Duke Energy Florida, LLC
University of Florida Cogeneration Plant

Facility ID No. 0010001
Alachua County

Title V Air Operation Permit Renewal

Permit No. 0010001-023-AV
(Renewal of Title V Air Operation Permit No. 0010001-016-AV)

Proposed

Permitting Authority:

State of Florida
Department of Environmental Protection
Division of Air Resource Management
Office of Permitting and Compliance
2600 Blair Stone Road
Mail Station #5505
Tallahassee, Florida 32399-2400

Telephone: (850) 717-9000
Email: DARM_Permitting@dep.state.fl.us

Compliance Authority:

Department of Environment Protection

Northeast District Office
880 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

Telephone: (904) 256-1700
Email: DEP_NED@dep.state.fl.us

Title V Air Operation Permit Renewal

Permit No. 0010001-023-AV

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FLORIDA DEPARTMENT OF Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

PERMITTEE:
Duke Energy Florida, LLC
1928 Mowry Road, Building 82
Gainesville, Florida 32611-2078

Permit No. 0010001-023-AV
University of Florida Cogeneration Plant
Facility ID No. 0010001
Title V Air Operation Permit Renewal

The purpose of this permit is to renew the Title V air operation permit for the above referenced facility. The existing University of Florida Cogeneration Plant is located in Alachua County at 1928 Mowry Road, Building 82, in Gainesville, Florida. UTM Coordinates are: Zone 17, 369.45 kilometers (km) East, 3,279.67 km North. Latitude is: 28º 38` 25"; and, Longitude is: 82º 20` 55".

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.

Executed in Tallahassee, Florida.

Effective Date:
Renewal Application Due Date: Exp. DATE -225, 20zz
Expiration Date: Eff. DATE + 5 years, 20zz

(Proposed)

For:
Syed Arif, P.E., Program Administrator
Office of Permitting and Compliance
Division of Air Resource Management

SA/dlr/jb

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SECTION I. FACILITY INFORMATION.

Subsection A. Facility Description.

The University of Florida Cogeneration Plant (UF Cogen) combined cycle unit consists of one nominal 48 megawatt (MW) General Electric LM6000-PC-ESPRINT combustion turbine (CT) and one heat recovery steam generator (HRSG) equipped with a duct burner (DB). The CT uses spray inter-cooling (SPRINT) to maximize power generation and reduce the need for supplemental firing of the HRSG DB to meet steam and power requirements. Emissions from the CT and HRSG DB are vented through the HRSG stack; the combined cycle system does not include a HRSG bypass stack. Emissions of nitrogen oxides (NO_X) are controlled by steam injection (for the CT) and low-NO_X burners (for the HRSG DB). Compliance with the CT and HRSG DB NO_X emission limits is demonstrated by data collected from a NO_X continuous emissions monitoring system (CEMS).

In addition, there are three backup Steam Boiler Nos. 5, 6 and 7. Each backup steam boiler has a separate exhaust stack. Steam Boiler Nos. 5 and 6, which are equipped with Continuous Demand Ignition (CDI) to maintain the boilers in a hot standby mode, are used as a backup source of steam when the combined cycle system is not available or to provide supplemental steam during periods of high steam demand. Boiler No. 7 serves as a backup to Boiler Nos. 5 and 6 in the event either boiler is out of service. To ensure that a steady supply of steam is always available for the UF Health Shands Hospital, Boiler No. 7 may operate concurrently with Boiler Nos. 5 and 6 during transition periods when the boilers are either being brought online or taken offline.

Subsection B. Summary of Emissions Units.

EU No.	Emission Unit Description
003	Steam Boiler No. 5
005	HRSG DB
007	CT
008	Steam Boiler No. 6
009	Emergency Generator Diesel Engine
010	Steam Boiler No. 7

Also included in this permit are miscellaneous insignificant emissions units and/or activities (see Appendix I, List of Insignificant Emissions Units and/or Activities).

Subsection C. Applicable Regulations.

Based on the Title V air operation permit renewal application received May 16, 2019, this facility is not a major source of hazardous air pollutants (HAP). The existing facility is a prevention of significant deterioration (PSD) major source of air pollutants in accordance with Rule 62-212.400, F.A.C. A summary of applicable regulations is shown in the following table.

Regulation	EU Nos.
Federal Rule Citations	
40 CFR 60, NSPS, Subpart A General Provisions	005, 007, 008, 010
40 CFR 60, NSPS Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units	005
40 CFR 60, NSPS Subpart Dc, Standards of Performance for Small Institutional Steam Generating Units	008, 010
40 CFR 60, NSPS Subpart GG, Standards of Performance for Stationary Gas Turbines	007
40 CFR 63, NESHAP Subpart A, General Provisions	009
40 CFR 63, NESHAP Subpart ZZZZ, NESHAP for Stationary RICE	009
40 CFR 72: Acid Rain Program Permit Regulations	005, 007
40 CFR 75: Acid Rain Program Continuous Emissions Monitoring	

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Regulation	EU Nos.
40 CFR 77: Acid Rain Program Excess Emissions	
40 CFR 78: Acid Rain Program Appeal Procedures	
State Rule Citations	
Rule 62-204.800, F.A.C.: Federal Regulations Adopted by Reference	003, 005, 007, 008,009, 010
Rule 62-212.400, F.A.C.: PSD of Air Quality	005, 007
Rule 62-213.413, F.A.C.: Fast-Track Revisions of Acid Rain Parts.	005, 007
Chapter 62-214, F.A.C.: Sources Subject to the Federal Acid Rain Program	005, 007
Rule 62-296.406, F.A.C., Fossil Fuel Steam Generators with Less Than 250 Million British Thermal Units per Hour (MMBtu/Hour) Heat Input	003, 005, 008, 010

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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 V, 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, VOC or organic solvents without applying known and existing vapor emission control devices or systems deemed-necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]

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

FW4. General Visible Emissions. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. 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 (PM) 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 PM at this facility include:

a. Application of chemicals or water to unpaved roads and unpaved yard areas;
b. Paving and maintenance of roads, parking areas and yards;
c. Regular mowing of grass and care of vegetation and landscaping or planting of vegetation;
d. Limiting access to plant property by unnecessary vehicles;
e. Confining abrasive blasting where possible;
f. Covering and/or application of water or chemicals to the affected areas, as necessary; and,
g. Additional or alternative activities may be utilized to minimize unconfined particulate emissions.

[Rule 62-296.320(4)(c), F.A.C.; and, proposed by applicant in Title V air operation permit renewal application received May 16, 2019]

Reports and Fees

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

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 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

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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: https://floridadep.gov/air/permitting-compliance/content/title-v-fees. [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 and to the US. EPA at the address shown below within 60 days after the end of each calendar year during which the Title V air operation permit was effective. (See also Appendix RR, Conditions RR1 and RR7.) [Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

U.S. Environmental Protection Agency, Region 4
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303
Attn: Air Enforcement Branch

FW8. Prevention of Accidental Releases (Section 112(r) of CAA). If, and when, the facility becomes subject to 112(r), the permittee shall:

a. Submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent electronically through EPA's Central Data Exchange system at the following address: https://cdx.epa.gov. Information on electronically submitting risk management plans using the Central Data Exchange system is available at: http://www2.epa.gov/rmp. The RMP Reporting Center can be contacted at: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.
b. Submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.

