



March 30, 2006

A.A. Linero, P.E.
Department of Environmental Protection
Bureau of Air Regulation
2600 Blair Stone Road
Mail Station #5505
Tallahassee, FL 32399-2400

RECEIVED

MAR 31 2006

BUREAU OF AIR REGULATION

**Re: Florida Power & Light Company
West County Energy Center Project
DEP File No. 0990646-001-AC (PSD-FL-354)**

Dear Mr. Linero:

Florida Power & Light Company (FPL) is in receipt of the Draft Prevention of Significant Deterioration (PSD) Permit and Technical Evaluation and Preliminary Determination (TEPD) for the West County Energy Center, issued by the Department on March 1, 2006. In accordance with the Department's Notice of Intent to Issue a PSD permit, this letter and attachments convey requested corrections and clarifications in the Draft PSD and the TEPD. Specifically, attached to this letter are two documents, Attachment 1 & 2, with proposed edits to the Draft PSD and TEPD that we would like you to consider.

Thank you for the time and care you have taken in your review of the West County Energy Center Project. Please call if you have any questions. You can reach me at (561) 691-7518.

Sincerely,

A handwritten signature in cursive script that reads "Barbara P. Linkiewicz".

Barbara P. Linkiewicz
Environmental Licensing Manager

cc: Steven Palmer, DEP Siting Office
Ken Kosky, Golder Associates

ATTACHMENT 1

West County Energy Center PSD Draft Air Permit, issued March 1, 2006 Florida Power & Light Company – Comments

March 30, 2006

- 1. Page 1, Expiration Date:** The Draft PSD permit has an expiration date of December 31, 2009. The commercial operation date of the West County Unit 2 is after the expiration date (June 2010). Consistent with historical DEP practice, and to allow for construction delays, the expiration date of the permit should be 18 months after commercial operation of the second unit, December 31, 2011.
- 2. Page 2, Facility Description, second paragraph:** We request that the language be updated to reflect a 26-cell cooling tower as follows:

“Each combined cycle unit will consist of: three nominal 250 megawatt Model 510G gas-turbine-electrical generator sets with evaporative inlet cooling systems; three supplementary-fired heat recovery steam generators (HRSG’s) with SCR reactors; one nominal 428 mmBtu/hour (LHV) gas-fired duct burner located within each of the three HRSG’s; three 149 feet-exhaust stacks; one ~~24-~~26-cell mechanical draft cooling tower; and a common nominal 500 megawatt steam-electrical generator.”
- 3. Page 4, Relevant Documents:** We request that “Letter from FPL to DEP dated December 29, 2005” with details on Mitsubishi 501G technology, including update to nominal megawatts and size of oil tanks be added to the list of Relevant Documents.
- 4. Page 7, Equipment and Control Technology, Gas Turbines:** We request the following clarification:

“4. Gas Turbines. The permittee is authorized to install, tune, operate, and maintain six Model 501G gas turbine-electrical generator sets each with a nominal generating capacity of 250 MW...”
- 5. Page 10, Emissions Standards, Footnote h:** To clarify that if a CO catalyst is installed, the rolling average will be calculated from the installation of the catalyst forward, we propose the following:

“h. Rolling Average. Enforcement discretion may be exercised for up to 12 months with respect to the 6 ppmvd @ 15% O2 limit for any combustion turbine / supplementary-fired heat recovery steam generator upon notification by the permittee of intent to install oxidation catalyst. The permittee shall have 12 months to complete the oxidation catalyst installation. ~~From time of notification to~~ After completing the installation of the catalyst, all prior partial or complete calendar months shall be excluded from the 12 month rolling average.”

6. **Page 17, NSPS Applicability.** NSPS Kb is not applicable in its entirety because the fuel that is being used has a maximum true vapor pressure less than 3.5 kPa. FPL suggests that the reference to NSPS Kb be removed and the rest of the section be renumbered accordingly.

