Duke Energy Florida, Inc. (DEF)
Crystal River Power Plant

Facility ID No. 0170005
Citrus County

Title V Air Operation Permit Revision

Permit No. 0170004-042-AV
(3rd Revision of Title V Air Operation Permit No. 0170004-024-AV)

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Permitting Authority:

State of Florida
Department of Environmental Protection
Division of Air Resource Management
Office of Permitting and Compliance

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Permit No. 0170004-042-AV

Table of Contents

Section **Page Number**

I. Facility Information.
A. Facility Description. 2
B. Summary of Emissions Units. 2
C. Applicable Regulations. 2

II. Facility-wide Conditions. 4

III. Emissions Units and Conditions.
A. Fossil Fuel Steam Generator (FFSG), Units 1and 2. 6
B. FFSG Units 4 & 5 and Hydrated Lime Storage and Transfer System, EU 032. 11
C. Fly Ash Transfer & Storage, Units 1 and 2. 22
D. Bottom Ash Storage Silo for Units 1 and 2. 25
E. Relocatable Diesel Generators. 28
F. Cooling Towers for Units 1, 2 and 3. 31
G. Cooling Towers for Units 4 and 5. 33
H. Material Handling Activities for Coal-Fired Steam Units. 35
I. Portable Cooling Towers for Units 1 and 2. 37
J. Used Oil Common Condition. 39
K. Limestone and Gypsum Material Handling Activities, EU 023. 41
L. Portable Concrete Batch Plant, EU 033. 44

IV. Acid Rain Part. 46
Phase II Acid Rain Application/Compliance Plan.
Phase II Acid Rain NO_X Compliance Plan.
Phase II Acid Rain NO_X Averaging Plan.

V. Clean Air Interstate Rule Part. 60

VI. Appendices. 64
Appendix A, Glossary.
Appendix ASP, ASP Number 97-B-01 (With Scrivener's Order Dated July 9, 1997).
Appendix CAM - Particulate Matter, Compliance Assurance Monitoring Plan for Units 001,002, 003 & 004 and Sulfuric Acid Mist (SAM) Compliance Assurance Monitoring Plan for Units 003 & 004.
Appendix F, Standard Continuous Monitoring Requirements.
Appendix I, List of Insignificant Emissions Units and/or Activities.
Appendix NSPS, Subpart A - General Provisions.
Appendix NSPS, Subpart D - Standards of Performance for Fossil Fuel Fired Steam Generators for which Construction is Commenced After August 17, 1971.
Appendix NSPS, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants.
Appendix NSPS, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.
Appendix NSPS, Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.
Appendix NSPS, Subpart Y - Standards of Performance for Coal Preparation Plants.
Appendix NESHAP, Subpart A - General Provisions.
Appendix NESHAP, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.
Appendix RR, Facility-wide Reporting Requirements.
Appendix TR, Facility-wide Testing Requirements.
Appendix TV, Title V General Conditions.
Appendix U, List of Unregulated Emissions Units and/or Activities.

Referenced Attachments. ..... At End
Figure 1, Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance (40 CFR 60, July, 1996).
Table H, Permit History.

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FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

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Crystal River Power Plant
Permit No. 0170004-042-AV
Facility ID No. 0170004
Title V Air Operation Permit Revision

The purpose of this permit is to revise Title V air operation permit No. 0170004-024-AV for the above referenced facility to incorporate certain provisions of final air construction permits Nos. 0170004-030-AC (PSD-FL-383E) and 0170004-037-AC (PSD-FL-383F). Permit 0170004-030-AC established the final CO emission limit and Permit 0170004-037-AC authorized the construction/installation of a hydrated lime storage and transfer system for Units 4 and 5 at the Crystal River facility.

The existing Crystal River Power Plant is located in Citrus County at 15760 West Power Line Street, Crystal River, Florida. UTM Coordinates are: Zone 17, 334.3 km East and 3204.5 km North. Latitude is: 28° 57' 34" North and Longitude is: 82° 42' 1" West.

The Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213 and 62-214. The above named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

0170004-024-AV Effective Date: January 1, 2010
0570039-025-AV 1st Revision Effective Date: April 11, 2011
0170004-035-AV 2nd Revision Effective Date: June 13, 2012
0170004-042-AV 3rd Revision Effective Date: Month DD, 2014
Renewal Application Due Date: May 20, 2014
Expiration Date: December 31, 2014

Executed in Tallahassee, Florida.

(Draft/Proposed)

_____
Jeffery F. Koerner, Program Administrator
Office of Permitting and Compliance
Division of Air Resource Management

JFK/sa/jh/th

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Subsection A. Facility Description.

This facility consists of: four coal-fired fossil fuel steam generating (FFSG) units with electrostatic precipitators; two natural draft cooling towers for FFSG Units 4 and 5; helper mechanical cooling towers for FFSG Units 1, 2 and nuclear Unit 3; coal, fly ash, and bottom ash handling facilities; and, relocatable diesel fired generators. The facility is also authorized to operate a portable concrete batch plant (EU 033), as needed for on-site maintenance. Nuclear Unit 3 is not considered part of this permit, although certain emissions units associated with Unit 3 are included in this permit. The facility continuously operates low-NO_X burners, selective catalytic reduction systems (SCR), flue gas desulfurization systems (FGD) which includes limestone and gypsum material handling activities and ~~alkali injection~~ acid mist mitigation (AMM) systems for existing Units 4 and 5, as authorized by permits No. 0170004-023-AC (PSD-FL-383C) and 0170004-037-AC (PSD-FL-383E). In conjunction with the new control equipment, Units 4 and 5 are now also authorized to burn a blend of bituminous/sub-bituminous coal.

Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

Subsection B. Summary of Emissions Units.

E.U. No.	Brief Description
Regulated Emission Units	
001	FFSG, Unit 1
002	FFSG, Unit 2
004	FFSG, Unit 4
003	FFSG, Unit 5
006	Fly ash transfer (Source 1) from FFSG Unit 1
008	Fly ash storage silo (Source 3) for FFSG Units 1 and 2
009	Fly ash transfer (Source 4) from FFSG Unit 2
010	Fly ash transfer (Source 5) from FFSG Unit 2
014	Bottom ash storage silo for FFSG Units 1 and 2
012	Relocatable diesel generators
013	Cooling towers for FFSG Units 1, 2, and 3
015	Cooling towers for FFSG Units 4 and 5
016	Material handling activities for coal-fired steam units
020	Portable Cooling Towers for FFSG Units 1 and 2
028	3500 kW diesel generator associated with Unit 3
023	Limestone and Gypsum Material Handling Activities
029	Diesel fire pump, south yard
030	Emergency generator (meteorological weather station)
032	Hydrated Lime Storage and Transfer System for Units 4 and 5
033	Portable Concrete Batch Plant
Unregulated Emissions Units and/or Activities	
017	Fuel and lube oil tanks and vents
018	Sewage treatment, water treatment, lime storage
019	Two 3500 kW diesel generators associated with Unit 3

Subsection C. Applicable Regulations.

Based on the Title V air operation revision application received November 9, 2010, this facility is a major source of hazardous air pollutants (HAP). Because this facility operates stationary reciprocating internal combustion engines (EU019), it is subject to regulation under 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. The existing facility is a

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PSD major source of air pollutants in accordance with Rule 62-212.400, F.A.C. Summary of applicable regulations is shown in the following table.

Regulation	EU Nos.
40 CFR 60, Subpart A, NSPS General Provisions	003, 004, 016
40 CFR 60, Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971	003, 004
40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	029
40 CFR 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines	030
40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants	023
40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	028, 029, 030
40 CFR 63, Subpart Y, Standards of Performance for Coal Preparation Plants.	016
40 CFR 75 Acid Rain Monitoring Provisions	001, 002, 003, 004
Rule 62-296.405, F.A.C.	001, 002
Rule 62-210.370, F.A.C.	001, 002, 003, 004, 006, 008, 009, 010, 013, 014, 015, 016, 020
Rule 62-210.700, F.A.C.	001, 002, 003, 004, 006, 008, 009, 010, 013, 014, 015, 016, 020, 033
Rule 62-213.410, F.A.C.	001, 002, 003, 004, 006, 008, 009, 010, 013, 014, 015, 016, 020, 033
Rule 62-213.440, F.A.C.	001, 002, 003, 004, 006, 008, 009, 010, 013, 014, 015, 016, 020, 033
Rule 62-297.310, F.A.C.	001, 002, 003, 004, 006, 008, 009, 010, 013, 014, 015, 016, 020, 032, 033

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

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

Emissions and Controls

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

FW3. General Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed-necessary and ordered by the Department. The owner or operator shall:

a. Tightly cover or close all VOC or OS containers when they are not in use.
b. Tightly cover all open tanks which contain VOC or OS when they are not in use.
c. Maintain all pipes, valves, fittings, etc., which handle VOC or OS in good operating condition.
d. Immediately confine and clean up VOC or OS spills and make sure wastes are placed in closed containers for reuse, recycling or proper disposal.

[Rule 62-296.320(1), F.A.C.]

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

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

a. Maintenance of paved areas as needed.
b. Regular mowing of grass and care of vegetation.
c. Limiting access to plant property by unnecessary vehicles.
d. To the extent practicable, the hydrated lime handling and storage operations shall be enclosed and confined to prevent fugitive dust emissions from the unloading, storage and handling of hydrated lime.
e. Fabric filters shall be properly maintained on the hydrated lime storage silos to provide assurance that visible emissions exhausted during the filling of the silos and operation of the handling and storage equipment remains below the design emission rate of 5% opacity.

[Rule 62-296.320(4)(c), F.A.C.; Permit No. 0170004-037-AC (PSD-FL-383F); and, proposed by applicant in Title V air operation permit renewal application received May 21, 2009.]

Annual Reports and Fees

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

FW6. Electronic Annual Operating Report and Title V Annual Emissions Fees. The information required by the Annual Operating Report for Air Pollutant Emitting Facility [Including Title V Source Emissions Fee Calculation] (DEP Form No. 62-210.900(5)) shall be submitted by April 1 of each year, for the previous

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calendar year, to the Department of Environmental Protection's Division of Air Resource Management. Each Title V source shall submit the annual operating report using the DEP's Electronic Annual Operating Report (EAOR) software, unless the Title V source claims a technical or financial hardship by submitting DEP Form No. 62-210.900(5) to the DEP Division of Air Resource Management instead of using the reporting software. Emissions shall be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C. Each Title V source must pay between January 15 and April 1 of each year an annual emissions fee in an amount determined as set forth in subsection 62-213.205(1), F.A.C. The annual fee shall only apply to those regulated pollutants, except carbon monoxide and greenhouse gases, for which an allowable numeric emission-limiting standard is specified in the source's most recent construction permit or operation permit. Upon completing the required EAOR entries, the EAOR Title V Fee Invoice can be printed by the source showing which of the reported emissions are subject to the fee and the total Title V Annual Emissions Fee that is due. The submission of the annual Title V emissions fee payment is also due (postmarked) by April 1st of each year. A copy of the system-generated EAOR Title V Annual Emissions Fee Invoice and the indicated total fee shall be submitted to: **Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070.** Additional information is available 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. [Rules 62-210.370(3), 62-210.900 & 62-213.205, F.A.C.; and, §403.0872(11), Florida Statutes (2013)]

{Permitting Note: Resources to help you complete your AOR are available on the electronic AOR (EAOR) website at: http://www.dep.state.fl.us/air/emission/eaor. If you have questions or need assistance after reviewing the information posted on the EAOR website, please contact the Department by phone at (850) 717-9000 or email at eaor@dep.state.fl.us.}

{Permitting Note: The Title V Annual Emissions Fee form (DEP Form No. 62-213.900(1)) has been repealed. ***A separate Annual Emissions Fee form is no longer required to be submitted by March 1st each year.****}*

FW7. 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.]

FW8. Prevention of Accidental Releases (Section 112(r) of CAA).

a. As required by Section 112(r)(7)(B)(iii) of the CAA and 40 CFR 68, the owner or operator shall submit an updated Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. (See paragraph e., below.)
b. As required under Section 252.941(1)(c), F.S., the owner or operator shall report to the appropriate representative of the Division of Emergency Management, as established by department rule, within one working day of discovery of an accidental release of a regulated substance from the stationary source, if the owner or operator is required to report the release to the United States Environmental Protection Agency under Section 112(r)(6) of the CAA.
c. The owner or operator shall submit the required annual registration fee to the Division of Emergency Management on or before April 1, in accordance with Part IV, Chapter 252, F.S., and Rule 9G-21, F.A.C.
d. Any required written reports, notifications, certifications, and data required to be sent to the Division of Emergency Management, should be sent to: Division of Emergency Management, 2555 Shumard Oak Boulevard, Tallahassee, FL 32399-2100, Telephone: (850) 413-9970, Fax: (850) 488-1739.
e. Any Risk Management Plans, original submittals, revisions, or updates to submittals, should be sent to: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.
f. Any required reports to be sent to the National Response Center, should be sent to: National Response Center, EPA Office of Solid Waste and Emergency Response, USEPA (5305 W), 401 M Street SW, Washington, D.C. 20460, Telephone: (800) 424-8802.

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g. Send the required annual registration fee using approved forms made payable to: Cashier, Division of Emergency Management, State Emergency Response Commission, 2555 Shumard Oak Boulevard, Tallahassee, FL 32399-2149

[Part IV, Chapter 252, F.S.; and, Rule 9G-21, F.A.C.]

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Subsection A. Emissions Units 001, 002

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

EU No.	Brief Description
001	FFSG, Unit 1
002	FFSG, Unit 2

Emissions unit 001 (EU001) is a pulverized coal, dry bottom, tangentially-fired boiler, It is rated at 440.5 megawatt (MW). Emissions are exhausted through a 499 feet stack with a 15 feet exit diameter, 291° F exit temperature and 1,407,923 acfm actual volumetric flow rate.

Emissions unit 002 (EU001) is a pulverized coal, dry bottom, tangentially-fired boiler. It is rated at 523.8 MW. Emissions are exhausted through a 502 feet stack with a 16 feet exit diameter, 300° F exit temperature and 1,931,324 acfm actual volumetric flow rate.

Emissions from both EU001 and EU002 are controlled from each unit with a high efficiency electrostatic precipitator, manufactured by Buell Manufacturing Company, Inc.

{Permitting Notes: These emissions units are regulated under Acid Rain, Phase I and II and Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with More than 250 million Btu per Hour Heat Input, and Power Plant Siting Certification PA 77-09 conditions. The pollutants' emissions limits in Rule 62-296.405, F.A.C. have been changed through Permit Nos. 0170004-003-AC, 0170004-006-AC, PSD-FL-007, and PA 77-09. Fossil fuel fired steam generator Unit 1 began commercial operation in 1966. Fossil fuel fired steam generator Unit 2 began commercial operation in 1969.}

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum allowable heat input rate is as follows:

EU No.	MMBtu/hr Heat Input	Fuel Type
001	3,750	Bituminous Coal; or Bituminous Coal and Bituminous Coal Briquette Mixture
002	4,795	Bituminous Coal; or Bituminous Coal and Bituminous Coal Briquette Mixture

[Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), 62-214.330 & 62-296.405, F.A.C.; and, Permit Nos. 0170004-003-AC and 0170004-006-AC]

{Permitting Note: The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability.}

A.2. Methods of Operation.

a. *Fuels.* The fuels that are allowed to be burned in these units are:
   (1) Bituminous coal,
   (2) Bituminous coal and bituminous coal briquette mixture,
   (3) Distillate fuel oil for startup, and
   (4) Used oil in accordance with the specific conditions in Subsection **J.**

[Rule 62-213.410, F.A.C.; Permit Nos. 0170004-002-AO; 0170004-005-AO; and, 0170004-006-AC]

A.3. Hours of Operation. The emissions units may operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.]

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

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions **A.5.-A.9**. are based on the specified averaging time of the applicable test method.

A.5. Visible Emissions (VE).
a. *EU001*. The VE from FFSG Unit 1 shall not exceed 40 percent opacity, six minute average. [Rule 62-296.405(1)(a), F.A.C.; OGC Case No. 86-1576, Order dated December 11, 1986; Permit No. 0170004-003-AC]
b. *EU002*. The VE from FFSG Unit 2 shall not exceed 20 percent opacity, six minute average, except for one two-minute period per hour during which opacity shall not exceed 40 percent. [Rule 62-296.405(1)(a), F.A.C.; Permit No. 0170004-003-AC]

{Permitting Note: Quarterly PM testing not required per Rule 62-296.405(1)(a), F.A.C. per OGC Case No. 86-1576}

A.6. VE - Soot Blowing and Load Change. Excess emissions resulting from boiler cleaning (soot blowing) and load change shall be permitted provided the duration of such excess emissions shall not exceed 3-hours in any 24 hour period and visible emissions shall not exceed Number 3 of the Ringelmann Chart (60 percent opacity), six minute average, and providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of the excess emissions shall be minimized.
a. *Load Change*. A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.
b. *VE > 60%.* VE above 60 percent opacity shall be allowed for not more than 4, six (6)-minute periods, during the 3-hour period of excess emissions allowed by this condition, for boiler cleaning and load changes, at units which have installed and are operating continuous opacity monitors.
[Rule 62-210.700(3), F.A.C. and Permit No. 0170004-003-AC]

{Permitting Note: These units have operational continuous opacity monitors.}

A.7. Particulate Matter (PM) Emissions. PM emissions shall not exceed 0.1 pound per million Btu heat input. [Rule 62-296.405(1)(b), F.A.C.; Permit No. 0170004-003-AC]

{Permitting note: The averaging time for the particulate matter standard corresponds to the cumulative sampling time of the specified test method.}

A.8. PM - Soot Blowing and Load Change. PM emissions shall not exceed an average of 0.3 pounds per million Btu heat input during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change. [Rule 62-210.700(3), F.A.C.; Permit No. 0170004-003-AC]

A.9. Sulfur Dioxide (SO_2).
a. *Coal Burning***.** When burning coal, SO_2 emissions shall not exceed 2.1 pounds per million Btu heat input, 24-hour average.
b**.** *Coal/Briquette Mixture*. The maximum percent sulfur content of the coal/briquette mixture shipment shall not exceed 1.05%, by weight, averaged on an annual basis.
[Rule 62-213.440, F.A.C.; PPSC PA 77-09; Permit Nos. PSD-FL-007, 0170004-003-AC; and, 0170004-006-AC]

Excess Emissions

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

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A.10. Excess Emissions Allowed.

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

b. Excess emissions resulting from startup or shutdown shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized. [Rule 62-210.700(2), F.A.C.]

A.11. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

A.12. CAM Plan. These emissions units are subject to the Compliance Assurance Monitoring (CAM) requirements contained in the attached Appendix CAM. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emissions limitation; however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(7)(b), F.A.C. [40 CFR 64; Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.]

Continuous Monitoring Requirements

A.13. Continuous Monitoring System. Each owner or operator shall install, calibrate, operate and maintain a continuous monitoring system for continuously monitoring opacity. Performance specifications, location of monitor, data requirements, data reduction and reporting requirements shall conform with the requirements of 40 C.F.R. Part 51, Appendix P, adopted and incorporated by reference in subsection 62-204.800(2), F.A.C., and 40 C.F.R. Part 60, Appendix B, adopted by reference in subsection 62-204.800(7), F.A.C. [Rule 62-296.405(f), F.A.C.]