[40 CFR 68]

FW9. Semi-Annual Reports. The permittee shall monitor compliance with the terms and conditions of this permit and shall submit reports at least every six months to the compliance office. Each semi-annual report shall cover the 6-month periods of January 1 – June 30 and July 1 – December 31. The reports shall be submitted by the 60th day following the end of each calendar half (i.e., March 1st and August 29th of every year). All instances of deviations from permit requirements (including conditions in the referenced Appendices) must be clearly identified in such reports, including reference to the specific requirement and the duration of such deviation. If there are no deviations during the reporting period, the report shall so indicate. Any semi-annual reporting requirements contained in applicable federal NSPS or NESHAP requirements may

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be submitted as part of this report. The submittal dates specified above shall replace the submittal dates specified in the federal rules. All additional reports submitted as part of this report should be clearly identified according to the specific federal requirement. All reports shall include a certification by a responsible official, pursuant to subsection 62-213.420(4), F.A.C. (See also Conditions RR2. – RR4. of Appendix RR, Facility-wide Reporting Requirements, for additional reporting requirements related to deviations.) [Rule 62-213.440(1)(b)3.a., F.A.C.; and, 40 CFR 60.19, 40 CFR 61.10 & 40 CFR 63.10]

{Permitting Note: EPA has clarified that, pursuant to 40 CFR 70.6(a)(3), the word "monitoring" is used in a broad sense and means monitoring (i.e., paying attention to) the compliance of the source with all emissions limitations, standards, and work practices specified in the permit.}

Other Requirements

FW10. Facility-Wide Annual NOx Emission Cap.

a. *NO_X Cap*. Total NO_X emissions shall not exceed 185.3 tons/year for any calendar year for the Steam Boiler Nos. 5, 6 and 7 (EU 003, EU 008 and EU 010), HRSG DB (EU 005), and the CT (EU 007), combined. *{Permitting Note: The NO_X emissions from emergency diesel engine (EU 009) are excluded from the facility-wide NO_X emissions cap.}*

b. *Compliance*. To demonstrate compliance with the facility-wide annual NO_X emissions cap, the permittee shall calculate and record annual emissions as follows:

(1) CT and HRSG DB. Annual NO_X emissions from the CT and HRSG DB system shall be determined by data collected from the NO_X CEMS.

(2) Steam Boilers. Annual NO_X emissions from the steam boilers shall be determined based on annual fuel consumption rates and the following NO_X emissions rates:

(a) *Steam Boiler No. 5*. 0.110 lb/MMBtu (natural gas) and 0.107 lb/MMBtu (oil), or more recent stack test data (at the option of the permittee).

(b) *Steam Boiler No. 6*. Annual NO_X emissions shall be determined based on the most recent stack test data. *{Permitting Note: The NO_X emissions factors 0.057 lb/MMBtu for No. 2 fuel oil from the initial tests and 0.024 lb/MMBtu for natural gas from October 2018 testing.}*

(c) *Steam Boiler No. 7*. 0.10 lb/MMBtu.

c. *Report*. ***By April 1st of each year***, the permittee shall report the facility-wide annual NO_X emissions as a supplemental attachment to the AOR.

d. *Recordkeeping*. The permittee shall maintain the required fuel use records and include the total NO_X emission calculations in each AOR.

e. *Record Retention*. Records shall be retained for a 5-year period.

f. *Notification*. If the facility-wide annual NO_X emissions exceed the NO_X emissions cap, the permittee shall notify the Compliance Authority within three working days of discovery.

[Rules 62-4.070(3) and 62-212.400(AVOID PSD), F.A.C.; and Permit No. 0010001-022-AC]

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

EU No.	Brief Description
003	Steam Boiler No. 5
008	Steam Boiler No. 6
010	Steam Boiler No. 7

Steam Boilers Nos. 5 and 6, which are equipped with CDI to maintain the boiler in a hot standby mode, are used only as a backup source of steam when the combined cycle system is not available or to provide supplemental steam during periods of high steam demand. Steam Boiler No. 7 serves as backup to Boiler Nos. 5 and 6 in the event either boiler is out of service. To ensure that a steady supply of steam is always available for the UF Health Shands Hospital, Boiler No. 7 is authorized to operate concurrently with Boiler Nos. 5 and 6 during transition periods when the boilers are either being brought online or taken offline. These transition periods are infrequent since Boiler Nos. 5 and 6 only operate when the cogeneration unit is out of service or to provide supplemental steam.

Steam Boiler No. 5. The maximum heat input rate of Boiler No. 5 is 168 MMBtu/hour. The maximum heat input is based on fuel firing rates of 164,000 cubic feet per hour (cf/hour) of natural gas and 1,067 gallons/hour of No. 2 fuel oil. Boiler No. 5 has a stack height of 82 feet, exit diameter of 6 feet, exit temperature of approximately 400 degrees Fahrenheit (°F) and nominal volumetric flow rate of 56,250 actual cubic feet per minute (acfm). Boiler No. 5 boiler began commercial service in January 1976.

Steam Boiler No. 6. The maximum heat input rate of Boiler No. 6 is 99.9 MMBtu/hour on natural gas and 98.3 MMBtu/hour on oil. The maximum heat input is based on fuel firing rates of 97,941 cf/hour of natural gas and 723 gallons/hour of No. 2 fuel oil. Boiler No. 6 has a stack height of 82 feet, exit diameter of 5 feet, exit temperature of approximately 280°F and nominal volumetric flow rate of 20,900 acfm. Boiler No. 6 began commercial service in December 2014 on gas and August 2015 on fuel oil.

Steam Boiler No. 7. The maximum design heat input rate of Boiler No. 7 is 82.6 MMBtu/hour and fires only natural gas. Boiler No. 7 has a stack height of 22 feet, exit diameter of 3.8 feet, exit temperature of approximately 600°F and nominal volumetric flow rate of 31,3000 acfm. Boiler No. 7 began commercial operation in September 2018.

{Permitting Note: These emissions units are regulated under Rule 62-210.700, F.A.C. Excess Emissions; and Rule 62-296.406, F.A.C., Fossil Fuel Steam Generators with Less than 250 MMBtu/Hour Heat Input. Boiler Nos. 6 and 7 are regulated under 40 CFR 60, Subparts A, General Provisions, and Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generators, adopted and incorporated under Rule 62-204.800(8)(b), F.A.C. Boilers Nos. 5 and 6 are exempt from the requirements of 40 CFR 63 Subparts A, General Provisions, and JJJJJJ, NESHAP for Industrial, Commercial, and Institutional Boilers Area Sources as long as fuel oil firing is limited to 48 hours per calendar year per boiler for periodic testing, maintenance, or operator training on liquid fuel shall not exceed a combined total of 48 hours during any calendar year.}

Essential Potential to Emit (PTE) Parameters

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

EU No.	Boiler No.	MMBtu/hour Heat Input	Fuel Type
003	5	168	Natural Gas No. 2 Fuel Oil
008	6	99.9	Natural Gas No. 2 Fuel Oil
010	7	82.6	Natural Gas

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[Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), 62-214.330 & 62-296.405, F.A.C.; and Permit No. 0010001-020-AC and 0010001-022-AC]

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

A.3. Methods of Operation - Fuels. The fuels that are allowed to be burned in these units are:

a. *Steam Boiler No. 5.*
   (1) Natural gas with a maximum fuel sulfur content of 2 grains of sulfur per 100 standard cubic feet (gr S/100 scf), annual average based on vendor data.
   (2) No. 2 distillate fuel oil with a maximum sulfur content of 0.5%, by weight.

b. *Steam Boiler No. 6.*
   (1) Natural Gas with a maximum fuel sulfur content of 2 gr S/100 scf, annual average based on vendor data.
   (2) Fuel Oil.
      (a) No. 2 distillate fuel oil, with a maximum sulfur content of 0.1%, by weight.
      (b) Fuel oil may only be fired based on the number of hours determined in Condition **A.19**.

c. *Steam Boiler No. 7.* Natural gas with a maximum fuel sulfur content of 2 gr S/100 scf, annual average based on vendor data.

