Gulf Power Company
Lansing Smith Electric Generating Plant

Title V Air Operation Permit Renewal
Permit No. 0050014-025-AV

APPLICANT

The applicant for this project is Gulf Power Company. The applicant's responsible official and mailing address are: Mr. Michael Burroughs, Vice President, Power Generation, Gulf Power Company, Lansing Smith Electric Generating Plant, One Energy Place, Pensacola, Florida 32520.

FACILITY DESCRIPTION

The applicant operates the existing Lansing Smith Electric Generating Plant, which is located in Bay County at 4300 County Road 2300, Lynn Haven, Florida 32409.

The existing facility consists of two coal fired steam generators (boilers), a Pratt & Whitney Twin-Pac combustion turbine peaking unit, and two gas-fired combined-cycle combustion turbine electrical generators with duct-fired heat recovery steam generators (HRSG). The two boilers, Units 1 and 2, are Acid Rain Phase II Units. The two boilers are also regulated under the Clean Air Interstate Rule (CAIR) and 40 CFR 63, Subpart UUUUU, National Emission Standards for Hazardous Air Pollutants: Coal-and Oil-Fired Electric Utility Steam Generating Units. The two combined-cycle combustion turbines are Acid Rain and CAIR units. Pulverized coal is the primary fuel for the boilers. Distillate fuel oil is used to fire the Twin-Pac combustion turbine and as a "back-up" fuel for the boilers. Natural gas is the only fuel allowed to be fired in the two combined-cycle combustion turbines.

The facility also has emergency reciprocating internal combustion engines which are regulated under 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE) and/or 40 CFR 60, Subpart IIII, NSPS for Stationary Compression Ignition RICE adopted in Rules 62-204.800(11)(b) & 8(b), Florida Administrative Code (F.A.C.), respectively.

The facility consists of the following regulated emission units (EU):

EU No.	Brief Description
001	Boiler Number 1 - 1,944.8 MMBtu/hour (Phase II Acid Rain and CAIR Unit)
002	Boiler Number 2 - 2,246.2 MMBtu/hour (Phase II Acid Rain and CAIR Unit)
003	Combustion Turbines A and B - 542 MMBtu/hour Peaking Unit (CAIR Unit)
004	170 MW Gas Combustion Turbine with HRSG and Duct Burner (Acid Rain and CAIR Unit)
005	170 MW Gas Combustion Turbine with HRSG and Duct Burner (Acid Rain and CAIR Unit)
006	Cooling Tower
009	General Purpose Internal Combustion Engines
011	165 HP Emergency Diesel Sump Pump
012	550 HP Emergency Diesel Generator at CCCT
013	153 HP Emergency Sump Pump
014	394 HP Emergency Diesel Generator - Units 1&2

Also included in this permit are miscellaneous insignificant emissions units and/or activities (see Appendix I, List of Insignificant Emissions Units and/or Activities).

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PROJECT DESCRIPTION

The purpose of this project is to renew Title V air operation permit No. 0050014-018-AV for the existing Lansing Smith Electric Generating Plant, and to incorporate the terms and conditions of air construction permit No. 0050014-026-AC, issued concurrently with the Notice of Intent for this project. The air construction permit revision is made to revise specific conditions of previously issued air construction permit No. 0050014-011-AC. The revised permit conditions are related to the correction of the No. 2 fuel oil heat input rated capacity during startup, shutdown and flame stabilization for emission units 001 and 002.

These documents along with all other associated documents in the issued draft permit package can be accessed by entering file number in the permit number field at the web link given below.
http://www.dep.state.fl.us/air/emission/apds/default.asp

PROCESSING SCHEDULE AND RELATED DOCUMENTS

- Application for a Title V Air Operation Permit Renewal received May 19, 2014.
- Request for additional information sent July 18, 2014.
- Applicant submitted a MATS Compliance Extension Request for Units 1 and 2 on July 28, 2014, as a significant addendum to the original application. The application processing and review clock was reset.
- Second request for additional information sent September 26, 2014.
- Second additional information response received November 7, 2014.
- Draft Permit issued December 16, 2014.

PRIMARY REGULATORY REQUIREMENTS

Standard Industrial Classification (SIC) Code: 4911 - Electrical Generation.