~~“NSPS APPLICABILITY~~

- ~~1. NSPS Subpart Kb Applicability: The distillate fuel oil tanks are subject to Subpart Kb, which applies to any storage tank with a capacity greater than or equal to 10,300 gallons (40 cubic meters) that is used to store volatile organic liquids for which construction, reconstruction, or modification is commenced after July 23, 1984. Tanks with a capacity greater than or equal to 40,000 gallons (154 cubic meters) storing a liquid with a maximum true vapor pressure less than 3.5 kPa are exempt from the General Provisions (40 CFR 60, Subpart A) and from the provisions of NSPS Subpart Kb, except for the record keeping requirements specified below. [40 CFR 60.110b(a) and (c); Rule 62-204.800(7)(b), F.A.C.]~~

EQUIPMENT SPECIFICATIONS

- ~~2. 1. Equipment:~~ The permittee is authorized...

EMISSIONS AND PERFORMANCE REQUIREMENTS

- ~~3. 2. Hours of Operation...~~

NOTIFICATION, REPORTING AND RECORDS

- ~~4. 3. Oil Tank Records:~~ The permittee shall keep readily accessible records showing the dimension of each storage vessel and an analysis showing the capacity of each storage tank. Records shall be retained for the life of the facility. The permittee shall also keep records sufficient to determine the annual throughput of distillate fuel oil for each storage tank for use in the Annual Operating Report.
~~[Rule 62-204.800(7)(b)16, F.A.C., 40 CFR 60.116b(a) and (b)]”~~

7. **Page 18, Equipment, Cooling Tower:** We request that the language be updated to reflect a 26-cell cooling tower as follows:

“1. Cooling Tower. The permittee is authorized to install two new ~~24~~ 26-cell mechanical draft cooling towers with the following nominal design characteristics:...

8. **Page 18, Emissions and Performance Requirements:** Correct typo:

“2. Drift Rate. Within 60 days of commencing operation, the permittee shall ~~submit~~ certify that the cooling tower was constructed to achieve the specified drift rate of no more than 0.0005 percent of the circulating water flow rate.”

9. **Page 21, Emission Unit Description:** We request the following clarification:

“011. Four nominal 2,250 Kw Liquid Fueled Emergency Generators – Reciprocating Internal Combustion Engines”

10. **All pages, footer:** Correct typo:

“FP&L West County Energy Center”

ATTACHMENT 2

West County Energy Center Technical Evaluation and Preliminary Determination, issued March 1, 2006 Florida Power & Light Company – Comments

March 30, 2006

1. **Page 2, Figure 1:** SW St. Lucie should be removed from this Figure, as it is no longer a proposed FPL project.
2. **Page 3, Project Description, first paragraph:** For accuracy and consistency with the Draft PSD permit, please make the corrections indicated below:

“The applicant proposes to construct two “three-on-one” combined cycle units (Units 1 and 2). Each combined cycle unit will consist of: three nominal 250 megawatt (MW) “G” Class gas-turbine-electrical generator sets (probably Mitsubishi Heavy Industries Model 501G) with evaporative inlet cooling systems; three supplementary-fired heat recovery steam generators (HRSG’s) with SCR reactors and gas-fired duct burners (nominal 428 mmBtu/hour LHV); three 149 feet-exhaust stacks; one ~~22-26~~-cell mechanical draft cooling tower; and a common nominal 500 MW steam-electrical generator.”

3. **Page 4, Stack Parameters:** For accuracy and consistency with the Draft PSD permit, please make the correction indicated below:

“Stack Parameters: Each heat recovery steam generator has a combined cycle stack (HRSG stack) that is at least 149 feet tall with a nominal diameter of ~~23~~ 22 feet.

4. **Page 5, Inlet Conditioning:** We request clarification of the description as follows:

“Inlet Conditioning: Evaporative cooling is a system that allows for the injection of fine water droplets into the gas turbine compressor inlet air or inlet air is drawn through a wetted media, which reduces the gas temperature through evaporative cooling...”

5. **Page 6, Table 1, Applicant’s Initial Estimated Annual Emissions for both Combined Cycle Units:** For accuracy and consistency with the PSD application and the published notice, please make the correction indicated below.