[Rules 62-204.800(8)(b), 62-212.400(AVOID PSD) and 62-296.406(2) & (3)(BACT), F.A.C., F.A.C., 40 CFR 60.42c(d); and Permit Nos. 0010001-018-AC. and 0010001-020-AC]

A.4. Restricted Operation - Steam Boiler No. 7. Excluding operation during readiness testing and routine maintenance, Boiler No. 7 shall only be used to provide steam at the UF Cogen Plant when at least one of the two existing backup steam boilers is out of service; *i.e.*, Boiler No. 7 will serve as a replacement for either Boiler No. 5 or No. 6. To ensure that a steady supply of steam is always available for the UF Health Shands Hospital, Boiler No. 7 is authorized to operate concurrently with Boiler Nos. 5 and 6 during transition periods when the boilers are either being brought online or taken offline. [Rule 62-210.200(PTE), F.A.C ; and Permit No. 0010001-022-AC]

A.5. Hours of Operation. These backup boilers may be operated continuously without restriction. [Rules 62-4.070(3), F.A.C.; and Permit Nos. 0010001-018-AC, and 0010001-020-AC]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Conditions **A.6 – A.11** are based on the specified averaging time of the applicable test method.

Steam Boiler Nos. 5, 6 and 7 (EU 003, EU 008 & EU 010)

A.6. Visible Emissions. Visible emissions from each boiler shall not exceed the following:

a. *Normal Operations*. 20% opacity except for one, 6-minute block average per hour not to exceed 27% opacity.

b. *Soot Blowing & Load Changes*. 60% opacity, based on 6-minute average, for a period of up to 3 hours in any 24-hour period. A load change occurs when the operational capacity of a unit is in the 10% to 100% capacity range, other than startup or shutdown, which exceeds 10% of the unit's rated capacity and which occurs at a rate of 0.5% per minute or more.

[Rules 62-204.800(8)(b), 62-296.406(1) and 62-210.700(3), F.A.C.; and 40 CFR 60.43c(c)]

A.7. NOx Emissions Cap. These emissions units are also subject to the facility-wide NO_X emissions cap contained in Condition **FW10**. [Rule 62-212.400(AVOID PSD), F.A.C.; Permit Nos. 0010001-018-AC and 0010001-020-AC]

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Steam Boiler Nos. 5 (EU 003)

A.8. PM and SO_2 Emissions. Emissions of PM and SO_2 from Steam Boiler No. 5 shall be controlled firing only natural gas with a maximum sulfur content of 2 gr S/100 scf as annual average based on vendor data or No. 2 fuel oil with a maximum sulfur content of 0.5%, by weight. [Rule 62-296.406(2) & (3)(BACT), F.A.C.; and Permit No. 0010001-018-AC]

Steam Boiler No. 6 (EU 008)

A.9. PM and SO_2 Emissions. Emissions of PM and SO_2 from Steam Boiler No. 6 shall be controlled by firing natural gas with a maximum sulfur content of 2 gr S/100 scf as annual average based on vendor data or No. 2 fuel oil with a maximum sulfur content of 0.1%, by weight. The sulfur content limit for No. 2 fuel oil ensures compliance with the NSPS Subpart Dc maximum sulfur content limit of 0.5%. [Rules 62-204.800(8)(b) and 62-296.406(2) & (3)(BACT), F.A.C.; 40 CFR 60.42c(d); and Permit Nos. 0010001-018-AC and 0010001-022-AC]

A.10. NOx Emissions. Emissions of NO_X from Steam Boiler No. 6 shall not exceed the following:
a. *Natural Gas*. 0.036 lb/MMBtu.
b. *Fuel Oil*. 0.126 lb/MMBtu.
[Rule 62-4.070(3) and 62-210.200(PTE), F.A.C.; and Permit No. 0010001-0022-AC]

Steam Boiler No. 7 (EU 010)

A.11. PM and SO_2 Emissions. Emissions of PM and SO_2 from Steam Boiler No. 7 shall be controlled by firing only natural gas with a maximum sulfur content of 2 gr S/100 scf as annual average based on vendor data. [Rule 62-296.406(2) & (3)(BACT), F.A.C.; and Permit No. 0010001-020-AC]

Excess Emissions

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

A.12. Excess Emissions from Malfunctions Allowed. Excess emissions from a malfunctions shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24-hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

*{Permitting Note: **After May 22, 2020**, Subsection 62-210.700(1), F.A.C., of Rule 62-210.700, F.A.C shall no longer apply to Boiler No. 7 and shall become obsolete.}*

A.13. Excess Emissions from Startup or Shutdown Allowed. 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.]

*{Permitting Note: **After May 22, 2020**, Subsection 62-210.700(2), F.A.C., of Rule 62-210.700, F.A.C shall no longer apply to Boiler No. 7 and shall become obsolete.}*

A.14. Excess Emissions Prohibited. Excess emissions that are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(2), F.A.C.]

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Test Methods and Procedures

A.15. Test Methods. When required, tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1 & 4	Traverse Points and Moisture Content
7E	Determination of NO_X Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
19	Determination of SO_2 Removal Efficiency and PM, SO_2, and NO_X 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.)
40 CFR 75, Appendix D	Optional SO_2 Emissions Data Protocol for Gas-Fired and Oil-Fired Units.
ASTM D396 ASTM D2622-92; ASTM D4294-90; ASTM D5453, D7039	Sulfur in Petroleum Products by Wavelength Dispersive X-ray Fluorescence Spectrometry; Sulfur in Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectroscopy; Determination of Total Sulfur in Light Hydrocarbons by Ultraviolet Fluorescence; Sulfur in Gasoline, Diesel Fuel, Jet Fuel, Kerosene, Biodiesel, Biodiesel Blends, and Gasoline-Ethanol Blends by Monochromatic Wavelength Dispersive X-ray Fluorescence Spectrometry. *{Permitting Note: Equivalent methods or the latest editions may be used.}*
ASTM 4084-82; D4468-85; D3246-81; D5504- 94	Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method); Total Sulfur in Gaseous Fuels by Hydrogenolysis & Rateometric Colorimetry; Sulfur in Petroleum Gas by Oxidative Micro coulometry. *{Permitting Note: Equivalent methods or the latest editions may be used.}*

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 62-204.800, F.A.C.; 40 CFR 60.41c; and Permit Nos. 0010001-018-AC and 0010001-020-AC.]

A.16. 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.]

{Permitting Note: Air compliance test notifications can now be completed online in the Department's Business Portal. To access this online process, go to http://www.fldepportal.com/go/home.}

A.17. Annual Compliance Tests Required. During each calendar year (January 1st to December 31st), the following boilers shall be tested:

a. Steam Boiler Nos. 5 and 6 shall be tested to demonstrate compliance with the opacity limits in Condition **A.6** when firing fuel oil. The annual emissions tests are not required if the boiler does not fire fuel oil for more than 400 hours during the calendar year, other than during startup. If the boiler fires fuel oil for more than 400 hours during the calendar year, other than during startup, an emissions test shall be completed no later than 60 days after the boiler exceeds the 400 hours or by the end of the calendar year, whichever is later.

b. Steam Boiler No. 7 is only authorized to burn natural gas and is not required to conduct an annual visible emissions test.

