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

Tampa Electric Company (TEC)
13031 Wyandotte Road
Apollo Beach, Florida 33572-9200

Authorized Representative:
Mr. Ronald D. Bishop, Director

Air Permit No. 0570039-082-AC
Facility ID No. 0570039
SIC No. 4911
Installation of PM CEMS
Permit Expires: December 31, 2017

PROJECT

This is the final air construction permit revision, which authorizes changes to conditions of prior air construction permits related to installation of a continuous emissions monitor system (CEMS) for particulate matter (PM) at the Big Bend Station facility. The facility is located in Hillsborough County at 13031 Wyandotte Road, Apollo Beach, Florida. This final permit revision 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 and clarifications were made to the draft permit.

STATEMENT OF BASIS

This air pollution construction permit revision 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 L Read

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

JFK/dlr/tbc

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Air 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. Ron Bishop, TEC: rdbishop@tecoenergy.com
Mr. William Karl, P.E., ECT: bkarl@ectinc.com
Mr. Rob Velasco, P.E., TEC: ravelasco@tecoenergy.com
Ms. Diana M. Lee, P.E., EPCHC: lee@epchc.org
Ms. Alisa Coe, Earth Justice: acoe@earthjustice.org
Ms. Lorinda Shepherd, EPA Region 4: shephard.lorinda@epa.gov
Ms. Natasha Hazziez, EPA Region 4: hazziez.natasha@epa.gov
Ms. Ana Oquendo, EPA Region 4: oquendo.ana@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

2015.12.09
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FACILITY AND PROJECT DESCRIPTION

EU No.	Brief Description
Regulated Emissions Units	
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

As part of the TEC request to revise the current Title V air operation permit to add particulate matter (PM) continuous emissions monitoring systems (CEMS) to Emissions Units 001, 002, 003, and 004, several underlying air construction permits are also affected. These changes are summarized below:

- Delete continuous opacity monitoring systems (COMS);
- Delete all references to PM stack testing. Compliance will be demonstrated by conducting Response Correlation Audit (RCA) and Relative Response Audit (RRA);
- Remove hourly and annual PM mass emission values from the tables in the permits since the numbers are merely linear computations using the emissions units' respective pounds per million Btu limits pursuant to the former consent decree and approved BACT report and the maximum heat input rate for each emissions unit and are unnecessary.

These changes were approved by the Department, and are noted below as revisions to specific conditions in previously issued air construction permits. Please note that this current permit revision also establishes one new specific condition for the facility.

REGULATORY CLASSIFICATION

Title III: The facility is a potential major source of hazardous air pollutants (HAP).

NESHAP: The facility operates units subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) in 40 Code of Federal Regulations (CFR) 63.

NSPS: The facility operates units subject to the New Source Performance Standards (NSPS) of 40 CFR 60.

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 stationary source in accordance with Rule 62-212.400, F.A.C.

RELEVANT DOCUMENTS

The following relevant documents are not a part of this permit, but helped form the basis for this permitting action: the permit application and additional information received to make it complete, the draft air construction permit revision, and the Technical Evaluation and Preliminary Determination.

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. The mailing address for the Office of Permitting and Compliance 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 Environmental Protection Commission of Hillsborough County. The mailing address and phone number are: 3629 Queen Palm Drive, Tampa, Florida 33619 Telephone: (813) 627-2600, Fax: (813) 627-2660.

3. Appendices: The following Appendices are attached as 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, 62-214, 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: No emissions unit shall be constructed or 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. Source Obligation:

(a) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

(b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

[Rule 62-212.400(12), F.A.C.]

The specific conditions in this section apply to the following emissions units:

EU No.	Brief 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

Specific Condition 1.

Other Permits: Except as specified below, these units remain subject to the applicable requirements established in all previous air construction permits issued for this facility. [Rule 62-4.070, F.A.C.]

Specific Condition 2.

The following new specific condition is established by this permit (0970039-082-AC):

- PM CEMS. Tampa Electric Company is authorized to install particulate matter (PM) continuous monitoring systems (CEMS) on Units 1 through 4 at the facility. This will eliminate the need to operate the continuous opacity monitors and will eliminate the compliance assurance monitoring (CAM) plan. The equipment is manufactured by SICK MAIHAK (Germany), with model number FWE200. [0970039-082-AC, Application.]

