



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

November 13, 2009

Electronic Mail – Received Receipt Requested

Ms. Frank Busot, Director-Bayside Power Station
Tampa Electric Company
P.O. Box 111
Tampa, FL 33601-0111

Re: **Request for Additional Information**

Project No. 0570040-028-AC (PSD-FL-301D), Draft Air Construction Permit Revision
Project No. 0570040-029-AV, Draft/Proposed Title V Air Operation Permit Revision
Tampa Electric Company, H.L. Culbreath Bayside Power Station

Dear Mr. Busot:

On September 30, 2009, the Department received your application and sufficient fee for a modification of an air construction permit No. 0570040-028-AC, which requests: revisions to original PSD Permit 0570040-021-AC (PSD-FL-301B) for the combined cycle combustion turbines; revisions to air construction Permit No. 0570040-026-AC for the new simple cycle combustion turbines; and the incorporation of the revised conditions into the Title V air operation permit (Project No. 0570040-029-AV). The application is incomplete as submitted. In order to continue processing your application, the Department will need the additional information requested below pursuant to Rule 62-213.420(1)(b)3., Florida Administrative Code (F.A.C.), and Rule 62-4.070(1), F.A.C. Should your response to any of the items below require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

1. You request the following revisions to Permit No. 0570040-021-AC (PSD-FL-301B) for combined cycle combustion turbine Units 1 and 2 (EU 020 – 026):
 - a. Redefine “unplanned forced outage” as a warm startup of the steam turbine when the first stage turbine metal temperature is 250° or more and occurs within 24 hours of shutdown. **Question:** Please identify the sequence of events and duration of each event for starting up each of the combustion turbines when the “warm startup” is limited by the steam turbine temperature.
 - b. For cold steam turbine startups, remove the requirement to operate only one gas turbine during a warm or cold steam turbine startup. **Question:** Please identify the sequence of events and duration of each event for starting up each of the combustion turbines when the “cold startup” is limited by the steam turbine temperature.
 - c. **Question:** Please identify the sequence of events and duration of each event for starting up a combustion turbine when the HRSG is cold, but the steam turbine is not temperature limited.
 - d. **Question:** Please identify the sequence of events and duration of each event for starting up a combustion turbine when not temperature-limited by either the HRSG or the steam turbine.
 - e. **Question:** Please identify the sequence of events and duration of each event to shut down a combustion turbine.

REQUEST FOR ADDITIONAL INFORMATION

- f. Remove the requirement to provide notification of warm and cold steam turbine startups. **Question:** The Department will consider replacing this notification requirement with a requirement to document each startup and provide a summary in the semiannual report. Please comment.
 - g. Add combustion turbine cycling as an option for data exclusion along with the trips offline and steam turbine offline for repair. **Question:** Please explain in detail what is meant by “combustion turbine cycling”.
 - h. **Request:** Please provide copies of the required quarterly and semiannual reports that summarize occurrences, duration and emissions resulting from the various startups, shutdown and malfunction.
 - i. **Request:** Please identify the annual capacity factor for each of the Bayside combined cycle units. Please describe how each unit is operated during a typical weekday. For example: During the night, two combustion turbines are cycled off and two combustion turbines operate at 50% load. At 4:00 a.m., the shutdown units are brought on line. All four combustion turbines operate at near full load conditions from 5:30 a.m. to 11:00 a.m. Loads are reduced to 75% capacity until 3:30 p.m., when operation returns to full load until 7:00 p.m. when load is again reduced to 75%. At 11:00 p.m., two units are shut down and the loads of the remaining units are reduced to 50%.
 - j. Is the typical operation expected to change in the near future?
2. You request the following revisions to Permit No. 0570040-026-AC for simple cycle combustion turbine Units 3 – 6 (EU 031 – 038):
 - a. Remove the NO_x reporting requirement from the “SIP Semi-Annual Report” since NO_x is regulated under New Source Performance Standards (NSPS). **Comment:** This will be revised since the NSPS Subpart KKKK provisions require the submittal of a semiannual excess emissions report for NO_x.
 - b. Remove NO_x from the “Allowable SIP Data Exclusion”. **Comment:** Rule 62-212.700, F.A.C. may not be used to authorize excess emissions subject to federal requirements (NSPS Subpart GG). This will be revised.
 - c. Allow notification within one working day of “discovery” of excess emissions due to a malfunction. **Comment:** This will be clarified.
 3. This permitting action will roll the applicable construction permit requirements for the simple cycle units into the Title V air operation permit.
 - a. Is construction complete?
 - b. Have all of the compliance tests and demonstrations been conducted? The application included some compliance data for CO, NO_x and VOC emissions. For NO_x emissions, please submit a summary of the CEMS data demonstrating continuous compliance with the 4-hour rolling NSPS Subpart KKKK limits.
 - c. Please address the need for a Compliance Assurance Monitoring (CAM) Plan for water injection to control NO_x emissions and the oxidation catalyst to control CO emissions.
 - d. Please carefully review the air construction permit and identify any permit conditions that may not yet have been satisfied. In accordance with Rule 62-213.440(2), F.A.C., a Compliance Plan is required for any item not yet satisfied. Examples could include initial notifications, the submittal of certain reports, stack tests, fuel analyses, etc.

