

Florida Department of Environmental Protection

Bob Martinez Center 2600 Blair Stone Road Tallahassee, Florida 32399-2400 Charlie Crist Governor

Jeff Kottkamp Lt. Governor

Michael W. Sole Secretary

July 31, 2009

Sent by Electronic Mail - Received Receipt Requested

Mr. Paul L. Carpinone, Director, Environmental Health and Safety Tampa Electric Company Big Bend Station P.O. Box 111 Tampa, Florida 32601-0111

Re: Project No. 0570039-043-AC

Tampa Electric Company - Big Bend Station

Simple Cycle Combustion Turbines (EU-041 and EU-042) New Requirements for Ultra Low Sulfur Diesel (ULSD) Fuel

Dear Mr. Carpinone:

The Tampa Electric Company operates the Big Bend Station, which is located in Hillsborough County at 13031 Wyandotte Road in Apollo Beach, Florida. Permit No. 0570039-040-AC authorized the construction of a new 62 megawatt Pratt & Whitney Power System aero-derivative combustion turbine-generator set authorized to fire only ULSD fuel with a maximum sulfur content of 0.0015% by weight. These new emissions units are expected to start up in early August 2009. On July 21, 2009, you requested interim authorization to fire slightly higher sulfur diesel fuel from the common tank. The facility will purchase and fill the common tank with ULSD fuel. Eventually, the diesel fuel in the common tank will meet the maximum sulfur specification for ULSD fuel of 0.0015% by weight. Other units sharing the common tank will also benefit from the ULSD fuel. Enclosed are the following documents: the Technical Evaluation and Preliminary Determination; the Draft Permit Revision; the Written Notice of Intent to Issue Air Permit; and the Public Notice of Intent to Issue Air Permit.

The Public Notice of Intent to Issue Air Permit is the actual notice that you must have published in the legal advertisement section of a newspaper of general circulation in the area affected by this project. If you have any questions, please contact the Project Engineer, Bruce Mitchell, at 850/413-9198.

Sincerely,

Trina Vielhauer, Chief

Bureau of Air Regulation

Enclosures

TLV/jfk/bm

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

In the Matter of an Application for Air Permit by:

Tampa Electric Company (TECO)
Big Bend Station
P.O. Box 111
Tampa, Florida 32601-0111
Authorized Representative:
Mr. Paul L. Carpinone, Director
Environmental Health and Safety

Project No. 0570039-043-AC Revision to 0570039-040-AC Big Bend Station Facility ID No. 0570039 Simple Cycle Combustion Turbines New ULSD Requirements Hillsborough County, Florida

Facility Location: TECO operates the existing Big Bend Station, which is located in Hillsborough County at 13031 Wyandotte Road in Apollo Beach, Florida.

Project: Original Permit No. 0570039-040-AC authorized the construction of a new 62 megawatt Pratt & Whitney Power System aero-derivative combustion turbine-generator set authorized to fire only ultra low sulfur diesel (ULSD) fuel with a maximum sulfur content of 0.0015% by weight. These new emissions units are expected to start up in early August 2009. On July 21, 2009, the applicant requested interim authorization to fire slightly higher sulfur diesel fuel from the common tank. The facility will purchase and fill the common tank with ULSD fuel. Eventually, the diesel fuel in the common tank will meet the maximum sulfur specification for ULSD fuel of 0.0015% by weight. Other units sharing the common tank will also benefit from the ULSD fuel.

The Department approves the request based on two new conditions: a requirement that only ULSD fuel be added to the common tank; and interim authorization to fire slightly higher sulfur diesel fuel from the common tank until monthly sampling and analysis indicates the actual fuel sulfur content meets the ULSD specification of 0.0015% by weight or less. The project is a minor revision to Permit No. 0570039-040-AC. Details of the project are provided in the attached Technical Evaluation and Preliminary Determination.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210 and 62-212, Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida. The Permitting Authority's mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/488-0114.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address or phone number listed above.

