

Walker, Elizabeth (AIR)

From: Heron, Teresa
Sent: Friday, June 12, 2009 3:15 PM
To: Walker, Elizabeth (AIR)
Subject: FW: RBEC & CCEC Comments
Attachments: RBEC_Draft Air Permit Comments_FINAL.doc

For Riviera files: I don't know if you have this

From: Osbourn, Scott [mailto:Scott_Osbourn@golder.com]
Sent: Monday, May 11, 2009 2:53 PM
To: Heron, Teresa
Cc: Linero, Alvaro; McCann, Bob; Lorne, Jacquelyn
Subject: RBEC & CCEC Comments

Attached is a Word version of the comments on the RBEC project. In addition, FPL wants to make the same comment on the auxiliary boiler for CCEC as was reflected in the attached comments for RBEC, we just didn't consider it appropriate to include the CCEC comment in the RBEC comment letter. Specifically, the comment is as follows:

Section III.B, page 18, Condition 2: FPL requests the following- "The hours of operation of the auxiliary boiler shall not exceed 500 1,000 hours per year." This request for an increase in hours of operation does not change any of the standards that CCEC would be required to meet. This same comment would apply to page 16, 1st paragraph of the TE&PD document.

Note that the requested hours are different for RBEC and CCEC, at 750 hr/yr and 1,000 hr/yr, respectively.

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From: Heron, Teresa [mailto:Teresa.Heron@dep.state.fl.us]
Sent: Monday, May 11, 2009 1:57 PM
To: Osbourn, Scott
Subject: RE: FPL Riviera Conversion Project - Proof of Publication for the Public Notice of Intent to Issue Air Construction Permit

Thank you Scott.

Could you please send me a Word copy of FPL comments to the Riviera permit? I would appreciate it. Thanks, Teresa.

The Department of Environmental Protection values your feedback as a customer. DEP Secretary Michael W. Sole is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on [this link to the DEP Customer Survey](#). Thank you in advance for completing the survey.

From: Osbourn, Scott [mailto:Scott_Osbourn@golder.com]

Sent: Monday, May 11, 2009 11:06 AM

To: Heron, Teresa; Linero, Alvaro

Subject: FW: FPL Riviera Conversion Project - Proof of Publication for the Public Notice of Intent to Issue Air Construction Permit

Teresa—FYI.

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From: Gail Steels [mailto:GailS@hgslaw.com]

Sent: Thursday, May 07, 2009 3:02 PM

To: Mike Halpin; ronni.moore@dep.state.fl.us

Cc: Lorne, Jacquelyn; Pinnock, Ashley; Osbourn, Scott

Subject: FPL Riviera Conversion Project - Proof of Publication for the Public Notice of Intent to Issue Air Construction Permit

Please see attached as filed with DEP today.

Gail Steels

Legal Assistant for

Peter Cunningham and

Doug Roberts

Hopping Green & Sams

850-425-3462

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**Florida Power & Light Company
Riviera Beach Energy Center Project
DEP File No. 0090042-006-AC**