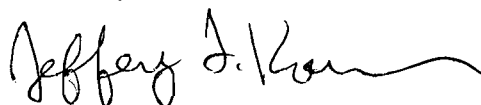
The above information is requested pursuant to the following F.A.C. regulations: Rule 62-4.050 (Procedures to Obtain Permits and Other Authorizations; Applications); 62-4.055 (Permit Processing); 62-4.070 (Standards for Issuing or Denying Permits; Issuance; Denial); 62-4.120 (Construction Permits); 62-204.800 (Federal Regulations Adopted by Reference); 62-212.300 (Permits Required); 62-210.370 (Emissions Computations and Reporting); 62-210.900 (Forms and Instructions); 62-212.300 (General Preconstruction review); and 62-212.400 (Preventions of Significant Deterioration). All applications for a Department permit must be certified by a professional

REQUEST FOR ADDITIONAL INFORMATION

engineer registered in the State of Florida pursuant to Rule 62-4.050(3), F.A.C. This requirement also applies to responses to Department requests for additional information of an engineering nature. For any material changes to the application, please include a new certification statement by the authorized representative or responsible official.

We will resume processing your application after receipt of the requested information. You are reminded that Rule 62-4.055(1), F.A.C. requires applicants to respond to requests for information within 90 days or to provide a written request for an additional period of time to submit the information. If you have any questions regarding this matter, please contact the project engineer, Tammy McWade, at 850/488-1906 or Jeff Koerner.

Sincerely,



Jeffery F. Koerner, Administrator
New Source Review Section
850/921-9536

This letter was sent to the following people by electronic mail with received receipt requested.

Ms. Karen Sheffield, Director-Bayside Power Station (kasheffield@tecoenergy.com)
Ms. Laurie Pence, Environmental Specialist (lapence@tecoenergy.com)
Mr. Ben Willoughby, Coordinator, Safety Health & Environmental (bpwilloughby@tecoenergy.com)
Mr. Byron Burrows, P.E., Manager-Air Programs (btburrows@tecoenergy.com)
Ms. Cindy Zhang-Torres, DEP Southwest District Office (cindy.zhang-torres@dep.state.fl.us)
Ms. Dianna Lee, Hillsborough County EPC (lee@epchc.org)
Mr. Mike Halpin, DEP Siting Office (mike.halpin@dep.state.fl.us)
Ms Ana M. Oquendo, EPA Region 4 (oquendo.ana@epa.gov)
Ms. Kathleen Forney, EPA Region 4 (forney.kathleen@epa.gov)
Ms Heather Abrams, EPA Region 4 (abrams.heather@epa.gov)
Ms. Vickie Gibson, DEP BAR Reading File (victoria.gibson@dep.state.fl.us)

JFK/ttm

Livingston, Sylvia

From: Livingston, Sylvia
Sent: Monday, November 16, 2009 8:11 AM
To: 'flbusot@tecoenergy.com'
Cc: McWade, Tammy; Koerner, Jeff
Subject: RAI - 0570040-028-AC (PSD-FL-301D)/0570040-029-AV (TECO H.L. Culbreath Bayside Power Station)

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); 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". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

The document(s) may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible.

The document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <http://www.adobe.com/products/acrobat/readstep.html> .

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. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record.

