



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blairstone Road
Tallahassee, Florida 32399-2400

Charlie Crist
Governor
Jeff Kottkamp
Lt. Governor
Michael W. Sole
Secretary

August 13, 2010

Electronically Sent – Received Receipt Requested

Roy.Belden@GE.com
Mr. Roy S. Belden, Vice President
Shady Hills Power Company, LLC
120 Long Ridge Road
Stamford, Connecticut 06927

Re: Request for Additional Information
DEP File No. 1010373-011-AC (PSD-FL-402A)

Dear Mr. Belden:

The Department has received your application (i.e. received fee) for an Air Construction Permit on July 13, 2010. After review, it has been determined that the application is incomplete. In order to continue processing your application, the Department will need the additional information requested below. Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

1. RBC Clearinghouse Information: Please provide an updated nationwide project list from the RACT/BACT/LAER Clearinghouse containing only projects with simple cycle or simple cycle/combined cycle units from 2005 to present. Units that are solely combined cycle should not be included in the list.
2. The following comments are based on the guidance for modeling and comparing nitrogen dioxide impacts (NO₂) to the new 1-hour national ambient air quality standard (NAAQS) which is located on the United States Environmental Protection (EPA) Technology Transfer Network Support Center for Regulatory Atmospheric Modeling (TTN-SCRAM) website at the following address: <http://www.epa.gov/scram001/>. NO₂ modeling guidance found on this website includes the following documents:

Tyler Fox's (Office of Air Quality Planning and Standards (OAQPS)) clarification memorandum, dated June 28, 2010, "Applicability of Appendix W Modeling Guidance for the 1-hour NO₂ National Ambient Air Quality Standard."

Stephen Page's (OAQPS) memorandum, dated June 29, 2010, "Guidance Concerning the Implementation of the 1-hour NO₂ NAAQS for the Prevention of Significant Deterioration Program" and embedded in this memorandum is Anna Marie Wood's (OAQPS) memorandum, dated June 28, 2010, "General Guidance for Implementing the 1-hour NO₂ National Ambient Air Quality Standard in Prevention of Significant Deterioration Permits, Including an Interim 1-hour NO₂ Significant Impact Level."

- a. On page 33 of the application a justification for using a significant impact level (SIL) of 5 parts per billion is given. The reason for using this value is insufficient. Provide a more detailed justification for use of this level.

- b. The emergency generator is proposed to increase in size. This unit was not included in the significant impact modeling inventory or the cumulative modeling inventory. Pages 4, 5 and especially paragraphs 1 and 2 on page 9 of the Stephen Page's June 29, 2010 memo give guidance on the operation of emergency equipment and its inclusion or exclusion in any modeling inventory. Please consult this guidance to determine whether permit conditions can be established that provide a basis for not modeling the 1-hour impacts of the emergency equipment, or if no conditions can be established include this unit in the modeling analyses.
- c. On page 44 of the application and in Table 6-11 a 1-hour NO₂ background of 54.6 ug/m³ is used to add to the Tier 1 and Tier 2 modeling results for comparison with the 1-hour NAAQS. This background value is based on the 3-year average of the 98th percentile of the daily maximum concentration at the monitoring site. Use of this background value may not be protective of the 1-hour standard. On page 5 of Tyler Fox's June 28, 2010 memo, a background value based on the highest hourly concentration is recommended as a "first tier" assumption. Please use this background value and add it to the Tier 1 and Tier 2 results. However, on page 5 of Tyler Fox's memo it also states that additional refinements to this "first tier" assumption based on some level of temporal pairing of modeled may be considered on a case-by-case basis, with adequate justification and documentation.
- d. The North Carolina screening technique known as the "20D approach" was used to evaluate which facilities may be eliminated from consideration in the cumulative modeling analysis. If two or more facilities are in close proximity to each other their emissions should be added together and if the combined emissions are more than the 20D value they should be included in the modeling inventory. Based on this consideration Tarmac Tampa's Terminal 500.1 tons per year should have been included with Tampa Culbreath's 1157.2 tons per year and included in the inventory.
- e. Maximum 1-hour emission rates should also be used for non-Shady Hills sources included in the NO₂ cumulative inventory. Please verify the basis for the emissions for each source in the inventory.
- f. Please re-run any modeling necessary to incorporate changes due to comments 2.b. to 2.e. If the Tier 1 and Tier 2 results are greater than the 1-hour standard, Tier 3 results provided in the application based on the Ozone Limiting Method (OLM) may become the basis for comparison to the standard. However, the use of any Appendix W Tier 3 methods (OLM and Plume Volume Molar Ratio Method (PVMRM)) represents use of non-regulatory default options that require case-by-case approval by the Regional EPA office either by e-mail or by letter. Please provide further detailed information over and beyond what has already been provided on the use of the Tier 3 OLM method to EPA for approval. This project will remain incomplete until EPA approval is received.

3. Please address impacts on Class II visibility.

We have not yet received comments from the U.S. Fish and Wildlife Service (FWS). These will be forwarded to you as soon as received.