*{Permitting Note: The Acid Rain CEMs, required by 40 CFR 75, satisfies Specific Condition **A.13**.}*

Test Methods and Procedures

A.14. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
3	Gas Analysis for Carbon Dioxide, Oxygen, Excess Air, and Dry Molecular Weight
3A	Determination of Oxygen and Carbon Dioxide Concentrations in Emissions from Stationary Sources
5	Determination of Particulate Emissions from Stationary Sources
5B	Determination of Nonsulfuric Acid Particulate Matter from Stationary Sources
5F	Determination of Nonsulfate Particulate Matter from Stationary Sources
6	Determination of Sulfur Dioxide Emissions from Stationary Sources
6A	Determination of Sulfur Dioxide Daily Average Emissions from Fossil Fuel Combustion Sources
6B	Determination of Sulfur Dioxide and Carbon Dioxide Daily Average Emissions From Fossil Fuel Combustion Sources
6C	Determination of Sulfur Dioxide Emissions from Stationary Sources

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Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources
17	Determination of Particulate Emissions from Stationary Sources (In-Stack Filtration Method)
19	Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates (Optional F-factor method may be used to determine flow rate and gas analysis to calculate mass emissions in lieu of Methods 1-4.)
ASTM D2013-72, ASTM D3177-75, ASTM D4239-85, or latest ASTM edition methods	Standard Methods by the American Society of Testing and Materials for Fuel Analysis

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rules 62-297.401, and 62-204.800, F.A.C., Permit No. 0170004-003-AC]

A.15. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

A.16. Annual Compliance Tests Required. Except as provided in Specific Condition **A.23**., during each federal fiscal year (October 1st to September 30th), each EU001 and EU002 shall be tested to demonstrate compliance with the emissions standards for PM and VE. [Rule 62-297.310(7), F.A.C.; OGC Case No. 86-1576; and Permit No. 0170004-003-AC]

A.17. Compliance Tests Prior To Renewal. Except as provided in Specific Condition **A.23**., compliance tests shall be performed for PM and VE once every 5 years. The tests shall occur prior to obtaining a renewed operating permit to demonstrate compliance with the emission limits in Specific Conditions **A.5. – A.9.** [Rules 62-210.300(2)(a) and 62-297.310(7)(a), F.A.C.]

A.18. PM Emissions. The test methods for PM emissions shall be EPA Methods 17, 5, 5B, or 5F, incorporated by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet. EPA Method 5 may be used with filter temperature no more than 320 degrees Fahrenheit. For EPA Method 17, stack temperature shall be less than 375 degrees Fahrenheit. The owner or operator may use EPA Method 5 to demonstrate compliance. EPA Method 3 or 3A with Orsat analysis shall be used when the oxygen based F-factor, computed according to EPA Method 19, is used in lieu of heat input. Acetone wash shall be used with EPA Method 5 or 17. [Rules 62-213.440, 62-296.405(1)(e)2., and 62-297.401, F.A.C.; Permit No. 0170004-003-AC]

A.19. VE. The test method for VE shall be EPA Method 9, incorporated in Chapter 62-297, F.A.C. In lieu of Method 9 testing, a transmissometer utilizing a 6-minute block average for opacity measurement may be used, provided such transmissometer is installed, certified, calibrated, operated and maintained in accordance with the provisions of 40 CFR 75. [Rules 62-296.405(1)(e)1. and 62-297.401, F.A.C.; Permit No. 0170004-003-AC]

A.20. SO_2. The test methods for SO_2 emissions shall be EPA Methods 6, 6A, 6B, or 6C, incorporated by reference in Chapter 62-297, F.A.C. Fuel sampling and analysis may be used as an alternate sampling procedure. The Department will retain the authority to require EPA Method 6 or 6C if it has reason to believe that exceedences of the sulfur dioxide emissions limiting standard are occurring. Results of an approved fuel

DRAFT/PROPOSED

sampling and analysis program shall have the same effect as EPA Method 6 test results for purposes of demonstrating compliance or noncompliance with sulfur dioxide standards. **The permittee may use the EPA test methods, referenced above, to demonstrate compliance; however, as an alternate sampling procedure authorized by permit, the permittee may demonstrate compliance using fuel sampling and analysis.** If the permittee elects to discontinue fuel sampling and analysis, it shall perform a stack test for sulfur dioxide at the time of the next particulate matter test, and annually thereafter until fuel sampling and analysis is resumed. [Rules 62-213.440, 62-296.405(1)(e)3. and 62-297.401, F.A.C.; Permit No. 0170004-003-AC; PA 77-09]

A.21. SO_2 – Fuel Analysis. The owner or operator may demonstrate compliance with the SO_2 limitation using fuel sampling and analysis. This protocol is allowed because the emissions unit does not have an operating flue gas desulfurization device. See specific conditions **A.20.** and **A.22**. [Rule 62-296.405(1)(f)1.b., F.A.C.; Permit Nos. 0170004-003-AC and 0170004-006-AC]

A.22. SO_2 – Alternate Fuel Sampling. The following fuel sampling and analysis program shall be used as an alternate sampling procedure authorized by permit to demonstrate compliance with the SO_2 standard:

a. *Method*. Determine and record the as-fired fuel sulfur content, percent by weight, for coal using appropriate ASTM methods such as, ASTM D2013-72, ASTM D3177-75, and ASTM D4239-85, or latest ASTM edition methods, to analyze a representative sample of coal following each fuel delivery.
b. *Recordkeeping*. Record daily the amount of coal fired, the density of each fuel, the Btu value, and the percent sulfur content by weight of each fuel.
c. *Calculations*. Utilize the information in a. and b., above, to calculate the SO_2 emission rate to ensure compliance at all times.

[Rules 62-213.440, 62-296.405(1)(e)3., 62-296.405(1)(f)1.b. and 62-297.440, F.A.C.; Permit Nos. 0170004-003-AC and 0170004-006-AC]

A.23. When PM Tests Not Required. Annual and permit renewal compliance testing for particulate matter emissions is not required for these emissions units while burning:

a. only gaseous fuel(s); or
b. gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year; or
c. only liquid fuel(s) for less than 400 hours per year.

[Rules 62-297.310(7)(a)3. & 5., F.A.C.; and, ASP Number 97-B-01.]

Recordkeeping and Reporting Requirements

A.24. Reporting Schedule. The following reports and notifications shall be submitted to the Compliance Authority:

Report	Reporting Deadline	Related Condition(s)
Notice of Excess Emissions	Quarterly	**A.25**.

A.25. Quarterly Reporting. The owners or operators shall submit to the Department a written report of emissions in excess of the emission limiting standards, for each calendar quarter. The nature and cause of the excessive emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file by the facility for a period of five years. [Rules 62-213.440 and 62-296.405(g), F.A.C.]

A.26. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

Other Requirements

A.27. These emissions units are also subject to conditions contained in **Subsection J. Used Oil Common Condition.**

DRAFT/PROPOSED

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

EU No.	Emission Unit Description
003	FFSG, Unit 5
004	FFSG, Unit 4
032	Hydrated Lime Storage and Transfer System

Emissions units 003 and 004 (Unit 5 and Unit 4, respectively) are fossil fuel-fired electric utility steam generators, each consisting of a pulverized coal, dry bottom, wall-fired boiler rated at 760 MW. Air pollution control equipment includes: low-NO_X burners; selective catalytic reduction (SCR) systems; flue gas desulfurization (FGD) systems; ~~alkali injection~~ acid mist mitigation (AMM) systems; and, an electrostatic precipitators (ESP) manufactured by Combustion Engineering. Units 4 and 5 share a common 550 foot tall chimney with separate internal stack liners with continuous emissions monitoring systems (CEMS) on each stack liner. The flue gases exhaust at 130° F with a volumetric flow rate of 2,205,195 acfm through the individual stack liners, which are 30.5 feet in diameter.

Emissions unit 032 is a hydrated lime storage and transfer system for Units 4 and 5 consisting of the following primary components for each unit: a hydrated lime storage silo, which is controlled by a dust collector fabric filter (silo vent filter), rotary valves and blowers for pneumatic delivery of the hydrated lime and hydrated lime injection lances. A delivery truck pneumatically fills the hydrated lime storage silos with hydrated lime for approximately six hours per day. Each hydrated lime silo has dedicated rotary valves and blowers for pneumatic delivery of the hydrated lime to sets of injection lances mounted in flue gas ducts at various locations along the flue gas path. The pneumatic conveyor is also controlled by the dust collectors on the hydrated lime storage silos.

{Permitting Notes: ~~These~~ ~~e~~Emissions units 003 and 004 are regulated under Acid Rain, Phase I and II and Rule 62-210.300, F.A.C., Permits Required; 40 CFR 60 Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971; PSD-FL-007 issued by EPA in February 1978 and, Power Plant Siting Certification PA 77-09 conditions. Fossil fuel fired steam generator Unit 4 began commercial operation in 1982. Fossil fuel fired steam generator Unit 5 began commercial operation in 1984. Emissions unit 032 is regulated under Rule 62-212.300, F.A.C., and by applicable requirements established in Permit No. 0170004-037-AC (PSD-FL-383F).}

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The maximum allowable heat input rate is as follows:

Unit No.	MMBtu/hr Heat Input	Fuel Type
004	7,200	Bituminous Coal and Bituminous Coal /Bituminous Coal Briquette Mixture
003	7,200	Bituminous Coal and Bituminous Coal /Bituminous Coal Briquette Mixture

The maximum heat input rates to Units 4 and 5 are 7,200 MMBtu per hour per unit based on a 24-hour block average (midnight to midnight) and 6,800 MMBtu per hour per unit based on a 30-day rolling average. Compliance shall be demonstrated by collecting the fuel feed rate and fuel heating values as monitored by the existing operating data monitoring system. [Permit No. 0170004-023-AC (PSD-FL-383C), Specific Condition 3.A.5.a.]

B.2. Methods of Operation - Fuels. The fuels that are allowed to be burned in these units are:

a. Bituminous coal,
b. Bituminous coal and bituminous coal briquette mixture with the exception that No. 2 Fuel oil may be used as an ignitor fuel and natural gas may be used as a startup and low load flame stabilization fuel.
c. Used oil in accordance with the specific conditions of this permit (See Subsection **J.**).

DRAFT/PROPOSED

d. Blend of approximately 80% bituminous coal with 20% Powder River Basin coal (sub-bituminous coal). Coal fuel blends shall not exceed a maximum sulfur content of 3.13% by weight.

[Rule 62-213.410, F.A.C.; Permit Nos. 0170004-006-AC and 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.6.; PPSC PA-77-09 and modified conditions]

B.3. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

B.4. Hours of Operation. The emissions units may operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.]

Control Technology

B.5. Emissions Control Equipment and BACT Controls.

a. *Low-NO_X Burners*. The permittee is required to operate and maintain low-NO_X burners manufactured by Babcock & Wilcox (Model No. DRB-42) or equivalent. Based on the preliminary design, each unit contains 54 burners.

b. *Selective Catalytic Reduction (SCR) Systems*. The permittee is required to operate and maintain SCR systems to reduce NO_X emissions. Each system consists of the following basic components: an ammonia injection grid, a mixing grid, SCR reactor with catalyst modules, a urea-to-ammonia processing system, associated bulk storage systems, an automated control system, piping, electrical, and other ancillary equipment. As needed, urea shall be converted into ammonia, which shall be mixed to the proper concentration. Ammonia shall be injected ahead of the SCR reactor, which is installed upstream of the air heater for each unit. The ammonia combines with NO_X in the presence of the catalyst in a reduction reaction to form nitrogen and water. Based on the preliminary design, the SCR systems are capable of a 90% reduction in NO_X emissions with a maximum ammonia slip of 2 to 5 ppmv. The system also incorporates dampers and ductwork to provide the capability of bypassing the SCR system. The bypass is most commonly used to gradually heat or cool the catalyst structure to minimize thermal fatigue during startup and shutdown.

c. *Flue Gas Desulfurization (FGD) Equipment*. The permittee is required to operate wet flue gas desulfurization (FGD) systems after the existing ESPs and induced draft fans to reduce SO_2 and other acid gas emissions. A limestone slurry shall be injected into the FGD absorbers at the design feed rate of approximately 352 gallons per minute (gpm). The slurry consists of approximately 25 to 30% solids and a specific gravity of 1.22. Based on the preliminary design, the FGD systems are capable of a 97% reduction in SO_2 emissions. In addition to the FGD absorbers, the systems consist of: limestone storage and handling; limestone preparation; limestone slurry injection; FGD blowdown; and, gypsum dewatering, transfer and storage.

d. ~~System*Alkali Injection Systems*. The permittee is required to operate and maintain alkali injection systems to reduce SAM emissions. The alkali injection system uses ammonia generated from the urea-to-ammonia processing system, which is part of the SCR system. Ammonia shall be injected into the flue gas through a uniform injection grid located after the boiler air heaters and SCR reactor and before the existing ESP. The additional ammonia reacts with sulfur trioxide (SO_3) to form salts (e.g., bisulfates), which shall be removed by the ESP. Based on the preliminary design, the alkali injection systems are capable of an 85% reduction in SAM emissions.~~

Acid Mist Mitigation (AMM) Systems to Reduce Sulfuric Acid Mist (SAM) Emissions. The permittee is required to control SAM emissions from currently authorized coal fuel blends through either lime injection (primary) or alkali injection (backup). The design for the AMM systems is to use either hydrated lime or ammonia. The hydrated lime or ammonia reacts with sulfur trioxide (SO_3) to form salts (e.g., bisulfates), which shall be removed by the ESP and/or the FGD. The design for both systems is for an 85% reduction.

(1) The hydrated lime shall be injected into the flue gas through a combination of locations after the boiler (i.e., after the air heaters, after the SCR reactor, and before/after the existing ESP). The hydrated lime injection rates will vary based on emission control levels and operational parameters at

DRAFT/PROPOSED

each of the hydrated lime injection locations. The hydrated lime reacts with the acidic compounds in the flue gas stream to form particulate matter that will be removed in the ESP and/or in the wet scrubber.

(2) The alkali injection system uses ammonia generated from the urea-to-ammonia processing system, which is part of the SCR system. When used as a backup to the lime injection, the ammonia shall be injected through a uniform injection grid located after the boiler air heaters and SCR reactor and before or after the existing ESP.

e. *Electrostatic Precipitator (ESP).* The permittee is required to operate and maintain the existing ESPs to achieve the PM/PM_{10} emissions standards.

f. *Hydrated Lime Injection Systems Dust Collectors.* A dust collector is required on each hydrated lime storage silo to control emissions from the loading of the hydrated lime storage silo and unloading and transfer from the silo to the injection lances. The silo dust collector has a flow rate of approximately 2,000 scfm during the loading operations, which are estimated to occur for 6 hours per day. Each dust collector is designed for a dust outlet specification of 0.015 grains/dry standard cubic feet (dscf).

[Permit Nos. 0170004-023-AC (PSD-FL-383C), Specific Conditions 3.A.2. & 3. and 0170004-037-AC (PSD-FL-383F), Specific Conditions A.3.a., H.2, H.3. & H.5.]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions **B.6. – B.~~14~~15.** are based on the specified averaging time of the applicable test method.

B.6. PM Emissions. No owner or operator shall cause to be discharged into the atmosphere from any affected facility any gases which:

a. Contain PM in excess of 43 nanograms per joule heat input (0.10 lb per million Btu) derived from fossil fuel.
b. Exhibit greater than 20 percent opacity, six minute average, except for one six-minute period per hour of not more than 27 percent opacity.
c. As determined by EPA Method 5 or 5b, PM emissions shall not exceed 0.030 lb/MMBtu and 216.0 lb/hour based on a 3-run test average conducted at permitted capacity.

[40 CFR 60.42(a)(1) & (2)[a&b]; Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.8.b.[c]]

B.7. SO_2 Emissions. No owner or operator shall cause to be discharged into the atmosphere from any affected facility any gases which contain SO_2 in excess of:

a. 340 nanograms per joule heat input (0.80 lb per million Btu), 24-hour average, derived from liquid fossil fuel.
b. 520 nanograms per joule heat input (1.2 lb per million Btu), 24-hour average, derived from solid fossil fuel.
c. When different fossil fuels are burned simultaneously in any combination, the applicable standard (in ng/J) shall be determined by proration using the following formula:

$$PS_{SO_2} = [y(340) + z(520)]/(y+z)$$

where:

PS_{SO_2} is the prorated standard for sulfur dioxide when burning different fuels simultaneously, in nanograms per joule heat input derived from all fossil fuels fired or from all fossil fuels and wood residue fired,
y is the percentage of total heat input derived from liquid fossil fuel, and
z is the percentage of total heat input derived from solid fossil fuel.

d. Compliance shall be based on the total heat input from all fossil fuels burned, including gaseous fuels.
e. As determined by CEMS data, SO_2 emissions shall not exceed 0.27 lb/MMBtu of heat input based on a 30-day rolling average for all periods of operation including startup, shutdown and malfunction. As determined by CEMS data, SO_2 emissions shall not exceed 1,944.0 lb/hour per unit based on a 24-hour block average excluding startup, shutdown and malfunction of the FGD system.

DRAFT/PROPOSED

[(40 CFR 60.43(a), (b) and (c); and, PPSC PA 77-09)[a-d]; Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.9.b.[e]]

B.8. SO_2 – Sulfur Content.

a. The maximum percent sulfur content of the coal/briquette mixture shall not exceed 0.68%, by weight, averaged on an annual basis. [Rule 62-213.440, F.A.C.; and, Permit No. 0170004-006-AC]
b. Fuel oil shall not contain more than 0.73% sulfur by weight. (See Specific Condition **B.2**.) [Rule 62-213.410, F.A.C.; PPSC PA-77-09 and modified conditions]
c. Coal fuel blends shall not exceed a maximum sulfur content of 3.13% by weight. (See Specific Condition **B.2**.d.) [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.6.a.]

B.9. Nitrogen Oxides (NO_X) Emissions. No owner or operator shall cause to be discharged into the atmosphere from any affected facility any gases which contain nitrogen oxides, expressed as NO_2, in excess of:

a. 86 nanograms per joule heat input (0.20 lb per million Btu), 30-day rolling average, derived from gaseous fossil fuel.
b. 129 nanograms per joule heat input (0.30 lb per million Btu), 30-day rolling average, derived from liquid fossil fuel.
c. 300 nanograms per joule heat input (0.70 lb per million Btu), 30-day rolling average, derived from solid fossil fuel.
d. When different fossil fuels are burned simultaneously in any combination, the applicable standard (in ng/J) is determined by proration using the following formula:

$$PS_{NOx} = \frac{x(86)+y(130)+z(300)}{x+y+z}$$

where:

PS_{NOx} = is the prorated standard for nitrogen oxides when burning different fuels simultaneously, in nanograms per joule heat input derived from all fossil fuels fired or from all fossil fuels fired;
x = is the percentage of total heat input derived from gaseous fossil fuel;
y = is the percentage of total heat input derived from liquid fossil fuel; and,
z = is the percentage of total heat input derived from solid fossil fuel.

e. As determined by CEMS data, NO_X emissions shall not exceed 2,085 tons per year per unit based on a 12-month rolling average for all periods of operation including startup, shutdown and malfunction. [(40 CFR 60.44(a)(2) and (3), and (b); and, PPSC PA 77-09)[a-d]; Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.9.a.[e]]

B.10. Ammonia Slip Emissions. As determined by EPA Method CTM-027 (or equivalent), the ammonia slip shall not exceed 5 ppmv based on a 3-run test average conducted at permitted capacity. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.8.a.]