Notice of Intent to Issue Permit: The Permitting Authority gives notice of its intent to issue an air permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of the proposed equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S., or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Public Notice: Pursuant to Section 403.815, F.S., and Rules 62-110.106 and 62-210.350, F.A.C., you (the

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Permit (Public Notice). The Public Notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected by this project. The newspaper used must meet the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Permitting Authority at above address or phone number. Pursuant to Rules 62-110.106(5) and (9), F.A.C., the applicant shall provide proof of publication to the Permitting Authority at the above address within 7 days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

Comments: The Permitting Authority will accept written comments concerning the proposed Draft Permit for a period of 14 days from the date of publication of the Public Notice. Written comments must be received by the Permitting Authority by close of business (5:00 p.m.) on or before the end of this 14-day period. If written comments received result in a significant change to the Draft Permit, the Permitting Authority shall revise the Draft Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the applicant or any of the parties listed below must be filed within 14 days of receipt of this Written Notice of Intent to Issue Air Permit. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of the attached Public Notice or within 14 days of receipt of this Written Notice of Intent to Issue Air Permit, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within 14 days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of when and how each petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact. If there are none, the petition must so state; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

means that the Permitting Authority's final action may be different from the position taken by it in this Written Notice of Intent to Issue Air Permit. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available in this proceeding.

Executed in Tallahassee, Florida.

(10)

Trina Vielhauer, Chief Bureau of Air Regulation

CERTIFICATE OF SERVICE

1/3/191

Mr. Paul L. Carpinone, Tampa Electric Company (plcarpinone@tecoenergy.com)

Mr. David M. Lukcic, Tampa Electric Company (dmlukcic@tecoenergy.com)

Mr. Byron T. Burrows, P.E., Tampa Electric Company (btburrows@tecoenergy.com)

Mr. Andrew T. Nguyen, Tampa Electric Company (atnguyen@tecoenergy.com)

Ms. Julie M. Ward, Tampa Electric Company (jmward@tecoenergy.com)

Ms. Diana Lee, Hillsborough County Environmental Protection Commission (lee@epchc.org)

Ms. Vickie Gibson, DEP BAR Reading File (victoria.gibson@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.

(Olerk)

(Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

Florida Department of Environmental Protection Division of Air Resource Management, Bureau of Air Regulation

Project No. 0570039-043-AC
Draft Air Construction Permit
Tampa Electric Company, Big Bend Station
Simple Cycle Combustion Turbines (SCCT4)
New Ultra Low Sulfur Diesel (ULSD) Requirements
Hillsborough County, Florida

Applicant: The applicant for this project is the Tampa Electric Company (TECO). The applicant's authorized representative and mailing address is: Mr. Paul L. Carpinone, Director, Environmental Health and Safety, TECO, P.O. Box 111, Tampa, Florida 32601-0111.

Facility Location: TECO operates the Big Bend Station, which is an existing electric utility located in Hillsborough County at 13031 Wyandotte Road in Apollo Beach, Florida.

Project: Original Permit No. 0570039-040-AC authorized the construction of a new 62 megawatt Pratt & Whitney Power System aero-derivative combustion turbine-generator set (SCCT4) authorized to fire only ULSD fuel with a maximum sulfur content of 0.0015% by weight. These new emissions units are expected to start up in early August 2009. On July 21, 2009, the applicant requested interim authorization to fire slightly higher sulfur diesel fuel from the common tank. The facility will purchase and fill the common tank with ULSD fuel. Eventually, the diesel fuel in the common tank will meet the maximum sulfur specification for ULSD fuel of 0.0015% by weight. Other units sharing the common tank will also benefit from the ULSD fuel. The Department approves the request based on two new conditions: a requirement that only ULSD fuel be added to the common tank; and interim authorization to fire slightly higher sulfur diesel fuel from the common tank until monthly sampling and analysis indicates the actual fuel sulfur content meets the ULSD specification of 0.0015% by weight or less. The project is a minor revision to Permit No. 0570039-040-AC.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210 and 62-212, Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida 32301. The Permitting Authority's mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/488-0114.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address and phone number listed above. In addition, electronic copies of these documents are available on the following web site:

www.dep.state.fl.us/air/emission/apds/default.asp.