North American Industry Classification System (NAICS): 221112 - Fossil Fuel Electric Power Generation.

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

Title IV: The facility operates units subject to the acid rain provisions of the Clean Air Act. Units 1 and 2 are part of a multi-state Phase II NO_X Averaging Plan.

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

PSD: The 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 facility operates units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60. The below listed emissions units are subject to the following NSPS requirements.

APPLICABLE REGULATIONS	EU ID
40 CFR 60, Subpart A, New Stationary Source Performance Standards (NSPS) General Provisions	004, 005
40 CFR 60, Subpart Da, NSPS Standards of Performance for Electric Utility Steam Generating Units	
40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines	
40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	012, 013, 015

NESHAP: The facility operates units subject to the National Emissions Standards for Hazardous Air Pollutants of 40 CFR 63. The below listed emissions units are subject to the following NESHAP requirements.

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APPLICABLE REGULATIONS	EU ID
40 CFR 63, Subpart A, General Provisions	001, 002, 003, 004, 005
40 CFR 63, Subpart UUUUU - NESHAP, Coal-and Oil-Fired Electric Utility Steam Generating Units	001, 002
40 CFR 63, Subpart ZZZZ - NESHAP	009, 011, 012, 013, 015

CAM: Compliance Assurance Monitoring (CAM) applies to emissions units 001 and 002 for the controlled emissions of particulate matter (electrostatic precipitators).

CAIR: The facility is subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

GHG: The facility is identified as a major source of greenhouse gas (GHG) pollutants.

PROJECT REVIEW

The following changes/revisions were made as part of this renewal, the key differences compared with the previous Title V air operation permit have been highlighted in yellow within the permit for ease of location.

1. The facility description and list of applicable requirements in Section I. were updated to reflect current applicable requirements. These changes were made throughout the permit where necessary.
2. The previous Facility-wide Conditions **FW6.** and **FW7.** were replaced by a new condition **FW6.** to reflect the recent regulatory changes that combined the Annual Operating Report and the Annual Title V Fee submissions requirements. The remainder of the facility-wide conditions were renumbered accordingly.
3. Facility-wide condition **FW8.**a. (old **FW9.**a.) was revised to reflect the current contact information for the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center.
4. Incorporated the terms and conditions of air construction permit No. 0050014-026-AC, issued concurrently with this project. Specifically, the fuel oil rated capacities for units 001 and 002 have been corrected in Specific Condition **A.1.**
5. Incorporate the terms and conditions of air construction permit No. 0050014-020-AC, regarding the Best Retrofit Technology (BART) SO_2 limit for Units 001 and 002 in Specific Condition **A.8.**(b). Also, included other BART reporting requirements in Specific Condition **A.44.**
6. A clarifying permitting note was added to Specific Condition **A.25.** pertaining to the frequency of certain testing requirements.
7. Pursuant to the applicant's request, the ASTM test methods were updated in Specific Condition **A.31.** to provide acceptable alternatives methods.
8. A new Specific Condition **A.43.** was placed into the permit to reflect the new MATS emissions limits for boilers 1 and 2.

   The renewed permit incorporates the federal regulation for power plants as set forth in NESHAP 40 CFR 63, Subpart UUUUU - National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units (MATS). A new appendix for MATS is also added to the renewed permit. Emission Units 1 and 2 are subject to MATS since they are fossil fuel-fired combustion units of more than 25 megawatts. They are classified as "existing" units since they were constructed prior to May 3, 2011 and have not been reconstructed. In addition, the boilers are considered coal-fired units not using low rank virgin coal. The Department has granted Gulf Power Company a 1 year extension to come into compliance with the MATS rule. Consequently, the boilers must come into compliance with the requirements of Subpart UUUUU by April 16, 2016. Subpart UUUUU imposes the following emission limits for these Boilers:

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a. *Filterable Particulate Matter (PM)*. Emissions of PM shall not exceed either 0.030 pound/million British thermal unit (lb/MMBtu) or 0.30 pound per megawatt-hour (lb/MWh). In lieu of the filterable PM emission limit, the permittee may select to meet a total non-Hg HAP metals emission limit of either 5.0 x 10^{-5} lb/MMBtu or 0.50 pounds per gigawatt-hour (lb/GWH). Finally, in lieu of either filterable PM or total non-Hg HAP metals emission limits, the permittee my meet the following individual HAP metal emission limits:

(1) Antimony (Sb) – 0.80 pounds per terra Btu (lb/TBtu) or 8.0 x 10^{-3} lb/GWh.