B.11. Sulfuric Acid Mist (SAM) emissions. As determined by EPA Method 8 or 8A, SAM emissions shall not exceed 0.009 lb/MMBtu and 64.8 lb/hour based on a 3-run test average conducted at permitted capacity. This standard applies at all times except during periods of maintenance and repair as authorized by this permit. Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.8.c.]

B.12. Volatile Organic Compound (VOC) Emissions. As determined by EPA Method 25A, VOC emissions shall not exceed 0.004 lb/MMBtu and 28.8 lb/hour based on a 3-run test average conducted at permitted capacity. Optionally, EPA Method 18 may be conducted concurrently in order to deduct non-regulated VOC emissions such as methane and ethane. Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.8.d.]

DRAFT/PROPOSED

B.13. Opacity. As determined by EPA Method 9, the stack opacity shall not exceed 10% based on a 6-minute block average, except for one 6-minute period per hour of not more than 20%. Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.8.e.]

B.14. Carbon Monoxide (CO) Emissions. As determined by CEMS data, CO emissions shall not exceed 0.10 lb/MMBtu of heat input based on a 30-day rolling average excluding periods of startup, shutdown and malfunction. As determined by CEMS data, CO emissions shall not exceed 680.0 lb/hour based on a 30-day rolling average for all periods of operation including startup, shutdown and malfunction.

a. ~~CO Emissions (Interim). As determined by CEMS data, CO emissions shall not exceed 0.17 lb/MMBtu of heat input based on a 30-day rolling average excluding periods of startup, shutdown and malfunction. As determined by CEMS data, CO emissions shall not exceed 1,156 lb/hour based on a 30-day rolling average for all periods of operation including startup, shutdown and malfunction.~~

b. ~~*CO Emissions (Final).* Within 24 months of commencing commercial operation of each unit with the new low NO_x burners, the permittee shall submit an application proposing a revised (lower) final BACT standard. The final standard shall be based on actual CO emissions data collected for initial operation after completing installation of the new low NO_x burners. There may be separate standards proposed for different fuels.~~

[Permit Nos. 0170004-023-AC (PSD-FL-383C), Specific Conditions 3.A.9.c. & d., 0170004-030-AC (PSD-FL-383E), Specific Condition 9., and 0170004-037-AC (PSD-FL-383F), Specific Condition A.9.c.]

B.15. Hydrated Lime Injection Systems Opacity Work Practice Standard – Dust Collectors. As determined by EPA Method 9 upon request, visible emissions from each dust collector fabric filter exhaust shall not exceed the design emissions rate of 5% opacity, based on a 6-minute average. This visible emissions limit is a work practice standard to prevent circumvention of the control device and ensure proper operation. If visible emissions in excess of this standard occur, the permittee shall investigate the cause and take corrective action to regain operation below the standard (e.g., cause: bag failure / corrective action: replaced bags). For this equipment, visible emissions in excess of the opacity standard are not necessarily a violation of this permit; however, failure to investigate excess emissions and take corrective action to minimize emissions may be considered circumvention of a control device. [Rule 62-297.310(7)(b), F.A.C. and Permit No. 0170004-037-AC (PSD-FL-383F), Specific Condition H.4.]

Excess Emissions

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

B.16. Excess Emissions Allowed.

a. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.

b. In accordance with Rule 62-210.700(6), F.A.C., excess emissions due to startup, shutdown or malfunction have been considered in establishing the sets of CEMS-based emissions standards of this permit. With regard to SAM emissions, the AMM ~~alkali injection~~ systems ~~is currently shared by Units 4 and 5 and the system~~ must be shutdown to conduct some maintenance and repairs. The following additional conditions apply to the ~~shared alkali injection~~ AMM systems:

~~(1) *Additional SAM Testing.* Prior to January 14, 2014 (before March 18, 2012 in Permit 0170004-035-AV), the permittee shall conduct additional SAM emissions tests (at least three, 1-hour test runs) on at least one unit without the alkali injection system in operation while firing lower sulfur "substitute coal". The SAM emissions standard shall not apply during these information-gathering tests. The purpose of the tests are to determine the SAM emissions rate (lb/MMBtu) while firing "substitute coal" with the alkali injection system offline. The permittee shall submit a test report in accordance with the requirements of this permit and specifically identify whether the units are capable of~~

DRAFT / NOTICE

~~complying with the SAM emissions limit while firing the tested "substitute coal". Each test report shall also include the results from all previous tests conducted for such purposes. If the sulfur content of the "substitute coal" increases, subsequent SAM tests may be conducted as necessary in accordance with this condition.~~

~~*{Permitting Note: Currently, "substitute coal" is available at the plant and used for Units 1 and 2. Although the permitted maximum sulfur content of this coal is approximately 1.3% by weight (2.1 lb SO_2/MMBtu), the actual sulfur content is less than 1% by weight. When firing "substitute coal", reductions in SAM emissions by the wet FGD system may be sufficient to demonstrate compliance with the SAM emissions standard.}*~~

(~~2~~1) *Preventive Maintenance*. To minimize malfunctions of the ~~alkali injection~~ AMM systems and resulting excess SAM emissions, the permittee shall conduct annual preventive maintenance.

(a) Whenever possible, ~~T~~ the preventive maintenance shall be scheduled for a period when ~~at least one~~ the unit (Unit 4 or Unit 5) is down for a scheduled outage, which occurs approximately every 18 months per unit. ~~Whenever possible, the scheduled outages shall be staggered such that only one unit will be in an outage each year to accommodate the required annual preventive maintenance.~~

(b) When conducting the required preventative maintenance of the ~~alkali injection~~ AMM systems, the permittee may operate ~~no more than one~~ the unit while firing "substitute coal" without the ~~alkali injection~~ AMM systems in operation for no more than 240 hours per calendar year. If stack testing demonstrates compliance with the SAM emissions standard while firing "substitute coal" for a given sulfur content without the ~~alkali injection~~ AMM systems in operation, the hours of operation while firing that coal shall not count towards this operational restriction.

(~~3~~2) *Repair*. The following conditions apply to malfunctions of the ~~alkali injection~~ AMM systems. 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."

(a) The permittee shall maintain a list and inventory of spare parts associated with the shared ~~alkali injection~~ AMM system equipment to facilitate quick repairs.

(b) When a malfunction occurs, the permittee shall immediately investigate to determine the corrective action required. For malfunctions that will require an extended period of time to repair, the permittee shall begin preparations to fire "substitute coal" or to begin operation of the alternative AMM system (either the ammonia based, or hydrated lime based system, whichever is not currently in operation). When initially evaluating a given malfunction and performing the repair, Units 4 and/or 5 may be operated without the ~~alkali injection~~ AMM system for no more than 72 hours; thereafter, Units 4 and/or 5 shall begin firing "substitute coal" or begin operation of the alternative AMM system in order to continue operating while the plant makes the repair.

(c) The ~~alkali injection~~ AMM systems shall not be offline (including the malfunctions) for more than a total of 480 hours per calendar year to evaluate malfunctions and conduct repairs. This operational restriction shall include: authorized hours of firing normal coal for initial evaluation and repair (up to 72 hours per event); and authorized hours of operation firing "substitute coal" that has not yet demonstrated compliance with the SAM emissions standard. If stack testing demonstrates compliance with the SAM emissions standard while firing "substitute coal" for a given sulfur content without the ~~alkali injection~~ AMM systems in operation, the hours of operation while firing that coal shall not count towards this operational restriction.

(~~4~~3) *Purpose*. The purpose of this condition is to provide operational flexibility to conduct timely maintenance and repair on the ~~alkali injection~~ AMM system ~~shared~~ used by Units 4 and 5 while minimizing excess SAM emissions. Once compliance is demonstrated for firing "substitute coal" with a given sulfur content, periodic testing is not required except as allowed by Rule 62-297.310(7)(b), F.A.C. (Special Compliance Tests). In addition, the compliant sulfur content for "substitute coal" shall be established based on the following equation:

DRAFT/PROPOSED

$\% S_{Comp.} = (\%S_{Tested})\ (SAM_{Limit}) / (SAM_{Tested})$

Where:

$\%S_{Comp.}$ = Maximum percent sulfur content by weight that would demonstrate compliance
$\%S_{Tested}$ = Actual percent sulfur content by weight fired during stack test
SAM_{Limit} = Permitted SAM emissions limit, 0.009 lb/MMBtu
SAM_{Tested} = Actual SAM emissions rate in lb/MMBtu based on stack test

Example: Stack testing shows an actual SAM emissions rate of 0.0085 lb/MMBtu when firing substitute coal with a sulfur content of 0.98% by weight and the ~~alkali injection~~ AMM systems offline. Therefore, the maximum sulfur content of "substitute coal" considered demonstrated would be:

$\% S_{Comp.}$ (SC) = (0.98% S) (0.009 lb/MMBtu) / (0.0085 lb/MMBtu) = 1.04% sulfur by weight

Therefore, if "substitute coal" is fired with an actual sulfur content equal to or less than the maximum sulfur content as calculated above ($\%S_{Comp.}$), then the hours while firing that coal do not count towards the operational restrictions specified for maintenance and repair. If "substitute coal" is fired with an actual sulfur content higher than the calculated value ($\%S_{Comp.}$), then the hours while firing that coal do count towards the operational restrictions specified for maintenance and repair.

[Rules 62-210.700(1) & (6), F.A.C. ~~and~~; Permit Nos. 0170004-023-AC (PSD-FL-383C), Specific Condition 3.A.12., and 0170004-037-AC (PSD-FL-383F), Specific Condition A.12.]

B.17. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. All such preventable emissions shall be included in any compliance determinations based on CEMS data. [Rule 62-210.700(4), F.A.C. and Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.11.]

B.18. NSPS Excess Emissions. Excess emissions shall be as defined in 40 CFR 60.45(g), Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971. [40 CFR 60.45(g)]

Monitoring of Operations

B.19. CAM Plan. These emissions units are subject to the Compliance Assurance Monitoring (CAM) requirements contained in the attached Appendix CAM. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emissions limitation; however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(7)(b), F.A.C. [40 CFR 64; Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.]

B.20. Ambient Air Monitoring. An ambient monitoring station located on site (Site No. 2) includes monitors for particulate matter less than 10 micrometers in diameter (PM_{10}), particulate matter 2.5 micrometers in diameter and smaller ($PM_{2.5}$), and SO_2. All monitors located at Site No. 2 shall continue to be operated by Duke Energy Florida (DEF) and DEF will continue reporting data from these monitors as required by Special Condition 1.A.2 of the Conditions of Certification. New or existing monitoring devices shall be located as designated by the Department. The monitoring devices for sulfur dioxide shall meet the requirements of 40 CFR 53. [PPSC PA 77-09, and order modifying conditions of certification, OGC Case No. 83-0818, dated February 2, 1984, and Rules 62-213.440 and 62-296.405(1)(c)3., F.A.C.; Department letter dated July 23, 2008]

B.21. Fuel Monitoring – Units 4 and 5. The permittee shall continuously monitor each fuel to determine the heat input rates to Units 4 and 5. (See Specific Condition **B.41.**). [Permit No. 0170004-037-AC (PSD-FL-383F) Specific Condition A.23.]

B.22. Control Device Parametric Monitoring. The following parameters related to the operation of the control devices shall be continuously monitored (see also Specific Condition **B.42.**).

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a. *SCR System*. The permittee shall continuously monitor the ammonia injection rate of the SCR control system.
b. *FGD System*. The permittee shall continuously monitor the limestone slurry injection rate of the FGD control system.
c. *AMM Systems*. The permittee shall continuously monitor the hydrated lime or ammonia injection rate of the AMM systems. Operation of the AMM systems shall be determined by the automated control system, which shall be set in accordance with the preliminary performance and compliance tests for SAM emissions.
d. *ESP*. The permittee shall continuously monitor the opacity in the ductwork just after the ESP for use as part of the Compliance Assurance Monitoring Plan (see Appendix CAM). Operation of the ESP shall be based upon COMS data collected during satisfactory PM emissions compliance tests.

[Permit No. 0170004-037-AC (PSD-FL-383F), Specific Condition A.25.]

B.23. Operating Protocols for the AMM Systems. The permittee shall operate the AMM systems in accordance with the operating protocol determined by the performance tests. Using the following procedures, the permittee may conduct additional SAM performance tests to establish a new operating protocol for the AMM system due to changes with the fuel blends, control equipment, operating methods or other circumstances.

a. For each set of operating conditions being evaluated, the permittee shall conduct at least a 1-hour test run to determine SAM emissions. At least nine test runs shall be conducted to evaluate the effect of SAM emissions on parameters such as: the SO_2 emissions rate prior to the SCR catalyst, the unit load, the flue gas flow rate, the ammonia and/or hydrated lime injection rate, the current catalyst oxidation rate, and the operating level of the FGD system.
b. Tests shall be conducted with the fuel blends and load rates that are representative of the actual operating ranges intended for Units 4 and 5. Sufficient tests shall be conducted to establish the SAM emissions rates under varying operating conditions and levels of ammonia and/or hydrated lime injection (e.g., bypass of the SCR reactor, SCR reactor in service without ammonia and/or hydrated lime injection, SCR reactor in service, etc.).
c. At least 15 days prior to initiating the performance tests, the permittee shall submit a test notification, preliminary test schedule and test protocol to the Office of Permitting and Compliance and to the Compliance Authority.
d. Within 45 days following the last test run conducted, the permittee shall provide a report summarizing the emissions tests and results. All SAM emissions test data shall be provided with this report.
e. Within 45 days following the submittal of the performance test report and no later than 90 days following the last test run conducted, the permittee shall submit an operating protocol summarizing the following: identify each set of operating conditions evaluated; identify each operating parameter evaluated; identify the relative influence of each operating parameter; describe how the automated control system will adjust the ammonia injection rate based on the selected parameters; identify the frequency with which operational parameters will be reevaluated and adjusted within the automated control system; provide a description of the algorithm used for the automated control system or a series of related performance curves; and provide details for calculating and estimating the SAM emissions rate based on the level of ammonia injection and operating conditions. The performance tests shall be used to set the AMM control systems and estimate SAM emissions.

[Rule 62-212.400(BACT), F.A.C.; and, Permit No. 0170004-037-AC (PSD-FL-383F), Specific Condition A.16.]

Continuous Monitoring Requirements

B.24. Required Continuous Monitoring Systems (CMS). Continuous monitoring systems are required for SO_2, NO_X, CO_2 and opacity. Each COMS and CEMS shall be located such that representative measurements of emissions or process parameters from the facility are obtained. The monitors shall be operated and maintained in accordance with the existing requirements of 40 CFR 60.45, as well as the provisions of the federal acid rain

program. [40 CFR 60.45; PPSC PA 77-09; and Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.13.]

B.25. Continuous Opacity Monitoring Systems (COMS) for Periodic Monitoring. Periodic monitoring for opacity shall be COMS, which are maintained and operated in conformance with 40 CFR Part 75. [Rule 62-213.440, F.A.C.]

B.26. CO CEMS. For Units 4 and 5, the permittee shall properly calibrate, operate and maintain CEMS to measure and record CO emissions in the terms of the applicable standard. Each CEMS shall be located such that representative measurements of emissions or process parameters from the facility are obtained in accordance with the procedures contained in the applicable performance specification of 40 CFR Part 60, Appendix B. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.14.]

Test Methods and Procedures

B.27. Test Methods. Required tests shall be performed in accordance with the following reference methods:

EPA Method	Description of Method and Comments
1 - 4	Methods for Determining Traverse Points, Velocity, Flow Rate, Gas Analysis, and Moisture Content. These methods shall be performed as necessary to support other methods.
5	Determination of Particulate Emissions from Stationary Sources.
5B	Determination of Nonsulfuric Acid Particulate Matter from Stationary Sources.
6	Determination of Sulfur Dioxide Emissions from Stationary Sources.
6A	Determination of Sulfur Dioxide, Moisture, and Carbon Dioxide Emissions From Fossil Fuel Combustion Sources.
6B	Determination of Sulfur Dioxide and Carbon Dioxide Daily Average Emissions From Fossil Fuel Combustion Sources.
6C	Determination of Sulfur Dioxide Emissions from Stationary Sources (Instrumental Analyzer Procedure).
7	Determination of Nitrogen Oxide Emissions from Stationary Sources.
7A	Determination of Nitrogen Oxide Emissions from Stationary Sources - Ion Chromatographic Method.
7C	Determination of Nitrogen Oxide Emissions from Stationary Sources - Alkaline-Permanganate/Colorimetric Method.
7D	Determination of Nitrogen Oxide Emissions from Stationary Sources - Alkaline-Permanganate/Ion Chromatographic Method.
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources (Instrument Analyzer Procedure).
8 or 8A	Determination of Sulfuric Acid Mist and Sulfur Dioxide Emission from Stationary Sources.
9	Visual Determination of the Opacity of Emissions from Stationary Sources.
10	Method for Determining Carbon Monoxide Emissions (Instrumental). The method shall be based on a continuous sampling train.

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EPA Method	Description of Method and Comments
18	Method for Determining Gaseous Organic Compound Emissions (Gas Chromatography). Concurrently with EPA Method 25A, EPA Method 18 may be used as an optional method to deduct emissions of methane and ethane from the total hydrocarbon (THC) emissions measured by Method 25A.
25A	Method for Determining Gaseous Organic Concentrations (Flame Ionization).
CTM-027	Procedure for Collection and Analysis of Ammonia in Stationary Source. This is an EPA conditional test method with a minimum detection limit of 1 ppm. Other equivalent methods may be used.
19	Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates (Optional F-factor method may be used to determine flow rate and gas analysis to calculate mass emissions in lieu of Methods 1-4.).
ASTM Method D2015-77, D240-76, D1826-77, ASTM D2013-72, ASTM D3177-75, and ASTM D4239-85, or latest ASTM edition	Standard Methods by the American Society of Testing and Materials for fuel analysis.

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-297.401, F.A.C.; 40 CFR 60 Subpart D; and Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.18.]

B.28. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

B.29. Annual Compliance Tests Required. Except as provided in Specific Condition **B.3~~2~~6.**, during each federal fiscal year (October 1st to September 30th), each EU003 and EU004 shall be tested to demonstrate compliance with the emissions standards for ammonia slip, opacity, PM, and SAM. [Rule 62-297.310(7), F.A.C.; and Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.19.b.]

B.30. Compliance Tests Prior To Renewal. Except as provided in Specific Condition **B.3~~2~~6.**, in addition to the annual compliance tests specified above, during the year prior to submitting an application for permit renewal, compliance tests shall also be performed for VOC to demonstrate compliance with the emission limits in Specific Condition **B.12.** [Rules 62-210.300(2)(a) and 62-297.310(7)(a), F.A.C.; and Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.19.b.]

B.31. Compliance Testing Required. The owner or operator shall conduct emission testing in accordance with the requirements of 40 CFR 60.46. [40 CFR 60.46]

B.32. Compliance by CEMS. Compliance with the standards for emissions of CO, NO_X, and SO_2 shall be demonstrated with data collected from the required continuous monitoring systems. The permittee shall comply with the conditions of Appendix F - Standard Continuous Monitoring Requirements of this permit as the compliance method for the corresponding emissions standards. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.15.]

