FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

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RICK SCOTT
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SECRETARY

PERMITTEE

Duke Energy Florida, Inc. (DEF)
1928 Mowry Road, Building 82
University of Florida
Gainesville, Florida 32611-2295

Authorized Representative:

Mr. Brian Powers, Station Manager

Air Permit No. 0010001-015-AC
Facility ID No. 0010001
SIC No. 4911
Fuel Oil Limitation
Permit Expires: December 31, 2014

PROJECT

This is the final air construction permit revision, which authorizes changes to conditions of a prior air construction permit related to a fuel oil limitation at the University of Florida Cogeneration Plant facility. The facility is located in Alachua County on Mowry Road at Building 82, Gainesville, Florida. This final permit revision is organized into the following sections: Section 1 (General Information); Section 2 (Administrative Requirements); Section 3 (Emissions Unit Specific Conditions); and Section 4 (Appendices). Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit. As noted in the Final Determination provided with this final permit, no changes and clarifications were made to the draft permit.

STATEMENT OF BASIS

This air pollution construction permit revision is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida

David L. Read, P.E.
2014.08.22
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for: Jeffery F. Koerner, Program Administrator
Office of Permitting and Compliance
Division of Air Resource Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Air Permit package was sent by electronic mail, or a link to these documents made available electronically on a publicly accessible server, with received receipt requested before the close of business on the date indicated below to the following persons.

Mr. Brian Powers, Duke Energy: brian.powers@duke-energy.com
Mr. Andrew Bass, P.E., ECT: abass@ectinc.com
Mr. Richard Rachal, DEP Northeast District richard.rachal@dep.state.fl.us
Mr. Justin Green, DEP Siting Office: justine.green@dep.state.fl.us
Ms. Heather Ceron, EPA Region 4: ceron.heather@epa.gov
Ms. Natasha Hazziez, EPA Region 4: hazziez.natasha@epa.gov
Ms. Ana Oquendo, EPA Region 4: oquendo.ana@epa.gov
Ms. Lynn Scearce, DEP OPC: (lynn.scearce@dep.state.fl.us)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

Lynn Scearce

Lynn Scearce
2014.08.22
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FACILITY AND PROJECT DESCRIPTION

EU No.	Brief Description
Regulated Emissions Units	
002	No. 4 Steam Boiler
003	No. 5 Steam Boiler
005	Duct Burner System with HRSG
007	Combustion Turbine
009	Emergency Generator

Duke Energy reports that the boilers are exempt from Boiler MACT (40 CFR Part 63 Subpart JJJJJJ) because they intend to operate them as "natural gas boilers" as defined in the 40 CFR Part 63 Subpart JJJJJJ. It is requested that permit No. 0010001-011-AC be revised to reflect that natural gas is the primary fuel and that if fuel oil firing is limited to 48 hours per calendar year for periodic testing the units will be exempt from Boiler MACT. Also, fuel oil firing is not limited during periods of gas curtailment or gas supply interruptions. Because the UF CoGen 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 a back-up boiler exceeds the fuel oil firing limitations and no longer meets the definition of "gas-fired boiler" contained in 40 CFR Part 63 Subpart JJJJJJ, the boiler shall comply with all the requirements of the subpart with in the deadlines delineated in this subpart. These changes were approved by the Department and are noted below.

REGULATORY CLASSIFICATION

Title III: The facility is not a potential major source of hazardous air pollutants (HAP).

NESHAP: The facility operates units subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) in 40 Code of Federal Regulations (CFR) 63.

NSPS: The facility operates units subject to the New Source Performance Standards (NSPS) of 40 CFR 60.

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 213, Florida Administrative Code (F.A.C.).

PSD: The facility is a Prevention of Significant Deterioration (PSD)-major stationary source in accordance with Rule 62-212.400, F.A.C.

RELEVANT DOCUMENTS

The following relevant documents are not a part of this permit, but helped form the basis for this permitting action: the permit application and additional information received to make it complete, the draft air construction permit, and the Technical Evaluation and Preliminary Determination.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The Permitting Authority for this project is the Office of Permitting and Compliance in the Division of Air Resource Management of the Department. The mailing address for the Office of Permitting and Compliance is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Department's Northeast District Office. The mailing address and phone number are: 8800 Baymeadows Way West, Suite 100, Jacksonville, Florida 32256, Telephone: 904/256-1700, Fax: 904/256-1590.

3. Appendices: The following Appendices are attached as part of this permit: Appendix A (Citation Formats and Glossary of Common Terms); Appendix B (General Conditions); Appendix C (Common Conditions); and Appendix DDDDD (Boiler MACT).

4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.

5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

6. Modifications: No emissions unit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

7. Source Obligation:

(a) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

(b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

[Rule 62-212.400(12), F.A.C.]

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

EU No.	Brief Description
002	No. 4 Steam Boiler
003	No. 5 Steam Boiler
005	Duct Burner System with HRSG
007	Combustion Turbine

Specific Condition 1.

Other Permits: Except as specified below, these units remain subject to the applicable requirements established in all previous air construction permits issued for this facility. [Rule 62-4.070, F.A.C.]

The following changes are made to permit No. 0010001-011-AC:

Specific Condition 2.

Specific Condition **7.** of 0010001-011-AC is changed as follows:

7. Authorized Fuel: The combustion turbine, HRSG duct burners, and backup steam boilers are authorized to fire natural gas with a maximum sulfur content of grains per 100 scf of natural gas (annual average based on vendor data). The backup steam boilers are authorized to fire No. 2 fuel oil with a maximum sulfur content of 0.5% by weight. The backup boilers are exempt from the requirements of NESHAP, Subpart JJJJJJ as long as fuel oil firing is limited to 48 hours per calendar year for periodic testing. Fuel oil firing is not limited during periods of gas curtailment or gas supply interruptions. Because the UF Cogen 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 a back-up boiler exceeds the fuel oil firing limitations and no longer meets the definition of "gas-fired boiler" contained in this subpart, the boiler shall comply with all the requirements of the subpart with in the deadlines delineated in 40 CFR Part 63 Subpart JJJJJJ. [Rules 62-210.200(PTE), 62-212.400(12), 62-296.406, F.A.C., and 40 CFR 60.333(b)]

Specific Condition 3.

Specific Condition **16.** of 0010001-011-AC is changed as follows:

16. Annual Compliance Tests: During each federal fiscal year (October 1st to September 30th), the combined cycle combustion turbine system shall be tested to demonstrate compliance with the CO ~~and visible emissions~~ standards. Due to safety considerations, stack testing while firing the duct burner when there is no demand for steam would require dumping excess steam, which presents a safety issue given the existing configuration. Therefore, subsequent periodic testing for CO emissions may be with the duct burner on or off, as dictated by the system demand. ~~Visible emissions for each backup steam boiler shall be conducted only if No. 2 fuel oil is fired for more than 400 hours during the federal fiscal year.~~ *{Permitting Note:* A *safety evaluation of the steam vent system indicated that it did not meet code and was deemed unsafe; therefore, it was dismantled.}* [Rules 62-4.070(3) and 62-297.310(7), F.A.C.]