Notice of Intent to Issue Air Permit: The Permitting Authority gives notice of its intent to issue an air permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of proposed equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S., or unless public comment received in accordance with this notice results in a different decision or a significant change of terms

PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

or conditions.

Comments: The Permitting Authority will accept written comments concerning the proposed Draft Permit for a period of 14 days from the date of publication of the Public Notice. Written comments must be received by the Permitting Authority by close of business (5:00 p.m.) on or before the end of this 14-day period. If written comments received result in a significant change to the Draft Permit, the Permitting Authority shall revise the Draft Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of this Public Notice or receipt of a written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within 14 days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address and telephone number of the petitioner; the name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial rights will be affected by the agency determination; (c) A statement of when and how the petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact. If there are none, the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Public Notice of Intent to Issue Air Permit. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available for this proceeding.

Memorandum

Florida Department of **Environmental Protection**

To:

Trina Vielhauer, Bureau of Air Regulation

Through:

Jeff Koerner, New Source Review Section

Bruce Mitchell, New Source Review Section

From:

Date:

July 30, 2009

Subject:

Project No. 0570039-043-AC

Revision to Permit No. 0570039-040-AC

TECO Big Bend Station, Simple Cycle Combustion Turbine 4A New Ultra Low Sulfur Diesel (ULSD) Fuel Requirements

Original Permit No. 0570039-040-AC authorized the construction of a new 62 megawatt Pratt & Whitney Power System aero-derivative combustion turbine-generator set authorized to fire only ULSD fuel with a maximum sulfur content of 0.0015% by weight. These new emissions units are expected to start up in early August 2009. The applicant requests interim authorization to fire slightly higher sulfur diesel fuel from the common tank. The facility will purchase and fill the common tank with ULSD fuel. Eventually, the diesel fuel in the common tank will meet the maximum sulfur specification for ULSD fuel of 0.0015% by weight. Other units sharing the common tank will also benefit from the ULSD fuel. The project will not cause the original project to trigger PSD preconstruction review.

The draft permit includes two new conditions: a requirement that only ULSD fuel be added to the common tank; and interim authorization to fire higher sulfur diesel fuel from the common tank until monthly sampling and analysis indicates the actual fuel sulfur content meets the ULSD specification of 0.0015% by weight or less. The attached Technical Evaluation and Preliminary Determination provides a detailed description of the project and the rationale for permit issuance. Day 90 of the permitting time clock is October 19, 2009. I recommend your approval of the attached draft permit package.

Attachments

TLV/jfk/rbm

P.E. CERTIFICATION STATEMENT

PERMITTEE

Tampa Electric Company (TECO) Big Bend Station P.O. Box 111 Tampa, Florida 32601-0111

Draft Permit No. 0570039-043-AC
Big Bend Station
Simple Cycle Peaking Unit (SCCT4)
New Ultra Low Sulfur Diesel (ULSD)
Fuel Requirements
Hillsborough County, Florida

(Date)

PROJECT DESCRIPTION

TECO operates the Big Bend Station, which is an existing electric utility located in Hillsborough County at 13031 Wyandotte Road in Apollo Beach, Florida. Original Permit No. 0570039-040-AC authorized the construction of a new 62 megawatt Pratt & Whitney Power System aero-derivative combustion turbine-generator set (SCCT4) authorized to fire only ULSD fuel with a maximum sulfur content of 0.0015% by weight. These new emissions units are expected to start up in early August 2009. On July 21, 2009, the applicant requested interim authorization to fire slightly higher sulfur diesel fuel from the common tank. The facility will purchase and fill the common tank with ULSD fuel. Eventually, the diesel fuel in the common tank will meet the maximum sulfur specification for ULSD fuel of 0.0015% by weight. Other units sharing the common tank will also benefit from the ULSD fuel. The draft permit adds two new conditions: a requirement that only ULSD fuel be added to the common tank; and interim authorization to fire higher sulfur diesel fuel from the common tank until monthly sampling and analysis indicates the actual fuel sulfur content meets the ULSD specification of 0.0015% by weight or less. The project is a minor revision to Permit No. 0570039-040-AC.