Comment Letter

Air Construction Permit

1. Section I, page 2, Facility Description, 2nd sentence and subsequent references to the existing units' identification numbers throughout the Air Construction Permit: Revise as follows—"... two steam generating units designated as ~~Units 1 and 2~~ Units 3 and 4 ...". This same comment would apply to the Technical Evaluation and Preliminary Determination (TE&PD) document.
2. Section I, page 2, Facility Description, 1st paragraph: Revise as follows—"There are two 298-foot stacks, ~~two~~ four fuel oil storage tanks,..."
3. Section I, page 2, Facility Description, 2nd paragraph, 5th bullet item, as well as Emission Unit ID 016 in the Emission Unit Description table: Revise as follows—"One nominal 6.3 million gallon distillate fuel oil storage tank." This same comment would apply to page 3 of the TE&PD document.
4. Section I, page 2, Facility Description, 5th paragraph: Revise as follows—"The project includes and requires the permanent shutdown and dismantling of ~~Units 1 and 2~~ Units 3 and 4 and respective stack as well as ~~one of the~~ four fuel oil storage tanks."
5. Section III.A, page 10, Condition 10, footnote a: Add the following sentence which is consistent with FPL West County Energy Center Units 1, 2, and 3 permits- "The stack test limits apply only at high load (90-100% of the CTG capacity)." This same comment would apply to Table 6 of the TE&PD document.
6. Section III.A, page 10, Condition 10, add footnote j for CO under CEMS Rolling Average Limit and include at the bottom of the table: j. Enforcement discretion may be exercised for up to 12 months with respect to the 7.5 ppmvd @15% O₂ limit for any CT/Duct-fired HRSG upon notification by the permittee of intent to install an oxidation catalyst. The permittee shall have 12 months to complete the oxidation catalyst installation. From time of notification to installation of the catalyst, all partial or complete months shall be excluded from the 30 unit operating days rolling average limit. This language is similar to that used in the Unit 4 and 5 Repowering Project for the Progress Energy Florida's Bartow Power Plant (Air Permit No. 1030011-010-AC (PSD-FL-381)). This same comment would apply to Table 6 of the TE&PD document.
7. Section III.A, page 12, Condition 17: Revise as follows—"DLN Tuning: CEMS data collected during initial or other major DLN tuning sessions shall be excluded from the CEMS compliance demonstration provided the tuning session is performed in accordance with the manufacturer's specifications. A "major tuning session" ~~would~~ may occur after completion of initial construction, ~~a combustor change-out, a major repair or maintenance to a combustor,~~ or other similar circumstances. Prior to performing any major tuning session, where the intent is to exclude data from the CEMS compliance demonstration, the permittee shall provide the Compliance Authority with an advance notice of at least 7 days that details the activity and proposed tuning schedule. The notice may be by telephone, facsimile transmittal, or electronic mail. [Design; Rule 62-4.070(3), F.A.C.]
8. Section III.A, page 12, Condition 19, Initial Compliance Determination: FPL requests that the Department include permit language to provide testing schedule relief in the event that the Siemens H

technology is selected. As discussed with the Department, one of the exemptions provided under the NSPS Subpart KKKK, specifically 40 CFR 60.4310(b), is an appropriate description of the testing that will occur upon startup. A summary of the exemption language is provided below.

§ 60.4310 What types of operations are exempt from these standards of performance?

- (a) Emergency combustion turbines, as defined in §60.4420(i), are exempt from the nitrogen oxides (NO_x) emission limits in §60.4320.
- (b) Stationary combustion turbines engaged by manufacturers in research and development of equipment for both combustion turbine emission control techniques and combustion turbine efficiency improvements are exempt from the NO_x emission limits in §60.4320 on a case-by-case basis as determined by the Administrator.
- (c) Stationary combustion turbines at integrated gasification combined cycle electric utility steam generating units that are subject to subpart Da of this part are exempt from this subpart.
- (d) Combustion turbine test cells/stands are exempt from this subpart.

Based on correspondence with U.S. EPA Region IV, this proposed language appears to be unacceptable. Again, it should be that the proposed model turbine would be the first Siemens H turbine designed and manufactured for 60Hz operation. During commissioning of the Siemens H CTs for the Project, the first CT in the 3-on-1 configuration will undergo comprehensive commissioning and validation tests using a separate exhaust stack.

The exemption under 60.4310(b) specifically mentions "turbines engaged by manufacturers in R&D of equipment for ... combustion turbine efficiency improvements." As specifically stated in the Florida DEPs' Technical Evaluation and Preliminary Determination document, "the Siemens H Class CTG is expected to achieve approximately 60% thermal efficiency on the basis of LHV." This compares to the approximate 58% thermal efficiency for the MPS G Class CTG. Siemens has conducted extensive in-house testing; however, this effort would represent the initial field testing effort for this model of CT. As such, this effort meets the intent of the exemption provided in Section 60.4310(b) above, related to research and development of equipment. This research and development effort on the first gas turbine in service would provide for an initial test period of up to three months.

