Florida Department of Environmental Protection

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

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Jonathan P. Steverson
Secretary

PERMITTEE

Osprey Energy Center, LLC
1651 West Derby Avenue
Auburndale, Florida 33823

Authorized Representative:
Mr. Andrew Martin, Plant Manager

Air Permit No. 1050334-013-AC
(PSD-FL-287B & PSD-FL-311B)
Minor Air Construction Permit
Osprey Energy Center
Miscellaneous Revisions

PROJECT

This is the final air construction permit, which authorizes miscellaneous condition revisions to align with recent changes to Rule 62-297.310, F.A.C. The proposed revisions will be processed for the existing Osprey Energy Center, which is an electrical power generation facility categorized under Standard Industrial Classification No. 4911 (NAICS code 221112). The existing facility is located in Polk County at 1651 West Derby Avenue, Auburndale, Florida. The UTM coordinates are Zone 17, 421 km East, 3103.2 km North. Latitude is: 28° 3' 12" North; and, Longitude is: 81° 48' 43" West.

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.

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

David Lyle Read, P.E.
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For:
Jeffery F. Koerner, Deputy Director
Division of Air Resource Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Construction 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. Andrew Martin, Plant Manager: amartin@calpine.com
Ms. Carla Aduci, P.E., Trinity Consultants: cadduci@trinityconsultants.com
Mr. Michael Ballenger, P.E., Trinity Consultants: mballenger@trinityconsultans.com
Kelley M. Boatwright, DEP Southwest District Office: kelley.m.boatwright@dep.state.fl.us
Southwest District Permitting Office: EPOST_AIR_SWD@dep.state.fl.us
DEP Siting Office: SCO@dep.state.fl.us
Ms. Lorinda Shepherd, EPA Region 4: shepherd.lorinda@epa.gov
Ms. Heather Ceron, US EPA Region 4: ceron.heather@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

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FACILITY DESCRIPTION

The existing facility consists of the following regulated emissions units:

ID No.	Emission Unit Description
001	Nominal 170 MW combined cycle combustion turbine-electrical generator set
002	Nominal 170 MW combined cycle combustion turbine-electrical generator set
003	Heat recovery steam generator (HRSG) equipped with 250 million British thermal units (MMBtu) per hour gas-fired duct burner system
004	HRSG equipped with 250 MMBtu per hour gas-fired duct burner system
006	Nominal 120 megawatt (MW) simple cycle combustion turbine-electrical generator set

PROPOSED PROJECT

The purpose of this project is to make miscellaneous revisions to specific conditions in several older air construction permits in order to better align the compliance testing requirements with the provisions of Rule 62-297.310, F.A.C., which was revised in March of 2015. This permit also recognizes periods of CEMS data exclusions related to minor seasonal combustor tuning sessions, which may result in brief periods of excess emissions in exchange for lower overall emissions during normal operation.

This project will modify the following emissions units.

ID No.	Emission Unit Description
001	Nominal 170 MW combined cycle combustion turbine-electrical generator set
002	Nominal 170 MW combined cycle combustion turbine-electrical generator set
003	Heat recovery steam generator (HRSG) equipped with 250 million British thermal units (MMBtu) per hour gas-fired duct burner system
004	HRSG equipped with 250 MMBtu per hour gas-fired duct burner system
006	Nominal 120 megawatt (MW) simple cycle combustion turbine-electrical generator set

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.

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 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 Department's Southwest District Office at: 13051 N. Telecom Parkway, Temple Terrace, Florida 33637. Telephone: (813) 632-7600. Fax: (813) 632-7665

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); Appendix C (Common Conditions); Appendix D (Common Testing Requirements); and, Appendix E (ASP No. 12-G-AP, Alternate Sampling Procedure for Ammonia Slip Testing).

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. This permit does not authorize any new construction. As such, it does not contain a construction period 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. [Rules 62-4.070(4), 62-4.080 & 62-210.300(1), F.A.C.]

This section of the permit addresses the following emissions units.

ID No.	Emission Unit Description
001	Nominal 170 MW combined cycle combustion turbine-electrical generator set
002	Nominal 170 MW combined cycle combustion turbine-electrical generator set
003	Heat recovery steam generator (HRSG) equipped with 250 million British thermal units (MMBtu) per hour gas-fired duct burner system
004	HRSG equipped with 250 MMBtu per hour gas-fired duct burner system
006	Nominal 120 megawatt (MW) simple cycle combustion turbine-electrical generator set

SCOPE OF PERMIT

1. Other Permits: This permit does not authorize any new construction or changes to permitted capacities and emissions limits. Unless specifically stated below, the conditions of this permit are in addition to all other previously established applicable requirements. [Application No. 1050334-013-AC]

APPROVED REVISIONS AND CHANGES

2. To recognize allowable periods of acceptable CEMS data exclusions due to combustor tuning performed to optimize operations and to minimize total annual emissions, the following condition is established for EUs 001 – 004 and 006:

CEMS Data Exclusion – Combustor Tuning. CEMS data collected during seasonal or other major combustor tuning sessions shall be excluded from the CEMS compliance demonstration for short term emission standards provided the tuning session is performed in accordance with the manufacturer's specifications. All valid emissions data shall be used to demonstrate compliance with annual emissions caps. 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. "Seasonal tuning", where minor adjustments are performed, is also required to compensate for changes in average ambient conditions. Prior to performing any major or seasonal tuning session, the permittee shall provide the Department's Southwest District Compliance Authority with advance notice that details the activity and proposed tuning schedule. The notice shall be by telephone, facsimile transmittal, or electronic mail. [Application No. 1050334-013-AC]

3. To implement the intent of Rules 62-297.310(8)(a)5.b. & (8)(b)3.a., F.A.C., emissions units utilizing properly certified and calibrated CEMS for continuous compliance are not required to perform annual or renewal compliance tests. In addition, annual visible emissions test while firing gas and while firing oil for less than 400 hours per year ae not required. Visible emissions tests shall be required while firing gas and oil at least once during the term of each 5-year air operation permit. However, an emissions unit shall not be required to start up on a specific fuel type for the sole purpose of conducting an emissions test in order to renew the permit. In such a case, an emissions test shall be completed no later than 60 days after the emissions unit next starts up using the fuel for which a performance test was not completed prior to renewing the permit.

All prior annual and renewal compliance testing requirements contained in previously established construction permits (i.e., 1050221-004-AC (PSD-FL-311), 1050334-001-AC (PSD-FL-287), 1050221-006-AC (PSD-FL-311A), 1050221-010-AC (PSD-FL-185A & 287A), 1050334-009-AC, and all other revisions to same) for emissions units 001 – 004 and 006 are hereby replaced by the following conditions:

For EUs 001 - 004:

Annual Compliance Tests Required. During each calendar year (January 1st to December 31st), each emissions unit (EU) shall be tested to demonstrate compliance with the emissions standards for ammonia. Compliance with the CO standards (as demonstrated by the CEMS) serves as a surrogate for annual compliance with the VOC standards. [Rule 62-297.310(8)(a), F.A.C.; and, Application No. 1050334-013-AC (PSD-FL-287B & 311B)]

Compliance Tests Prior To Renewal. Prior to renewing the air operation permit, the permittee shall conduct compliance tests for PM, VOC, and visible emissions from the combustion turbines for each fuel allowed to be fired. These tests shall be conducted within the 5-year term of the air operation permit. For pollutants that are required to be tested annually, the permittee may submit the most recent annual compliance test to satisfy the requirements of this provision. However, an emissions unit shall not be required to start up on a specific fuel type for the sole purpose of conducting an emissions test in order to renew the permit. In such a case, an emissions test shall be completed no later than 60 days after the emissions unit next starts up using the fuel for which a performance test was not completed prior to renewing the permit. [Rule 62-297.310(8)(b), F.A.C.; and, Application No. 1050334-013-AC (PSD-FL-287B & 311B)]

For EU 006:

Annual Compliance Tests Not Required. Annual compliance tests are not required for CO, NO_X, or visible emissions. [Rule 62-297.310(8)(a)5.b., F.A.C.; and, Application No. 1050334-013-AC (PSD-FL-287B & 311B)]

Compliance Tests Prior To Renewal. Prior to renewing the air operation permit, the permittee shall conduct compliance tests for VOC and visible emissions from the combustion turbine for each fuel allowed to be fired. These tests shall be conducted within the 5-year term of the air operation permit. However, an emissions unit shall not be required to start up on a specific fuel type for the sole purpose of conducting an emissions test in order to renew the permit. In such a case, an emissions test shall be completed no later than 60 days after the emissions unit next starts up using the fuel for which a performance test was not completed prior to renewing the permit. [Rule 62-297.310(8)(b), F.A.C.; and, Application No. 1050334-013-AC (PSD-FL-287B & 311B)]

4. To reflect requirements contained in Rule 62-297.310(3), F.A.C., which does not specify a testing capacity for combustion turbines and in Rule 62-297.310(5), F.A.C., which specifies that the test periods shall include the period of typical operation during which the highest representative emissions are expected to occur, all prior testing capacity requirements contained in previously established construction permits (i.e., 1050221-004-AC (PSD-FL-311), 1050334-001-AC (PSD-FL-287), 1050221-006-AC (PSD-FL-311A), 1050221-010-AC (PSD-FL-185A & 287A), 1050334-009-AC, and all other revisions to same) for emissions units 001 – 004 and 006 are hereby replaced by the following condition:

Testing Procedures. Required tests shall be conducted in accordance with the requirements of Rule 62-297.310, F.A.C. (see Appendix D (Common Testing Requirements). The test period for all tests shall include the period of typical operation during which the highest representative emissions are expected to occur. [Rule 62-297.310, F.A.C.; and, Application No. 1050334-013-AC (PSD-FL-287B & 311B)]

5. To permanently establish acceptable alternatives for required ammonia slip testing, the alternate sampling provisions granted in ASP No. 12-G-AP are hereby incorporated as Appendix E (ASP No. 12-G-AP, Alternate Sampling Procedure for Ammonia Slip Testing).