[Rule 62-297.310(8) & (8)5.e, F.A.C.; and Permit Nos. 0010001-018-AC and 0010001-020-AC]

A.18. Compliance Tests Prior To Renewal. Except as provided in subparagraph 62-297.310(8)(b)3., F.A.C. (see condition **TR7.**b.(3) in Appendix TR – Facility-wide Testing Requirements), in addition to the annual compliance tests specified above, compliance tests shall also be performed on Steam Boiler No. 6 for NO_X prior to obtaining a renewed operation permit to demonstrate compliance with the emission limits in

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Condition **A.10**, and to re-establish the boiler's NO_X emission factors used to comply with the NO_X emissions cap in Condition **FW10**. The emissions tests shall not be required for each fuel-specific limit, natural gas or fuel oil, provided that for the previous 5-year period, the fuel was not burned for more than 400 hours, other than during startup, during each calendar year included in the five-year period. The first time the boiler burns natural gas or fuel oil for more than 400 hours, other than during startup, during any calendar year, an emissions test for that fuel must be completed within 60 days, or by the end of that calendar year, whichever is later. [Rules 62-210.300(2)(a) and 62-297.310(8)(b), F.A.C.; and Permit No. 0010001-018-AC]

A.19. Operation of Steam Boiler No. 6. To ensure compliance with the facility-wide NO_X cap in Condition **FW10**, Steam Boiler No. 6 may fire fuel oil only for the number of operational hours determined by the below equations.

$$Allowable\ Hours_{oil\ firing} = \frac{80{,}600-(3.64\times Hours_{firing\ NG})}{12.6}\quad EQ.1$$

$$8{,}760\,\frac{hours}{year} \geq Hours_{firing\ NG} + Allowable\ Hours_{oil\ firing}\quad EQ.2$$

$$185.3\ NO_X\,\frac{tons}{year} \geq CT_{NOx\frac{tons}{year}} + Boiler\ No.5_{NOx\frac{tons}{year}} + Boiler\ No.6_{NOx\frac{tons}{year}} + Boiler\ No.7_{NOx\frac{tons}{year}}\quad EQ.3^{a}$$

a. Annual NO_X emissions from the backup steam boilers shall be determined based on the annual fuel consumption rates and the appropriate NO_X emissions factors in Condition **FW10.b.(2)**.
b. CT emissions include emissions from the HRSG DB system and shall be determined by data collected from the NO_X CEMS (see Condition **FW10.b(1)**.

[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C; and Permit No. 0010001-022-AC.]

A.20. Fuel Sulfur Content.
a. *Vendor Specifications.* The permittee may demonstrate compliance with the No. 2 fuel sulfur limit by the vendor providing a fuel analysis, tariff or fuel specification sheets, upon each fuel delivery. For natural gas a Responsible Official certification and vendor data may be used to demonstrate compliance with the natural gas 2 gr S/100 scf sulfur limit.
b. *Sampling and Analysis*. If fuel sampling and analysis is used to demonstrate compliance with the fuel sulfur limits for natural gas and fuel oil, the permittee shall use the fuel analysis methods in Condition **A.15**. For fuel oil sampling, a sample shall be taken of each fuel oil delivery, or the sampling of the oil shall be immediately after the fuel tank is filled or if a partially empty fuel tank is refilled, a new sample and analysis of the fuel in the tank is required upon filling.

[Rule 62-204.800(8)(b), F.A.C.; 40 CFR 60.44c(g) and 60.46c(d)(2); and Permit Nos. 0010001-018-AC and 0010001-020-AC]

Recordkeeping and Reporting Requirements

A.21. Reporting Schedule. The following reports and notifications shall be submitted to the Compliance Authority:

Report	Reporting Deadline	Related Conditions
Excess Emissions Report	Semi-Annually	**A.25**

[Rule 62-213.440(1)(b), F.A.C.]

A.22. Fuel Sulfur Records.
a. *Vendor Specification Sheets*. If fuel supplier certification, tariff or fuel specification sheets, is used to demonstrate compliance with the fuel sulfur limits for natural gas and No. 2 distillate fuel oil, the permittee shall maintain records of the fuel supplier certification. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the permittee that the records of fuel supplier certifications submitted represent all of the fuel oil combusted during the reporting period. For natural gas, such information may be provided by the natural gas pipeline vendor. A Responsible Official

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certification and vendor data may be used to demonstrate compliance with the natural gas 2 gr S/100 scf sulfur limit.

b. *Fuel Sampling*. Records of fuel sampling and analysis performed in Condition **A.20.b** shall be kept on site for 5-years and made available to the Department if requested.

c. *Reports*. The submission of the of the Annual Statement of Compliance and Semi-Annual Monitoring Report required by Specific Conditions **FW7** and **FW9**, respectively, shall be considered demonstrating compliance with the requirement of the Responsible Official certification.

[Rules 62-4.160(15) & 62-204.800(8)(b), F.A.C.; and 40 CFR 60.42c(h) and 60.48c(f); and Permit Nos. 0010001-018-AC and 0010001-020-AC]

A.23. Fuel Consumption Rates - Monthly Records. By the 15th calendar day of each month, the permittee shall record the monthly fuel consumption rates of the backup steam boilers. The written log shall summarize the fuel consumption for the previous month of operation and the previous 12 months of operation. Information may be recorded and stored as an electronic file. Records shall be available for inspection and printing within at least three days of a request by the Department or Compliance Authority. [Rule 62-4.070(3), F.A.C.; and Permit Nos. 0010001-018-AC and 0010001-020-AC]

A.24. Stack Test Reports: The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Appendix D (Common Testing Requirements) of this permit. For each test run, the report shall also indicate the heat input rate of the emissions unit. [Rule 62-297.310(8), F.A.C.; and Permit No. 0010001-018-AC]

A.25. Excess Emissions Records and Reports: The permittee shall submit semi-annual excess emission reports in accordance with 40 CFR 60.7(d) to the Compliance Authority. In addition, excess emission that result from Steam Boiler No. 6 opacity limits in Condition **A.6** shall maintain records according to the requirements in 40 CFR 60.48c(c)(1). [Rule 62-204.800, F.A.C.; and 40 CFR 60.7 & 60.48c(c)]

A.26. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

Other Requirements

A.27. NSPS Subpart Dc Provisions. The Steam Boiler No. 6 is subject to and shall meet the applicable requirements of NSPS Subparts A, General Provisions, and Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generators, adopted and incorporated under Rule 62-204.800, F.A.C. [Rule 20-204.800, F.A.C.; and NSPS Subparts A and Dc of 40 CFR 60]

A.28. NESHAP Subpart JJJJJJ Applicability for Boilers. Steam Boiler Nos. 5 and 6 (EU 003 and 008) currently meet the definition of a "gas-fired boiler" according to 40 CFR 63, Subpart JJJJJJ and are therefore currently exempt from the requirements of the subpart. Boiler No. 7 is capable of only firing natural gas and also meets the definition of "gas-fired boiler" and therefore is exempt from the requirements of 40 CFR 63, Subpart JJJJJJ as well. A "gas-fired boiler" may burn fuel oil only during periods of gas curtailment, gas supply interruptions, startups or for periodic testing, maintenance, or operator training on liquid fuel. Periodic testing, maintenance, or operator training on liquid fuel shall not exceed a combined total of 48 hours during any calendar year. Because the site is supplied by a single natural gas pipeline, examples of periods of gas interruptions include pressure testing of the gas supply pipeline, maintenance and repair of gas valves and gas leak repair. If Steam Boiler No. 5 or 6 exceeds the fuel oil firing limitations, it becomes immediately subject to Subpart JJJJJJ, and shall comply with all applicable requirements in the Subpart. [Rule 62-204.800(11)(b), F.A.C; and NESHAP Subpart JJJJJJ of 40 CFR 63.]