The Department's full review of the project and rationale for issuing the draft permit is provided in the Technical Evaluation and Preliminary Determination.

I HEREBY CERTIFY that the air pollution control engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify any other aspects of the proposal (including, but not limited to, the electrical, mechanical, structural, hydrological, geological, and meteorological features).

Jeffery F. Koerner, P.E.

Registration Number 49441

TECHNICAL EVALUATION

AND

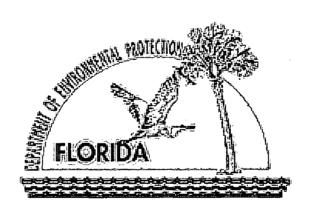
PRELIMINARY DETERMINATION

Tampa Electric Company

Big Bend Station
Simple Cycle Combustion Turbines 4A and 4B
Interim Requirements for Ultra Low Sulfur Diesel Fuel

Hillsborough County

Project No. 0570039-043-AC



Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation
New Source Review Section

July 31, 2009

1. GENERAL PROJECT INFORMATION

Air Pollution Regulations

Projects at stationary sources with the potential to emit air pollution are subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The statutes authorize the Department of Environmental Protection (Department) to establish regulations regarding air quality as part of the Florida Administrative Code (F.A.C.), which includes the following applicable chapters: 62-4 (Permits); 62-204 (Air Pollution Control – General Provisions); 62-210 (Stationary Sources – General Requirements); 62-212 (Stationary Sources – Preconstruction Review); 62-213 (Operation Permits for Major Sources of Air Pollution); 62-296 (Stationary Sources - Emission Standards); and 62-297 (Stationary Sources – Emissions Monitoring). Specifically, air construction permits are required pursuant to Chapters 62-4, 62-210 and 62-212, F.A.C.

In addition, the U. S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 specifies New Source Performance Standards (NSPS) for numerous industrial categories. Part 61 specifies National Emission Standards for Hazardous Air Pollutants (NESHAP) based on specific pollutants. Part 63 specifies NESHAP based on the Maximum Achievable Control Technology (MACT) for numerous industrial categories. The Department adopts these federal regulations on a quarterly basis in Rule 62-204.800, F.A.C.

Glossary of Common Terms

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of this permit.

Facility Description and Location

The Tampa Electric Company operates the Big Bend Station, which is an electric utility categorized under Standard Industrial Classification Code (SIC) No. 4911. The Big Bend Station currently operates four existing coal-fired steam generating boilers (BB1 to BB4), which are permitted to fire low sulfur diesel fuel (~0.05% sulfur content, by weight) during periods of startup, shutdown, malfunction and flame stabilization. The existing facility includes mobile equipment and trucks, one emergency diesel fire pump and three simple cycle combustion turbines (SCCT), which also fire low sulfur diesel fuel (~0.05% sulfur content, by weight) from a 4.3 million gallon common tank.

Air construction permit No. 0570039-040-AC authorized the construction of a new Pratt & Whitney Power System aero-derivative combustion turbine-generator set (SCCT4), which consists of two SCCT (4A and 4B) driving a common generator (2 on 1) with a nominal rating of 62 megawatts. These new emissions units are permitted to fire only ultra low sulfur diesel (ULSD) fuel with a maximum sulfur content of 0.0015% by weight. These new emissions units are expected to start up in early August 2009.

The existing power plant is located in Hillsborough County at 13031 Wyandotte Road in Apollo Beach, Florida. The Big Bend facility is in an area that is in attainment (or designated as unclassifiable or maintenance) for all air pollutants subject to state and federal Ambient Air Quality Standard (AAQS).

