Florida Power & Light Company, 6501 S. Ocean Drive, Jensen Beach, FL 34957

FPL

April 7, 2009

L-2009-079
10 CFR 50.36.b
EPP 3.2.3

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

RE: St. Lucie Units 1 and 2
Docket Nos. 50-335 and 50-389
Environmental Protection Plan Report
Approved Minor Revision to Industrial Wastewater Facility Permit No. FL0002208

The attached minor revision to the Industrial Wastewater Facility Permit is being submitted pursuant to the requirements of Section 3.2.3 of the St. Lucie Units 1 and 2 Environmental Protection Plans. The revision was approved on March 11, 2009.

Sincerely,

Eric S. Katzman
Licensing Manager
St. Lucie Plant

ESK/CAA

Attachment

C001

NRR

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

March 11, 2009

BY CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Gordon L. Johnston
Vice President - St. Lucie Plant
Florida Power & Light Company
6501 S.Ocean Drive
Jensen Beach, Florida 34957

RE: Florida Power & Light Company
St. Lucie Power Plant, St. Lucie County
DEP File Nos. FL0002208-008-IWB/MR and FL0002208-009-IWB/MR
Approval of Minor Revisions D & E for Uprate of Units 1 and 2 and
Revised Design Flow for Once-Through Cooling Water System

Dear Mr. Johnston:

The Department received two minor permit revision applications for Florida Power & Light Company (FP&L) St. Lucie Plant. The first proposed minor revision is to authorize the increase of net power output for Units 1 and 2 by 206 megawatts. The second minor revision revises the stated design flow for the once-through cooling water system from 1478 to 1487 million gallons per day. The Department has determined that these activities qualify as minor modifications of the operations at the St. Lucie Plant pursuant to Rule 62-620.200(24), Florida Administrative Code (F.A.C.), and can be authorized by minor permit revisions pursuant to Rule 62-620.325(2), F.A.C. This letter and attachment constitute a minor revision to the referenced wastewater permit.

The permit is revised as stated in the attached permit pages unless FP&L decides to file a timely, sufficient petition for an administrative hearing under Section 120.57, Florida Statutes. The procedures for petitioning for a hearing are set forth in the attachment titled "Notice of Rights."

If you have any questions regarding this permit revision, please contact Marc Harris, P.E., in the Industrial Wastewater Section at (850) 245-8589.

Sincerely,

Janet G. Llewellyn
Director
Division of Water Resource Management

Attachments

cc: Tim Powell, P.E., FDEP West Palm Beach
Ron Hix, FPL

NOTICE OF RIGHTS

A person whose substantial interests are affected by this permit revision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, within 14 days of receipt of this Permit. A petitioner, other than the applicant, shall mail a copy of the petition to the applicant at the address indicated in the attached letter at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner; the name, address, and telephone number of the petitioner's representative, if any; the Department case identification number and the county in which the subject matter or activity is located;

(b) A statement of how and when each petitioner received notice of the Department action;

(c) A statement of how each petitioner's substantial interests are affected by the Department action;

(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;

(e) A statement of facts that the petitioner contends warrant reversal or modification of the Department action;

(f) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and

(g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this intent. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this intent in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

STATEMENT OF BASIS FOR MINOR PERMIT REVISION FOR
REPOWERING OF BARTOW POWER PLANT

Permit Number: FL0002208
DEP File Nos.: FL0002208-008-IWB/MR
FL0002208-009-IWB/MR

Application Date: December 19, 2007 (Revision D)
January 4, 2008 (Revision E)
Additional Information: March 18, 2008, October 21, 2008, January 21, 2009

Designation: Major
Permit Writer: Bala Nori

A. Name and Address of Applicant

Florida Power & Light Company
Post Office Box 14000
Juno Beach, Florida 33408

For:

St. Lucie Plant
6451 South Ocean Drive
Jensen Beach, Florida 33408

B. Description of Modification

Revision D (DEP File No. FL002208-008-IWB/MR)

The Department received a minor permit revision application requesting the approval to increase the net power output for Units 1 and 2 by a total of 206 megawatts (MW) at the St. Lucie Plant.

The uprate project consists of upgrades to each unit. These upgrades will include refurbishment and improvement activities to the steam turbine, electrical generator, the onsite electrical systems, and the plant cooling systems. The extra electrical output will result from improved performance of the steam turbines and from using more enriched uranium fuel in the reactors. All improvement activities will occur within the existing buildings and structures associated with Units 1 and 2. No external construction activities are required for this project.

Construction activities for this project will occur primarily during two scheduled outages per unit, with each outage lasting approximately 50 days. Construction activities for the Unit 1 uprate will begin during the planned 2010 Spring outage and conclude during the 2011 Fall outage. Construction activities for the Unit 2 uprate will begin during the planned 2010 Fall outage and conclude during the 2012 Spring outage. Certain improvements also will be made while the units are operating.

Units 1 and 2 use once-through cooling water from the Atlantic Ocean to remove heat from the main condensers via the circulating water system. The condensers are located in each unit's secondary system, where steam is cooled to liquid water before being returned to the steam generators to complete the secondary loop. Cooling water is pumped from the Atlantic Ocean through three offshore intake structures into the plant's intake canal. This water is then pumped through the main condensers for each unit. Heated cooling water is released to the onsite discharge canal and back to the Atlantic Ocean through existing offshore pipes

and diffusers. Circulation of cooling water is provided by eight circulating water pumps (four for each unit) located at the intake. No changes to these components are proposed for this project.

After the uprate project is completed, the cooling water flow rate will remain unchanged, although the temperature rise across the condensers is anticipated to increase by 2.9°F. However, evaluations indicated that this temperature rise will remain within the existing thermal mixing zone limits established in the NPDES permit. Under normal operating conditions, the permit limits the temperature of the discharged cooling water to 113°F or 30°F above ambient, whichever is less. When conducting maintenance on condensers and/or circulating water pumps, the temperature is limited to 117°F or 32°F above ambient, whichever is less. Based on Florida Power and Light's report for St. Lucie Plant, titled "Effects of Increased Water Temperature on the Marine Biota of the St. Lucie Plant Area" dated July 1980, a discharge temperature of 117°F or a 32°F increase above ambient is not expected to result in any measurable thermal or biological impact on the Atlantic Ocean.

Since there will be no increase in the cooling water flow rates as a result of the project, there will be no change in the current rates of entrainment and impingement of aquatic life in the cooling water system.

Revision E (DEP File No. FL002208-009-IWB/MR)

While collecting information for the St. Lucie uprate project, FPL became aware that the circulating water pump performance curves for Units 1 and 2 were not the same as had been previously believed. The design flow for the pump performance curve for each circulating water pump on Unit 1 is 121,000 gallons per minute (gpm), while for the Unit 2 pumps the design flow is 122,650 gpm. There are four circulating water pumps for each unit. In addition, each unit has two intake cooling water pumps and each pump has a design flow of 14,500 gpm. The maximum design flow for all 12 pumps is 1,032,600 gpm, or 1,487 MGD.

The existing NPDES permit states the maximum design flow for all 12 pumps is 1,478 MGD. The Department received a minor permit revision application requesting that the design flow be corrected to 1,487 MGD.

This constitutes Revisions D and E (Rev. E) to the permit. All changes to the permit are noted in Rev. E by underline or strike-through where changes have been made for this revision.