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

EU No.	Brief Description
005	HRSG DB
007	CT

CT. The CT is a natural gas-fired GE LM6000-PC-ESPRINT CT with a nominal generator rating of 48 MW. The CT utilizes spray intercooling to maximize throughput, thus reducing supplemental firing in the HRSG DB for meeting steam and power requirements. NO_X emissions are controlled with steam injection. The 48 MW CT began commercial service on September 24, 2002 (replacing the original 43 MW CT that was installed in 1994).

HRSG DB. The HSRG DB fires natural gas and is equipped with low-NO_X burners to control NO_X emissions. The HSRG DB is only capable of operating when the CT is in operation. The HRSG DB began commercial service on January 31, 1994.

The CT and the HRSG DB both exhaust through the HRSG stack; the combined cycle system does not include a HRSG bypass stack. The HRSG stack has a height of 93 feet and an exit diameter of 9.8 feet. Excluding operation of the HRSG DB, the HRSG stack has an approximate exit temperature of 257°F, nominal actual volumetric flow rate of 365,700 acfm, nominal dry standard flow rate of 216,956 dscfm, and an exit velocity of 80.8 feet/second based on operation of the CT at 100% load with inlet air conditions of 59°F and 60% relative humidity. A safety evaluation of the steam vent system indicated that it did not meet code and was deemed unsafe; therefore, it was dismantled.

{Permitting Note: The CT is regulated under 40 CFR 60, Subparts A, General Provisions, and GG, Standards of Performance for Stationary Gas Turbines, adopted and incorporated und Rule 62-204.800(8)(b), F.A.C. The HRSG DB is regulated under Rule 62-296.406, F.A.C., Fossil Fuels Steam Generators with Less Than 250 MMBtu/Hour Heat Input; 40 CFR 60, Subparts A, General Provisions, and Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, adopted and incorporated by reference in Rule 62-204.800(8)(b), F.A.C. The CT and HRSG DB are regulated under Rule 62-212.400, F.A.C., PSD; and Acid Rain, Phase II.}

Essential Potential to Emit (PTE) Parameters

B.1. Design Capacity. Based on operation at 100% load and a compressor inlet air temperature of 59°F, the maximum design capacity of CT and HRSG DB is as follows:

EU No.	MMBtu/hour Heat Input	Fuel Type
005	188 (LHV)	Natural Gas
007	533 (HHV)	Natural Gas

The maximum design heat input to the CT is based on the values defined by the manufacturer's performance curve of heat input rate vs. compressor inlet temperature. The maximum heat input limits are based on the lower heating value (LHV) of natural gas (950 Btu/scf), 100% load and ambient conditions of 60% relative humidity and 14.7 pounds per square inch, absolute (psia). The maximum heat input rates will vary depending upon ambient conditions, and the, CT characteristics and load. *{Permitting Note: The maximum design heat input rates to the CT are 480 MMBtu/hour (LHV) and 533 MMBtu/hour (high heating value (HHV)) at a compressor inlet temperature of 59°F.}* [Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), F.A.C., Permit No. 0010001-022-AC]

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

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B.3. Methods of Operation – Fuels.
a. *CT*. Natural gas with the following maximum fuel sulfur contents:
(1) 2 gr S/100 scf, annual average based on vendor data.
(2) 0.8%, by weight (8,000 parts per million, by weight (ppmw)). *{Permitting Note: The 2 gr S/100 scf of natural gas ensures compliance with this sulfur limit of 0.8%, by weight (8,000 ppmw) or less.}*
b. *HRSG DB*. Natural gas with a maximum fuel sulfur content of 2 gr S/100 scf, annual average based on vendor data.
[Rules 62-204.800(8)(b), 62-212.400(12) & 62-296.406, F.A.C.; 40 CFR 60.333; 40 CFR 75; and Permit Nos. 0010001-018-AC and 0010001-022-AC]

B.4. Hours of Operation. The CT and HRSG DB may be operated continuously without restriction.
[Rule 62-210.200(PTE), F.A.C. and Permit No. 0010001-018-AC]

Control Technology

B.5. CT – Steam Injection. A steam injection system is used to reduce NO_X emissions from the CT exhaust. The permittee shall operate a continuous monitoring system to monitor and record the ratio of steam to fuel being fired in the CT. The permittee shall establish the steam-to-fuel ratio that demonstrates compliance with the emissions standards of this permit by correlating with data collected by the NO_X CEMS. When the NO_X CEMS is down, the permittee shall operate at a steam-to-fuel injection rate that demonstrates compliance.
[Rules 62-4.070(3) and 62-204.800(8)(b), F.A.C.; 40 CFR 60.334; and Permit No. 0010001-018-AC]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Conditions **B.6 - B.10** are based on the specified averaging time of the applicable test method.

B.6. CO Emissions. Emissions of CO shall not exceed the following:
a. *CT*. 36.0 ppm by volume, dry (ppmvd) corrected to 15% oxygen (O_2). *{Permitting Note: This is equivalent to 35.8 lb/hour at a compressor inlet temperature of 59°F.}*
b. *HRSG DB*. 0.15 lb/MMBtu and 28.1 lb/hour.
[Rule 62-212.400(BACT), F.A.C.; and Permit No. 0010001-018-AC]

B.7. NOx Emissions. Emission of NO_X shall not exceed the following:
a. *CT*.
(1) 39.6 lb/hour based on a 30-day rolling average, as determined by the equation in Condition **B.23.b(2).** *{Permitting Note: This is equivalent to 25 ppmvd corrected to 15% O_2 as provided by the vendor.}*
(2) 123 ppmvd corrected to 15% O_2, based on a 4-hour rolling average, pursuant to Condition **B.23**.
b. *HRSG DB*.
(1) 0.1 lb/MMBtu *{Permitting Note: Demonstrating compliance with the 18.7 lb/hour based on a 30-day rolling average limit, as determined by the equation in Condition **B.23.b(2)** will demonstrate compliance with this limit.}*
(2) 18.7 lb/hour based on 30-day rolling average, as determined by the equation in Condition **B.23.b(2).**.
c. *CT and HRSG DB*.
(1) 58.3 lb/hour based on a 30-day rolling average, as determined by the equation in Condition **B.23.b(2).**
(2) Included in the NO_X Cap in Condition **FW10**.
[Rules 62-204.800(8)(b) and 62-212.400, F.A.C.; 40 CFR 60.44b(a); 40 CFR 60.332; and Permit No. 0010001-018-AC]

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B.8. SO_2 Emissions. Emissions of SO_2 shall be controlled by firing natural gas with the following maximum sulfur content:

a. *CT*.
   (1) 2 gr S/100 scf of natural gas, as an annual average based on vendor data.
   (2) 0.8% sulfur by weight (8,000 ppm, weight). *{Permitting Note: Demonstrating compliance with the maximum sulfur content of 2 gr S/100 scf demonstrates compliance with the sulfur limit of 0.8% sulfur by weight.}*

b. *HRSG DB*. 2 gr S/100 scf of natural gas, as an annual average based on vendor data.

