Florida Power & Light Turkey Point Nuclear Plant
Facility ID No. 0250003
Title V Air Operation Permit Renewal
Permit No. 0250003-021-AV

APPLICANT

The applicant for this project is Florida Power and Light (FPL) Company, 700 Universe Boulevard, Juno Beach, Florida 33408. The applicant's responsible official for this project is Mr. Gabriel Mendoza, Nuclear Chemistry Manager.

FACILITY DESCRIPTION

The Turkey Point Title V Source is composed of two separate co-located power plants: the Fossil Plant and the Nuclear Plant. The two plants combined comprise the Turkey Point Title V facility, which is considered one facility for purposes of Prevention of Significant Deterioration (PSD) and Maximum Achievable Control Technology (MACT) applicability. However, due to the strict requirements of the Nuclear Regulatory Commission, FPL has chosen to operate these two plants under separate business entities, and has requested the issuance of two separate Title V permits for the Turkey Point facility. The co-located power plant referred to as the Turkey Point Fossil Plant is addressed in a separate Title V permit.

The Turkey Point Nuclear Plant is located in Miami-Dade County at 9700 SW 344th Street, Florida City, Florida.

The Nuclear Plant consists of: two nuclear generating units with a combined capacity of 1,332 megawatts (MW); multiple diesel emergency generators; a diesel engine-driven emergency fire pump; miscellaneous emergency diesel engines used to support plant equipment; and, miscellaneous unregulated and insignificant emissions units and/or activities. These diesel engines fire ultra low sulfur fuel (0.0015% sulfur content). Because the two nuclear generating units, which are regulated by the Nuclear Regulatory Commission (NRC), are not sources of air pollution, they are not included in this air permit.

025003-013-AC/PSD-FL-409 was issued on May 28, 2010 to authorize the construction of the cooling towers and support equipment for future nuclear Units 6 and 7. This permit is not included in this renewal, since the units have not yet been built.

This facility is comprised of the following non-nuclear air emissions units:

EU No.	Brief Description
Regulated Emissions Units	
007	Four Emergency Diesel Engines Used to Support Plant Equipment • Two Caterpillar 325 HP - C11 ACERT ™ Industrial Backup Generators for the Instrument Air Compressors • One John Deere 149 HP Diesel Engine-driven Pump for the Back-up Service Water Feed System • One Isuzu 24 HP Generator for the Land Utilization Meteorological Tower
023	Two Emergency Diesel Generator Engines For South Dade Meteorological Tower • One Onam 21.8 HP South Dade Meteorological Tower Diesel No. 1 Generator • One John Deere 46 HP South Dade Meteorological Tower Diesel No. 2 Generator
024	One Emergency Diesel Fire Pump
Unregulated Emissions Units and Activities (See Appendix U)	
005	Four Diesel Engine-driven Emergency Generators Not Subject to RICE • Two General Motors 2,500 kW back up to units 3A and 3B • Two General Motors 2,874 kW back up to units 4A and 4 B

EU No.	Brief Description
006	Three Emergency Diesel Engines Used to Support Plant Equipment Not Subject to RICE • One Caterpillar 1,003 HP Domestic Waste Water Plant Diesel Engine • One Caterpillar 820 HP Standby Diesel Generator for Feed Pump • One Caterpillar 896 HP Security System Diesel Engine

PRIMARY REGULATORY REQUIREMENTS

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

Title IV: The Turkey Point facility operates units at the Fossil Plant which are subject to the acid rain provisions of the Clean Air Act. (These units are not addressed in this permit for the Nuclear Plant.)

Title V: The Turkey Point facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

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

NSPS: The Turkey Point facility operates units at both the Fossil and Nuclear Plants which are subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

NESHAP: The Turkey Point facility operates units at both the Fossil and Nuclear Plants which are subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63.

CAIR: The Turkey Point facility operates units at the Fossil Plant which are subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C. (These units are not addressed in this permit for the Nuclear Plant.)