Pollutant	Project Emissions TPY	PSD Significant Emission Rate, TPY	PSD Review Required?
CO	968	100	Yes
Pb	0.050	0.6	No
NO _x	841	40	Yes
PM/PM ₁₀	511/211 <u>611/420</u>	25/15	Yes
SO ₂	407	40	Yes
SAM	41	7	Yes
VOC	176	40	Yes

6. **Page 7, Title 40, Description:** Delete reference to Part 76, as it only applies to coal-fired units.

7. **Page 14, first paragraph:** Update 2,200 MW to 2,500 MW for consistency with permit and selected technology:

“Estimates provided by FPL for the proposed ~~2,200~~ 2,500 MW project also indicate a large cost difference between the two technologies...”

8. **Page 14, Table 3:** There is a question mark after “DB” in the NO_x Limit and Fuel column for the Wolf Hollow, TX project.
9. **Page 16, Table 6:** There is a question mark next to “NH₃” in the “PM-lb/mmBTU or lb/hr NH₃ – ppmvd @ 15% O₂” column for the West County project.

10. **Page 18, Section 4.3 Sulfur Dioxide (SO₂) and Sulfuric Acid Mist (SAM) BACT Determination, paragraph 4:** For accuracy and consistency with the PSD application, please make the correction indicated below:

“FPL estimated ~~206~~ 203.5 tons per year of SO₂ and 20 tons per year of sulfuric acid mist (SAM) per combined cycle unit. This equates to ~~412~~ 407 and 40 TPY for SO₂ and SAM respectively from the two combined cycle units...”

11. **Page 19, Cooling Tower PM Emissions:** For accuracy and consistency with the PSD application and Draft PSD permit, please make the corrections indicated below:

“The applicant’s preliminary design includes a ~~22~~ 26 or 24-cell mechanical draft cooling tower for each combined cycle unit with the following specifications...”

“The Department determines the draft BACT to be a design drift rate of no more than 0.0005% of the circulating water flow rate. At this level, maximum potential PM and PM₁₀ emissions from the cooling tower are expected to be on the order of ~~134~~ 201.2 and 10 TPY respectively from the two cooling towers.”

12. **Page 20, Table 7, Draft BACT Determination, Footnote h:** To clarify that if a CO catalyst is installed, the rolling average will be calculated from the installation of the catalyst forward, we propose the following:

“h. Rolling Average. Enforcement discretion may be exercised for up to 12 months with respect to the 6 ppmvd @ 15% O₂ limit for any combustion turbine / supplementary-fired heat recovery steam generator upon notification by the permittee of intent to install oxidation catalyst. The permittee shall have 12 months to complete the oxidation catalyst installation. ~~From time of notification to~~ After completing the installation of the catalyst, all prior partial or complete calendar months shall be excluded from the 12 month rolling average.”

13. **Page 22, National Emission Standards for Hazardous Air Pollutants Applicable to Gas Turbines, third paragraph:** FPL will meet the limit as it applies when the rule is finalized. However, we provide the following clarification because FPL did not specifically propose to meet a particular standard in our application:

“~~FPL proposes to meet the limit proposed in YYYY of 91 ppbvd.~~ The Department believes the formaldehyde emission limit will be met given the proposed BACT CO limits of 8.0 and 6 ppmvd @ 15% O₂ for daily and annual operation respectively...”

14. Page 23, second paragraph: We request the following clarifications:

“~~The limits proposed~~ manufacturer’s emissions data provided by FPL for in the West County Energy Center PSD Application are included for comparison. NSPS and NESHAP requirements that are possibly applicable to the auxiliary boilers are also included. Subpart Db requirements, which apply to boilers that are 100 MMBtu/hr or greater are included in the table below because the FPL project appears to specify a nominal 100 MMBtu/hr boiler. The 99.8 MMBtu/hr specification set by FPL must relate to a physical capacity rather than a permit condition.”

15. Page 26, 6th bullet: We request the following clarification:

For shutdown, up to three hours in any 24-hour period of excess emissions are allowed.

16. Page 27, first paragraph: FPL does not intend to install a damper. For accuracy and consistency with the Draft PSD permit, please remove reference to a permit requirement for installation of a damper.