[Rules 62-204.800(8)(b), 62-212.400 and 62-296.406(3)(BACT), F.A.C.; 60.333(b); and Permit No. 0010001-018-AC]

B.9. PM Emissions. Emissions of PM from the HRSG DB shall be controlled by the firing of natural gas with a maximum fuel sulfur content of 2 gr S/100 scf, as an annual average based on vendor data. [Rule 62-296.406(2)(BACT), F.A.C.]

B.10. Visible Emissions. Visible emissions shall not exceed 10% opacity from the HRSG stack. [Rule 62-4.070(3), F.A.C.; and Permit No. 0010001-022-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.

B.11. Excess Emissions Allowed - CT. Best operational practices shall be used to minimize hourly emissions that may occur during episodes of startup, shutdown and malfunction. Excess emissions resulting from startup, shutdown, and malfunction shall be permitted providing: (1) best operational practices to minimize emissions are adhered to, and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24-hour period unless specifically authorized by the Department for longer duration. For the combined cycle CT with a 30-day NO_X averaging period in Condition **B.7.c(1)**, this requirement shall mean the following. The 24-hour period shall be defined as the 24-hour block (midnight to midnight) based on data collected from the NO_X CEMS. If the NOx CEMS reports emissions in excess of the 30-day rolling average, the permittee may exclude up to two hours (120 minutes equivalent) of excess emissions data caused by each startup, shutdown and malfunction during the 30-day period to determine compliance. No NO_X emission data shall be excluded from the annual NO_X emission cap in Condition **FW10**. This requirement is not intended to limit the duration of a startup – only the amount of data that may be excluded from the 30-day compliance averaging period. If the 30-day rolling NO_X emissions rate exceeds the standard, the permittee shall notify the Compliance Authority as stated in Condition **B.28**. [Rules 62-210.700(1) & (4), F.A.C.; and Permit No. 0010001-018-AC]

B.12. Excess Emissions Allowed – HRSG DB. Excess emissions resulting from startup or shutdown of the HRSG DB 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.]

B.13. Excess Emissions Prohibited. Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction are prohibited. These emissions shall be included in the compliance averages for NO_X emissions. [Rule, 62-210.700(1) & (2), F.A.C.; and Permit No. 0010001-018-AC]

Monitoring of Operations

B.14. Monitoring of Operations – CT and HRSG DB. The permittee shall monitor and record the hours of operation of the CT and HRSG DB on a daily basis, considering the number of hours of operation during each day (including the times of startup, shutdown and malfunction). Records shall be available for inspection

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upon request by the Department or Compliance Authority. [Rule 62-4.070, F.A.C.; and Permit No. 0010001-022-AC]

Continuous Monitoring Requirements

B.15. Fuel Flow Monitoring: The permittee shall install and maintain equipment to monitor the fuel flow rates of the CT and HRSG DB. [Rules 62-4.070(3), 62-204.800 and 62-212.400(12), F.A.C.; 40 CFR 60.334(a); and Permit No. 0010001-018-AC]

B.16. NOx CEMS. The permittee shall calibrate, maintain, and operate a CEMS certified pursuant to 40 CFR 75 in the HRSG stack to measure and record CT and HRSG DB NO_X emissions in a manner sufficient to demonstrate compliance with the NO_x emission limits and NO_X cap in this permit. The NO_x CEMS shall be operated and maintained in accordance with the applicable requirements of 40 CFR 75, Subparts B and C. Missing data shall be substituted in a manner pursuant to 40 CFR 75, Subpart D. Recordkeeping and reporting shall be conducted pursuant to 40 CFR 75, Subparts F and G. Excess emissions pursuant to 40 CFR 60.334 shall be determined using the NO_x CEMS. The O_2 content or the carbon dioxide (CO_2) content of the flue gas shall also be monitored at the location where NO_X is monitored to correct the measured NO_X emissions rates to 15% O_2 and also reported as lb/hour. [Rules 62-204.800 and 62-210.700, F.A.C.; 40 CFR 60.334(b); 40 CFR 75; and Permit No. 0010001-022-AC

B.17. Continuous Operations Monitoring Systems – CT. To ensure compliance with the NO_X emission limit if the NOx CEMS malfunctions, a continuous operations monitoring systems shall be operated and maintained in accordance with 40 CFR 60.334. The natural gas and steam injection flows to the cogeneration turbine along with the power output of the generator shall be metered and continuously recorded. The data shall be logged daily and maintained so that it can be provided to the Department upon request. [Rule 62-204.800(8)(b), F.A.C.; 40 CFR 60.334; and Permit No. 0010001-022-AC]

Test Methods and Procedures

B.18. Test Methods. Required tests shall be performed in accordance with the following reference methods.

EPA Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
7E	Determination of NO_X Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10	Determination of CO Emissions from Stationary Sources *{Note: The method shall be based on a continuous sampling train.}*
19	Determination of SO_2 Removal Efficiency and PM, SO_2, and NO_X 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.)
40 CFR 75, Appendix D	Optional SO_2 Emissions Data Protocol for Gas Fired and Oil-Fired Units.
ASTM4084-82; D3246-81; D5504	Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method); Sulfur in Petroleum Gas by Oxidative Micro-coulometry. *{Permitting Note: Equivalent methods or the latest editions may be used.}*

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 62-213.440, F.A.C.; and Permit No. 0010001-018-AC and 0010001-020-AC; and Applicant Request.]

B.19. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310(8), F.A.C.]

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B.20. Annual Compliance Tests. During each calendar year (January 1st to December 31st), the combined cycle CT system shall be tested to demonstrate compliance with CO in Condition **B.6**. Due to safety considerations, stack testing while firing the HRSG DB when there is no demand for steam would require dumping excess steam, which presents a safety issue given the existing configuration. Therefore, annual CO compliance tests may be conducted with or without the HRSG DB in operation, as dictated by the system demand. Continuous compliance with the NO_X standards in Condition **B.7** will be demonstrated with certified CEMS data. [Rules 62-4.070(3) and 62-297.310(8), F.A.C.; and Permit No. 0010001-022-AC.]

B.21. Periodic Tests - CT System. The CT system generally consists of the following components: gas generator, accessory drive system, air inlet and filtration system, fuel delivery system, cooling system, lubrication system, control system, starting system and exhaust system with stack. This aero-derivative GT is designed with modular components to facilitate quick repairs. Common "wear items" include compressor vanes, turbine nozzles, compressor blades, turbine blades, fuel nozzles, combustion chambers, seals, and shaft packing. The concept of modular design extends to the complete replacement of major components of the GT. Replacements are authorized provided the following requirements are met.

a. *Like-Kind Equipment*. The "hot section" components (*e.g.*, combustors and high-speed turbines including blades, nozzles and other components) shall be replaced with equivalent "like-kind" equipment. Replacement components shall not increase the maximum heat input rate, capacity or emissions from the CT. Replacement components shall be designed to achieve and shall achieve the emissions standards specified in this permit or better.

b. *Tests*. Within 90 days of replacing a gas generator, the permittee shall conduct emissions stack tests to demonstrate compliance with the emission standards for CO and visible emissions. The permittee shall comply with the requirements for test notifications, test methods, test procedures, and reporting required by this permit.

c. *Change in Method of Operation*. To up-rate the gas turbine (*i.e.*, newer upgraded model) or increase the maximum heat input rate or capacity, the permittee shall submit an application for an air construction permit.

[Rule 62-4.070(3), F.A.C.; and Permit No. 0010001-022-AC]

B.22. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(8), F.A.C.]