Facility Regulatory Categories

- The facility is a major source of hazardous air pollutants (HAP).
- The facility operates one or more units subject to NESHAP of 40 CFR 63.
- The facility operates one or more units subject to NSPS of 40 CFR 60.
- The facility operates units subject to the acid rain provisions of the Clean Air Act.

- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400, F.A.C., for the Prevention of Significant Deterioration (PSD) of Air Quality.

Project Description

The facility currently operates a 4.3 gallon common tank that supplies numerous emissions units with diesel fuel. Prior to the issuance of original Permit No. 0570039-040-AC for the new Pratt & Whitney FT8-3® SwiftPac® units (EU-041 and EU-042), the common tank stored diesel fuel with a maximum sulfur content of 0.05% by weight. Because diesel from the common tank will be used for the new Pratt & Whitney FT8-3® SwiftPac® units, the facility has committed to purchasing and storing only ultra-low sulfur diesel oil with a maximum sulfur content of 0.0015% by weight for the common tank.

In April of 2009, the facility emptied the common diesel storage tank to accommodate ULSD fuel to the lowest levels possible given the physical constraints and safety concerns. Approximately, 9000 barrels of low-sulfur diesel (~0.05% by weight) fuel remained in the bottom of the tank. The facility replenished the tank with deliveries of ULSD and diluted the existing diesel fuel from 0.0469% to 0.0125% by weight, which is a 73% reduction. The ultimate goal is to purchase and store only ULSD in the common tank meeting the maximum sulfur specification of 0.0015% by weight. Since other emissions units also regularly use diesel from the common tank, there will be a further reduction in sulfur dioxide (SO₂) emissions from the use of only ULSD from the common tank.

The applicant estimates an SO₂ emissions increase of less than two tons/year based on full permitted operation on the current diesel fuel from the common tank. The predicted increase in SO₂ emissions for the original project was only 6.6 tons/year. Therefore, an interim period of firing the slightly higher sulfur diesel fuel (0.0125% by weight) will not result in a PSD-significant emissions increase.

On July 21, 2009, the applicant requested authorization to fire slightly higher sulfur diesel fuel (0.0125% by weight and dropping) from the common tank. The facility will purchase and fill the common tank with ULSD fuel. Eventually, the diesel fuel in the common tank will meet the maximum sulfur specification for ULSD fuel of 0.0015% by weight.

2. PSD APPLICABILITY

General PSD Applicability

For areas currently in attainment with the state and federal AAQS or areas otherwise designated as unclassifiable, the Department regulates major stationary sources of air pollution in accordance with Florida's PSD preconstruction review program as defined in Rule 62-212.400, F.A.C. The Department first must determine if a project is subject to the PSD preconstruction review. A PSD applicability review is required for projects at new and existing major stationary sources. In addition, proposed projects at existing minor sources are subject to a PSD applicability review to determine whether potential emissions from the proposed project itself will exceed the PSD major stationary source thresholds. A facility is considered a major stationary source with respect to PSD if it emits or has the potential to emit:

- 5 tons per year or more of lead;
- 250 tons per year or more of any regulated air pollutant; or
- 100 tons per year or more of any regulated air pollutant and the facility belongs to one of the following 28 PSD-major facility categories: fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input, coal cleaning plants (with thermal dryers), Kraft

pulp mills, Portland cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants, primary copper smelters, municipal incinerators capable of charging more than 250 tons of refuse per day, hydrofluoric, sulfuric and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants, carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production plants, chemical process plants, fossil fuel boilers (or combinations thereof) totaling more than 250 million British thermal units per hour heat input, petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels, taconite ore processing plants, glass fiber processing plants and charcoal production plants.