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B.33. SO_2 - Fuel Analysis. The permittee shall demonstrate compliance with the SO_2 limit in specific condition **B.8.a.** by means of a fuel analysis provided by the vendor or the permittee upon each fuel delivery. See specific condition **B.3~~0~~4.** [Rule 62-213.440, F.A.C.; Permit No. 0170004-006-AC]

B.34. SO_2 - Alternate Fuel Sampling. The following fuel sampling and analysis program shall be used as an alternate sampling procedure authorized by permit to demonstrate compliance with the fuel sulfur standard:

a. *Methods*. Determine and record the as-fired fuel sulfur content, percent by weight, for coal using appropriate ASTM methods such as, ASTM D2013-72, ASTM D3177-75, and ASTM D4239-85, or latest ASTM edition methods, to analyze a representative sample of coal following each fuel delivery.
b. *Recordkeeping*. Record daily the amount of coal fired, the density of each fuel, the Btu value, and the percent sulfur content by weight of each fuel.
c. *Calculations*. Utilize the information in a. and b., above, to calculate the SO_2 emission rate to ensure compliance at all times.

[Rule 62-213.440, F.A.C.; Permit No. 0170004-006-AC]

B.35. VE. The test method for VE shall be EPA Method 9, adopted and incorporated by reference in Rule 62-204.800, F.A.C. and referenced in Chapter 62-297, F.A.C. [Rules 62-296.405(1)(e)1. and 62-297.401, F.A.C.]

B.36. When PM Tests Not Required. Annual and permit renewal compliance testing for particulate matter emissions is not required for ~~these~~ emissions units 003 and 004 while burning:

a. only gaseous fuel(s); or
b. gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year; or
c. only liquid fuel(s) for less than 400 hours per year.

[Rules 62-297.310(7)(a)3. & 5., F.A.C.; and, ASP Number 97-B-01.]

B.37. Additional Compliance Test requirements.

a. *Test Fuel*. Initial compliance tests were to have been conducted with the highest sulfur content representative of the actual coal blends being fired. Within 60 days of determining that the fuel sulfur content of the actual coal blends fired have increased by 0.5% by weight or more from the highest tested sulfur content that demonstrated compliance, the permittee shall conduct new tests to determine emissions of opacity, PM and SAM. For purposes of this condition, the fuel sulfur content shall be based on an average of the as-fired fuel samples for 30 successive operating days. Once compliance has been demonstrated at the higher fuel sulfur levels (2.63% to 3.13% sulfur by weight), subsequent tests shall be conducted using a fuel with a sulfur content that is representative of the actual coal blends being fired.
b. *Operational Data for Tests*. When compliance tests are conducted, for each test run, the permittee shall monitor and record the following information: fuel feed rate; heat input rate; sulfur content of fuel; the ammonia injection rate of the SCR control system; the limestone slurry injection rate of the FGD control system; lime or ~~alkali~~ammonia injection rate of the AMM systems; flue gas oxygen content (%); CO, NO_X, and SO_2 CEMS emissions data; and opacity data.

[Permit Nos. 0170004-023-AC (PSD-FL-383C, Specific Conditions 3.A.19.c. & d. and 3.A.20., and 0170004-037-AC (PSD-FL-383F), Specific Condition A.20.]

Recordkeeping and Reporting Requirements

B.38. Reporting Schedule. The following reports and notifications shall be submitted to the Compliance Authority:

Report	Reporting Deadline	Related Condition(s)
Notice of Excess Emissions	Postmarked by the 30th day following the end of each six-month period	**B.1~~7~~8. and B.3~~5~~9.**

[Rule 62-213.440, F.A.C.]

B.39. Excess Emission Reports. Excess emissions, as defined in 40 CFR 60.45(g), shall be reported in accordance with the requirements of 40 CFR 60.45(g). [40 CFR 60.45(g)]

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B.40. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

B.41. Fuel Monitoring - Units 4 and 5. Using the existing operating data system, the permittee shall continuously monitor each fuel to determine the heat input rates to Units 4 and 5. The heat input rates shall be calculated from the amounts of fuel fired and the higher heating value (HHV) of each fuel as determined by vendor certifications or the regular sampling and analysis required by the current Title V permit. Data shall be reduced to 1-hour blocks, 24-hour blocks (midnight-to-midnight), and 30-day rolling averages (average of all the 1-hour blocks for 30 operating days). [Permit No. 0170004-023-AC (PSD-FL-383C), Specific Condition 3.A.23.]

B.42. Control Device – Record Keeping for Parametric Monitoring.

a. *SCR System*. The permittee shall continuously monitor and record the ammonia injection rate of the SCR control system. Data shall be reduced to 1-hour block averages.

b. *FGD System*. The permittee shall continuously monitor and record the limestone slurry injection rate of the FGD control system. Data shall be reduced to 1-hour block averages.

c. ~~*Alkali Injection*~~ *AMM Systems*. The permittee shall continuously monitor and record the hydrated lime or ~~alkali~~ammonia injection rate of the ~~alkali injection~~ AMM systems. Data shall be reduced to 1-hour block averages. Operation of the ~~alkali injection~~ AMM systems shall be determined by the automated control system, which shall be set in accordance with the preliminary performance and compliance tests for SAM emissions.

d. *ESP*. The permittee shall continuously monitor and record the opacity in the ductwork just after the ESP for use as part of the Compliance Assurance Monitoring Plan under Title V. Operation of the ESP shall be based upon COMS data collected during satisfactory PM emissions compliance tests.

[Rule 62-212.400 (BACT), F.A.C.; Permit Nos. 0170004-023-AC (PSD-FL-383C), Specific Conditions 3.A.25.a, b., c. & d., and 0170004-037-AC (PSD-FL-383F), Specific Condition A.25.c.]

Other Requirements

B.43. These emissions units are also subject to condition **J.1.** contained in **Subsection J. Used Oil Common Condition.**

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

EU No.	Brief Description
006	Fly ash transfer (Source 1) from FFSG Unit 1
008	Fly ash storage silo (Source 3) for FFSG Units 1 and 2
009	Fly ash transfer (Source 4) from FFSG Unit 2
010	Fly ash transfer (Source 5) from FFSG Unit 2

Emissions unit 006 (EU006) is a fly ash transfer (Source 1) from FFSG Unit 1. This emissions unit consists of the fly ash conveying line, dense phase transfer vessel and separator used to transfer fly ash from the FFSG Unit 1 electrostatic precipitator (ESP) to the fly ash storage silo (Source 3) at a design transfer rate of 44 tons per hour. PM emissions are controlled by a Monex Resources, Inc. Model MD80 baghouse at a design air flow of 1,820 acfm.

Emissions unit 008 (EU008) is a fly ash storage silo (Source 3) for FFSG Units 1 and 2. This emissions unit consists of the fly ash storage silo used to store fly ash from the ESP of FFSG Units 1 and 2. Fly ash is pneumatically conveyed from the FFSG Units 1 and 2 ESPs at a combined transfer rate of 174 tons per hour. PM emissions are controlled by a Pulse King Model M 100 S baghouse at a design air flow of 2,546 acfm. Fly ash from the storage silo is disposed of either in a dry form by loading into enclosed tanker trucks or in a wet form by loading wet ash into open trucks.

Emissions unit 009 (EU009) is a fly ash transfer (Source 4) from FFSG Unit 2. This emissions unit consists of the fly ash conveying line, dense phase transfer vessel and separator used to transfer fly ash from the FFSG Unit 2 ESP number 2C to the fly ash storage silo (Source 3) at a design transfer rate of 60 tons per hour. PM emissions are controlled by a Monex Resources, Inc. Model MD80 baghouse at a design air flow of 2,200 acfm.

Emissions unit 010 (EU010) is a fly ash transfer (Source 5) from FFSG Unit 2. This emissions unit consists of the fly ash conveying line, dense phase transfer vessel and separator used to transfer fly ash from the FFSG Unit 2 ESP number 2A and 2B to the fly ash storage silo (Source 3) at a maximum design transfer rate of 70 tons per hour. PM emissions are controlled by a Monex Resources, Inc. Model MD80 baghouse at a design air flow of 2,800 acfm.

{Permitting note(s): These emissions units are regulated under Best Available Control Technology (BACT) Determinations ordered 2/5/79 (proposed 1/26/79) and 8/16/79.}

Essential Potential to Emit (PTE) Parameters

C.1. Permitted Capacity. The transfer rates shall not exceed:

EU No.	Transfer Rate (tons per hour)
006	44
008	174
009	60
010	70

[Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), F.A.C.]

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

C.3. Hours of Operation. The emissions units may operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.]

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C.4. Additional Reasonable Precautions for Control of PM Emissions. The owner or operator shall take the following reasonable precautions to control emissions of PM from transport of ash from EU008 for disposal or use:

a. Ash for transport shall be wetted before loading into open trucks,
b. Dry ash shall be transferred to enclosed tanker trucks.

[Permit No. AC09-256791]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions **C.5. – C.6.**. are based on the specified averaging time of the applicable test method.

C.5. PM Emission Limitations. Emissions of particulate matter from the following emissions units shall not exceed:

EU No.	Emission Limit (pounds per hour)	Emission Limit (tons per year)
006	3.5	15.4
008	0.6	2.6
009	2.2	9.6
010	2.2	9.6

[Permit No. AC09-256791; BACT Determinations dated 2/5/79 and 8/16/79]

C.6. VE**.** VE from each of the Units 1 and 2 flyash handling system baghouse exhaust stacks shall not exceed 5% opacity. See Specific Condition **C.13**. [Permit No. AC09-256791; BACT Determinations dated 2/5/79 and 8/16/79]

Excess Emissions

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

C.7. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

C.8. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

Test Methods and Procedures

C.9. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources
22	Visual Determination of Fugitive Emissions from material Sources and Smoke Emissions from Flares

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [62-297.401, F.A.C., Permit No. AC09-256791]

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C.10. Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

C.11. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), each EU006, EU008, EU009 and EU010 shall be tested to demonstrate compliance with the emissions standards for VE. [Rule 62-297.310(7), F.A.C. and Permit No. AC09-256791]

C.12. Compliance Tests Prior To Renewal. Compliance tests shall be performed for VE once every 5 years. The tests shall occur prior to obtaining a renewed operating permit to demonstrate compliance with the emission limits in Specific Conditions **C.6.** [Rules 62-210.300(2)(a) and 62-297.310(7)(a), F.A.C.]

C.13. VE in Lieu of Stack Test. Due to the expense and complexity of conducting a stack test on minor sources of PM and because the ash handling system emissions units are controlled with baghouses, the Department, pursuant to Rule 62-297.620(4), F.A.C. will consider compliance with 5% VE limitation (See Specific Condition **C.6**.) as reasonable assurance of compliance with the PM emission limitations in Specific Condition **C.5**. in lieu of particulate stack tests. If the Department has reason to believe that the particulate emission standard applicable to each emissions unit (006, 008, 009 and 010) is not being met, it may require that compliance be demonstrated by stack testing in accordance with Chapter 62-297, F.A.C. [Permit No. AC09-256791; BACT Determination dated 2/5/79]

C.14. VE. Compliance for VE shall be demonstrated using EPA Method 9, adopted and incorporated by reference in Rule 62-204.800, F.A.C. and referenced in Rule 62-297, F.A.C.

C.15. Specific VE Test Requirements. Each test shall be a minimum of thirty minutes in duration. Separate VE tests shall be conducted on each of the baghouse filter/separate exhausts (total of four emission points to be tested). VE testing shall be conducted while transferring fly ash from both FFSG Units 1 and 2 to the silo (EU008) at the same time. The tests shall be conducted during a period when both FFSG Units 1 and 2 are operating at 90 to 100% of full load while sootblowing. A statement of the FFSG unit loads, verifying the tests were conducted during sootblowing, shall be submitted with the test reports. [Permit No. AC09-256791]

{Permitting note: For those emissions points containing a baghouse, the permittee shall perform and record the results of weekly qualitative observations of VE checks (e.g., Method 22) with follow-up Method 9 tests within 24 hours of any abnormal VE.}

Recordkeeping and Reporting Requirements

C.16. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

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

EU No.	Brief Description
014	Bottom Ash Storage Silo for FFSG Units 1 and 2

Emissions unit 014 (EU014) is a bottom ash storage silo for FFSG Units 1 and 2, with associated vacuum blower exhausts and bin vent filter (total of three emission points). This emissions unit consists of the system to collect and store bottom ash and economizer ash from both FFSG Units 1 and 2 at a total rate of 16 tons per hour (8 tons per hour from each FFSG unit) at an airflow rate of 2,200 standard cubic feet per minute (scfm) from each unit. Ash is conveyed by vacuum from each FFSG unit by a separate vacuum blower, with air and ash passing through a baghouse (filter/separator) where ash is deposited in the silo and air is exhausted through the vacuum blower. Air displaced in the silo is vented through an additional bag filter (the bin vent filter) at an airflow rate of 2,400 scfm. Ash stored in the silo is unloaded into trucks for sale, use or disposal at the on-site ash disposal facility. Ash will be wet via a pug mill before loading into open trucks, or dry ash will be transferred to enclosed tanker trucks.

{Permitting note(s): This emissions unit is regulated under Rule 62-296.320, F.A.C., and by applicable requirements of AC09-235915.}

Essential Potential to Emit (PTE) Parameters

D.1. Permitted Capacity. The maximum rate of transfer of ash from Units 1 and 2 to the ash storage silo shall not exceed 16 tons per hour (8 tons per hour from each FFSG unit). [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; Permit No. AC09-235915]

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

D.3. Hours of Operation. The emissions units may operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.]

D.4. Additional Reasonable Precautions for Control of PM Emissions. The owner or operator shall take the following reasonable precautions to control emissions of particulate matter from transport of ash from EU014 for disposal or use:
a. Ash for transport shall be wet via a pug mill before loading into open trucks,
b. Dry ash shall be transferred to enclosed tanker trucks.
[Permit No. AC09-235915]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions **D.5**. – **D.6**. are based on the specified averaging time of the applicable test method.

D.5. PM Emissions. The maximum allowable emission rate of PM from the bottom/economizer ash handling system for a maximum process transfer rate of 8 tons per hour per unit is 13.03 pounds per hour as set by the Process Weight Table contained within Rule 62-296.320(4), F.A.C. At lesser process rates the allowable emission rates can be determined front the appropriate equation. This limitation represents total combined PM emissions from the two filter/separator exhausts and the bin vent filter exhaust. [Permit No. AC09-235915]

D.6. VE Limitation. Due to the expense and complexity of conducting a stack test on minor sources of PM, and because this ash handling system is equipped with baghouse control devices, the Department, pursuant to Rule 62-297.620(4), F.A.C., establishes a VE limitation not to exceed an opacity of 5% in lieu of a PM stack test. This limitation applies to emissions from the two filter/separator exhausts and to the bin vent filter exhaust. [Permit No. AC09-235915]

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Excess Emissions

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

D.7. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

D.8. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

Test Methods and Procedures

D.9. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-297.401, F.A.C.; Permit No. AC09-235915]

D.10. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

D.11. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), EU014 shall be tested to demonstrate compliance with the emissions standards for VE. [Rule 62-297.310(7), F.A.C.; Permit No. AC09-235915]

D.12. Compliance Tests Prior To Renewal. Compliance tests shall be performed for VE once every 5 years. The tests shall occur prior to obtaining a renewed operating permit to demonstrate compliance with the emission limits in Specific Conditions **D.6.** [Rules 62-210.300(2)(a) and 62-297.310(7)(a), F.A.C.; Permit No. AC09-235915]

D.13. VE. Each emission point of EU014 shall demonstrate compliance using EPA Method 9, adopted and incorporated by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C. The minimum requirements for stationary point source emission test procedures shall be in accordance with Rule 62-297, F.A.C. and 40 CFR 60 Appendix A. [Permit No. AC09-235915]

D.14. Specific VE Test Requirements. The visible emissions test shall be a minimum of thirty minutes in duration. Separate VE tests shall be conducted on each the filter/separator exhausts and the bin vent filter exhaust (total of three emission points to the tested). Tests shall be conducted with both Units 1 and 2 transferring ash to the storage silo at the same time. A statement of the approximate ash transfer rate during the test shall be submitted with each test report. Failure to submit the process transfer rate and or operation under conditions that are not representative of normal operations may invalidate the test and fail to provide reasonable assurance of compliance. [Permit No. AC09-235915]

Recordkeeping and Reporting Requirements

D.15. Reporting Ash Transfer Rate**.** A statement of the approximate ash transfer rate during the test shall be submitted with each compliance test report. Failure to submit the process transfer rate and or operation under

DRAFT/PROPOSED

conditions that are not representative of normal operations may invalidate the test and fail to provide reasonable assurance of compliance. [Permit No. AC09-235915]

D.16. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

DRAFT/PROPOSED

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

EU No.	Brief Description
012	Three relocatable diesel generator(s)

Emissions unit 012 (EU012) consists of three relocatable Caterpillar Model 3508-DITA 820 kilowatt (kW) diesel generators. Each relocatable diesel generator has a maximum heat input of 8.58 MMBtu/hr. Each generator is fueled by new No. 2 fuel oil per hour with a maximum rating of 820 kilowatts. Each generator has its own stack. Emissions from the generators are uncontrolled, and therefore, are not subject to CAM.

{Permitting notes: These emissions units are regulated under Rule 62-210.300, F.A.C., Permits Required. This section of the permit is only applicable when the generators are located at the Crystal River Power Plant. These relocatable generators were permitted in 1991 under permit No. AC09-202080.}

Essential Potential to Emit (PTE) Parameters

E.1. Permitted Capacity. The maximum (combined) allowable heat input rate and fuel firing rate is as follows:

EU No.	MMBtu/hr Heat Input	Gallons/hour	Fuel Type
012	8.58 (each generator)	62.1	New No. 2 Fuel Oil

[Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), F.A.C.; and, Permit No. AC09-202080.]

E.2. Methods of Operation – Fuels. Only new No. 2 fuel oil with a maximum sulfur content of 0.5%, by weight, shall be burned in this unit. [Permit No. AC09-202080]

E.3. Hours of Operation. The hours of operation expressed as "engine-hours" shall not exceed 2,970 hours in any consecutive 12 month period. The total hours of operation expressed as "engine-hours" shall be the summation of the individual hours of operation of each generator. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; Permit No. AC09-202080.]

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

Emission Limitations and Standards

Unless otherwise specified, the averaging time for Specific Condition **E.5. is** based on the specified averaging time of the applicable test method.

E.5. VE. VE shall not be equal to or greater than 20 percent opacity. [Rule 62-296.320(4)(b)1, F.A.C.; Permit No. AC09-202080]

E.6. SO_2 - Sulfur Content. The new No. 2 fuel oil sulfur content shall not exceed 0.5%, by weight. [Permit No. AC09-202080]

Excess Emissions

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

E.7. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

DRAFT/PROPOSED

E.8. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

Test Methods and Procedures

E.9. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources
ASTM D1552-90 or later editions, ASTM D2622-94, ASTM D4294-90, or both ASTM D4057-88 and ASTM D129-91, or later editions	Standard Test Methods for Sulfur in Petroleum Products

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rules 62-204.800, 62-297.401 and 62-297.440, F.A.C.]

