

# Florida Department of Environmental Protection

## Memorandum

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TO: Trina Vielhauer, Bureau of Air Regulation

THRU: Syed Arif, New Source Review Section SA 9/10

FROM: Bruce Mitchell, New Source Review Section

DATE: September 10, 2008

SUBJECT: Project No. 0570040-024-AC  
Tampa Electric Company  
H.L. Culbreath Bayside Power Station  
Eight Simple Cycle Combustion Turbine Peaking Units

The Draft Air Construction Permit is for authorization to install eight simple cycle combustion turbine (SCCT) peaking units. The SCCT peaking units will burn only pipe-line quality natural gas and operate for only 3,500 hours per year. Two SCCT will be connected to a common electrical generator for a nominal output of 62 megawatts. Also, two emergency diesel engine/generator sets are included in the project and will burn only ultra low sulfur diesel fuel oil. The emergency generators are categorically exempt in accordance with Rule 62-210.300(3)(a)35.c., F.A.C.

Attachments

## P.E. CERTIFICATION STATEMENT

### PERMITTEE

Tampa Electric Company (TEC)  
Post Office Box 111  
Tampa, Florida 33601-0111

Bayside Station Simple Cycle Project  
DEP File No. 0570040-024-AC  
Hillsborough County

### PROJECT DESCRIPTION

**Project:** The proposed project is to construct eight natural gas-fueled simple cycle combustion turbines (CT) with four associated electrical generators, and two black start emergency diesel engine/generator sets at the existing Bayside facility. Two CT will be coupled to each common generator having a nominal gross generation capacity of 62 megawatts (MW). The project will add 248 MW of generation capacity to the TEC Bayside Station.

There will be not be significant net emissions increases of nitrogen oxides (NO<sub>x</sub>) and particulate matter (PM/PM<sub>10</sub>) when considering the remaining contemporaneous decreases (available for netting) from the permanent shutdown of the coal-fueled Gannon Unit 6 at the same site. I reviewed emissions information supplied by the company and consulted records of the Florida Public Service Commission related to shut down dates in making this determination.

There will not be significant net emissions increases of carbon monoxide (CO) and volatile organic compounds (VOC) decreases because oxidation catalyst will be installed to control those emissions. The catalyst will also insure that hazardous air pollutants such as formaldehyde will be destroyed. There will not be significant net emissions increases of sulfur dioxide (SO<sub>2</sub>) and sulfuric acid mist (SAM) due to the use of inherently clean natural gas. Therefore, the project is considered a minor modification to a major facility. The project is not subject to the rules for the Prevention of Significant Deterioration (PSD) at Section 62-212.400, Florida Administrative Code (F.A.C.). An air quality impact analysis was not required.

The CT will be subject to the NO<sub>x</sub> and SO<sub>2</sub> emission limitations given in 40 Code of Federal Regulation (CFR) Part 60, Subpart KKKK - Standards of Performance for Stationary Combustion Turbines that Commence Construction after February 18, 2005. More stringent limitations and test requirements than required by Subpart KKKK alone have been included to insure SO<sub>2</sub> emissions will be less than the significant emissions rate and thus avoid PSD preconstruction review.

The application was reviewed and the permit package was drafted by Bruce Mitchell. I also relied upon additional consultation provided by Jeff Koerner, P.E. on the netting analysis and by Syed Arif, P.E. on the technical evaluation and permitting package.

***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 aspects outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features). Note that less than the typical level of detail was required given the demonstration nature of the project. Per 403.061(18), F.S., my employer, the Florida DEP has the power and the duty to encourage and conduct studies, investigations, and research relating to pollution and its causes, effects, prevention, abatement, and control.



Alvaro A. Linero, P.E.  
Registration Number: 26032  
Date: September 10, 2008



# 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

September 10, 2008

Mr. David M. Lukcic  
Tampa Electric Company  
H.L. Culbreath Bayside Power Station  
P.O. Box 111  
Palatka, Florida 32178-0919

Re: Project No. 0570040-024-AC  
Tampa Electric Company – H.L. Culbreath Bayside Power Station  
Eight Simple Cycle Combustion Turbine Peaking Units

Dear Mr. Lukcic:

On March 20, 2008, you submitted an application requesting authorization to construct eight simple cycle combustion turbine (SCCT) peaking units, with four associated electrical generators, and two black start emergency diesel engine/generator sets at the existing H.L. Culbreath Bayside Power Station. This facility is located at 3602 Port Sutton Road in Tampa, Hillsborough County, Florida. Enclosed are the following documents:

- Technical Evaluation and Preliminary Determination;
- Draft Permit and Appendices;
- Written Notice of Intent to Issue Air Permit; and
- 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/al/bm



## WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

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*In the Matter of an  
Application for Air Permit by:*

Tampa Electric Company  
P.O. Box 111  
Tampa, Florida 33601-0111

Project No. 0570040-024-AC  
H.L. Culbreath Bayside Power Station  
Eight Simple Cycle Combustion Turbine Peaking Units  
Hillsborough County, Florida

*Authorized Representative:*

Mr. David M. Lukcic  
Manager of Environmental Programs

**Facility Location:** Tampa Electric Company operates an existing electric utility, the H.L. Culbreath Bayside Power Station (Bayside), in Tampa, located at 3602 Port Sutton Road in Hillsborough County, Florida.

**Project:** The proposed project is to construct eight simple cycle combustion turbine (SCCT) peaking units, with four associated electrical generators, and two emergency diesel engine/generator sets at the existing Bayside facility. Details of the project are provided in the application and the enclosed 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 of the 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 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



## WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

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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 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.



Trina Vielhauer, Chief  
Bureau of Air Regulation

## WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

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### CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Written Notice of Intent to Issue Air Permit package (including the Public Notice, the Technical Evaluation and Preliminary Determination, and the Draft Permit), 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 9/10/08 to the persons listed below.

Mr. David M. Lukcic, Tampa Electric Company ([dmlukcic@tecoenergy.com](mailto:dmlukcic@tecoenergy.com))  
Mr. Byron T. Burrows, Tampa Electric Company ([btburrows@tecoenergy.com](mailto:btburrows@tecoenergy.com))  
Mr. Thomas W. Davis, P.E., Environmental Consulting & Technology, Inc. ([tdavis@ectinc.com](mailto:tdavis@ectinc.com))  
Mr. Jerry Campbell, Hillsborough County Environmental Protection Commission ([campbell@epchc.org](mailto:campbell@epchc.org))  
Ms. Diana Lee, Hillsborough County Environmental Protection Commission, ([Lee@epchc.org](mailto:Lee@epchc.org))  
Ms. Pwu-Sheng Liu, Hillsborough County Environmental Protection Commission. [LiuP@epchc.org](mailto:LiuP@epchc.org))  
Ms. Kathleen Forney, U.S. EPA, Region 4 ([forney.kathleen@epamail.epa.gov](mailto:forney.kathleen@epamail.epa.gov))  
Ms. Catherine Collins, Fish and Wildlife Service, ([catherine\\_collins@fws.gov](mailto:catherine_collins@fws.gov))

Clerk Stamp

**FILING AND ACKNOWLEDGMENT FILED**, on this date, pursuant to Section 120.52(7), F.S., with the designated agency clerk, receipt of which is hereby acknowledged.

  
(Clerk)

9/10/08  
(Date)