Gulf Power Company
Crist Electric Generating Plant

Title V Air Operation Permit Renewal
0330045-038-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, Crist Electric Generating Plant, One Energy Place, Pensacola, Florida 32520.

FACILITY DESCRIPTION

The applicant operates the existing Crist Electric Generating Plant, which is located in in Escambia County on Pate Road, off of 10 Mile Road on Governors Bayou, North of Pensacola, Florida.

The existing facility consists of four predominantly coal-fired fossil fuel steam generators (boilers) and two fly ash silos. Boilers 4 and 5 were Acid Rain Phase I substitution Units. Boilers 6 and 7 were Acid Rain Phase I Units. All four boilers are subject to the Acid Rain Phase II and CAIR requirements. In addition, all the boilers are subject to 40 CFR 63, Subpart UUUUU, National Emission Standards for Hazardous Air Pollutants Coal-and Oil-Fired Electric Utility Steam Generating Units which is also referred to as the Mercury and Air Toxics Standards (MATS). Pulverized coal is the primary fuel for boilers 4, 5, 6 and 7. Natural gas, fuel oil and on-specification used oil are used as supplemental fuels in all four of the Boilers.

The facility also has 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 40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines adopted in Rules 62-204.800(11)(b) & 8(b), F.A.C., respectively.

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

EU No.	Brief Description
004	Boiler Number 4 - 1,096.7 MMBtu/hour (Substitution Acid Rain Phase I & CAIR Unit)
005	Boiler Number 5 - 1,096.7 MMBtu/hour (Substitution for Acid Rain Phase I & CAIR Unit)
006	Boiler Number 6 - 3,704.8 MMBtu/hour (Acid Rain and CAIR Unit)
007	Boiler Number 7 - 6,406.4 MMBtu/hour (Acid Rain and CAIR Unit)
008	Fly Ash Silos (3)
014	Unit 007, Mechanical Draft Cooling Tower with a maximum circulation rate of 190,000 GPM
015	Limestone Handling Equipment, Including 2 Silos
017	General Purpose Emergency RICE Units, Subject to 40 CFR 60, Subpart IIII
018	General Purpose Emergency RICE Units, Subject to 40 CFR 63, Subpart ZZZZ
016	Gypsum Handling Equipment

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

Proposed

PROJECT DESCRIPTION

The purpose of this project is to renew the existing Title V air operation permit No. 0330045-025-AV for the Crist Electric Generating Plant.

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 18, 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, Florida Administrative Code (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	017
40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	

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.

APPLICABLE REGULATIONS	EU ID
40 CFR 63, Subpart A, General Provisions	004, 005, 006, 007, 008, 014, 015, 017, 018
40 CFR 63, Subpart UUUUU - NESHAP, Coal-and Oil-Fired Electric Utility Steam Generating Units	004, 005, 006, 007
40 CFR 63, Subpart ZZZZ - NESHAP	017, 018

CAM: Compliance Assurance Monitoring (CAM) applies to emissions units 004, 005, 006 and 007 for the controlled emissions of particulate matter (electrostatic precipitators).

Proposed

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 not 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.
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. A new Specific Condition **A.70.** was placed into the permit to reflect the new MATS emissions limits for boilers 4, 5, 6 and 7.

   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 4, 5, 6 and 7 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:

   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 UUUUU, which is included as an appendix in the renewed Title V permit.

Proposed

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 boilers 4, 5, 6 and 7 (EU 004, 005, 006 and 007) during the 1 year extension.

4. Pursuant to the applicant's request, the ASTM test methods were updated in Specific Condition **A.45.** as acceptable alternatives methods.
5. A 220 horsepower John Deere Emergency Generator was included in Subsection D (General Purpose Emergency RICE units) of the Title V permit as Emissions Unit 017. This Unit is subject to the federal requirements for stationary reciprocating internal combustion engines, NESHAP, 40 CFR 63, Subpart ZZZZ and 40 CFR 60, Subpart IIII, NSPS for Stationary Compression Ignition RICE.
6. The appendices of the Title V permit were updated to include applicable requirements.
7. Appendix H is revised to reflect the most recent permitting action.
8. Updated the Compliance Assurance Monitoring (CAM) plan for controlled emissions of particulate matter (electrostatic precipitators) for Emissions Units 004, 005, 006 and 007 with the latest versions of the standard language.
9. Appendices A and RR, Facility-wide Reporting Requirements were replaced with the latest versions of the standard language.
10. Minor corrections and clarifications to permit language were also made at the request of the applicant.

CONCLUSION

This project renews Title V air operation permit No. 0330045-025-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 on the application and approved drawings, plans, and other documents, on file with the permitting authority.

Proposed