

FEB 0 5 2007

L-2007-012 10 CFR 50.36

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

Re: Turkey Point Units 3 and 4 Docket Nos. 50-250 and 50-251 Wastewater Permit Number FL0001562 <u>Minor Revision Notification</u>

In accordance with Section 3.2.2 of the Turkey Point Units 3 and 4 Environmental Protection Plan (Appendix B of Facility Operating Licenses DPR-31 and DPR-41), enclosed is a copy of the revised Wastewater Permit Number FL0001562 issued January 12, 2007. A minor revision was issued to incorporate the Turkey Point Plant Unit 5 Project's waste streams into the existing Industrial Wastewater permit.

Should there be any questions, please contact us.

Very truly yours,

Terry O. Jones Vice President Turkey Point Nuclear Plant

Enclosure

cc: Regional Administrator, Region II, USNRC Senior Resident Inspector, USNRC, Turkey Point Plant

ENCLOSURE TO

L-2007-012



Florida Department of **Environmental Protection**

Bob Martinez Center 2600 Blair Stone Road Tallahassee, Florida 32399-2400

January 12, 2007

Charlie Crist Governor

Jeff Kottkamp Lt. Governor

Michael W. Sole Secretary-Designee

BY CERTIFIED MAIL RETURN RECEIPT REQUESTED

Ms. Jill Watson Power Generation Division Florida Power & Light Company Post Office Box 14000 Juno Beach, Florida 33408-0420

RE: Florida Power & Light Company Turkey Point Power Plant, Dade County NPDES Permit No. FL0001562 Approval of Minor Revision for Inclusion of New Electric Generating Unit (Unit 5)

Dear Ms. Watson:

JGL/wfr/mh

On May 30, 2006, the Department received a minor permit revision application for the Florida Power & Light Company (FPL) Turkey Point power plant. The proposed permit modification is to authorize the discharge of wastewater streams from the new combined cycle electrical generation unit (Unit 5) at the facility into the existing closed-loop cooling canal system. After review of the application, the Department has determined that the proposed modification to permit number FL0001562 does not substantially change the characteristic of the effluent or increase the potential for adverse impact on the aquatic system. Because the proposed modification is not expected to result in any water quality degradation, the permit is hereby modified pursuant to Rules 62-620.200(24), 62-620.200(25), and 62-620.325(2), Florida Administrative Code. Note, this letter does not alter the May 5, 2010 expiration date, other Specific or General Conditions, or monitoring requirements of the permit. This letter and accompanying revised permit pages must be attached to the original permit.

The permit is modified as stated in the attached revised permit pages unless FPL 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.

and J. Llewellhy

Janet G. Llewellyn Acting Director **Division of Water Resource Management**

Attachments cc: Tim Powell, P.E. - FDEP West Palm Beach

> "More Protection, Less Process" www.dep.state.fl.us

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.

STATE OF FLORIDA INDUSTRIAL WASTEWATER FACILITY PERMIT

PERMITTEE:

Florida Power & Light Company 9760 S.W. 344 Street Florida City, FL 33035 PERMIT NUMBER: PA FILE NUMBER: ISSUANCE DATE: EXPIRATION DATE: FL0001562 (Major) <u>Rev. A</u> FL0001562-004-IW1N May 6, 2005 May 5, 2010

RESPONSIBLE AUTHORITY:

Mr. Terry O. Jones Vice President

FACILITY:

FPL Turkey Point Power Plant 9760 S.W. 344 Street Florida City, FL 33035 Dade County

Latitude: See Note Below Longitude: See Note Below

Note: Latitude and longitude are not shown at Permittee's request, for purposes of Homeland Security pursuant to federal regulations found at 18 CFR 388.113(c)(i) and (ii) and by Presidential Directive dated December 17, 2003.

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.) and applicable rules of the Florida Administrative Code (F.A.C.), and constitutes authorization to discharge to waters of the state under the National Pollutant Discharge Elimination System (NPDES). The above named permittee is hereby authorized to operate the facilities shown on the application and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

The facility consists of four-five steam-electrical generating units: Two fossil fuel oil/<u>natural gas</u>-fired units (Units 1&2), and two nuclear units (Units 3&4) <u>and one combined cycle unit (Unit 5)</u>. Units 1&2 each have a continuous generating eapability capacity of 404 megawatts (MW), and Unit 3&4 each have a continuous-generating eapability capacity of 693 MW and Unit 5 has a generating capacity of 1150 megawatts (MW).

