: The permittee shall comply with the provisions of the Compliance Plan as specified in Appendix CP in Section 4 of this permit. [Rule 62-213.440(2), F.A.C.]

F. Distillate Oil Storage Tanks

This subsection addresses the following emissions units.

ARMS ID No. 0990332 - New Hope Power Company's Okeelanta Cogeneration Plant

EU No.	Emissions Unit Description	Process Area
005	Distillate Oil Storage Tank (50,000 gallons)	Cogeneration Plant

ARMS ID No. 0990005 – Okeelanta Corporation's Sugar Mill and Refinery

EU No.	Emissions Unit Description	Process Area
015	*Distillate Oil Storage Tank - (DELETED)*	*Sugar Mill and Refinery*
016	*Distillate Oil Storage Tank, - (DELETED)*	*Sugar Mill and Refinery*
017	*Distillate Oil Storage Tank - (DETETED)*	*Sugar Mill and Refinery*
040	Facility Fuel Tank Farm	Facility

EQUIPMENT CAPACITIES AND PERFORMANCE RESTRICTIONS

1. Oil Storage Tanks:

   a. *ARMS ID No. 0990332*: The distillate oil storage tank (EU-005) has a capacity of 50,000 gallons. [Permit No. 0990005-016-AC]

   b. Miscellaneous tanks installed on or before July 23, 1984 are not subject to the NSPS Subpart Kb provisions in 40 CFR 60. Fuel and oil tanks with a storage capacity of 19,813 gallons or less are not subject to NSPS Subpart Kb provisions. Fuel and oil tanks with a storage capacity between 19,813 gallons and 39,890 gallons shall store only volatile organic liquids with a maximum true vapor pressure of less than 15.0 kilopascals (kPa) or 2.17 pounds per square inch, absolute (psia). Fuel and oil tanks with a storage capacity of 39,890 gallons or more shall store only volatile organic liquids with a maximum true vapor pressure of less than 3.5 kPa (0.51 psia). This condition ensures that the storage tanks are not subject to the NSPS Subpart Kb provisions in 40 CFR 60. [NSPS Subpart Kb, §60.110b] [Rule 62-210.200 (PTE), F.A.C.]

RECORDS

2. Records: The permittee shall maintain records of the types and amounts of fuel stored in each tank. Distillate oil shall meet the requirements of the Ash and Fuel Management Plans in Appendix AM and FM of this permit. [Rule 62-4.070(3), F.A.C.]

G. Paint Spray Booth – Farm Operations

This permit addresses the following emissions unit:

EU No.	Emissions Unit Description	Process Area
048	Paint Booth	Okeelanta Shop

{Permitting Note: Permit No. 0990005-015-AC redefined this emissions unit. The paint spray booth is the drive-through model of the Crossflo truck spray booth manufactured by AFC, Inc. (Model Number TSD6036). The paint booth has the potential to emit 9.40 tons per year of volatile organic compound (VOC), 0.47 tons per year of hazardous air pollutants (HAPs), and 0.35 tons per year of particulate matter (PM/PM_{10}).}

EQUIPMENT SPECIFICATIONS

1. Method of Operation. Paint shall only be applied to agricultural equipment, trailers, and other vehicles or facility equipment. Paint shall be applied by compressed air spray gun, airless paint sprayer or other equipment with equivalent transfer efficiency. Compressed air systems typically use house air within a pressure range of approximately 60 to 80 pounds per square inch (psi). Airless systems typically operate at a pressure of approximately 3,200 psi. There are two exhaust stacks for the paint spray booth. Both are 25.7 feet tall with a 4-foot diameter and have a flow rate of 45,500 actual cubic feet per minute (acfm). [Permit Nos. 0990005-015-AC and 0990005-016-AC]

EMISSIONS LIMITING AND PERFORMANCE RESTRICTIONS

2. Hours of Operation: The hours of operation for this emissions unit are not restricted (8,760 hours per year). [Permit No. 0990005-015-AC; Rules 62-4.160(2) and 62-210.200 (PTE), F.A.C.]

3. Permitted Capacity: The maximum throughput rate of paint and thinner shall not exceed 4,950 gallons in any consecutive 12 months. [Permit No. 0990005-015-AC; Rules 62-4.160(2) and 62-210.200 (PTE), F.A.C.]

4. VOC Emissions: Emissions of volatile organic compounds (VOC) shall not exceed 9.40 tons in any consecutive 12 months. The permittee may adjust the amounts and types of coatings used as necessary to comply with this standard. Coatings and thinners used in the spray booth are not restricted to specific products or manufacturers. The permittee may substitute coatings and thinners and adjust the amounts of coatings and thinners used, as needed. [Specific Conditions 7 and 9 in Permit No. 0990005-015-AC; Rule62-210.200 (PTE), F.A.C.]

5. Visible Emissions: Visible emissions from the paint spray booth shall not exceed 20 percent opacity. [Specific Condition 12 in Permit No. 0990005-015-AC; Rule 62-296.320 (General VE), F.A.C.]

6. Fugitive VOC: All equipment, pipes, hoses, containers, lids, fittings, etc., shall be operated and maintained in such a manner as to minimize leaks, fugitive emissions, and spills of materials containing volatile organic compounds (VOC). [Permit No. 0990005-015-AC; Rule 62-210.200 (PTE), F.A.C.]

TESTING

7. Special Compliance Tests: In accordance with Rule 62-297.310(7)(b), F.A.C., the Compliance Authority may require a compliance test for visible emissions. [Permit No. 0990005-015-AC; Rule 62-297.310(7)(b), F.A.C.]

RECORD KEEPING AND REPORTING

8. Operational Records: For each month, the permittee shall record and maintain records of the following: the number of actual hours of operation for the paint booth; the dates of operation; the amounts and types of coatings, thinners and cleanup solvents used; and a monthly calculation of the volatile organic compounds and hazardous air pollutants emitted from the paint booth. VOC/HAP emissions shall be calculated by

assuming that all VOC/HAP in the coatings, thinners and cleanup solvents evaporate. The mass fraction of VOC/HAP from each solvent-containing material shall be determined from the Material Safety Data Sheets (MSDS) supplied by the vendors. The permittee shall maintain a file of MSDS for each solvent-containing material that indicates the composition of the VOC/HAP. Solvent-containing materials include, but are not limited to, powder coatings, solvent coatings, thinners, and cleanup solvents. The file must be maintained on site and made available for inspection upon request. The permittee shall have until the last day of the following month to complete these records. The amounts and types of coatings used and the calculated VOC and HAP emissions shall be included in the required Annual Operating Report. [Permit 0990005-015-AC; Rules 62-210.370 and 62-4.070(3), F.A.C.]

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