Siting: The Turkey Point facility is certified pursuant to the power plant siting provisions of Chapter 62-17, F.A.C. Units at the Fossil Plant are certified pursuant to provisions of this Chapter.

CAM: Compliance Assurance Monitoring (CAM) does not apply to any of the units at the Nuclear Plant, because these units do not use any add-on control devices.

NRC: The Nuclear Plant facility's nuclear generating units are regulated by the Nuclear Regulatory Commission.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Initial Title V Permit 0250003-002-AV (nuclear plant). Effective date January 1, 1999
Title V Permit Renewal 0250003-004-AV (nuclear plant). Effective date January 1, 2004
Title V Permit Renewal 0250003-010-AV (nuclear plant). Effective date January 1, 2009
Application for a Title V Air Operation Permit Renewal received December 7, 2012.
Additional Information Request (e-mail) dated January 11, 2013.
Additional Information Response (e-mail) received January 18, 2013.
Additional Information Request (e-mail) dated January 22, 2013.
Additional Information Response (e-mail) received January 22, 2013.
Additional Information Request (e-mail) dated February 4, 2013.
Additional Information Responses (e-mail) received February 4 & 5, 2013.
Draft/proposed Title V air operation permit renewal issued March 7, 2013.
Public Notice published and proposed permit review commenced Month XX, 2013.

PROJECT DESCRIPTION

The purpose of this permitting project is to renew the Title V air operation permit for the existing Nuclear Plant portion of the above referenced facility and to incorporate terms and conditions from air construction permit No. 0250003-020-AC related to the replacement of two emergency engines.

PROJECT REVIEW

The following changes/revisions were made as part of this renewal:

1. Replacement of Appendix TV, Title V General Conditions, Appendix TR, Facility-wide Testing Requirements and Appendix RR, Facility-wide Reporting Requirements with the newest versions;
2. Consolidation of Tables 1 and 2 into the Appendix section;
3. Replacement of previous Subsection III.A. with new Subsections III.A, B & C, to accommodate the applicable requirements for new and existing engines regulated pursuant to 40 CFR 60, Subpart IIII and 40 CFR 63, Subpart ZZZZ;
4. Reassignment of engines within emissions unit numbers 005, 006 and 007 to group similarly regulated RICE together for clarity of rule applicability.
5. Incorporation of requirements established in previously issued permit No. 0250003-015-AC for two replacement emergency engines into the group of engines collectively regulated in the existing EU 007.
6. Incorporation of requirements established in concurrently processed permit No. 0250003-020-AC for two new replacement emergency engines into the group of engines collectively regulated in the existing EU 007.
7. Removal of several retired engines from permit.
8. Creation of new emissions unit numbers 023 and 024 to facilitate the grouping of the engines based on rule applicability requirements. These engines were previously listed under EU 007.
9. Clarification that emergency engines are not subject to the VOC and NO_X RACT requirements contained in Rules 62-296.500 & 570, F.A.C.
10. Reclassification of EU 005 and EU 006 as Unregulated emissions units, due to being exempted from the requirements of 40 CFR 63, Subpart ZZZZ as existing engines greater than 500 HP located at a major source of HAP.
11. Identification of portable non-road engines, contractor maintenance equipment, and miscellaneous insignificant activities in Appendix I – List of Insignificant Emissions Units and/or Activities. Some of these activities were previously addressed as parts of EU 007 and Unregulated EU 008.
12. Updated Appendix I – List of Insignificant Emissions Units and/or Activities.
13. Updated Appendix U – List of Unregulated Emissions Units and/or Activities.

CONCLUSION

This project renews Title V air operation permit No. 0250003-010-AV, which was effective on January 1, 2009. This Title V air operation permit renewal is issued under the provisions of Chapter 403, Florida Statues (F.S.), and Chapters 62-4, 62-210 & 62-213, F.A.C. In accordance with the terms and conditions of this permit, the above named permittee is hereby authorized to operate the facility as shown on the application and approved drawings, plans, and other documents, on file with the permitting authority.