E.10. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

E.11. Annual Compliance Tests. During each federal fiscal year (October 1st to September 30th), EU012 shall be tested to demonstrate compliance with the emissions standards for VE. Annual emissions compliance testing for visible emissions is not required for these emissions units while burning liquid fuels for less than 400 hours per year. [Rules 62-297.310(7), and 62-297.310(7)(a)4. & 8., F.A.C.]

E.12. Compliance Tests Prior to Renewal. Except as provided for in condition **TR7.** of Appendix TR, Testing Requirements, EU012 shall be tested for the following pollutant prior to obtaining a renewed operation permit: VE. [Rule 62-297.310(7)(a)3., F.A.C.]

E.13. VE. The test method for VE shall be EPA Method 9, incorporated and adopted by reference in Rule 62-204.800. F.A.C., and referenced in Chapter 62-297, F.A.C. [Rule 62-297.310(4), F.A.C.; Permit No. AC09-202080]

E.14. SO_2 – Sulfur Content Testing. The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D1552-90 or later editions, ASTM D2622-94, ASTM D4294-90, or both ASTM D4057-88 and ASTM D129-91, or later editions. In addition, any ASTM method (or later editions) referenced in Rule 62-297-440(1) F.A.C., or in 40 CFR 60.335 (b)(10) is acceptable. [Rules 62-213.440 and 62-297.440, F.A.C.]

E.15. Fuel Sulfur Analysis. The permittee shall demonstrate compliance with the liquid fuel sulfur limit by means of a fuel analysis provided by the vendor or permittee upon each fuel delivery. [Rule 62-213.440, F.A.C.]

E.16. Testing after Relocation. After each relocation, each generator shall be tested within 30 days of startup for opacity and the fuel shall be analyzed for the sulfur content to demonstrate compliance with the permit limits in this section. [Rules 62-4.070(3) and 62-297.310(7)(b),F.A.C.; Permit No. AC09-202080]

DRAFT/PROPOSED

E.17. Testing Operating Rate. Testing of each diesel generator emissions must be accomplished while operating the diesel generator within ± 10% of the maximum fuel firing rate of 62.1 gallons per hour. Failure to submit the actual operating rate may invalidate the test. [Permit No. AC09-202080]

Recordkeeping and Reporting Requirements

E.18. Recordkeeping. The owner or operator shall maintain the following records:
a. the daily hours of operation for each of the generators,
b. the daily hours of operation expressed as "engine- hours",
c. the cumulative total hours of operation expressed as "engine-hours" for each month, and
d. the sulfur content, in percent by weight, of all the fuel burned shall be kept based on either vendor provided as-delivered or as-received fuel sample analysis.
[Rules 62-213.440 and 62-297.310(8), F.A.C.; Permit No. AC09-202080]

E.19. Relocation Notification. The permittee shall notify the compliance authority, in writing, at least 15 days prior to the date on which any diesel generator is to be relocated. The notification shall specify the following;
a. which generator, by serial number, is being relocated,
b. which location the generator is being relocated from and which location it is being relocated to, and
c. the approximate startup date at the new location.
[Permit No. AC09-202080]

E.20. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

Other Requirements

E.21. PSD Avoidance. Specific conditions in construction permit AC09-202080, limiting the "engine hours", were accepted by the applicant to escape Prevention of Significant Deterioration review. If Duke Energy Florida, Inc. requests a relaxation of any of the federally enforceable emission limits in this permit, the relaxation of limits may be subject to the preconstruction review requirements of Rule 62-212.400(4) – (12), F.A.C., as though construction had not yet begun. [Rule 62-212.400(12), F.A.C.; Permit No. AC09-202080].

DRAFT/PROPOSED

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

EU No.	Brief Description
013	Cooling Towers for FFSG Units 1, 2 and Nuclear Unit 3

Emissions unit 013 (EU013) is cooling towers for FFSG units 1, 2 and nuclear unit 3, used to reduce plant discharge water temperature. (This emissions unit may be referred to as "helper cooling towers.") This emissions unit consists of four towers with nine cells per tower, with high efficiency (99.8%) drift eliminators, operating at a maximum seawater flow rate of 735,000 gallons per minute for all nine cells combined, with a design airflow rate of 1.46 x 106 acfm from each cell. Seawater is sprayed through the towers where fan induced air flow causes evaporative cooling. Water vapor, saltwater droplets (drift) and salt particles are emitted. Drift emissions are controlled by high efficiency drift eliminators.

{Permitting note(s): This emissions unit is regulated under Prevention of Significant Deterioration (PSD) (PSD permit AC09-162037/PSD-FL-139 issued 8/29/90) and Best Available Control Technology (BACT), Determination dated 8/29/90, which set a drift emission rate of 0.004%.}

Essential Potential to Emit (PTE) Parameters

F.1. Hours of Operation. The operating hours for each cooling tower pump shall not exceed 4,320 hours per year (12-month rolling total). [Rule 62-210.200(PTE), F.A.C.; and, Permit No. AC09-162037/PSD-FL-139]

F.2. Drift Eliminators. Drift eliminators shall be installed and maintained so that minimum bypass occurs. Regular maintenance shall be scheduled to ensure proper operation of the drift eliminators. [Rule 62-213.440, F.A.C.; and, Permit No. AC09-162037/PSD-FL-139)]

{Permitting Note: This emissions unit is not subject to a visible emissions limitation. Emissions from this emissions unit include water droplets so visible emissions testing is not possible.}

F.3. Pump Run Time Meters Required. Each cooling tower seawater pump shall be equipped each with a run-hour meters. [Rule 62-213.440, F.A.C.; and, AC09-162037/PSD-FL-139]

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

Emission Limitations and Standards

Unless otherwise specified, the averaging time for Specific Conditions **F.5.** is based on the specified averaging time of the applicable test method.

F.5. Cooling Tower Emission Limit. The maximum allowable emissions of particulate matter form each cell (stack) is 11.89 lb/hr. This is based on a 0.004% drift rate (ratio of drift to the circulate rate) and the following table:

Flow Rate (gpm)	Total PM (from all 36 cells)		PM10	
	lbs/hr	TPY	lbs/hr	TPY
735,000	**428**	**925**	**214**	**462**

(PM_{10} is approximately 50% of total PM)

[Permit No. AC09-162037/PSD-FL-139, BACT]

Excess Emissions

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

DRAFT/PROPOSED

F.6. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

F.7. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

Test Methods and Procedures

F.8. Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

F.9. Emission Test Method. The drift elimination system on the helper cooling towers shall be maintained so as to minimize pluggage and to insure timely repair of broken sections of the drift eliminators. During the warm months when the helper cooling towers are used, the following work practice shall be implemented, in lieu of EPA Method 5, to demonstrate compliance with the originally designed removal efficiency (no more than 0.004% drift rate):

a. Daily "walk down" inspection of each operational cell visually checking for problems with the drift eliminators such as pluggage, algae build-up, and mechanical components (fans and pumps).
b. Daily visual inspection of the cells which are in operation to ascertain the presence of higher than expected visible emissions when atmospheric conditions allow, and follow-up inspections and correction of problems when the daily visual inspection of the cells indicates a problem.
c. Weekly visual inspection of the inlet water screens and prompt correction when broken sections or pluggage is discovered.

[Rule 62-213.440, F.A.C.; and, AC 09-162037 (PSD-FL-139); and, ASP No. 00-E-01 dated June 7, 2000]

Recordkeeping and Reporting Requirements

F.10. Pump Run Logs. A log shall be maintained of the hours of operation of each pump supplying salt water to the helper cooling towers. Pump flow rates shall be determined from the manufacturer's certified pump curves, or any other equivalent method approved by the Department. [Rule 62-213.440, F.A.C.; Permit No. AC09-162037/PSD-FL-139]

F.11. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

DRAFT/PROPOSED

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

EU No.	Brief Description
015	Cooling Towers for FFSG Units 4 and 5

Emissions unit 015 (EU015) is cooling towers for FFSG Units 4 and 5 used to reduce plant discharge water temperature. (These towers are hyperbolic cooling towers.) Seawater is sprayed through the towers where induced air flow causes evaporative cooling. Water vapor, saltwater droplets (drift) and salt particles are emitted. Drift emissions controlled by high efficiency drift eliminators. Seawater flow rate is 331,000 gallons per minute.

{Permitting note(s): This emissions unit is regulated under Prevention of Significant Deterioration (PSD) (PSD permit PSD-FL-007 issued by EPA as modified by EPA on 11/30/88.)}

Essential Potential to Emit (PTE) Parameters

G.1. Permitted Capacity. The maximum seawater flow rate shall not exceed 331,000 gallons per minute per cooling tower. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C., 62-204.800, F.A.C.]

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

G.3. Hours of Operation. The emissions units may operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

Unless otherwise specified, the averaging time for Specific Condition(s) **G.4**. is based on the specified averaging time of the applicable test method.

G.4. PM Emissions - Cooling Tower Emission Limit. PM emissions shall not exceed 175 lb/hr from each cooling tower. [Rule 62-213.440, F.A.C.; and, Modified PSD permit, PSD-FL-007, issued by EPA 11/30/88]

{Permitting Note: The emission limit is based on a BACT Determination requiring control of drift emissions with drift eliminators. The modified PSD permit removed a limitation on drift rate, substituting an emissions limit in pounds per hour. PM emissions are assumed to be all PM_{10}.}

{Permitting Note: This emissions unit is not subject to a visible emissions limitation. Emissions from this emissions unit include water droplets so visible emissions testing is not possible.}

Excess Emissions

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

G.5. Excess Emissions. Should either tower emission rate exceed 175 lb/hr, the permittee shall:
a. Notify EPA and the Department within 10 days of becoming aware of the exceedance.
b. Provide an assessment of necessary corrective actions and a proposed schedule of implementation within an additional 20 days.
c. Expeditiously complete corrective actions.
d. Retest the tower within three months after the correction is completed.
e. Submit the testing report within 45 days after completion of said tests.
[Rule 62-213.440, F.A.C.; and, Modified PSD permit, PSD-FL-007, issued by EPA 11/30/88]

G.6. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

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G.7. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

G.8. Inspection. The drift eliminators of both towers shall be inspected from the concrete walkways not less than every three months by Duke Energy Florida staff or representatives to assure that the drift eliminators are clean and in good working order. Not less than annually, a complete inspection of the towers shall be conducted by a qualified inspector with recognized expertise in the field. Certification that the drift eliminators are properly installed and in good working order shall be provided in the record keeping and reporting requirements noted below. [Rule 62-213.440, F.A.C.; and, Modified PSD permit, PSD-FL-007, issued by EPA 11/30/88].

Test Methods and Procedures

G.9. Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

G.10. Test Every Five Years. The FFSG Unit 4 cooling tower shall be tested every five years from 1988 (the next required year from the effective date of this permit is 2013). The FFSG Unit 5 cooling tower shall be tested every five years from 1992 (the next required year from the effective date of this permit is 2012). [Rule 62-213.440, F.A.C.; and, Modified PSD permit, PSD-FL-007, issued by EPA 11/30/88]

G.11. PM Emission Test Method. Testing shall be in accordance with following requirements:

a. PM emissions shall be measured by the sensitive paper method.
b. Testing shall be conducted either at the drift eliminator level within the tower or at the tower exit plane. (The sampling locations at the drift eliminator level and apparatus are shown in diagrams attached as Appendix P.)
c. No less than three test runs shall be conducted for each test and all valid data from each of these test runs shall be averaged to demonstrate compliance. No individual test run result shall determine compliance or noncompliance. The emission rate reported as a percent of the circulating water, as well as lb/hr., and total dissolved solids in the cooling tower basin and intake water, shall be reported for each test run.

[Rule 62-213.440, F.A.C.; and, Modified PSD permit, PSD-FL-007, issued by EPA 11/30/88]

Recordkeeping and Reporting Requirements

G.12. Reporting. Reports on tower testing and inspection shall be handled as follows:

a. Maintained within onsite files within 30 days after all visual inspections of the drift eliminators.
b. Agency Submittal within 45 days after the compliance testing of either tower.

[Rule 62-213.440, F.A.C.; and, Modified PSD permit, PSD-FL-007, issued by EPA 11/30/88]

G.13. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

DRAFT/PROPOSED

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

EU No.	Brief Description
016	Material handling activities for coal-fired steam units.

Emissions unit 016 (EU016) is material handling activities for coal-fired steam units. This emissions unit consists of a crane-operated clam-shell bucket mounted on a traveling gantry, enclosed conveyor belts, coal crushers and storage bunkers used for the storage and transport of coal, for FFSG Units 1, 2, 4 and 5. The barge unloading capabilities are 2,500 tons per hour and 32,000 tons per day. The speed of the conveyors and the crusher associated with boilers 1 and 2 is 900 tons per hour. This unit also encompasses fly ash and bottom ash handling equipment associated with Units 4 and 5 which are not addressed by other emissions units.

{Permitting notes: This emissions unit is regulated partially under Power Plant Siting Certification PA 77-09 (Units 4 and 5 only) and, is subject to NSPS 40 CFR 60 Subpart Y. This emissions unit is also regulated under permit number 0170004-014-AC (issued concurrently with this revised permit number 0170004-015-AV), which authorized the replacement of the barge unloading equipment to decrease the time required to unload coal barges, and the increase in conveying and crushing speeds of the equipment feeding coal to units 1 and 2.}

Essential Potential to Emit (PTE) Parameters

H.1. Containment of Fugitive Emissions. To the extent possible, the equipment that comprises the coal processing equipment at this facility (crushers, conveyors, drop points, and storage bunkers) shall be covered or enclosed at all times when the equipment is in operation. Except for the barge load-out and the stacker re-claimer sections of the conveying system that are required by design to be open, and which are not specifically subject to regulation under 40 CFR 60 Subpart Y, any other open section of the coal processing equipment shall be required to have any annual emission test conducted upon it. [Permit No. 0170004-014-AC]

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

H.3. Hours of Operation. The emissions units may operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

Unless otherwise specified, the averaging time for Specific Condition **H.4** is based on the specified averaging time of the applicable test method.

H.4. VE. The owner or operator shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater, six minute average. [PPSC PA 77-09 (coal facilities associated with Units 1, 2, 4 and 5); and, Permit No. 0170004-014-AC]

Excess Emissions

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

H.5. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

DRAFT/PROPOSED

H.6. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

Test Methods and Procedures

H.7. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources
22	Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions form Flares

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-297.401, F.A.C., Permit No. 0170004-014-AC]

H.8. Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

H.9. VE. **(This condition applies to coal facilities associated with emissions units 001, 002, 004 and 003 -- FFSG Units 1, 2, 4 and 5.)** When required by the Department, or annually as specified in Specific Condition **H.1**., EPA Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity. [40 CFR 60.254; and, Permit No. 0170004-014-AC]

*{Permitting Note: Except as specified in Specific Condition **H.9**., annual testing is not being required because the regulated emissions points are either enclosed or confined within a building.}*

{Permitting note: For those emissions points containing a baghouse (ash silos), the permittee shall perform and record the results of weekly qualitative observations of visible emissions checks (e.g., Method 22) with follow-up Method 9 tests within 24 hours of any abnormal visible emissions.}

Recordkeeping and Reporting Requirements

H.10. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

DRAFT/PROPOSED

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

EU No.	Brief Description
020	Cooling towers for FFSG Units 1 and 2 used to reduce plant discharge water temperature.

Emissions unit 020 (EU020) is cooling towers for FFSG Units 1 and 2, used to reduce plant discharge water temperature. (This emission unit may be referred to as "portable cooling towers.") This emissions unit consists of 71 or 72 cells (dependent upon manufacturer), is 12' wide and 11' high, includes drift eliminators, operates at a maximum circulating seawater flow rate of 180,000 gallons per minute for all cells combined, and a design airflow rate of 25,000 acfm from each cell. Seawater is sprayed through the towers where fan induced air flow causes evaporative cooling. Water vapor, saltwater droplets (drift) and salt particles are emitted. Drift emissions are controlled by drift eliminators.

{Permitting note(s): This emissions unit is regulated under Prevention of Significant Deterioration (PSD) (permit 0170004-010-AC) and includes a Best Available Control Technology (BACT) Determination, which allows for a drift emission rate of 0.0015% with limited usage.}

Essential Potential to Emit (PTE) Parameters

I.1. Hours of Operation. The operating hours for the portable cooling towers shall not exceed an equivalent of 2,920 hours per year of operation (12-month rolling total). This condition shall be complied with by limiting the circulating water flow usage through the portable cooling towers to 31.5 x 10^9 gallons per calendar year. [Rule 62-210.200(PTE), F.A.C.; Permit No. 0170004-010-AC)]

I.2. Drift Eliminators. Drift eliminators shall be installed and maintained as per the manufacturer's specifications. Regular maintenance shall be scheduled to ensure proper operation of the drift eliminators. [Rule 62-213.440, F.A.C.; Permit No. 0170004-010-AC)]

{Permitting Note: This emissions unit is not subject to a visible emissions limitation. Emissions from this emissions unit include water droplets, so visible emission testing is not possible.}

I.3. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions **I.4. – I.5.**. are based on the specified averaging time of the applicable test method.

I.4. Drift Rate. The portable cooling towers shall be designed, operated and maintained to achieve a drift rate of no more than 0.0015% of the circulating water flow. [Permit No. 0170004-010-AC]

I.5. PM Emissions. The drift rate standard in Specific Condition **I.4**. equates to an estimated emission rate of particulate matter (PM) from the cooling tower at 35.1 pounds per hour. [Permit No. 0170004-010-AC]

{Permitting Note: The emission limit is based on a BACT Determination setting the maximum drift emissions at 0.0015%. PM_{10} emissions are estimated to be approximately 6% of the particulate matter emission rate.}

Excess Emissions

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

I.6. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

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I.7. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

I.8. Inspection Log. Any problems detected during the work practice inspections identified in Specific Condition **I.10.** shall be documented in a log identifying the cell (or water screen), the inspector, the time (when discovered and the hours operated before the problem was corrected), and a description of the problem and the corrective actions taken. This log shall be maintained onsite and shall be made available to DEP upon request. The log shall be maintained so as to provide an indication as to whether routine inspections have been conducted as required even when there are no problems to record. [Rules 62-213.440 and 62-297.310(7), F.A.C., Permit No. 0170004-010-AC and ASP No. 00-E-01 dated June 7, 2000]

Test Methods and Procedures

I.9. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

I.10. Emission Test Method. The drift elimination system on the helper cooling towers shall be maintained so as to minimize pluggage and to insure timely repair of broken sections of the drift eliminators. During those calendar days when the portable cooling towers are used, the following work practice shall be implemented, in lieu of EPA Method 5, to demonstrate compliance with the originally designed removal efficiency (no more than 0.0015% drift rate):

a. *Walkdown Inspections*. Daily "walkdown" inspection of each operational cell visually checking for problems with the drift eliminators such as pluggage, algae build-up, and mechanical components (fans and pumps).
b. *Visual Inspections*. Daily visual inspection of the cells which are in operation to ascertain the presence of higher than expected visible emissions when atmospheric conditions allow, and follow-up inspections and correction of problems when the daily visual inspection of the cells indicates a problem.
c. *Weekly Inspections*. Weekly visual inspections of the inlet water screens and prompt correction when broken sections or pluggage is discovered.

