FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

BOB MARTINEZ CENTER
2600 BLAIRSTONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

RICK SCOTT
GOVERNOR

JENNIFER CARROLL
LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

PERMITTEE

Tampa Electric Company (TEC)
702 North Franklin Street
Tampa, Florida 33602

Authorized Representative:
Mr. Byron T. Burrows, P.E., Manager-Air Programs

Air Permit No. 0570039-063-AC
Permit Expires: June 30, 2014
Minor Air Construction Permit

Big Bend Station

On-Site Fabrication of Fiber-Reinforced Polymer Duct

PROJECT

This is the final air construction permit, which authorizes the replacement of the existing outlet ductwork on the facility's Unit 4 scrubber C and D with a fiber-reinforced polymer (FRP) duct system. The proposed work will be conducted at the existing Big Bend Station, which is a nominal 2,028 megawatt (MW) electric generation facility categorized under Standard Industrial Classification No. 4911. The existing facility is located in Hillsborough County at 13031 Wyandotte Road, Apollo Beach, Florida. The Universal Transverse Mercator (UTM) coordinates are Zone 17, 361.9 km East, and 3075.0 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, no changes or 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

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 Final Air Permit package (including the Final Determination and Final Permit with Appendices) 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. Byron T. Burrows, TEC (btburrows@tecoenergy.com)
Mr. Robert A. Velasco, TEC (ravelasco@tecoenergy.com)
Ms. Kelley Boatwright, SWD (kelley.boatwright@dep.state.fl.us)
Ms. Diana Lee, EPCHC (lee@epchc.org)
Ms. Kathleen 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.

FACILITY DESCRIPTION

The existing facility includes the following emissions units and other equipment as listed below.

Facility ID No. 0570039

ID No.	Emission Unit Description
001	Fossil Fuel Fired Steam Generator Unit No. 1
002	Fossil Fuel Fired Steam Generator Unit No. 2
003	Fossil Fuel Fired Steam Generator Unit No. 3
004	Fossil Fuel Fired Steam Generator Unit No. 4

The Big Bend Station is a nominal 2,028 megawatt (MW) electric generation facility. This facility consists of four fossil fuel fired steam generators, Boiler Unit Nos. 1 through 4; four steam turbines; one simple-cycle combustion turbine (CT), CT No. 1; solid fuels, fly ash, limestone, gypsum, slag, and bottom ash storage and handling facilities; and, fuel oil storage tanks.

PROPOSED PROJECT

In this project TEC intends to replace the existing outlet ductwork on Fossil Fuel Fired Steam Generator Unit No. Unit 4 scrubber C and D. Unit No. 4 is a 4,330 mmBtu per hour, dry-bottom tangentially fired utility boiler with a nameplate capacity of 486 MW. A wet flue gas desulfurization (FGD) system was installed in 1985 to control sulfur dioxide emissions from Unit 4. In 1995, Unit 3 was integrated with the Unit 4 FGD system to control sulfur dioxide emissions. In 2007, TEC obtained an air construction permit (0570039-036-AC) to separate the scrubbers for Units 3 and 4. The permit designated existing FGD scrubbers A and B for Unit 3 and existing FGD scrubbers C and D for Unit 4. The work permanently eliminated the capability to bypass the FGD system.

FACILITY REGULATORY CLASSIFICATION

- The facility is a major source of hazardous air pollutants (HAP).
- The facility does operate 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 Blairstone Road (MS #5505), Tallahassee, Florida 32399-2400. All documents related to applications for permits to operate an emissions unit shall be submitted to the Southwest District Air Program at: 13051 N Telecom Parkway, Temple Terrace, FL 33637-0926.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Environmental Protection Commission of Hillsborough County at: 3629 Queen Palm Drive, Tampa, Florida 33619.

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.]

SECTION 3. EMISSIONS ACTIVITY SPECIFIC CONDITIONS

A. ON-SITE FABRICATION OF FIBER-REINFORCED POLYMER DUCT

This section of the permit addresses the following emissions activity.

ID No.	Emission Unit Description
049	On-Site Fabrication of Fiber-Reinforced Polymer Duct

The fabrication process will generate fugitive emissions of volatile organic compounds (VOC) and styrene during anticipated 22 week fabrication period, beginning June 1, 2013. Preliminary estimates show that approximately 10 tons per year and 48 pounds per hour of fugitive VOC and styrene emissions will be generated during the fabrication of 300,000 pounds of ductwork. A summary of the emissions calculations is included in the Technical Evaluation and Preliminary Determination document. This project is regulated under the following Department Rules: 62-210.300, 62-296.320 and 62-296.500, F.A.C.

EQUIPMENT

1. Fiber-Reinforced Polymer Ductwork: The permittee is authorized to replace the existing outlet ductwork on Unit 4 scrubber C and D with a fiber-reinforced polymer (FRP) duct. The new duct may be fabricated on site and installed when complete. The existing ductwork shall be removed and disposed of off-site. [Application No. 0570039-063-AC; and Rule 62-210.300, F.A.C.]

PERFORMANCE RESTRICTIONS

2. Hours of Operation: There is no restriction on the daily hours of operation of the fabrication process during the construction phase of the project. [Application No. 0570039-063-AC; and Rule 62-210.200(PTE), F.A.C.]

EMISSIONS STANDARDS

3. Common Conditions: See Specific Conditions 6 through 9 in Appendix C.

RECORDS AND REPORTS

4. Notification: The Department and Hillsborough County shall be notified by the permittee two weeks prior to start of construction work on this project. [Rule 62-4.070(3), F.A.C.]

5. Reporting and Recordkeeping: At the conclusion of the project, the permittee shall submit a materials balance report to the Office of Permitting and Compliance documenting actual styrene and VOC emissions generated during the fabrication process for the new ductwork based on material usage and inventory records. [Rule 62-4.070(3), F.A.C.]