The Department will resume processing your application after receipt of the requested information. Rule 62-4.050(3), F.A.C., requires that all applications for a construction permit must be certified by a professional engineer registered in the State of Florida. 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. You are reminded that Rule 62-4.055(1), F.A.C. requires applicants to respond to requests for information within 90 days or provide a written request for an additional period of time to submit the information.

We appreciated the opportunity to discuss the project with your technical experts. We look forward to discussing our questions with you and your consultants in the near future. If you should have any questions, please contact Bobby Bull, P.E. at 850/921-7744 (permit) or Cleve Holladay (modeling) at 850/921-8986.

Sincerely,


Robert L. Bull, Jr., P.E.
New Source Review Section

cc: Scott Osbourn, P.E., Golder Associates, Inc. (sosbourn@golder.com)
Cindy Zhang-Torres, P.E., DEP-SWD (Cindy.Zhang-Torres@dep.state.fl.us)
Kathleen Forney, EPA Region 4 (forney.kathleen@epa.gov)
Catherine Collins, Fish and Wildlife Service (catherine_collins@fws.gov)
Meredith Bond, Fish and Wildlife Service (meredith_bond@fws.gov)
Vickie Gibson, DEP-BAR (victoria.gibson@dep.state.fl.us) (for read file)

Walker, Elizabeth (AIR)

From: Gee, Shau D PWR [Shau.Gee@pwr.utc.com]
Sent: Monday, August 23, 2010 2:47 PM
Subject: Read: United Technologies Corp/Pratt & Whitney Project Correspondence - 0990021-017-AC/PSD-FL-410

Your message was read on Monday, August 23, 2010 2:46:48 PM (GMT-05:00) Eastern Time (US & Canada).

Livingston, Sylvia

From: Livingston, Sylvia
Sent: Friday, August 13, 2010 3:19 PM
To: 'roy.belden@ge.com'
Cc: 'sosbourn@golder.com'; Zhang-Torres; 'forney.kathleen@epa.gov'; 'catherine_collins@fws.gov'; 'meredith_bond@fws.gov'; Gibson, Victoria; Walker, Elizabeth (AIR); Bull, Robert
Subject: RAI: Shady Hills Power Company, LLC - Shady Hills Generating Station (1010373-011-AC/PSD-FL-402A)
Attachments: RAI 1010373-011-AC.pdf

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
Division of Air Resource Management (DARM)
Department of Environmental Protection
850/921-9561
sylvia.livingston@dep.state.fl.us

Tracking:

Livingston, Sylvia

From: Belden, Roy S (GE Capital) [roy.belden@ge.com]
Sent: Monday, August 16, 2010 10:05 AM
To: Livingston, Sylvia
Cc: sosbourn@golder.com
Subject: RE: Shady Hills Power Company, LLC - Shady Hills Generating Station (1010373-011-AC/ PSD-FL-402A)

Ms. Livingston,

Thank you for your e-mail. I received the attached document and was able to view it. Regards, Roy

Roy S. Belden

Shady Hills Power Company, LLC
c/o GE Energy Financial Services
800 Long Ridge Road
Stamford, CT 06927

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F: +1 203-961-5116
D: 8*228-6820
roy.belden@ge.com

From: Livingston, Sylvia [mailto:Sylvia.Livingston@dep.state.fl.us]
Sent: Friday, August 13, 2010 3:19 PM
To: Belden, Roy S (GE Capital)
Cc: sosbourn@golder.com; Zhang-Torres; forney.kathleen@epa.gov; catherine_collins@fws.gov; meredith_bond@fws.gov; Gibson, Victoria; Walker, Elizabeth (AIR); Bull, Robert
Subject: RAI: Shady Hills Power Company, LLC - Shady Hills Generating Station (1010373-011-AC/ PSD-FL-402A)

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Thank you,

Sylvia Livingston

Livingston, Sylvia

From: Meredith_Bond@fws.gov
Sent: Monday, August 16, 2010 8:54 AM
To: Livingston, Sylvia
Cc: Catherine_Collins%FWS@fws.gov
Subject: Re: RAI: Shady Hills Power Company, LLC - Shady Hills Generating Station (1010373-011-AC/ PSD-FL-402A)

I have received the e-mail and attachment. Thank you.

CAPT Meredith Bond, P.E., USPHS
Deputy Chief
U.S. Fish and Wildlife Service
Branch of Air Quality
7333 W Jefferson Ave., Suite 375
Lakewood, CO 80235
303-914-3808
303-969-5444 fax
Meredith_Bond@fws.gov

Livingston, Sylvia

From: Osbourn, Scott [Scott_Osbourn@golder.com]
To: Livingston, Sylvia
Sent: Monday, August 16, 2010 9:36 AM
Subject: Read: Shady Hills Power Company, LLC - Shady Hills Generating Station (1010373-011-AC/PSD-FL-402A)

Your message was read on Monday, August 16, 2010 9:35:33 AM (GMT-05:00) Eastern Time (US & Canada).