[Rule 62-213.440, F.A.C., Permit No. 0170004-010-AC; and ASP No. 00-E-01 dated June 7, 2000]

Recordkeeping and Reporting Requirements

I.11. Circulating Water Flow-Meters Required. Circulating water flow will be measured by monitoring the hours of each circulating water pump. For each hour of operation, each north pump will flow 15 thousand gallons per minute (kgpm) (900 thousand gallons per hour (kgph)) and each south pump will flow 4 kgpm (240 khph). The fans in bank C1 through C15 will be monitored for operation. If any of the fans are operating in those cells, the circulating water flow will be 39 kgpm (2,340 kgph). Partial hours of operation shall be prorated. Records of circulating water flow shall be maintained for each calendar month. [Rule 62-213.440, F.A.C.; Permit No. 0170004-10-AC]

I.12 Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

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

EU No.	Brief Description
001	Fossil Fuel Steam Generator, Unit 1
002	Fossil Fuel Steam Generator, Unit 2
004	Fossil Fuel Steam Generator, Unit 4
003	Fossil Fuel Steam Generator, Unit 5

{Permitting Notes: The emissions units above are subject to the following condition which allows the burning of on-specification used oil pursuant to the requirements of this permit and this subsection.}

J.1. Used Oil. Burning of on-specification used oil is allowed in emissions units 001, 002, 004 and 003 in accordance with all other conditions of this permit and the following conditions:

a. *On-specification Used Oil Allowed as Fuel*. This permit allows the burning of used oil fuel meeting EPA "on-specification" used oil specifications, with a PCB concentration of less than 50 ppm. Used oil that does not meet the specifications for on-specification used oil shall not be burned at this facility. On-specification used oil shall meet the following specifications: [40 CFR 279, Subpart B.]
   (1) Arsenic shall not exceed 5.0 ppm,
   (2) Cadmium shall not exceed 2.0 ppm,
   (3) Chromium shall not exceed 10.0 ppm,
   (4) Lead shall not exceed 100.0 ppm,
   (5) Total halogens shall not exceed 1000 ppm,
   (6) Flash point shall not be less than 100 degrees F.

b. *Quantity Limited*. The maximum quantity of on-specification used oil that may be burned in all four emissions units combined is 10 million gallons in any consecutive 12-month period.

c. *Used Oil Containing PCBs Not Allowed*. Used oil containing a PCB concentration of 50 or more ppm shall not be burned at this facility. Used oil shall not be blended to meet this requirement.

d. *PCB Concentration of 2 to less than 50 ppm*. On-specification used oil with a PCB concentration of 2 to less than 50 ppm shall be burned only at normal source operating temperatures. On-specification used oil with a PCB concentration of 2 to less than 50 ppm shall not be burned during periods of startup or shutdown.
   Before accepting from each marketer the first shipment of on-specification used oil with a PCB concentration of 2 to 49 ppm, the owner or operator shall provide each marketer with a one-time written and signed notice certifying that the owner or operator will burn the used oil in a qualified combustion device and must identify the class of combustion device. The notice must state that EPA or a RCRA-delegated state agency has been given a description of the used oil management activities at the facility and that an industrial boiler or furnace will be used to burn the used oil with a PCB concentration of 2 to 49 ppm. The description of the used oil management activities shall be submitted to the EPA or may be submitted to the Administrator, Hazardous Waste Regulation Section, Florida Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, FL 32399-2400. A copy of the notice provided to each marketer shall be maintained at the facility. [40 CFR 279.61 and 761.20(e)]

e. *Certification Required*. The owner or operator shall receive from the marketer, for each load of used oil received, a certification that the used oil meets the specifications for on-specification used oil and contains a PCB concentration of less than 50 ppm. This certification shall also describe the basis for the certification, such as analytical results.
   Used oil to be burned for energy recovery is presumed to contain quantifiable levels (2 ppm) of PCB unless the marketer obtains analyses (testing) or other information that the used oil fuel does not contain quantifiable levels of PCBs. Note that a claim that used oil does not contain quantifiable levels of PCBs

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(that is, that the used oil contains less than 2 ppm of PCBs) must be documented by analysis or other information. The first person making the claim that the used oil does not contain PCBs is responsible for furnishing the documentation. The documentation can be tests, personal or special knowledge of the source and composition of the used oil, or a certification from the person generating the used oil claiming that the used oil contains no detectable PCBs.

f. *Testing Required*. The owner or operator shall sample and analyze each batch of used oil to be burned for the following parameters:
   (1) Arsenic, cadmium, chromium, lead, total halogens, flash point, PCBs*, and specific gravity.
   (2) Testing (sampling, extraction and analysis) shall be performed using approved methods specified in EPA Publication SW-846 (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods), latest edition.
   * Analysis for PCBs is not required if a claim is made that the used oil does not contain quantifiable levels of PCBs.

g. *Record Keeping Required*. The owner or operator shall obtain, make, and keep the following records related to the use of used oil in a form suitable for inspection at the facility by the Department: [40 CFR 279.61 and 761.20(e)]
   (1) The gallons of on-specification used oil accepted and burned each month in each unit. (This record shall be completed no later than the fifteenth day of the succeeding month.)
   (2)The total gallons of on-specification used oil burned in the preceding consecutive 12-month period in each unit. (This record shall be completed no later than the fifteenth day of the succeeding month.)
   (3) Results of the analyses required above, including documentation if a claim is made that the used oil does not contain quantifiable levels of PCBs.
   (4) The source and quantity of each batch of used oil received each month, including the name, address and EPA identification number (if applicable) of all marketers that delivered used oil to the facility, and the quantity delivered.
   (5) Records of the operating rate of each unit while burning used oil and the dates and time periods each unit burns used oil.

h. *Reporting Required*. The owner or operator shall submit to the Department's Southwest District office, with the Annual Operation Report form, an attachment showing the total amount of on-specification used oil burned during the previous calendar year. The quantity of used oil shall be individually reported and shall not be combined with other fuels.

[Rule 62-213.440, F.A.C.; 40 CFR 279 and 40 CFR 761; and Permit No. 0170004-002-AO]

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

EU No.	Brief Description
023	Limestone and Gypsum Material Handling Activities

The flue gas desulfurization (FGD) systems include limestone storage and handling, limestone preparation, limestone slurry injection, and gypsum dewatering, transfer and storage. The limestone handling system receives, stores, sizes and transfers limestone to the FGD system's limestone preparation equipment. It receives limestone delivered to the plant by rear dump trucks unloading into aboveground truck unloading feeders with integral hoppers. The system consists of: a conveyor to transfer limestone received from truck unloading feeders; an unloading and the stacking belt conveyor to transfer limestone to a covered storage pile; a portal scraper reclaimer and an emergency reclaim feeder; a reclaim conveyor to transfer limestone from the storage pile to a crusher feed belt conveyor, which transfers limestone to a crusher building for limestone sizing; a plant feed belt conveyor and silo feed belt conveyors to transfer limestone to the day silos.

The plant feed conveyor is equipped with a diverter gate and supplies limestone to the first limestone day silo (Silo B) directly via a chute and to the other limestone day silos (Silos A & C) using a reversible conveyor.

Limestone silos are equipped with a pulse-jet fabric filter dust collection system. Dust collectors are provided at each of the truck unloading feeders. A dust collection system is also provided for the crusher building. A water-fog dust suppression system is provided at the discharge point of the reclaim conveyor and at the tail end of the crusher feed conveyor to suppress the limestone dust formation.

The limestone preparation system includes wet ball mill grinding systems to produce limestone slurry. Filtrate-recycle water from the FGD system is used to prepare the limestone slurry to conserve make-up water. Fugitive dust emissions are minimized by enclosures and the addition of water for the slurry.

The gypsum slurry from the FGD system is delivered by bleed pumps to the dewatering system, which consists of a filter feed tank, hydro-cyclones, vacuum belt filters, vacuum pumps, filtrate tanks, filtrate pumps, lined piping, and associated valves. The incoming gypsum slurry contains approximately 18 to 22% suspended solids. Using a series of hydro-cyclones and three horizontal vacuum belt filters, the dewatering system removes water until the slurry contains approximately 90% solids. Filtrate removed from the slurry is stored and pumped back to the limestone preparation system or the absorber module. The de-watering system is located inside a building. Fugitive dust emissions are negligible because the system is enclosed and wet.

A collecting belt conveyor collects dewatered gypsum from the vacuum belt filters in the dewatering system. Under normal operating conditions, this conveyor feeds gypsum onto a system of conveyors, which transfer the gypsum onto a gypsum handling pad or to the future wallboard plant. The gypsum handling pad is located northeast of the dewatering facility and is used primarily (until the future adjacent wallboard facility is built) to store the gypsum until it can be transferred offsite for beneficial use or disposal. In addition, the gypsum handling pad may be used to store "off-specification" gypsum if needed. Fugitive dust emissions are minimal because the dewatered gypsum still contains approximately 10% water.

Essential Potential to Emit (PTE) Parameters

K.1. Permitted Capacity. The operational capacities of the material handling activities are not limited. For informational purposes, the maximum limestone processing rate is estimated at 100 tons per day. [Permit No 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.4.]

K.2. Hours of Operation. None of the emissions units in this subsection are restricted by hours of operation, they may operate continuously (8,760 hours/year). [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.4.]

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Control Technology

K.3. To comply with the standards of this permit, the permittee shall operate and maintain the following air pollution control equipment.

Process Activity	Emissions Point No.	Control Device	Design Outlet Dust Loading Specification
Dry Limestone Handling System			
Limestone conveyors (general)	---	Covered	---
Limestone reclaim conveyor (discharge)	---	dust suppressant	---
Dump trucks	---	Covered	---
Two truck unloading feeders w/integral hoppers	EP-1A EP-1B	one dust collector per hopper	0.010 grains/dscf
Limestone storage	---	covered pile	---
Limestone crushing and sizing	EP-2	enclosed building w/baghouse	0.010 grains/dscf
Limestone silo feed conveyors and 3 Limestone day silos	EP-3	one dust collector	0.010 grains/dscf
Gypsum Dewatering System			
Gypsum dewatering system	---	enclosure/wet	---
Gypsum Handling System			
Gypsum handling system	---	enclosure/wet	---
Gypsum Handling Pad	---	water spray	---

Initial and replacement bags shall be selected based on the above design outlet dust loading specification. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.2.]

K.4. Fugitive Dust Emissions. The dry limestone handling and storage operations shall be enclosed to the extent practicable and confined to prevent fugitive dust emissions. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.3.]

Emission Limitations and Standards

K.5. Opacity Standard. As determined by EPA Method 9, visible emissions from each baghouse and dust collector exhaust point shall not exceed 5% opacity, based on a 6-minute average. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.5.]

K.6. Circumvention. The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.6.]

K.7. NSPS Subpart OOO Provisions. The limestone crushing activities are subject to the applicable requirements in NSPS Subpart OOO of 40 CFR 60. See Appendix NSPS, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants of this permit.

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Test Methods and Procedures

{Permitting Note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

K.8. Test Methods. Required tests shall be performed in accordance with the following reference method:

EPA Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-297.401, F.A.C. and Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.11.]

K.9. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

K.10. Annual Compliance Tests Required. 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. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.9.]

K.11. Test Method. Opacity 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. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.11.]

K.12. Test Procedures. Tests shall be conducted in accordance with all applicable requirements of Chapter 62-297, F.A.C. 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 processing rate for the emissions unit being tested. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.12.]

Recordkeeping and Reporting Requirements

K.13. Operational Records. The owner or operator shall maintain the following records on site to demonstrate compliance with the specifications and limitations of this subsection.

a. Records of the design outlet dust loading specifications for new and replacement fabric filter bags; and
b. For each month, record the total limestone processed for the month and the previous 12 months.

All records shall be made available to the Department and Compliance Authority upon request. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.16.]

K.14. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

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Subsection L. Emission Unit 033

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

EU No.	Concrete Batch Description
033	Concrete Batch Plant

Emissions Unit 033 is a concrete batch plant operation. Plant operations at the facility primarily consist of trucks delivering sand and aggregate to the site. Sand and aggregate will be stored in partially enclosed (covered and wallet on three sides) stockpiles. The sand and aggregate will then be transferred to hoppers via front end loaders. Cement and cement additives will be stored in sealed silos, which will be equipped with bin vent filters. The aggregate and sand will pass through weigh hoppers and then mixed with cement, cement additives, and water to manufacture concrete. The mixing will occur in trucks.

This emissions unit is subject to the requirements of Rule 62-296.414 F.A.C., Concrete Batching Plants, which applies to facilities processing cement and other materials for the purposes of producing concrete. Emissions from this unit are particulate matter and visible emissions.

Equipment

L.1. Concrete Batch Plant. The permittee is authorized to operate a 20,000 cubic yard per year concrete batch plant. The use of a portable concrete batching plant that otherwise operates under the authority of a general permit pursuant to Rule 62-210.310(5), F.A.C. is allowed. However, while operating at this site, the conditions of this permit shall be complied with rather than the requirements of Rule 62-210.310(5), F.A.C. [Permit No. 0170004-034-AC, Specific Condition 1.]

{Note: Any permits or authorizations that a contracted operator may hold to operate these portable units at other sites will have no enforceable affect while the units are operating under the authority of this permit, nor are they in any way invalidated for future use when the units are relocated elsewhere.}

Essential Potential to Emit (PTE) Parameters

L.2. Hours of Operation. The concrete batch plant shall be allowed to operate 8,760 hours per year. [Permit No. 0170004-034-AC, Specific Condition 2.]

L.3. Capacity. The permittee shall not exceed the capacity listed for each piece of equipment. [Permit No. 0170004-034-AC, Specific Condition 3.]

L.4. Emission Related Equipment. The permittee shall operate and maintain all emission related equipment associated with this permit in accordance with manufacturer specifications. If manufacturer specifications are not available, the permittee shall develop and implement procedures for the proper operation and maintenance of each piece of equipment. A copy of the manufacturer specifications or the operation and maintenance plan shall be kept on site and made available to the Department upon request. [Permit No. 0170004-034-AC, Specific Condition 4.]

Emission Limitations and Standards

L.5. Stack Emissions. Emissions from silos, weigh hoppers (batchers), and other enclosed storage and conveying equipment shall be controlled to the extent necessary to limit visible emissions to 5 percent opacity, measured by EPA Reference Method 9. [Rule 62-296.414, F.A.C. and Permit No. 0170004-034-AC, Specific Condition 5.]

L.6. Unconfined Emissions. The owner or operator shall take reasonable precautions to control unconfined emissions from hoppers, storage and conveying equipment, conveyor drop points, truck loading and unloading, roads, parking areas, stock piles, and yards as required by paragraph 62-296.320(4)(c), F.A.C.

The following shall constitute reasonable precautions for these plants:

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a. Management of roads, parking areas, stock piles, and yards, which shall include one or more of the following:
   1. Paving and maintenance of roads, parking areas, and yards.
   2. Application of water or environmentally safe dust-suppressant chemicals when necessary to control emissions
   3. Removal of particulate matter from roads and other paved areas under control of the owner or operator to mitigage reentrainment, and from building or work areas to reduce airborne particulate matter.
   4. Reduction of stock pile height or installation of wind breaks to mitigage wind entrainment of particulate matter from stock piles.

b. Use of spray bar, chute, or partial enclosure to mitigate emissions at the drop point to the truck.

[Rules 62-296.414 & 62-296.320(4)(c), F.A.C.; and, Permit No. 0170004-034-AC, Specific Condition 6.]

Test Methods and Procedures

L.7. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

L.8. Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this subsection shall comply with the following requirements.

a. The reference test method for visible emissions shall be EPA Method 9, as described at 40 CFR, Part 60, Appendix A, adopted and incorporated by reference at Rule 62-204.800, F.A.C.
b. Test procedures shall conform to the procedures specified in Rule 62-297.310, F.A.C. All test results shall be reported to the Department in accordance with the provisions of Rule 62-297.310, F.A.C.
c. Visible emissions tests of silo dust collector exhaust points shall be conducted while loading the silo at a rate that is representative of the normal silo loading rate. The minimum loading rate shall be 25 tons per hour unless such rate is unachievable in practice. If emissions from the weigh hopper (batcher) operation are also controlled by the silo dust collector, the batching operation shall be in operation during the visible emissions test. The batching rate during the emissions test shall be representative of the normal batching rate and duration. Each test report shall state the actual silo loading rate during emissions testing and, if applicable, whether or not batching occurred during emissions testing.
d. If emissions from the weigh hopper (batcher) operation are controlled by a dust collector which is separate from the silo dust collector, visible emissions tests of the weigh hopper (batcher) dust collector exhaust point shall be conducted while batching at a rate that is representative of the normal batching rate and duration. Each test report shall state the actual batching rate during emissions testing.

[Rule 62-296.414, F.A.C. and Permit No. 0170004-034-AC, Specific Condition 7]

L.9. Frequency of Testing. The owner or operator of any concrete batching plant operating under the authority of this permit shall have a performance test conducted for visible emissions for each dust collector exhaust point no later then thirty (30) days after commencing operation on-site, and annually thereafter. [Rule 62-296.414, F.A.C. and Permit No. 0170004-034-AC, Specific Condition 8.]

Record keeping and Reporting Requirements

L.10. Relocation Notification. Prior to relocating a portable concrete batching plant to this site, either DEF or the owner or operator of the contracted unit shall transmit a Facility Relocation Notification Form (DEP Form No. 62-210.900(6)) to the Department's Southwest District Compliance Office at least five (5) business days prior to relocation. The notice shall identify the unit and estimate how long it will be onsite. The Department's Southwest District Compliance Office shall also be notified (by telephone, e-mail, fax, or written communication) upon removal of a portable concrete batching plant from this site. [Permit No. 0170004-034-AC, Specific Condition 10.]

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Operated by: Duke Energy Florida
ORIS Code: 0628

The emissions units listed below are regulated under Acid Rain, Phase II.

E.U. No.	EPA ID#	Brief Description
001	1	FFSG, Unit 1
002	2	FFSG, Unit 2
003	5	FFSG, Unit 5
004	4	FFSG, Unit 4

A.1. The Phase II Acid Rain Part application submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of these Phase II acid rain units must comply with the standard requirements and special provisions set forth in the applications listed below:
a. DEP Form No. 62-210.900(1)(a), dated 08/25/09, received 10/08/2009.
b. DEP Form No. 62-210.900(1)(a)1, dated 08/25/09, received 10/08/2009.
c. EPA Form 7610-28 (12-03), dated 08/25/09, received 10/08/2009.
[Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]

A.2. Nitrogen oxide (NO_X) requirements for each Acid Rain Phase II unit are as follows:

E.U. ID #	EPA ID	NO_X Limit
001	**1**	Pursuant to 40 CFR 76.11, the Florida Department of Environmental Protection approves five (5) NO_X emissions averaging plans for this unit. Each plan is effective for one calendar year for the years 2010, 2011, 2012, 2013 and 2014. Under each plan, this unit's NO_X emissions shall not exceed the annual average alternative contemporaneous emission limitation of **0.57** lb/MMBtu. In addition, this unit shall not have an annual heat input **greater than 37,112,400** MMBtu. Also, see Additional Requirements a., b. and c., below.
002	**2**	Pursuant to 40 CFR 76.11, the Florida Department of Environmental Protection approves five (5) NO_X emissions averaging plans for this unit. Each plan is effective for one calendar year for the years 2010, 2011, 2012, 2013 and 2014. Under each plan, this unit's NO_X emissions shall not exceed the annual average alternative contemporaneous emission limitation of **0.57** lb/MMBtu. In addition, this unit shall not have an annual heat input **greater than 42,602,400** MMBtu. Also, see Additional Requirements a., b. and c., below.
003	**5**	Pursuant to 40 CFR 76.11, the Florida Department of Environmental Protection approves five (5) NO_X emissions averaging plans for this unit. Each plan is effective for one calendar year for the years 2010, 2011, 2012, 2013 and 2014. Under each plan, this unit's NO_X emissions shall not exceed the annual average alternative contemporaneous emission limitation of **0.59** lb/MMBtu. In addition, this unit shall not have an annual heat input **greater than 74,334,600** MMBtu. Also, see Additional Requirements a., b. and c., below.