(2) Arsenic (As) – 1.1 lb/TBtu or 0.020 lb/GWh.

(3) Beryllium (Be) – 0.20 lb/TBtu or 2.0 x 10^{-3} lb/GWh.

(4) Cadmium (Cd) – 0.30 lb/TBtu or 3.0 x 10^{-3} lb/GWh.

(5) Chromium (Cr) – 2.8 lb/TBtu or 0.030 lb/GWh.

(6) Cobalt (Co) – 0.80 lb/TBtu or 8.0 x 10^{-3} lb/GWh.

(7) Lead (Pb) – 1.2 lb/TBtu or 0.020 lb/GWh.

(8) Manganese (Mn) – 4.0 lb/TBtu or 0.050 lb/GWh.

(9) Nickel (Ni) – 3.5 lb/TBtu or 0.040 lb/GWh.

(10) Selenium (Se) – 5.0 lb/TBtu or 0.060 lb/GWh.

b. *Hydrogen Chloride (HCl)*. Emissions of HCl shall not exceed either 2.0 x 10-3 lb/MMBtu or 0.020 lb/MWh. In lieu of HCl emission limit, the permittee may select to meet a SO_2 emission limit of either 0.20 lb/MMBtu or 1.5 lb/GWH.

c. *Mercury (Hg)*. Emissions of Hg shall not exceed either 1.2 lb/TBtu or 0.013 lb/GWh.

Compliance with the above emissions limits shall be demonstrated pursuant to one of the available options specified in 40 CFR 63, Subpart UUUUUU, which is included as an appendix in the renewed Title V permit. The permittee shall also comply with the recordkeeping and reporting requirements and all other applicable requirements specified in the appendix.

As part of the 1 year MATS extension granted by the Department, additional permit conditions were added to Section III.A of the Title V permit dealing with the operation of Emission Units 1 and 2 during the 1 year extension.

9. A clarifying permitting note was added to Specific Condition **B.14.** pertaining to the frequency of certain testing requirements.

10. A clarifying permitting note was added to Specific Condition **C22.** pertaining to the frequency of certain testing requirements.

11. Removed EU's 009, 011, 012 and 013 from the unregulated emissions units and activities list and listed them under regulated emissions units. This change was required since these units are now subject to the federal requirements in 40 CFR 63, Subpart ZZZZ - National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

12. Creation of new Subsections D, E, F and G in Section III. - Emissions Units and Specific Conditions, of the Title V air operation permit to specify the applicable requirements for the existing reciprocating internal combustion engines. These Subsections have been established as follows:

Subsection D.: Multiple Emissions Units (EU 009) and the 165 HP, Emergency Diesel Sump Pump (EU 011)
Subsection E.: 550 HP, Emergency Diesel Generator at CCCT (EU 012)
Subsection F.: 153 HP, Emergency Diesel Sump Pump (EU 013)
Subsection G.: 394 HP, Emergency Diesel Generator - Units 1&2 (EU 014)

13. In Section IV of the Tile V permit, clarifications were made with regard to the multi-state NO_X averaging plan that was established by Gulf Power and Southern Companies.

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14. Appendices A and RR - Facility-wide Reporting Requirements were replaced with the latest versions.
15. Updated the Compliance Assurance Monitoring (CAM) for controlled emissions of particulate matter (electrostatic precipitators) for Emissions Units 001 and 002 with the latest versions of the standard language.
16. Appendix U, List of Unregulated Emissions Units and/or Activities and Appendix I, list of Insignificant Emissions Units and/or Activities were updated to match the latest list supplied with renewal application.
17. Removal of Appendix 40 CFR 63, Subpart ZZZZ, NESHAP and Appendix 40 CFR 60, Subpart IIII, NSPS from the Appendices Section. The applicable requirements have been included in the body of the permit.

CONCLUSION

This project renews Title V air operation permit No. 0050014-018-AV, which was effective on January 1, 2010. 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 and 62-214, 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 in the application and approved drawings, plans, and other documents, on file with the permitting authority.

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