Once it is determined that a project is subject to PSD preconstruction review, the project emissions are compared to the "significant emission rates" defined in Rule 62-210.200, F.A.C., for the following pollutants: carbon monoxide (CO); nitrogen oxides (NOx); sulfur dioxide (SO₂); particulate matter (PM); PM with an aerodynamic diameter equal to or less than 10 microns (PM₁₀); volatile organic compounds (VOC); lead (Pb); fluorides (F); sulfuric acid mist (SAM); hydrogen sulfide (H₂S); total reduced sulfur (TRS), including H₂S; reduced sulfur compounds, including H₂S; municipal waste combustor organics measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans; municipal waste combustor metals measured as particulate matter; municipal waste combustor acid gases measured as SO₂ and hydrogen chloride (HCl); municipal solid waste landfills emissions measured as non-methane organic compounds (NMOC); and mercury (Hg). In addition, significant emissions rate also means any emissions rate or any net emissions increase associated with a major stationary source or major modification which would construct within 10 kilometers of a Class I area and have an impact on such area equal to or greater than 1 µg/m³, 24-hour average.

If the projected actual emissions exceed the baseline actual emissions by the defined significant emissions rate of a PSD pollutant, the project is considered "significant" for the pollutant and the applicant must employ the Best Available Control Technology (BACT) to minimize the emissions and evaluate the air quality impacts. Although a facility or project may be *major* with respect to PSD for only one regulated pollutant, it may be required to install BACT controls for several "significant" regulated pollutants.

PSD Applicability for Project

Given full permitted operation (500 hours/year) of firing diesel fuel from the common tank (0.0125% by weight), the applicant estimates emissions increases of 1.7 tons of SO₂ per year and 0.2 tons of sulfuric acid mist (SAM) per year compared to the use ULSD fuel (0.0015% by weight). For the original project, the projected emissions increases were 6.6 tons of SO₂ per year and 0.8 tons of SAM per year. Therefore, an interim period of firing the slightly higher sulfur diesel fuel (0.0125% by weight) will not result in a PSD-significant emissions increase of 40 tons per year or more. This analysis does not consider that other emissions units firing from the common tank will have reduced SO₂ and SAM emissions because of the reduced diesel sulfur content.

3. DEPARTMENT REVIEW

State Requirements

This project is a minor modification of the original air construction permit and does not trigger any new specific state requirements.

Federal NSPS Provisions

SCCT4A and SCCT4B are subject to the applicable provisions of 40 CFR 60, Subpart KKKK, Standards of Performance for Stationary Combustion Turbines for which Construction is Commenced after

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

February 18, 2005. The project does not trigger any new requirements.

Federal NESHAP Provisions

SCCT4A and SCCT4B are not subject to any NESHAP provisions.

Review and Conclusion

The applicant requests interim relief to fire diesel fuel oil from the common storage tank in SCCT4A and SCCT4B. The common tank currently contains diesel with a sulfur content of 0.0125% by weight, which conflicts with the current permit requirements. The firing of this higher sulfur diesel will result in slightly higher SO₂ and SAM emissions, but still much less than the PSD significant emissions rates. In addition, the applicant commits to only replenishing the common tank with ULSD fuel, which will result in lower SO₂ and SAM emissions from other emissions units that share the common tank.

Therefore, the Department approves the request based on the following new permit requirements:

- Require the permittee to add only ULSD fuel with a maximum sulfur content of 0.0015% by weight to the common tank. This is a permanent requirement.
- Authorize the firing of diesel from the common tank in the new Pratt & Whitney FT8-3® SwiftPac® units (EU-041 and EU-042) with a maximum sulfur content of 0.015% by weight. Require monthly sampling of the common tank and analysis for the sulfur content. When three consecutive monthly samples confirm that the actual sulfur content is 0.0015% by weight or less, this requirement becomes obsolete and the permittee shall demonstrate compliance with the fuel sulfur requirements in the original permit. This is an interim requirement.

4. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the draft permit. No air quality modeling analysis is required because the project does not result in a significant increase in emissions. Bruce Mitchell is the project engineer responsible for reviewing the application and drafting the permit. The draft permit package was reviewed and approved by Jeff Koerner. Additional details of this analysis may be obtained by contacting the project engineer at the Department's Bureau of Air Regulation at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

DRAFT PERMIT REVISION

(Draft)

Sent by Electronic Mail – Received Receipt Requested

Mr. Paul L. Carpinone, Director, Environmental Health and Safety Tampa Electric Company Big Bend Station P.O. Box 111 Tampa, Florida 32601-0111

Re: Project No. 0570039-043-AC

Tampa Electric Company – Big Bend Station Simple Cycle Combustion Turbines (EU-041 and EU-042) New Requirements for Ultra Low Sulfur Diesel (ULSD) Fuel

Dear Mr. Carpinone:

The Tampa Electric Company operates the Big Bend Station, which is located in Hillsborough County at 13031 Wyandotte Road in Apollo Beach, Florida. Permit No. 0570039-040-AC authorized the construction of a new 62 megawatt Pratt & Whitney Power System aero-derivative combustion turbine-generator set authorized to fire only ULSD fuel with a maximum sulfur content of 0.0015% by weight. These new emissions units are expected to start up in early August 2009. On July 21, 2009, you requested interim authorization to fire slightly higher sulfur diesel fuel from the common tank. The facility will purchase and fill the common tank with ULSD fuel. Eventually, the diesel fuel in the common tank will meet the maximum sulfur specification for ULSD fuel of 0.0015% by weight. Other units sharing the common tank will also benefit from the ULSD fuel.

The Department approves this request subject to the following attached conditions. This permitting action revises air construction Permit No. 0570039-040-AC. A copy of this letter shall be filed with the referenced permit and shall become part of the permit. This permit revision is issued pursuant to Chapter 403, Florida Statutes.

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
(DRAFT)

(Date)

Joseph Kahn, Director
Division of Air Resource Management

JK/tlv/jfk/bm

CERTIFICATE OF SERVICE

| The undersigned duly designated deputy | y agency clerk hereby certifies | that either this Written Notice of Intent to |
|--|--|--|
| Issue Air Permit Revision (including the | e Final Air Permit Revision and | Final Determination) was sent by |
| electronic mail or by a link to these doc | uments made available electror | rically on a publicly accessible server, with |
| received receipt requested, before the cl | lose of business on | to the persons listed below. |
| Mr. David M. Lukcic, Tampa Electric C Mr. Byron T. Burrows, P.E., Tampa Ele Mr. Andrew T. Nguyen, Tampa Electric Ms. Julie M. Ward, Tampa Electric Cor Ms. Diana Lee, Hillsborough County En Ms. Vickie Gibson, DEP BAR Reading | ectric Company (btburrows@tec c Company (atnguyen@tecoene mpany (jmward@tecoenergy.co nvironmental Protection Comm | coenergy.com) rgy.com) m) ission (lee@epchc.org) |
| | 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. | |
| | (DRAFT) | |
| | (Clerk) | (Date) |

DRAFT PERMIT REVISION

This permitting action revises air construction Permit No. 0570039-040-AC by adding the following new conditions to Section III of the permit.

ADDITIONAL REQUIREMENT FOR COMMON TANK

37. Common Tank: The plant currently operates a 4.3 gallon common tank that supplies several emissions units with diesel fuel. Prior to the issuance of original Permit No. 0570039-040-AC for the new Pratt & Whitney FT8-3® SwiftPac® units (EU-041 and EU-042), the common tank stored diesel fuel with a maximum sulfur content of 0.05% by weight. Because diesel from the common tank will be used for the new Pratt & Whitney FT8-3® SwiftPac® units, the permittee shall add only ultra-low sulfur diesel oil with a maximum sulfur content of 0.0015% by weight to the common tank. {Permitting Note: This requirement will reduce actual emissions of sulfur dioxide and sulfuric acid mist from the plant because many of the existing emissions units regularly consume diesel oil. Since receiving Permit No. 0570039-040-AC, the plant lowered the tank level as far as possible and is currently replacing diesel with ULSD fuel. Because some residual higher sulfur diesel remains, the current fuel sulfur content in the common tank is approximately 0.0125% by weight. With subsequent deliveries of ULSD fuel, the actual sulfur content will be to the maximum ULSD fuel specification of 0.0015% by weight or less.} [Applicant Request and Rule 62-4.070(3), F.A.C.]