B.23. NOx Emissions – Compliance Requirements.

a. *NSPS Subpart GG*. Pursuant to 40 CFR 60.332(a)(1), the permittee shall not exceed NO_X emissions in Condition **B.7.a(2)**, as determined by the following equation:

$$\boldsymbol{STD = 75\ ppmvd\ at\ 15\%\ O_2 \frac{(14.4)}{(8.8)} + F = 123\ ppmvd\ at\ 15\%\ O_2}$$

where:

STD = allowable NOx emissions standard corrected to ISO conditions based on a 4-hour rolling CEMS average. [40 CFR 60.334]

Y = 8.8 kilojoules per watt-hour (kJ/W-hour) based on 950 Btu/scf (LHV) for natural gas, which is the manufacturer's rated heat rate at manufacturer's rated load (kJ/W-hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kJ/W-hour.

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F = NO_X emission allowance for fuel bound nitrogen. *{Permitting Note: The NO_X allowance has not been claimed. NOx emissions from the HRSG DB shall not exceed 0.1 lb/MMBtu and 18.7 lb/hour based on 30-day rolling average.}*

[Rule 62-204.800(8)(b), F.A.C.; and 60.332(a)(1)]

b. *NO_X CEMS – PSD Avoidance Limits*. Demonstrating compliance with the CT and HRSG DB PSD avoidance NO_X emission limits in Condition **B.7.a.(1), b.(2) and c.(1)** is based on the NO_X CEMS data and the following information:

(1) Daily Rolling Average. The daily rolling average compliance value shall be calculated based on the proportion of hours operated in a day (midnight to midnight) that the CT or both the CT and HRSG DB are operating. Any portion of an hour that the HRSG DB operates shall be recognized as a one-hour period of daily HRSG DB operation.

$$\boldsymbol{NOx\ Emissions\ Rate_{Daily\ AVG}} = \frac{\left[\left(39.6\,\frac{lb}{hour_{CT\ NOx\ Rate}} \times CT_{hours}\right) + \left(58.3\,\frac{lb}{hour_{CT+DB\ NOx\ Rate}} \times DB_{hours}\right)\right]}{(CT_{hours} + DB_{hours})} \quad \textbf{EQ. 4}$$

Where:
CT_{hours} = CT only actual hours of operation.
DB_{hours} = DB actual hours of operation.
{Permitting Note: The DB can only operate when the CT is in operation.}

(2) 30-Day Rolling Average. For the 30-day rolling average, the calculated daily average emission rate added to the previous 29-day period of calculated daily average emission rates and divided by 30 days to establish the 30-day average emissions rate.

$$\boldsymbol{NOx\ Emissions\ Rate_{30-Day\ Rolling\ AVG}} = \frac{NOx\ Emissions\ Rate_{Daily\ AVG} + (\sum previous\ 29\ Daily\ AVG)}{30_{days}} \quad \textbf{EQ. 5}$$

Example: For an operating day in which the unit operated for 20 hours and the sum of the daily lb/hour averages for the previous 29 days is 1,242.05 lb/hour/day:

[{(39.6 lb/hour X 16 hours) + (58.3 lb/hour X 4 hours)]/20 hours = (633.6 lb + 233.2 lb)/20 hours = 43.35 lb/hour/day Average

(43.35 lb/hour/day + 1,242.05 lb/hour/day)/30 days = 42.85 lb of NOx/hour expressed as a 30-day rolling avg.

(3) Compliance – PSD Avoidance Limits. Compliance with the CT and HRSG DB NO_X emission limits is considered satisfied as long as the 30-day rolling average NO_X emission rates calculated using the HRSG stack NO_X CEMS data is less than the 30-day rolling average. NO_X compliance value determined by employing Equation Nos. 4 and 5 above.

[Rules 62-4.070(3) and 62-212.400(12), F.A.C., and Permit No. 0010001-022-AC]

B.24. Fuel Sulfur Content. If the natural gas meets the definition in 40 CFR 60.331(u) and 72.2, the permittee shall use one of the following to demonstrate compliance with the sulfur content limits in Condition **B.8**:

a. *Vendor Specifications*. The permittee shall retain the gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for natural gas, specifying the maximum total sulfur content of the fuel.

b. *Fuel Sampling*. The permittee shall obtain representative fuel sampling data which shows that the sulfur content of the natural gas. The source of this representative fuel sampling data employed may be vendor data. At a minimum, the amount of fuel sampling data specified in 40 CFR Section 2.3.1.4 or 2.3.2.4 of Appendix D.

Rule 62-204.800(8)(b), F.A.C.; and 40 CFR 60.334(h)(3)

Proposed

Recordkeeping and Reporting Requirements

B.25. Reporting Schedule. The following reports and notifications shall be submitted to the Compliance Authority:

Report	Reporting Deadline	Related Conditions
Excess Emissions Report - Malfunction	Semi-Annual	**B.27.**
Excess Emissions Report - CEMS	Semi-Annual	**B.28**

B.26. Fuel Sulfur Content Records. The permittee shall maintain records of the fuel sulfur content in Condition **B.24** and make available to the Department upon request. Records shall be retained for a period of 5-years. [Rule 62-204.800(8)(b) & 62-4.160(14); and 40 CFR 60.334]

B.27. Excess Emissions Report

a. *Malfunction*. 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.

b. *Notification Requirements*. In case of excess emissions resulting from malfunctions, the permittee shall notify the Department's Northeast District office. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. Notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence. Such notification does not release the permittee from any liability for failure to comply with Department rules.

[Rules 62-4.130, 62-210.200(155) and 62-210.700(5), F.A.C.]

B.28. Excess Emissions Report - CEMS. In addition to the reports required pursuant to 40 CFR 60.7(c), the permittee shall submit a notification of excess emissions during startup, shutdown, and documented unavoidable malfunctions to the Department in accordance with Condition **B.11**. If a CEMS reports emissions in excess of the standard, the permittee shall notify the Department's Northeast District office within one working day with a preliminary report of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. [Rules 62-204.800(8)(b) & 62-210.700(4), F.A.C.; and 40 CFR 60.334(j)]

B.29. NSPS Notifications. All applicable notifications and reports required by 40 CFR 60, Subpart A, shall be submitted to the Department's Northeast District office. [Rule 62-204.800, F.A.C.; and NSPS Subpart A]

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

Other Requirements

B.31. Federal Rule Requirements.

a. *CT*. In addition to the requirements in this permit, the CT shall also comply with all of the applicable general provisions contained in 40 CFR 60, Subpart A, General Provisions (attached Appendix NSPS, Subpart A) and terms and requirements of 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines (attached, Appendix NSPS, Subpart GG).

b. *HRSG DB*. In addition to the requirements in this permit, the HRSG DB shall also comply with all of the general provisions contained in 40 CFR 60, Subpart A, General Provisions (attached Appendix NSPS, Subpart A), and terms and requirements of 40 CFR 60, Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (attached, Appendix NSPS, Subpart Db).

[Rule 62-204.800, F.A.C.]

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

EU No.	Brief Description of Engine
009	Emergency Generator Diesel Engine

This emissions unit is a stationary compressions ignition (CI) internal combustion engine (ICE) that has a maximum engine rating of 544 HP at 100% load. The electrical generator has a nominal power rating of 406 kilowatt (kW).

