FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
BOB MARTINEZ CENTER
2600 BLAIRSTONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

RICK SCOTT
GOVERNOR

CARLOS LOPEZ-CANTERA
LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

PERMITTEE

Florida Power & Light Company (PSN)
700 Universe Boulevard
Juno Beach, Florida 33408

Authorized Representative:
Jeff Smith, Sanford/Putnam Plant General Manager

Air Permit No. 1270009-023-AC
Permit Expires: December 31, 2015
Minor Air Construction Permit

Sanford Power Plant
Turbine Excess Emissions

PROJECT

This is the final air construction permit, which authorizes changes to the excess emissions condition established by Permit No. 1270009-022-AC/PSD-FL-270(E). The proposed change will be conducted at the existing Sanford Power Plant, which is a electric utility power plant categorized under Standard Industrial Classification No. 4911. The existing facility is located in Volusia County at 950 South Highway 17-92 in DeBary, Florida. The UTM coordinates are Zone 17, 468.1 kilometers (km) East and 3190.86 km North.

This final permit 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, only minor changes and clarifications were made to the draft permit.

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 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

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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. Jeff Smith, FPL: jeff_smith@fpl.com
Mr. Christian Kiernan, FPL: Christian.kiernan@fpl.com
Mr. Jeffrey Zuczek, FPL: jefffrey.zuczek@fpl.com
Mr. Kennard Kosky, P.E., Golder Associates: kkosky@golder.com
Mr. Richard Rachal, DEP Northeast District Office: richard.rachal@dep.state.fl.us
Ms. Natasha Hazziez, EPA Region 4: hazziez.natasha@epa.gov
Ms. Katy Forney, EPA Region 4: forney.kathleen@epa.gov
Ms. Heather Ceron, EPA Region 4: ceron.heather@epa.gov
Ms. Barbara Friday, DEP OPC: barbara.friday@dep.state.fl.us
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.

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FACILITY DESCRIPTION

The existing facility consists of the following emissions units.

Facility ID No. 1270009	
ID No.	**Emission Unit Description**
005	Unit PSNCT4A Combined Cycle CT with Unfired HRSG (250 MW)
006	Unit PSNCT4B Combined Cycle CT with Unfired HRSG (250 MW)
007	Unit PSNCT4C Combined Cycle CT with Unfired HRSG (250 MW)
008	Unit PSNCT4D Combined Cycle CT with Unfired HRSG (250 MW)
009	Unit PSNCT5A Combined Cycle CT with Unfired HRSG (250 MW)
010	Unit PSNCT5B Combined Cycle CT with Unfired HRSG (250 MW)
011	Unit PSNCT5C Combined Cycle CT with Unfired HRSG (250 MW)
012	Unit PSNCT5D Combined Cycle CT with Unfired HRSG (250 MW)
027	Emergency Diesel Generator for Units 4 and 5
028	Emergency Diesel Generator for Units 4 and 5
030	Emergency Diesel Fire Pump Engine for Units 4 and 5
013	Evaporative Equipment Cooler
029	Two Propane Fired Emergency Hurricane Shelter Generators

PROPOSED PROJECT

This project makes changes to the excess emissions condition established by previous Permit No. 1270009-022-AC/PSD-FL-270(E). The change allows for the exclusion from CEMS data of excess emissions resulting from certain events.

This project will modify the following emissions units.

Facility ID No. 1270009	
ID No.	**Emission Unit Description**
005	Unit PSNCT4A Combined Cycle CT with Unfired HRSG (250 MW)
006	Unit PSNCT4B Combined Cycle CT with Unfired HRSG (250 MW)
007	Unit PSNCT4C Combined Cycle CT with Unfired HRSG (250 MW)
008	Unit PSNCT4D Combined Cycle CT with Unfired HRSG (250 MW)
009	Unit PSNCT5A Combined Cycle CT with Unfired HRSG (250 MW)
010	Unit PSNCT5B Combined Cycle CT with Unfired HRSG (250 MW)
011	Unit PSNCT5C Combined Cycle CT with Unfired HRSG (250 MW)
012	Unit PSNCT5D Combined Cycle CT with Unfired HRSG (250 MW)

FACILITY REGULATORY CLASSIFICATION

- The facility is not a major source of hazardous air pollutants (HAP).
- The facility operates units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.

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SECTION 2. ADMINISTRATIVE REQUIREMENTS (DRAFT)

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 of Environmental Protection (Department). The Office of Permitting and Compliance mailing address 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 Central District at: 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767.

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

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, 62-296 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: The permittee shall notify the Compliance Authority upon commencement of construction. No new emissions unit shall be constructed and no existing emissions unit shall be 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. Construction and Expiration. The expiration date shown on the first page of this permit provides time to complete the physical construction activities authorized by this permit, complete any necessary compliance testing, and obtain an operation permit. Notwithstanding this expiration date, all specific emissions limitations and operating requirements established by this permit shall remain in effect until the facility or emissions unit is permanently shut down. For good cause, the permittee may request that that a permit be extended. Pursuant to Rule 62-4.080(3), F.A.C., such a request shall be submitted to the Permitting Authority in writing before the permit expires. [Rules 62-4.070(4), 62-4.080 & 62-210.300(1), F.A.C.]