This first gas turbine will then be shut down for a month, undergo an inspection outage, and then may receive some new combustion components to be prepared for combined cycle operation. The entire 3-on-1 block will then go into normal startup activities that will be on the order of up to 180 days. Therefore, the maximum research and development exemption period required is three months, which would be in addition to normal start-up activities. Following testing, a short outage would occur for inspection and removal of the temporary stack, installation of the HRSG transition duct, then resumption of normal commissioning tests.

FPL would like to discuss this issue further with the Department and the appropriate EPA staff.

9. Section III.B, page 18, Condition 9: FPL requests the following- "The hours of operation of the temporary boiler shall not exceed ~~500~~ 1,000 hours per year and the temporary boiler shall not operate beyond the expiration date of this permit." This request for an increase in hours of operation does not change any of the standards that RBEC would be required to meet. This same comment would apply to page 16, 2nd paragraph of the TE&PD document.

10. Section III.B, page 17, Condition 2: FPL requests the following- “The hours of operation of the auxiliary boiler shall not exceed ~~500~~ 750 hours per year.” This request for an increase in hours of operation does not change any of the standards that RBEC would be required to meet. This same comment would apply to page 16, 1st paragraph of the TE&PD document.
11. Section III.D, page 21, Condition 6: As the applicable NSPS Subpart JJJJ does not regulate opacity, a standard of 20 percent was proposed by FPL. It is requested that the limit of 10 percent in the current draft permit be revised to the 20 percent value originally requested. This same comment would apply to Table 10 of the TE&PD document.
12. Section III.G, page 24, Condition 1: Revise as follows- “The distillate fuel oil tanks ~~are~~ is subject to ...”
13. In the TE&PD document, page 13, the third paragraph, there is a discussion regarding the CTG allowable VOC emissions versus expected actual VOC emissions and the effect that this issue has on the permitted allowable hours of oil firing (see Permit Condition No. 7). The TE&PD states that “If VOC emissions are actually demonstrated to be as low as expected, FPL intends to apply for an increase in the allowable hours of ULSD FO to 3,000 hours (vs. the currently permitted 2,550 hours) aggregated over the three CTG during any calendar year.” FPL requests that the permit language in Condition 7 be revised to reflect this understanding as follows: “Depending on the results of the initial VOC emissions compliance testing, fuel oil may be fired for a higher number of hours, up to a maximum of 3,000 hours aggregated over the three CTG during any calendar year.”
14. In the TE&PD document, Table 18 entitled “Ambient Air Quality Impacts Post-Conversion”, several of the values in the table were incorrect. The revisions are as follows:

Table 18. Ambient Air Quality Impacts Post-Conversion

Pollutant	Averaging Time	Major Source Impact ($\mu\text{g}/\text{m}^3$)	Background Conc. 2005- 2008 ($\mu\text{g}/\text{m}^3$)	Total Impact ($\mu\text{g}/\text{m}^3$)	Total Impact Greater Than AAQS?	Florida AAQS ($\mu\text{g}/\text{m}^3$)
PM ₁₀	24-hour	4 <u>8</u>	60	64 <u>68</u>	NO	150
	Annual	1	26	27	NO	50
SO ₂	24-hour	3 <u>9</u>	11 <u>10.5</u>	14 <u>20</u>	NO	260
	Annual	1	4	5	NO	60
	3-hour	5 <u>41.7</u>	11 <u>10.5</u>	16 <u>52</u>	NO	1,300
NO ₂	Annual	17	18	35	NO	100
CO	1-hour	141 <u>234</u>	3,890	4,031 <u>4,125</u>	NO	40,000
	8-hour	71 <u>93</u>	2,517	2,588 <u>2,610</u>	NO	10,000