INTERIM REQUIREMENT FOR ULSD FUEL

38. Interim Sulfur Requirements for Diesel Fuel: The permittee is authorized to fire diesel fuel supplied from the common tank with a maximum sulfur content of 0.015% by weight. Within 10 days following each calendar month, the permittee shall take a representative sample from the tank. Each sample shall be analyzed for the fuel sulfur content in accordance with the methods specified in this permit. When three consecutive monthly samples confirm that the actual sulfur content is 0.0015% by weight or less, this condition shall become obsolete and the new Pratt & Whitney FT8-3® SwiftPac® units (EU-041 and EU-042) shall fire only ultra-low sulfur diesel as specified in this permit. [Rule 62-4-070(3), F.A.C.]

Livingston, Sylvia

From:

Livingston, Sylvia

Sent: To: Friday, July 31, 2009 1:25 PM plcarpinone@tecoenergy.com

Cc:

dmlukcic@tecoenergy.com; btburrows@tecoenergy.com; atnguyen@tecoenergy.com;

jmward@tecoenergy.com; lee@epchc.org; Gibson, Victoria; Koerner, Jeff; Walker, Elizabeth

(AIR); Mitchell, Bruce

Subject:

TECO - BIG BEND STATION; 0570039-043-AC

Dear Sir/ Madam:

Attached is the official **Notice of Intent to Issue** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

Note: We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).

Click on the following link to access the permit project documents:

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf permit zip files/0570039.043.AC.D pdf.zip

Owner/Company Name: TAMPA ELECTRIC COMPANY

Facility Name: BIG BEND STATION **Project Number:** 0570039-043-AC

Permit Status: DRAFT

Permit Activity: CONSTRUCTION Facility County: HILLSBOROUGH

Processor: Bruce Mitchell

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other project documents using the "Air Permit Documents Search" website at http://www.dep.state.fl.us/air/eproducts/apds/default.asp.

Permit project documents are addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Bureau of Air Regulation

Sylvia Livingston
Bureau of Air Regulation
Division of Air Resource Management (DARM)
850/921-9506
sylvia.livingston@dep.state.fl.us

Livingston, Sylvia

From:

Ward, Julie M. [jmward@tecoenergy.com]

Sent:

Friday, July 31, 2009 1:34 PM

To:

Livingston, Sylvia

Cc:

Burrows, Byron T.

Subject:

RE: TECO - BIG BEND STATION; 0570039-043-AC

We have received the documents and are able to view them.

Thank you

From: Livingston, Sylvia [mailto:Sylvia.Livingston@dep.state.fl.us]

Sent: Friday, July 31, 2009 1:25 PM

To: Carpinone, Paul L.

Cc: Lukcic, David M.; Burrows, Byron T.; atnguyen@tecoenergy.com; Ward, Julie M.; lee@epchc.org; Gibson, Victoria;

Koerner, Jeff; Walker, Elizabeth (AIR); Mitchell, Bruce **Subject:** TECO - BIG BEND STATION; 0570039-043-AC

Dear Sir/ Madam:

Attached is the official **Notice of Intent to Issue** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

Note: We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).

Click on the following link to access the permit project documents:

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf permit_zip_files/0570039.043.AC.D_pdf.zip_

Owner/Company Name: TAMPA ELECTRIC COMPANY

Facility Name: BIG BEND STATION

Project Number: 0570039-043-AC

Permit Status: DRAFT

Permit Activity: CONSTRUCTION

Facility County: HILLSBOROUGH

Processor: Bruce Mitchell

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