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A. Combined Cycle Combustion Turbines

This section of the permit addresses the following emissions units.

ID No.	Emission Unit Description
005	Unit PSNCT4A Combined Cycle CT with Unfired HRSG (250 MW)
006	Unit PSNCT4B Combined Cycle CT with Unfired HRSG (250 MW)
007	Unit PSNCT4C Combined Cycle CT with Unfired HRSG (250 MW)
008	Unit PSNCT4D Combined Cycle CT with Unfired HRSG (250 MW)
009	Unit PSNCT5A Combined Cycle CT with Unfired HRSG (250 MW)
010	Unit PSNCT5B Combined Cycle CT with Unfired HRSG (250 MW)
011	Unit PSNCT5C Combined Cycle CT with Unfired HRSG (250 MW)
012	Unit PSNCT5D Combined Cycle CT with Unfired HRSG (250 MW)

MODIFIED PERMIT CONDITIONS

1. This permit changes the excess emissions provisions contained in Specific Condition 5 of permit No. 1270009-022-AC (PSD-FL-270E) (which changed excess emissions provisions contained in Specific Condition 1 of permit No. 1270009-008-AC (PSD-FL-270A) which changed the original excess emissions provisions established in Specific Condition 24. of permit No. 1270009-004-AC (PSD-FL-270)) in order to establish provisions for excess emissions due to dry low NO_X (DLN) tuning and full speed no load (FSNL) testing. The provisions of this condition supersede the excess emissions provisions established in Specific Condition B.12. of permit No. 1270009-018-AV ~~and will be incorporated into the Title V permit as an applicable requirement at the next opportunity~~.

{Permitting note: The following PSD permit conditions are revised as indicated. ~~Strikethrough~~ is used to denote the deletion of text. Double-underlines are used to denote the addition of text. All changes are emphasized with yellow highlight in the electronic document.}

5. Allowable Excess Emissions: Subject to the following conditions, excess emissions resulting from startup, shutdown, tuning and malfunction of the combustion turbines shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. For each CT/HRSG system, excess emissions from startup, shutdown, tuning, and malfunction shall be excluded from the CEMS data in any 24-hour period for the following conditions (these conditions are considered separate events and each event may occur independently in any 24-hour period):

   a. Except during "cold startup to combined cycle operation", ~~or~~ "shutdown from combined cycle operation" or "warm startup of a CT/HRSG system", excess emissions occurrences shall not exceed two hours in any 24-hour period. Specifically, for a warm startup of any gas turbine/HRSG system, excluded emissions shall not exceed two hours in any single startup and no more than two startups can occur in any 24-hour period. "Warm startup of a gas turbine/HRSG system" is defined as a startup after the pressure in the high-pressure (HP) steam drum is above 450 psig.

   b. Cold startup to combined cycle operation is defined as operation when the HRSG high-pressure drum has been below 450 psig for at least one hour. During cold startup to combined cycle operation, up to four hours of excess emissions are allowed.

   c. During shutdown from combined cycle operation, up to three hours of excess emissions are allowed.

   d. During cold startup of the steam turbine system (combustion turbines, HRSG and steam turbine electrical generator), up to 12 hours per combustion turbine per cold startup of the steam turbine system are allowed. Cold startup of the steam turbine system shall be completed within 12 hours.

   e. DLN Tuning. CEMS data collected during initial or other major DLN tuning sessions shall be excluded

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from the CEMS compliance demonstration provided the tuning session is performed in accordance with the manufacturer's specifications. A "major tuning session" would occur after completion of initial construction, a combustor change-out, a major repair or maintenance to a combustor, or other similar circumstances as identified by the equipment manufacturer. Prior to performing any major tuning session, the permittee shall provide the Compliance Authority with an advance notice that details the activity and proposed tuning schedule. The notice may be by telephone, facsimile transmittal, or electronic mail.

f. Subject to the following conditions, excess emissions resulting from full speed no load (FSNL) testing shall be permitted for limited periods:

(1) The permittee notifies the Compliance Authority for each day that FSNL testing is required;

(2) The duration of excess emissions shall not exceed 15 hrs for the entire test period

(3) The permittee submits a report to the Compliance Authority summarizing the hourly NO_X emissions during the FSNL period; and

(4) This authorization does not waive any applicable federal requirements of NSPS Subparts A or GG.

[Rules 62-4.070(3), 62-4.130 & 62-210.700, F.A.C.; Permit No. 1270009-022-AC/PSD-FL-270(E); and, applicant request from project No. 1270009-023-AC]

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