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E.U. ID #	EPA ID	NO_X Limit
004	**4**	Pursuant to 40 CFR 76.11, the Florida Department of Environmental Protection approves five (5) NO_X emissions averaging plans for this unit. Each plan is effective for one calendar year for the years 2010, 2011, 2012, 2013 and 2014. Under each plan, this unit's NO_X emissions shall not exceed the annual average alternative contemporaneous emission limitation of **0.59** lb/MMBtu. In addition, this unit shall not have an annual heat input **greater than 79,385,400** MMBtu. Also, see Additional Requirements a., b. and c., below.

Additional Requirements

a. Under the plan (NO_X Phase II averaging plan), the actual Btu-weighted annual average NO_X emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average NO_X emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations under 40 CFR 76.5, 76.6, or 76.7, except that for any early election units, the applicable emission limitations shall be under 40 CFR 76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous annual emission limitation and annual heat input limit.
b. In accordance with 40 CFR 72.40(b)(2), approval of the averaging plan shall be final only after the North Carolina Department of Environmental and Natural Resources – Bureau of Air Quality, the Western North Carolina Regional Air Pollution Control Agency, and the South Carolina Department of Health and Environmental Control, have also approved this averaging plan.
c. In addition to the described NO_X compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NO_X compliance plan and requirements covering excess emissions.

A.3. Sulfur dioxide (SO_2) Emission Allowances. SO_2 emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.

a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.
b. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.
c. Allowances shall be accounted for under the Federal Acid Rain Program.

[Rule 62-213.440(1)(c)1., 2. & 3., F.A.C.]

A.4. Comments, notes, and justifications: None.

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Acid Rain Part Application

For more information, see instructions and refer to 40 CFR 72.30, 72.31, and 74; and Chapter 62-214, F.A.C.

This submission is: ☐ New ☐ Revised ☒ **Renewal**

STEP 1

Identify the source by plant name, state, and ORIS or plant code.

Crystal River Plant name	Fl. State	628 ORIS/Plant Code

STEP 2
Enter the unit ID# for every Acid Rain unit at the Acid Rain source in column "a."

If unit a SO_2 Opt-in unit, enter "yes" in column "b".

For new units or SO_2 Opt-in units, enter the requested information in columns "d" and "e."

a	b	c	d	e
Unit ID#	SO_2 Opt-in Unit? (Yes or No)	Unit will hold allowances in accordance with 40 CFR 72.9(c)(1)	New or SO_2 Opt-in Units Commence Operation Date	New or SO_2 Opt-in Units Monitor Certification Deadline
1	No	Yes	N/A	N/A
2	No	Yes	N/A	N/A
4	No	Yes	N/A	N/A
5	No	Yes	N/A	N/A
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		

DEP Form No. 62-210.900(1)(a) – Form
Effective: 3/16/08

1

Crystal River
Plant Name (from STEP 1)

STEP 3

Read the standard requirements.

Acid Rain Part Requirements.

(1) The designated representative of each Acid Rain source and each Acid Rain unit at the source shall:
(i) Submit a complete Acid Rain Part application (including a compliance plan) under 40 CFR Part 72 and Rules 62-214.320 and 330, F.A.C., in accordance with the deadlines specified in Rule 62-214.320, F.A.C.; and
(ii) Submit in a timely manner any supplemental information that the DEP determines is necessary in order to review an Acid Rain Part application and issue or deny an Acid Rain Part;
(2) The owners and operators of each Acid Rain source and each Acid Rain unit at the source shall:
(i) Operate the unit in compliance with a complete Acid Rain Part application or a superseding Acid Rain Part issued by the DEP; and
(ii) Have an Acid Rain Part.

Monitoring Requirements.

(1) The owners and operators and, to the extent applicable, designated representative of each Acid Rain source and each Acid Rain unit at the source shall comply with the monitoring requirements as provided in 40 CFR Part 75, and Rule 62-214.420, F.A.C.
(2) The emissions measurements recorded and reported in accordance with 40 CFR Part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
(3) The requirements of 40 CFR Part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.
(4) For applications including a SO_2 Opt-in unit, a monitoring plan for each SO_2 Opt-in unit must be submitted with this application pursuant to 40 CFR 74.14(a). For renewal applications for SO_2 Opt-in units include an updated monitoring plan if applicable under 40 CFR 75.53(b).

Sulfur Dioxide Requirements.

(1) The owners and operators of each source and each Acid Rain unit at the source shall:
(i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)), or in the compliance subaccount of another Acid Rain unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
(ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
(2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
(3) An Acid Rain unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
(i) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.6(a)(2); or
(ii) Starting on the later of January 1, 2000, or the deadline for monitor certification under 40 CFR Part 75, an Acid Rain unit under 40 CFR 72.6(a)(3).
(4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
(6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain Part application, the Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
(7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements. The owners and operators of the source and each Acid Rain unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements.

(1) The designated representative of an Acid Rain unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR Part 77.
(2) The owners and operators of an Acid Rain unit that has excess emissions in any calendar year shall:
(i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR Part 77; and
(ii) Comply with the terms of an approved offset plan, as required by 40 CFR Part 77.

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the source and each Acid Rain unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the EPA or the DEP:
(i) The certificate of representation for the designated representative for the source and each Acid Rain unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with Rule 62-214.350, F.A.C.; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
(ii) All emissions monitoring information, in accordance with 40 CFR Part 75, provided that to the extent that 40 CFR Part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply;
(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

Crystal River
Plant Name (from STEP 1)

STEP 3, Continued.

Recordkeeping and Reporting Requirements (cont)

(iv) Copies of all documents used to complete an Acid Rain Part application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

(2) The designated representative of an Acid Rain source and each Acid Rain unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR Part 72, Subpart I, and 40 CFR Part 75.

Liability.

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain Part application, an Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
(4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program.
(5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.
(6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR Part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
(7) Each violation of a provision of 40 CFR Parts 72, 73, 74, 75, 76, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities.

No provision of the Acid Rain Program, an Acid Rain Part application, an Acid Rain Part, or an exemption under 40 CFR 72.7or 72.8 shall be construed as:
(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
(2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
(3) Requiring a change of any kind in any state law regulating electric utility rates and charges, affecting any state law regarding such state regulation, or limiting such state regulation, including any prudence review requirements under such state law;
(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
(5) Interfering with or impairing any program for competitive bidding for power supply in a state in which such program is established.

STEP 4
For SO_2 Opt-in units only.

In column "f" enter the unit ID# for every SO_2 Opt-in unit identified in column "a" of STEP 2.

For column "g" describe the combustion unit and attach information and diagrams on the combustion unit's configuration.

In column "h" enter the hours.

f	g	h (not required for renewal application)
Unit ID#	Description of the combustion unit	Number of hours unit operated in the six months preceding initial application

DEP Form No. 62-210.900(1)(a) – Form
Effective: 3/16/08

3

Crystal River
Plant Name (from STEP 1)

STEP 5

For SO_2 Opt-in units only.
(Not required for SO_2 Opt-in renewal applications.)

In column "i" enter the unit ID# for every SO_2 Opt-in unit identified in column "a" (and in column "f").

For columns "j" through "n," enter the information required under 40 CFR 74.20-74.25 and attach all supporting documentation required by 40 CFR 74.20-74.25.

i	j	k	l	m	n
Unit ID#	Baseline or Alternative Baseline under 40 CFR 74.20 (mmBtu)	Actual SO_2 Emissions Rate under 40 CFR 74.22 (lbs/mmBtu)	Allowable 1985 SO_2 Emissions Rate under 40 CFR 74.23 (lbs/mmBtu)	Current Allowable SO_2 Emissions Rate under 40 CFR 74.24 (lbs/mmBtu)	Current Promulgated SO_2 Emissions Rate under 40 CFR 74.25 (lbs/mmBtu)
1					
2					
4					
5					

STEP 6

For SO_2 Opt-in units only.

Attach additional requirements, certify and sign.

A. If the combustion source seeks to qualify for a transfer of allowances from the replacement of thermal energy, a thermal energy plan as provided in 40 CFR 74.47 for combustion sources must be attached.
B. A statement whether the combustion unit was previously an affected unit under 40 CFR 74.
C. A statement that the combustion unit is not an affected unit under 40 CFR 72.6 and does not have an exemption under 40 CFR 72.7, 72.8, or 72.14.
D. Attach a complete compliance plan for SO_2 under 40 CFR 72.40.
E. The designated representative of the combustion unit shall submit a monitoring plan in accordance with 40 CFR 74.61. For renewal application, submit an updated monitoring plan if applicable under 40 CFR 75.53(b).
F. The following statement must be signed by the designated representative or alternate designated representative of the combustion source: "I certify that the data submitted under 40 CFR Part 74, Subpart C, reflects actual operations of the combustion source and has not been adjusted in any way."

Signature	Date

STEP 7

Read the certification statement; provide name, title, owner company name, phone, and e-mail address; sign, and date.

Certification (for designated representative or alternate designated representative only)

I am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Brenda E. Brickhouse	Title Director – Environmental Health and Safety
Owner Company Name Florida Power Corporation dba Progress Energy Florida, Inc.	
Phone 727 820 5153	E-mail address Brenda.brickhouse@pgnmail.com
Signature	Date 8/25/09

DEP Form No. 62-210.900(1)(a) – Form
Effective: 3/16/08

4

United States
Environmental Protection Agency
Acid Rain Program

OMB No. 2060-0258

Phase II NO_X Compliance Plan

For more information, see instructions and refer to 40 CFR 76.11

NO_x Compliance - Page 1

This submission is: [ ] New [X] Revised

Page [1] of [2]

STEP 1
Indicate plant name, State, and ORIS code from NADB, if applicable

Plant Name	State	ORIS Code
Crystal River	Fl	628

STEP 2

Identify each affected Group 1 and Group 2 boiler using the boiler ID# from NADB, if applicable. Indicate boiler type: "CB" for cell burner, "CY" for cyclone, "DBW" for dry bottom wall-fired, "T" for tangentially fired, "V" for vertically fired, and "WB" for wet bottom. Indicate the compliance option selected for each unit.

	ID# 1 Type T	ID# 2 Type T	ID# 4 Type DBW	ID# 5 Type DBW	ID# Type	ID# Type
(a) Standard annual average emission limitation of 0.50 lb/mmBtu (for Phase I dry bottom wall-fired boilers)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
(b) Standard annual average emission limitation of 0.45 lb/mmBtu (for Phase I tangentially fired boilers)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
(c) EPA-approved early election plan under 40 CFR 76.8 through 12/31/07 (also indicate above emission limit specified in plan)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
d) Standard annual average emission limitation of 0.46 lb/mmBtu (for Phase II dry bottom wall-fired boilers)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
(e) Standard annual average emission limitation of 0.40 lb/mmBtu (for Phase II tangentially fired boilers)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
(f) Standard annual average emission limitation of 0.68 lb/mmBtu (for cell burner boilers)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
(g) Standard annual average emission limitation of 0.86 lb/mmBtu (for cyclone boilers)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
(h) Standard annual average emission limitation of 0.80 lb/mmBtu (for vertically fired boilers)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
(i) Standard annual average emission limitation of 0.84 lb/mmBtu (for wet bottom boilers)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
(j) NO_x Averaging Plan (include NO_x Averaging form)	[X]	[X]	[X]	[X]	[ ]	[ ]
(k) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(A) (check the standard emission limitation box above for most stringent limitation applicable to any unit utilizing stack)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
(l) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(B) with NO_x Averaging (check the NO_x Averaging Plan box and include NO_x Averaging form)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

EPA Form 7610-28 (12-03)

Crystal River
Plant Name (from Step 1)

NO_x Compliance - Page 2
Page 2 of 2

STEP 2, cont'd

	ID# / Type	ID# / Type	ID# / Type	ID# / Type	ID# / Type	ID# / Type
m) EPA-approved common stack apportionment method pursuant to 40 CFR 75.17 (a)(2)(i)(C), (a)(2)(iii)(B), or (b)(2)	☐	☐	☐	☐	☐	☐
(n) AEL (include Phase II AEL Demonstration Period, Final AEL Petition, or AEL Renewal form as appropriate)	☐	☐	☐	☐	☐	☐
(o) Petition for AEL demonstration period or final AEL under review by U.S. EPA or demonstration period ongoing	☐	☐	☐	☐	☐	☐
(p) Repowering extension plan approved or under review	☐	☐	☐	☐	☐	☐

STEP 3
Read the standard requirements and certification, enter the name of the designated representative, sign & date.

Standard Requirements

General. This source is subject to the standard requirements in 40 CFR 72.9 (consistent with 40 CFR 76.8(e)(1)(i)). These requirements are listed in this source's Acid Rain Permit.

Special Provisions for Early Election Units

Nitrogen Oxides. A unit that is governed by an approved early election plan shall be subject to an emissions limitation for NO_x as provided under 40 CFR 76.8(a)(2) except as provided under 40 CFR 76.8(e)(3)(iii).
Liability. The owners and operators of a unit governed by an approved early election plan shall be liable for any violation of the plan or 40 CFR 76.8 at that unit. The owners and operators shall be liable, beginning January 1, 2000, for fulfilling the obligations specified in 40 CFR Part 77.
Termination. An approved early election plan shall be in effect only until the earlier of January 1, 2008 or January 1 of the calendar year for which a termination of the plan takes effect. If the designated representative of the unit under an approved early election plan fails to demonstrate compliance with the applicable emissions limitation under 40 CFR 76.5 for any year during the period beginning January 1 of the first year the early election takes effect and ending December 31, 2007, the permitting authority will terminate the plan. The termination will take effect beginning January 1 of the year after the year for which there is a failure to demonstrate compliance, and the designated representative may not submit a new early election plan. The designated representative of the unit under an approved early election plan may terminate the plan any year prior to 2008 but may not submit a new early election plan. In order to terminate the plan, the designated representative must submit a notice under 40 CFR 72.40(d) by January 1 of the year for which the termination is to take effect. If an early election plan is terminated any year prior to 2000, the unit shall meet, beginning January 1, 2000, the applicable emissions limitation for NO_x for Phase II units with Group 1 boilers under 40 CFR 76.7. If an early election plan is terminated on or after 2000, the unit shall meet, beginning on the effective date of the termination, the applicable emissions limitation for NO_x for Phase II units with Group 1 boilers under 40 CFR 76.7.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Brenda E. Brickhouse Name	
Signature	Date 8/25/09

EPA Form 7610-28 (12-03)

Florida Department of Environmental Protection

Phase II NO_x Averaging Plan

For more information, refer to 40 CFR 76.11

This submission is: ☐ New ☒ x **Revised**

STEP 1

Identify the units participating in this averaging plan by plant name, state, and boiler ID# from NADB. In column (a), fill in each unit's applicable emission limitation from 40 CFR 76.5, 76.6, or 76.7. In column (b), assign an alternative contemporaneous annual emissions limitation in lb/mmBtu to each unit. In column (c), assign an annual heat input limitation in mmBtu to each unit. Continue to page 3 if necessary.

Plant Name	State	ID#	(a) Emission Limitation	(b) Alt. Contemp. Emission Limitation	(c) Annual Heat Input Limit
Asheville	NC	1	0.46	0.15	9,773,847
Asheville	NC	2	0.46	0.15	9,627,813
Cape Fear	NC	5	0.040	0.35	6,185,400
Cape Fear	NC	6	0.040	0.35	7,612,800
H. F. Lee	NC	1	0.40	0.60	5,758,095
H. F. Lee	NC	2	0.46	0.50	5,649,210
H. F. Lee	NC	3	0.46	0.47	13,417,560

STEP 2

Use the formula to enter the Btu-weighted annual emission rate averaged over the units if they are operated in accordance with the proposed averaging plan and the Btu-weighted annual average emission rate for the same units if they are operated in compliance with 40 CFR 76.5, 76.6, or 76.7. The former must be less than or equal to the latter.

Btu-weighted annual emission rate averaged over the units if they are operated in accordance with the proposed averaging plan		Btu-weighted annual average emission rate for same units operated in compliance with 40 CFR 76.5, 76.6 or 76.7
0.44	≤	0.44

$$\frac{\sum_{i=1}^{n} (R_{Li} \times HI_i)}{\sum_{i=1}^{n} HI_i} \leq \frac{\sum_{i=1}^{n} [R_{li} \times HI_i]}{\sum_{i=1}^{n} HI_i}$$

Where,

R_{Li}	=	Alternative contemporaneous annual emissions limitation for unit i, in 16/mmBtu, as specified in column (b) of Step 1;
R_{li}	=	Applicable emission limitation for unit i, in lb/mmBtu, as specified in column (a) of Step 1;
HI_i	=	Annual heat input for unit i, in mmBtu, as specified in column (c) of Step 1;
n	=	Number of units in the averaging plan

DEP Form No. 62-210.900(1)(a)1.
Effective: 3/16/08

1

Crystal River Power Plant
Plant Name (from Step 1)

STEP 3

Mark one of the two options and enter dates.

☐ X This plan is effective for calendar year ___2010_____ through calendar year ___2014_____ unless notification to terminate the plan is given.

☐ Treat this plan as ☐ identical plans, each effective for one calendar year for the following calendar years: _____, _____, _____, _____ and _____ unless notification to terminate one or more of these plans is given.

STEP 4

Read the special provisions and certification, enter the name of the designated representative, and sign and date.

Special Provisions

Emission Limitations

Each affected unit in an approved averaging plan is in compliance with the Acid Rain emission limitation for NO_x under the plan only if the following requirements are met:

(i) For each unit, the unit's actual annual average emission rate for the calendar year, in lb/mmBtu, is less than or equal to its alternative contemporaneous annual emission limitation in the averaging plan, and
(a) For each unit with an alternative contemporaneous emission limitation less stringent than the applicable emission limitation in 40 CFR 76.5, 76.6, or 76.7, the actual annual heat input for the calendar year does not exceed the annual heat input limit in the averaging plan,
(b) For each unit with an alternative contemporaneous emission limitation more stringent than the applicable emission limitation in 40 CFR 76.5, 76.6, or 76.7, the actual annual heat input for the calendar year is not less than the annual heat input limit in the averaging plan, or
(ii) If one or more of the units does not meet the requirements of (i), the designated representative shall demonstrate, in accordance with 40 CFR 76.11(d)(1)(ii)(A) and (B), that the actual Btu-weighted annual average emission rate for the units in the plan is less than or equal to the Btu-weighted annual average rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations in 40 CFR 76.5, 76.6, or 76.7.
(iii) If there is a successful group showing of compliance under 40 CFR 76.11(d)(1)(ii)(A) and (B) for a calendar year, then all units in the averaging plan shall be deemed to be in compliance for that year with their alternative contemporaneous emission limitations and annual heat input limits under (i).