Thank you,

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



RAI
040-028-AC_029-A)

Tracking:

Livingston, Sylvania

From: Busot, Frank L. [FLBusot@tecoenergy.com]
Sent: Monday, November 16, 2009 10:15 AM
To: Livingston, Sylvania
Cc: Carpinone, Paul L.; Burrows, Byron T.
Subject: RE: RAI - 0570040-028-AC (PSD-FL-301D)/0570040-029-AV (TECO H.L. Culbreath Bayside Power Station)
Attachments: Busot Frank.vcf

Received



From: Livingston, Sylvania [mailto:Sylvia.Livingston@dep.state.fl.us]
Sent: Monday, November 16, 2009 8:11 AM
To: Busot, Frank L.
Cc: McWade, Tammy; Koerner, Jeff
Subject: RAI - 0570040-028-AC (PSD-FL-301D)/0570040-029-AV (TECO H.L. Culbreath Bayside Power Station)

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Thank you,

Sylvia Livingston

Livingston, Sylvia

From: Livingston, Sylvia
Sent: Friday, November 13, 2009 4:07 PM
To: kasheffield@tecoenergy.com
Cc: lapence@tecoenergy.com; bpwilloughby@tecoenergy.com; btburrows@tecoenergy.com; Zhang-Torres; lee@epche.org; .us; oquendo.ana@epa.gov; forney.kathleen@epa.gov; abrams.heather@epa.gov; Gibson, Victoria; Friday, Barbara; McWade, Tammy; Koerner, Jeff; Walker, Elizabeth (AIR)
Subject: RAI - 0570040-028-AC (PSD-FL-301D)/0570040-029-AV (TECO H.L. Culbreath Bayside Power Station)

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Thank you,

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



RAI

040-028-AC_029-A\

Tracking:

Livingston, Sylvia

From: Pence, Laurie A. [lapence@tecoenergy.com]
Sent: Monday, November 16, 2009 8:07 AM
To: Livingston, Sylvia
Subject: RE: RAI - 0570040-028-AC (PSD-FL-301D)/0570040-029-AV (TECO H.L. Culbreath Bayside Power Station)

Karen Sheffield is no longer the RO for Bayside. Can you please send this email to Frank Busot at flbusot@tecoenergy.com? He was on the application and the RO form was sent in. Thanks.

Laurie Pence
Environmental Specialist
Environmental, Health & Safety
Tampa Electric Company
P.O. Box 111
Tampa, FL 33601
Office: (813) 228-4457
Fax: (813) 228-1308
Email: lapence@tecoenergy.com

From: Livingston, Sylvia [mailto:Sylvia.Livingston@dep.state.fl.us]
Sent: Friday, November 13, 2009 4:07 PM
To: Sheffield, Karen A.
Cc: Pence, Laurie A.; Willoughby, Ben P.; Burrows, Byron T.; Zhang-Torres; lee@epche.org; .us; oquendo.ana@epa.gov; forney.kathleen@epa.gov; abrams.heather@epa.gov; Gibson, Victoria; Friday, Barbara; McWade, Tammy; Koerner, Jeff; Walker, Elizabeth (AIR)
Subject: RAI - 0570040-028-AC (PSD-FL-301D)/0570040-029-AV (TECO H.L. Culbreath Bayside Power Station)

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Livingston, Sylvia

From: Sheffield, Karen A. [kasheffield@tecoenergy.com]
Sent: Monday, November 16, 2009 7:08 AM
To: Livingston, Sylvia
Subject: RE: RAI - 0570040-028-AC (PSD-FL-301D)/0570040-029-AV (TECO H.L. Culbreath Bayside Power Station)

Please be advise that I received the attached document.

From: Livingston, Sylvia [mailto:Sylvia.Livingston@dep.state.fl.us]
Sent: Friday, November 13, 2009 4:07 PM
To: Sheffield, Karen A.
Cc: Pence, Laurie A.; Willoughby, Ben P.; Burrows, Byron T.; Zhang-Torres; lee@epche.org; .us; oquendo.ana@epa.gov; forney.kathleen@epa.gov; abrams.heather@epa.gov; Gibson, Victoria; Friday, Barbara; McWade, Tammy; Koerner, Jeff; Walker, Elizabeth (AIR)
Subject: RAI - 0570040-028-AC (PSD-FL-301D)/0570040-029-AV (TECO H.L. Culbreath Bayside Power Station)

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Thank you,

Sylvia Livingston

Bureau of Air Regulation

Division of Air Resource Management (DARM)

850/921-9506

sylvia.livingston@dep.state.fl.us