PERMITTEE:

Progress Energy Florida, Inc.
1729 Baillies Bluff Road
Holiday, FL 34691

Authorized Representative:
Jeff Swartz, Plant Manager

Anclote Power Plant
Air Permit No. 1010017-007-AC (PSD-FL-379)
Facility ID No. 1010017
SIC No. 4911
Permit Expires: 2 years from final permit

PROJECT AND LOCATION

This permit authorizes the construction of two new mechanical draft helper cooling towers to replace the existing helper cooling towers. The new equipment will be installed at Anclote Power Plant, which is located at 1729 Baillies Bluff Road, Holiday, in Pasco County, Florida. The UTM coordinates are Zone 17, 324.4 km East, and 3118.7 km North.

STATEMENT OF BASIS

This air pollution construction permit 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 install the proposed equipment in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department.

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Joseph Kahn, P.E., Acting Director (Date)
Division of Air Resource Management

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FACILITY AND PROJECT DESCRIPTION

This facility consists of two fuel oil fired steam electric generating stations, E.U. ID No. -001 (Unit No. 1) and -002 (Unit No. 2). Unit No. 1 consists of a Combustion Engineering, Inc., Controlled Circulation, Radiant Reheat (CCRR) Type boiler/steam generator and steam turbine which drives a generator with a nameplate rating of 535 (summer)/540 (winter) Megawatts. Unit No. 2 consists of a Combustion Engineering, Inc., CCRR Type boiler/steam generator and steam turbine which drives a generator with a nameplate rating of 525 (summer)/530 (winter) Megawatts. Units No. 1 and No. 2 share a common stack. Also included in this permit are miscellaneous unregulated and insignificant emissions units and/or activities. Relocatable diesel fired generator(s) with a maximum heat input of 25.74 MMBtu/hour and a maximum rating of 2460 Kilowatts are permitted to be located at this facility and may be relocated to other Progress Energy facilities.

The project consists of the construction and operation of two helping cooling towers, Emission Unit 007, to replace the existing helper cooling towers. Each tower will consist of 12 cooling tower cells for a total of 24 cells total. Each cooling tower cell is expected to be approximately 50 to 59 feet in height and a stack height of approximately 10 to 14 feet on top of the cooling towers. Both towers will be designed from salt water corrosion resistant materials. Brackish water used for cooling has an estimated total dissolved solids (TDS) of approximately 29,000 parts per million. The existing circulating water pumps will be reused with no increase in throughput. These towers are used to reduce the discharge water temperature to meet the facility's current water permit requirements, and will be no more than 4500 hours. The cooling towers provide direct contact between the cooling water and air passing through the tower. Drift is created when small amounts of cooling water become entrained in the air stream and carried out of the tower. Drift eliminators are the control technology used to control PM/PM_{10} emissions caused by the cooling tower drift.

ID	Emission Unit Description
007	Mechanical Draft Helper Cooling Towers with maximum circulation rate of 660,000 GPM.

REGULATORY CLASSIFICATION

Title III: The existing facility is identified as a major source of hazardous air pollutants (HAP).

Title IV: The existing facility has units subject to the acid rain provisions of the Clean Air Act.

Title V: The existing facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.

PSD: The existing facility is a PSD-major facility 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 permit package including the Department's Technical Evaluation and Preliminary Determination; publication and comments; and the Department's Final Determination.

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SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: All documents related to applications for permits to operate, construct, or modify emissions units regulated by this permit shall be submitted to the Bureau of Air Regulation of the Florida Department of Environmental Protection (DEP) at 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 Southwest District office, 13051 Telecom Parkway, Temple Terrace, FL, 33637-0926 (Phone Number: 813/632-7600).

3. Appendices: The following Appendices are attached as part of this permit: Appendix CF (Citation Format); Appendix GC (General Conditions); and Appendix SC (Standard Conditions).

4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403 of the Florida Statutes (F.S.); Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The terms used in this permit have specific meanings as defined in the applicable chapters of the Florida Administrative Code. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]

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: The permittee shall notify the Compliance Authority upon commencement of construction. No emissions unit or facility subject to this permit 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. Title V Permit: This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the appropriate Permitting Authority with copies to the Compliance Authority. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

8. Annual Operation Report: The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by March 1st of each year. [Rule 62-210.370(2), F.A.C.]

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A. EU-007 – Helper Cooling Towers

EMISSIONS UNITS

This section of the permit addresses the following emissions unit.

ID	Emission Unit Description
007	Mechanical Draft Helper Cooling Towers with maximum circulation rate of 660,000 GPM.

EQUIPMENT

1. Cooling Tower: The permittee is authorized to construct and operate two new mechanical draft cooling towers, 12 cells each, with the following nominal design characteristics: a circulating flow rate of 660,000 gallons per minute (330,000 gpm per tower); a design air flow of 36,000,000 acfm for both towers (18,000,000 per tower and 1,500,000 acfm per cell); drift eliminators and a drift rate of no more than 0.0005% of the circulating water flow for each tower. [Application No. 1010017-007-AC, Design]

PERFORMANCE RESTRICTIONS

2. Hours of Operation: Each new cooling tower shall not operate more than 4500 hours per calendar year. [Application No. 1010017-007-AC, Design]

EMISSIONS AND PERFORMANCE REQUIREMENTS

3. Cooling Tower Design: The cooling tower shall be designed and maintained to achieve a drift rate of no more than 0.0005% of the circulating water flow. [Application No. 1010017-007-AC, Design]

4. Drift Rate: Within 60 days of commencing operation, the permittee shall certify that the cooling towers were constructed and installed to achieve the specific drift rate of no more than 0.0005% of the circulating flow rate. [Application No. 1010017-007-AC, Design]

5. Circulating Water Flow Rate: Upon request, the applicant shall provide a means for determining the circulating water flow rate through the new cooling tower. [Rule 62-4.070, F.A.C.]

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