Liability

The owners and operators of a unit governed by an approved averaging plan shall be liable for any violation of the plan or this section at that unit or any other unit in the plan, including liability for fulfilling the obligations specified in part 77 of this chapter and sections 113 and 411 of the Act.

Termination

The designated representative may submit a notification to terminate an approved averaging plan, in accordance with 40 CFR 72.40(d), no later than October 1 of the calendar year for which the plan is to be terminated.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Brenda E. Brickhouse	
Signature	Date 8/25/09

DEP Form No. 62-210.900(1)(a)1.
Effective: 3/16/08

2

Crystal River Power Plant

Plant Name (from Step 1)

STEP 1

Continue the identification of units from Step 1, page 1, here.

Plant Name	State	ID#	(a) Emission Limitation	(b) Alt. Contemp. Emission Limitation	(c) Annual Heat Input Limit
Mayo	NC	1A	0.46	0.15	16,685,025
Mayo	NC	1B	0.46	0.15	16,685,025
H.B. Robinson	SC	1	0.40	0.525	12,879,540
Roxboro	NC	1	0.46	0.145	16,254,975
Roxboro	NC	2	0.40	0.145	32,789,849
Roxboro	NC	3A	0.46	0.235	17,651,860
Roxboro	NC	3B	0.46	0.235	17,651,860
Roxboro	NC	4A	0.46	0.225	17,928,281
Roxboro	NC	4B	0.46	0.225	17,928,281
L.V. Sutton	NC	1	0.40	0.605	6,536,531
L.V. Sutton	NC	2	0.46	0.605	6,725,250
L.V. Sutton	NC	3	0.46	0.50	28,232,325
Weatherspoon	NC	1	0.46	1.00	3,746,925
Weatherspoon	NC	2	0.46	1.00	3,798,165
Weatherspoon	NC	3	0.40	0.65	6,141,480
Crystal River	FL	1	0.40	0.57	37,112,400
Crystal River	FL	2	0.40	0.57	42,602,400
Crystal River	FL	4	0.46	0.59	79,385,400
Crystal River	FL	5	0.46	0.59	74,334,600

DEP Form No. 62-210.900(1)(a)1.
Effective: 3/16/08

3

Crystal River Power Plant
Plant Name (from Step 1)

STEP 1

Continue the identification of units from Step 1, page 1, here.

Plant Name	State	ID#	(a) Emission Limitation	(b) Alt. Contemp. Emission Limitation	(c) Annual Heat Input Limit

DEP Form No. 62-210.900(1)(a)1.
Effective: 3/16/08

4

Operated by: Duke Energy Florida
Plant: Crystal River Power Plant
ORIS Code: 628

The emissions units below are regulated under the Clean Air Interstate Rule.

EU No.	EPA Unit ID#	Brief Description
001	1	Fossil Fuel Steam Generator (FFSG) Unit 1
002	2	FFSG Unit 2
003	5	FFSG Unit 3
004	4	FFSG Unit 4

1. Clean Air Interstate Rule Application. The Clean Air Interstate Rule Part Form submitted for this facility is a part of this permit. The owners and operators of these CAIR units as identified in this form must comply with the standard requirements and special provisions set forth in the CAIR Part Form (DEP Form No. 62-210.900(1)(b)) dated March 16, 2008, which is attached at the end of this section. [Chapter 62-213, F.A.C. and Rule 62-210.200, F.A.C.]

DRAFT/PROPOSED

Clean Air Interstate Rule (CAIR) Part

For more information, see instructions and refer to 40 CFR 96.121, 96.122, 96.221, 96.222, 96.321 and 96.322; and Rule 62-296.470, F.A.C.

This submission is: ☐ New ☑ Revised ☑ Renewal

STEP 1

Identify the source by plant name and ORIS or EIA plant code

Plant Name: CRYSTAL RIVER POWER PLANT	State: Florida	ORIS or EIA Plant Code: 628

STEP 2

In column "a" enter the unit ID# for every CAIR unit at the CAIR source.

In columns "b," "c," and "d," indicate to which CAIR program(s) each unit is subject by placing an "X" in the column(s).

For new units, enter the requested information in columns "e" and "f.

a	b	c	d	e	f
Unit ID#	Unit will hold nitrogen oxides (NO_X) allowances in accordance with 40 CFR 96.106(c)(1)	Unit will hold sulfur dioxide (SO_2) allowances in accordance with 40 CFR 96.206(c)(1)	Unit will hold NO_X Ozone Season allowances in accordance with 40 CFR 96.306(c)(1)	New Units Expected Commence Commercial Operation Date	New Units Expected Monitor Certification Deadline
1 or E.U.-001	X	X	X		
2 or E.U.-002	X	X	X		
5 or E.U.-003	X	X	X		
4 or E.U.-004	X	X	X		

DEP Form No. 62-210.900(1)(b) – Form
Effective: 3/16/08

1

CRYSTAL RIVER POWER PLANT
Plant Name (from STEP 1)

STEP 3

Read the standard requirements.

CAIR NO_X ANNUAL TRADING PROGRAM

CAIR Part Requirements.

(1) The CAIR designated representative of each CAIR NO_X source and each CAIR NO_X unit at the source shall:
(i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.122 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and
(ii) [Reserved];
(2) The owners and operators of each CAIR NO_X source and each CAIR NO_X unit at the source shall have a CAIR Part included in the Title V operating permit issued by the DEP under 40 CFR Part 96, Subpart CC, and operate the source and the unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

(1) The owners and operators, and the CAIR designated representative, of each CAIR NO_X source and each CAIR NO_X unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HH, and Rule 62-296.470, F.A.C.
(2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HH, shall be used to determine compliance by each CAIR NO_X source with the following CAIR NO_X Emissions Requirements.

NO_X Emission Requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_X source and each CAIR NO_X unit at the source shall hold, in the source's compliance account, CAIR NO_X allowances available for compliance deductions for the control period under 40 CFR 96.154(a) in an amount not less than the tons of total NO_X emissions for the control period from all CAIR NO_X units at the source, as determined in accordance with 40 CFR Part 96, Subpart HH.
(2) A CAIR NO_X unit shall be subject to the requirements under paragraph (1) of the NO_X Requirements starting on the later of January 1, 2009, or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.170(b)(1) or (2) and for each control period thereafter.
(3) A CAIR NO_X allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the NO_X Requirements, for a control period in a calendar year before the year for which the CAIR NO_X allowance was allocated.
(4) CAIR NO_X allowances shall be held in, deducted from, or transferred into or among CAIR NO_X Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FF and GG.
(5) A CAIR NO_X allowance is a limited authorization to emit one ton of NO_X in accordance with the CAIR NO_X Annual Trading Program. No provision of the CAIR NO_X Annual Trading Program, the CAIR Part, or an exemption under 40 CFR 96.105 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.
(6) A CAIR NO_X allowance does not constitute a property right.
(7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart EE, FF, or GG, every allocation, transfer, or deduction of a CAIR NO_X allowance to or from a CAIR NO_X unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR NO_X unit.

Excess Emissions Requirements.

If a CAIR NO_X source emits NO_X during any control period in excess of the CAIR NO_X emissions limitation, then:
(1) The owners and operators of the source and each CAIR NO_X unit at the source shall surrender the CAIR NO_X allowances required for deduction under 40 CFR 96.154(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and
(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AA, the Clean Air Act, and applicable state law.

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the CAIR NO_X source and each CAIR NO_X unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the DEP or the Administrator.
(i) The certificate of representation under 40 CFR 96.113 for the CAIR designated representative for the source and each CAIR NO_X unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.113 changing the CAIR designated representative.
(ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.
(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO_X Annual Trading Program.
(iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR NO_X Annual Trading Program or to demonstrate compliance with the requirements of the CAIR NO_X Annual Trading Program.
(2) The CAIR designated representative of a CAIR NO_X source and each CAIR NO_X unit at the source shall submit the reports required under the CAIR NO_X Annual Trading Program, including those under 40 CFR Part 96, Subpart HH.

CRYSTAL RIVER POWER PLANT
Plant Name (from STEP 1)

STEP 3, Continued

Liability.

(1) Each CAIR NO_X source and each CAIR NO_X unit shall meet the requirements of the CAIR NO_X Annual Trading Program.
(2) Any provision of the CAIR NO_X Annual Trading Program that applies to a CAIR NO_X source or the CAIR designated representative of a CAIR NO_X source shall also apply to the owners and operators of such source and of the CAIR NO_X units at the source.
(3) Any provision of the CAIR NO_X Annual Trading Program that applies to a CAIR NO_X unit or the CAIR designated representative of a CAIR NO_X unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.

No provision of the CAIR NO_X Annual Trading Program, a CAIR Part, or an exemption under 40 CFR 96.105 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_X source or CAIR NO_X unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

CAIR SO_2 TRADING PROGRAM

CAIR Part Requirements.

(1) The CAIR designated representative of each CAIR SO_2 source and each CAIR SO_2 unit at the source shall:
(i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.222 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and
(ii) [Reserved];
(2) The owners and operators of each CAIR SO_2 source and each CAIR SO_2 unit at the source shall have a CAIR Part included in the Title V operating permit issued by the DEP under 40 CFR Part 96, Subpart CCC, for the source and operate the source and each CAIR unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

(1) The owners and operators, and the CAIR designated representative, of each CAIR SO_2 source and each SO_2 CAIR unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96 ,Subpart HHH, and Rule 62-296.470, F.A.C.
(2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HHH, shall be used to determine compliance by each CAIR SO_2 source with the following CAIR SO_2 Emission Requirements.

SO_2 Emission Requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR SO_2 source and each CAIR SO_2 unit at the source shall hold, in the source's compliance account, a tonnage equivalent in CAIR SO_2 allowances available for compliance deductions for the control period, as determined in accordance with 40 CFR 96.254(a) and (b), not less than the tons of total sulfur dioxide emissions for the control period from all CAIR SO_2 units at the source, as determined in accordance with 40 CFR Part 96, Subpart HHH.
(2) A CAIR SO_2 unit shall be subject to the requirements under paragraph (1) of the Sulfur Dioxide Emission Requirements starting on the later of January 1, 2010 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.270(b)(1) or (2) and for each control period thereafter.
(3) A CAIR SO_2 allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the SO_2 Emission Requirements, for a control period in a calendar year before the year for which the CAIR SO_2 allowance was allocated.
(4) CAIR SO_2 allowances shall be held in, deducted from, or transferred into or among CAIR SO_2 Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FFF and GGG.
(5) A CAIR SO_2 allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO_2 Trading Program. No provision of the CAIR SO_2 Trading Program, the CAIR Part, or an exemption under 40 CFR 96.205 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.
(6) A CAIR SO_2 allowance does not constitute a property right.
(7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart FFF or GGG, every allocation, transfer, or deduction of a CAIR SO_2 allowance to or from a CAIR SO_2 unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR SO_2 unit.

Excess Emissions Requirements.

If a CAIR SO_2 source emits SO_2 during any control period in excess of the CAIR SO_2 emissions limitation, then:
(1) The owners and operators of the source and each CAIR SO_2 unit at the source shall surrender the CAIR SO_2 allowances required for deduction under 40 CFR 96.254(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and
(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAA, the Clean Air Act, and applicable state law.

CRYSTAL RIVER POWER PLANT
Plant Name (from STEP 1)

STEP 3, Continued

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the CAIR SO_2 source and each CAIR SO_2 unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Department or the Administrator.

(i) The certificate of representation under 40 CFR 96.213 for the CAIR designated representative for the source and each CAIR SO_2 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.213 changing the CAIR designated representative.

(ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HHH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HHH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR SO_2 Trading Program.

(iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR SO_2 Trading Program or to demonstrate compliance with the requirements of the CAIR SO_2 Trading Program.

(2) The CAIR designated representative of a CAIR SO_2 source and each CAIR SO_2 unit at the source shall submit the reports required under the CAIR SO_2 Trading Program, including those under 40 CFR Part 96, Subpart HHH.

Liability.

(1) Each CAIR SO_2 source and each CAIR SO_2 unit shall meet the requirements of the CAIR SO_2 Trading Program.

(2) Any provision of the CAIR SO_2 Trading Program that applies to a CAIR SO_2 source or the CAIR designated representative of a CAIR SO_2 source shall also apply to the owners and operators of such source and of the CAIR SO_2 units at the source.

(3) Any provision of the CAIR SO_2 Trading Program that applies to a CAIR SO_2 unit or the CAIR designated representative of a CAIR SO_2 unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.

No provision of the CAIR SO_2 Trading Program, a CAIR Part, or an exemption under 40 CFR 96.205 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR SO_2 source or CAIR SO_2 unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

CAIR NO_X OZONE SEASON TRADING PROGRAM

CAIR Part Requirements.

(1) The CAIR designated representative of each CAIR NO_X Ozone Season source and each CAIR NO_X Ozone Season unit at the source shall:

(i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.322 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and

(ii) [Reserved];

(2) The owners and operators of each CAIR NO_X Ozone Season source required to have a Title V operating permit or air construction permit, and each CAIR NO_X Ozone Season unit required to have a Title V operating permit or air construction permit at the source shall have a CAIR Part included in the Title V operating permit or air construction permit issued by the DEP under 40 CFR Part 96, Subpart CCCC, for the source and operate the source and the unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

(1) The owners and operators, and the CAIR designated representative, of each CAIR NO_X Ozone Season source and each CAIR NO_X Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HHHH, and Rule 62-296.470, F.A.C.

(2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HHHH, shall be used to determine compliance by each CAIR NO_X Ozone Season source with the following CAIR NO_X Ozone Season Emissions Requirements.

NO_X Ozone Season Emission Requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_X Ozone Season source and each CAIR NO_X Ozone Season unit at the source shall hold, in the source's compliance account, CAIR NO_X Ozone Season allowances available for compliance deductions for the control period under 40 CFR 96.354(a) in an amount not less than the tons of total NO_X emissions for the control period from all CAIR NO_X Ozone Season units at the source, as determined in accordance with 40 CFR Part 96, Subpart HHHH.

(2) A CAIR NO_X Ozone Season unit shall be subject to the requirements under paragraph (1) of the NO, Ozone Season Emission Requirements starting on the later of May 1, 2009 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.370(b)(1),(2), or (3) and for each control period thereafter.

(3) A CAIR NO_X Ozone Season allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the NO_X Ozone Season Emission Requirements, for a control period in a calendar year before the year for which the CAIR NO_X Ozone Season allowance was allocated.

(4) CAIR NO_X Ozone Season allowances shall be held in, deducted from, or transferred into or among CAIR NO_X Ozone Season Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FFFF and GGGG.

(5) A CAIR NO_X Ozone Season allowance is a limited authorization to emit one ton of NO_X in accordance with the CAIR NO_X Ozone Season Trading Program. No provision of the CAIR NO_X Ozone Season Trading Program, the CAIR Part, or an exemption under 40 CFR 96.305 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.

(6) A CAIR NO_X Ozone Season allowance does not constitute a property right.

(7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart EEEE, FFFF or GGGG, every allocation, transfer, or deduction of a CAIR NO_X Ozone Season allowance to or from a CAIR NO_X Ozone Season unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR NO_X Ozone Season unit.

CRYSTAL RIVER POWER PLANT
Plant Name (from STEP 1)

STEP 3, Continued

Excess Emissions Requirements.

If a CAIR NO_X Ozone Season source emits NO_X during any control period in excess of the CAIR NO_X Ozone Season emissions limitation, then:
(1) The owners and operators of the source and each CAIR NO_X Ozone Season unit at the source shall surrender the CAIR NO_X Ozone Season allowances required for deduction under 40 CFR 96.354(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and
(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAAA, the Clean Air Act, and applicable state law.

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the CAIR NO_X Ozone Season source and each CAIR NO_X Ozone Season unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the DEP or the Administrator.
(i) The certificate of representation under 40 CFR 96.313 for the CAIR designated representative for the source and each CAIR NO_X Ozone Season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.113 changing the CAIR designated representative.
(ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HHHH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HHHH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.
(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO_X Ozone Season Trading Program.
(iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR NO_X Ozone Season Trading Program or to demonstrate compliance with the requirements of the CAIR NO_X Ozone Season Trading Program.
(2) The CAIR designated representative of a CAIR NO_X Ozone Season source and each CAIR NO_X Ozone Season unit at the source shall submit the reports required under the CAIR NO_X Ozone Season Trading Program, including those under 40 CFR Part 96, Subpart HHHH.

Liability.

(1) Each CAIR NO_X Ozone Season source and each CAIR NO_X Ozone Season unit shall meet the requirements of the CAIR NO_X Ozone Season Trading Program.
(2) Any provision of the CAIR NO_X Ozone Season Trading Program that applies to a CAIR NO_X Ozone Season source or the CAIR designated representative of a CAIR NO_X Ozone Season source shall also apply to the owners and operators of such source and of the CAIR NO_X Ozone Season units at the source.
(3) Any provision of the CAIR NO_X Ozone Season Trading Program that applies to a CAIR NO_X Ozone Season unit or the CAIR designated representative of a CAIR NO_X Ozone Season unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.

No provision of the CAIR NO_X Ozone Season Trading Program, a CAIR Part, or an exemption under 40 CFR 96.305 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_X Ozone Season source or CAIR NO_X Ozone Season unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

STEP 4

Read the certification statement; provide name, title, owner company name, phone, and e-mail address; sign, and date.

Certification (for designated representative or alternate designated representative only)

I am authorized to make this submission on behalf of the owners and operators of the CAIR source or CAIR units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name: Patricia Q. West	Title: Manager, Environmental Services - Florida
Company Owner Name FLORIDA POWER CORPORATION DBA PROGRESS ENERGY FLORIDA, INC.	
Phone: 727.820.5739	E-mail Address: patricia.west@pgnmail.com
Signature Patricia Q. West	Date 7/23/09

DEP Form No. 62-210.900(1)(b) – Form
Effective: 3/16/08

5

SECTION VI. APPENDICES.

The Following Appendices Are Enforceable Parts of This Permit:

Appendix A, Glossary.
Appendix ASP, ASP Number 97-B-01 (With Scrivener's Order Dated July 9, 1997).
Appendix CAM - Particulate Matter, Compliance Assurance Monitoring Plan for Units 001,002, 003 and 004 and Sulfuric Acid Mist (SAM) Compliance Assurance Monitoring Plan for Units 003 and 004.
Appendix F, Standard Continuous Monitoring Requirements.
Appendix I, List of Insignificant Emissions Units and/or Activities.
Appendix NSPS, Subpart A – General Provisions.
Appendix NSPS, Subpart D – Standards of Performance for Fossil Fuel Fired Steam Generators for which Construction is Commenced After August 17, 1971.
Appendix NSPS, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants.
Appendix NSPS, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.
Appendix NSPS, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.
Appendix NSPS, Subpart Y – Standards of Performance for Coal Preparation Plants.
Appendix NESHAP, Subpart A – General Provisions.
Appendix NESHAP, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.
Appendix RR, Facility-wide Reporting Requirements.
Appendix TR, Facility-wide Testing Requirements.
Appendix TV, Title V General Conditions.
Appendix U, List of Unregulated Emissions Units and/or Activities.

DRAFT/PROPOSED