“While NOx emissions during warm and cold startups are greater than during full load steady-state operation, such startups are infrequent. Also it is noted that such startups would be preceded by shutdowns of at least 24 or 48 hours. Therefore, the startup emissions would not cause annual emissions greater than the potential emissions under continuous operation. ~~The draft permit will also require the installation of a damper to reduce heat loss during combined cycle shutdowns to minimize the number of combined cycle cold startups.~~”

17. Page 27, second paragraph: We request that language be clarified as proposed below to reflect that FPL will not install a separate dump condenser, but may operate in bypass mode and dump steam to the main condenser:

“~~Combined Cycle Operations with Dump Condenser:~~ If the steam-electrical turbine generator was off line for some reason, it is possible that the gas turbine / HRSG systems would operate without producing any steam generated power. Instead, steam would be delivered to a dump via a steam generator bypass to the condenser. ~~Operation with a dump condenser must still meet the standards established for combined cycle operation with ammonia injection.~~”

18. Page 27, Table 12, Major Sources of NO_x in Palm Palm Beach County (2004): Update tons per year to be consistent with the PSD permit application.

Specifically, in the row for FPL’s West County Energy Center, “856” should be “841”.

19. Page 28, Table 13, Largest Sources of SO₂ in Palm Palm Beach County (2004): Update tons per year to be consistent with the PSD permit application.

Specifically, in the row for FPL’s West County Energy Center, “411” should be “407”.

20. Page 28, Table 14, Largest Sources of PM in Palm Palm Beach County (2004): Update tons per year to be consistent with the PSD permit application.

Specifically, in the row for FPL’s West County Energy Center, “652” should be “611”.

- 21. Page 28, Table 15, Largest Sources of CO in Palm Palm Beach County (2004):** Update tons per year to be consistent with the PSD permit application.

Specifically, in the row for FPL's West County Energy Center, "2020" should be "968".

FPL also notes that the 2004 Annual Operating Report for the Riviera Power Plant was 431 tons of CO, which suggests that it should be included in Table 15.

- 22. Page 35, Table 22, PSD Class I Increment Analysis – ENP:** Correct the Allowable Increment from 5 ug/m³ to 8 ug/m³.

- 23. Page 35, Ozone, Second Paragraph:** Update tons per year to be consistent with the PSD permit application.

"...The West County Energy Center will add ~~856~~ 841 TPY of NOx and 176 TPY of VOC..."

- 24. Page 36, First Paragraph:** Update tons per year to be consistent with the PSD permit application.

"To conclusively prove whether or not the ~~856~~ 841 TPY of NOx and 176 tons of VOC will not cause or contribute to a violation, a very sophisticated and expensive model would need to be run for the entire region..."

Hopping Green & Sams

Attorneys and Counselors

January 20, 2006

RECEIVED

JAN 20 2006

BUREAU OF AIR REGULATION

Al Linero, Bureau of Air Regulation
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399

Re: Florida Power & Light Co.
West County Energy Center
Application for PSD Permit, PSD FPL-FL-354
Application for Site Certification PA-05-47

Dear Mr. Linero:

By letter dated December 2, 2005, Florida Power & Light Co. (FPL), the applicant, waived the deadline for the Department to issue its preliminary determination on the referenced application until January 25, 2006. Representatives of FPL subsequently met with staff of the Department's Bureau of Air Regulation to discuss this matter. In order to allow the opportunity for FPL to submit additional information and for further discussion between staff of the Department's Bureau of Air Regulation and FPL representatives, FPL agrees to waive the deadline for issuance of the Department's preliminary determination under Section 403.507(3), Florida Statutes, and Rule 62-17.135(1)(b), Florida Administrative Code, until March 1, 2006.

The undersigned is authorized to make this waiver on behalf of the applicant. Should you have any questions, please contact me or Barbara Linkiewicz at 561-691-7518.

Sincerely,



Peter C. Cunningham
Attorney for Florida Power & Light Co.

cc: Scott Goorland, Esq., FDEP, OGC
Steve Palmer, FDEP, SCO