- **Specific Condition 3.**

Specific Condition **4.** In Permit No. PSD-FL-040 is changed as follows:

4. The applicant will install and maintain continuous monitoring and recording ~~opacity meter~~, sulfur dioxide and nitrogen oxide analyzers, oxygen and/or CO_2 analyzer in accordance with the provisions of 40 CFR 60.47a.

Specific Condition 4.

In permit No. 0570039-053-AC, the following specific condition is deleted:

~~**6. Testing Requirements**: In accordance with the Department's Letter of Authorization (project No. 0570039-046-AC) issued June 9, 2011, the applicant submitted an updated process flow diagram indicating that stack CS001 has been physically prevented from being able to serve as a control device bypass stack. While the stack still remains at the site, it is functionally inoperable. All emissions generated by Units 1 and 2 are ducted through a common flue gas desulfurization unit and are emitted to the atmosphere through a shared stack designated as CS0W1. Due to the fact that the emissions testing ports are located within the common stack following the FGD, the reasonable assurance requirement established in past Title V air operation permits to test Units 1 and 2 individually requires that the unit not being tested must be shut down. To eliminate this requirement for Units 1 and 2, and to establish federally enforceable testing requirements for Units 1 and 2 as the basis for future Title V air operation permit conditions, the Department hereby establishes the following special testing requirement:~~

~~PM and VE Compliance Testing for Units 1 and 2. Unit Nos. 1 and 2 shall each be stack tested for particulate matter and visible emissions in the common stack (CS0W1), under both sootblowing and non-sootblowing operation conditions, either while both units are in operation or while individual units are in operation. Particulate matter emissions determined in the common stack shall demonstrate compliance with the emissions standards (lb/MMBtu) for each unit. The mass emission rates (lb/hr) determined in the common stack shall be prorated based on the heat input rate contribution from a given unit to demonstrate~~

~~compliance for that unit. Exceedences of the visible emissions standards from the common stack shall be attributed to both units unless COMS data can clearly indicate which unit is operating in excess of the standards. [Rules 62-4.070(1) & (3) and 62-297.310(7)(a)2. & 4., F.A.C.; and, Application No. 0570039-053-AC]~~

Specific Condition 5.

In Permit No. 0570039-060-AC, Specific Condition **5.** In Subsection A is changed as follows (refers in turn to Specific Condition **A.16.1**. in permit No. 0570039-020-AC).

A.16.1. Calculation of Emission Rate. A "30-day rolling average emission rate" for NOx ~~and~~ SO_2 and PM shall be herein defined as the emission rate expressed as lb/mmBtu and calculated in accordance with the following procedure: first, sum the total pounds of the pollutant in question emitted from the Unit during an operating day and the previous twenty-nine (29) operating days; second, sum the total heat input to the Unit in mmBtu during the operating day and the previous twenty-nine (29) operating days; and third, divide the total number of pounds of the pollutant emitted during the thirty (30) operating days by the total heat input during the thirty (30) operating days. A new 30-day rolling average emission rate shall be calculated for each new operating day.

Specific Condition 6.

In Permit No. 0570039-060-AC, Specific Conditions **2.** and **4.** in Subsection B are deleted as follows.

2. ~~PM Emissions. The maximum particulate matter emission rate for each unit is as follows:~~

~~**Unit No.**~~	~~**lbs./hour**~~	~~**tons/yr**~~
~~1~~	~~121.1~~	~~530~~
~~2~~	~~119.9~~	~~525~~
~~3~~	~~123.5~~	~~541~~

~~In the event that the design heat input rate for a unit is reduced, the maximum permitted particulate matter emission rate for that unit shall also be reduced accordingly. [Rule 62-296.700(4)(b)1. (PM RACT - lbs./hour & tons/yr), F.A.C.; and, Applicant Request; Permit No. 0570039-060-AC.]~~

4. ~~PM Emissions. The maximum particulate matter emission rate for this unit is as follows:~~

~~**Unit No.**~~	~~**lbs./hour**~~	~~**tons/yr**~~
~~4~~	~~43.3~~	~~189.7~~

~~In the event that the design heat input rate for this unit is reduced, the maximum permitted particulate matter emission rate for this unit shall also be reduced accordingly. [Rule 62-296.700(4)(b)1. (PM RACT - lbs./hour & tons/yr), F.A.C.; and, Applicant Request; Permit No. 0570039-060-AC.]~~