The following table provides important details for the RICE:

Engines Description	Engine Brake HP	Date of Purchase	Displacement liters	Manufacturer	Model No.
Generator Diesel Engine	544 HP (406 KW)	1986	<10	Caterpillar	3406D1

{Permitting Note: This CI RICE is regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE adopted in Rule 62.204.800(11)(b), F.A.C. This permit section addresses "existing" emergency stationary CI RICE that are located at an area source of HAP and that have not been modified or reconstructed after 6/12/2006. If the RICE is modified or reconstructed after 7/11/2005, the NSPS 40 CFR 60, Subpart IIII, will then apply. In accordance with 40 CFR 63.6595(a)(1), the permittee shall comply with the following emissions limitations, operating limitations, and other requirements.}

Essential Potential to Emit (PTE) Parameters

C.1. Hours of Operation.

a. *Emergency Situations*. There is no time limit on the use of emergency stationary RICE in emergency situations. [Rule 62.204.800(11)(b), F.A.C.; and 40 CFR 63.6640(f)(1)]

b. *Maintenance and Testing*: These units are authorized to operate for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours/year. The owner or operator may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours/year. [Rule 62.204.800(11)(b), F.A.C.; and 40 CFR 63.6640(f)(2)(i)]

c. *Non-emergency Situations*. These units are authorized to operate up to 50 hours/year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. [Rule 62.204.800(11)(b), F.A.C.; and 40 CFR 63.6640(f)(4)]

Emission Limitations and Operating Requirements

C.2. Work or Management Practice Standards.

a. *Oil*. Change oil and filter every 500 hours of operation or annually, whichever comes first. [Rule 62.204.800(11)(b), F.A.C.; and 40 CFR 63.6603 & Table 2d.4.a.]

b. *Air Cleaner*. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary. [Rule 62.204.800(11)(b), F.A.C.; and 40 CFR 63.6603 & Table 2d.4.b.]

c. *Hoses and Belts*. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [Rule 62.204.800(11)(b), F.A.C.; and 40 CFR 63.6603 & Table 2d.4.c.]

d. *Operation and Maintenance*. Operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions or develop and follow your own maintenance plan which must provide, to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [Rule 62.204.800(11)(b), F.A.C.; and 40 CFR 63.6625(e)(3) & Table 6].

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e. *Engine Startup*. During periods of startup the owner or operator must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [Rule 62.204.800(11)(b), F.A.C.; and 40 CFR 63.6625(h) and Table 2d]

f. *Oil Analysis*. The owner or operator has the option of using oil analysis to extend the oil change requirement. The oil analysis must be performed at the same frequency specified for changing the oil in paragraph **a**., of this condition. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30% of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20% from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [Rule 62.204.800(11)(b), F.A.C.; and 40 CFR 63.6625(i)]

Monitoring of Operations

C.3. Hour Meter. The owner or operator must install a non-resettable hour meter if one is not already installed. [Rule 62.204.800(11)(b), F.A.C.; and 40 CFR 63.6625(f)]

Compliance

C.4. Continuous Compliance. Each unit shall be in compliance with the emission limitations, operating limitations, and other requirements in this section at all times. [Rule 62.204.800(11)(b), F.A.C.; and 40 CFR 63.6605(a)]

C.5. Operation and Maintenance of Equipment. At all times the owner or operator must operate and maintain, any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the compliance authority which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [Rule 62.204.800(11)(b), F.A.C.; and 40 CFR 63.6605(b)]

Recordkeeping Requirements

C.6. Notification, Performance and Compliance Records. The owner or operator must keep.

a. A copy of each notification and report that the owner or operator submitted to comply with this section, including all documentation supporting any Initial Notification or Notification of Compliance Status that the owner or operator submitted.
b. Records of the occurrence and duration of each malfunction of operation.
c. Records of all required maintenance performed on the hour meter.
d. Records of actions taken during periods of malfunction to minimize emissions in accordance with Condition **C.5.**, including corrective actions to restore malfunctioning process and monitoring equipment to its normal or usual manner of operation.
e. Records of the actions required in Condition **C.2.d.** to show continuous compliance with each emission limitation or operating requirement.
f. Records of the Work or Management Practice Standards specified in Condition **C.2.**

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g. Records of the maintenance conducted in order to demonstrate that the RICE was operated and maintained according to your own maintenance plan.
h. Records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for emergency demand response operation or for periods of voltage or frequency deviations, the owner or operator must keep records of the notification of the emergency situation, and the time of engine operation for these purposes.

[Rule 62.204.800(11)(b), F.A.C.; and 40 CFR 63.6655]

C.7. Records Retention.
a. The owner or operator must keep records in a suitable and readily available form for expeditious reviews.
b. The owner or operator must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.

Rule 62.204.800(11)(b), F.A.C.; and [40 CFR 63.6660 & 40 CFR 63.10(b)(1)]

General Provisions

C.8. 40 CFR 63 Subpart A, General Provisions. The owner or operator shall comply with the following applicable requirements of 40 CFR 63 Subpart A, General Provisions, which have been adopted by reference in Rule 62-204.800(11)(d)1., F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 63.5(e), 40 CFR 63.5(f), 40 CFR 63.6(g), 40 CFR 63.6(h)(9), 40 CFR 63.6(j), 40 CFR 63.13, and 40 CFR 63.14. Link to 40 CFR 63, Subpart A - General Provisions

General Provisions Citation	Subject of Citation
§63.1	General applicability of the General Provisions
§63.2	Definitions (Additional terms defined in §63.6675)
§63.3	Units and abbreviations
§63.4	Prohibited activities and circumvention
§63.5	Construction and reconstruction
§63.6(a)	Applicability
§63.6(c)	Compliance dates for existing sources
§63.9(a)	Applicability and State delegation of notification requirements
§63.9(b)(1)–(5)	Initial notifications. Except that §63.9(b)(3) is reserved.
§63.9(i)	Adjustment of submittal deadlines
§63.9(j)	Change in previous information
§63.10(a)	Administrative provisions for recordkeeping/reporting
§63.10(b)(1)	Record retention
§63.10(b)(2)(vi)–(xi)	Records
§63.10(b)(2)(xii)	Record when under waiver
§63.10(b)(2)(xiv)	Records of supporting documentation
§63.10(b)(3)	Records of applicability determination
§63.10(d)(1)	General reporting requirements
§63.10(f)	Waiver for recordkeeping/reporting
§63.12	State authority and delegations
§63.13	Addresses

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General Provisions Citation	Subject of Citation
§63.14	Incorporation by reference
§63.15	Availability of information

[40 CFR 63.6665 & Table 8 to Subpart ZZZZ of Part 63]

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Federal Acid Rain Provisions

Operated By: Duke Energy Florida, Inc.
Plant: University of Florida Cogeneration Facility
ORIS Code: 7345

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

EU No.	EPA Unit ID#	Brief Description
005/007	1	General Electric LM6000-PC-ESPRINT Combustion Turbine and Heat Recovery Steam Generator Duct Burner

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 application, DEP Form No. 62-210.900(1)(a), dated 05/01/14, received 05/16/14. [Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]

A.2. 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.3. 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.

University of Florida Plant name	**FL** State	**7345** 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**

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STEP 3

Read the standard requirements.

University of Florida

Plant Name (from STEP 1)

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,
(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.

University of Florida

Plant Name (from STEP 1)

Recordkeeping and Reporting Requirements (cont)

(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

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University of Florida
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)

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.

Jeffrey R. Swartz Name	**VP Florida Power Generation Operations** Title
Duke Energy Florida, LLC Owner Company Name	
(352) 501-6602 Phone	**jeffrey.swartz@duke-energy.com** E-mail address
Signature JR Swartz	Date 5/1/2019

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