WASTEWATER TREATMENT:

Wastewater from the Turkey Point facility consists of a-non-contact once-through condenser cooling water (OTCW), auxiliary equipment cooling water (AECW), <u>cooling tower blowdown</u>, low-volume waste (LVW), and stormwater. LVW consists of chemical treatment system wastewater, boiler blowdown, <u>heat recovery steam generator</u> <u>blowdown</u>, reverse osmosis concentrate, condensate polishing system backwash water, and other process wastestreams. Stormwater includes stormwater associated with industrial activity and stormwater not associated with industrial activity.

OTCW, and AECW and cooling tower blowdown discharge to the facility's approximately 6,700 acre onsite closed loop cooling canal system. LVW, equipment area stormwater, and non-equipment area stormwater/drainage discharge either directly to the onsite closed loop cooling canal system or indirectly to the same system via solids settling basins and/or neutralization basin. The cooling canal system is not lined, and therefore, discharges to Class G-III groundwater. The cooling canal system does not discharge to surface waters of the state.

PERMITTEE:	PERMIT NUMBER:	FL0001562 <u>(Rev. A)</u>
Florida Power & Light Company	Issuance date:	May 6, 2005
9760 S.W. 344 Street	Expiration date:	May 5, 2010
Florida City, FL 33035		
Additions to the permit are identified by italics and	underline. Deletions are i	dentified by strikethrough.

I. Effluent Limitations and Monitoring Requirements

A. Surface Water Discharges

- 1. This permit does not authorize discharge to surface waters of the state.
- 2. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge non process wastewater consisting of non-contact once-through condenser cooling water (OTCW), non-contact auxiliary equipment cooling water (AECW), <u>cooling tower blowdown</u> and other wastestreams (as indicated in the permit renewal application <u>and permit revision application</u>) from Internal Outfall I-001 to the onsite feeder canal within the facility's onsite closed loop cooling canal system. Such discharge shall be limited and monitored by the permittee as specified below:

	Discharge Limitations			Monitoring Requirements		
Parameters (units)	Maximum Daily Average	Daily Maximum	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
Temperature (F), Water (DEG.F)		Report	6 17	Monthly	Instantaneous	OUI-1
Solids, Total Suspended (MG/L)		Report	-	Quarterly	Grab	OUI-1
pH (SU)	-	Report	Report	Quarterly	Grab	OUI-1
Salinity (PPT)		Report		Quarterly	Grab	OUI-1
Specific Conductance (UMHO/CM)		Report	-	Quarterly	Grab	OU1-1
Copper, Totai Recoverable (UG/L)		Report		Semiannually	Grab	OUI-1
Iron, Total Recoverable (MG/L)		Report		Semiannually	Grab	OUI-1
Zinc, Total Recoverable (UG/L)		Report		Semiannually	Grab	OUI-1

3. Effluent samples shall be taken at the monitoring site locations listed in permit condition I.A.2. and as described below:

Sample Point	Description of Monitoring Location
OUI-1	Cooling water discharge prior to entering the feeder canal within the closed loop cooling canal system

PERMITTEE:	PERMIT NUMBER:	FL0001562 <u>(Rev. A)</u>	
Florida Power & Light Company 9760 S.W. 344 Street	Issuance date: Expiration date:	May 6, 2005 May 5, 2010	
Florida City, FL 33035			

Additions to the permit are identified by italics and underline. Deletions are identified by strikethrough.

- 9. A permit revision from the Department shall be required prior to the use of any biocide or chemical additive, which may be toxic to aquatic life, (except as authorized elsewhere in this permit) in the cooling water system or any other portion of the industrial wastewater system. The permit revision request shall include:
 - a. Name and general composition of biocide or chemical
 - b. Frequencies of use
 - c. Quantities to be used
 - d. Proposed effluent concentrations
 - e. Acute and/or chronic toxicity data (laboratory reports shall be prepared according to Section 12 of EPA document no. EPA/600/4-90/027 entitled Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters for Freshwater and Marine Organisms, or most current addition.)
 - f. Product data sheet
 - g. Product label

The Department shall review the above information to determine if a major or minor permit revision is necessary. Discharge associated with the use of such biocide or chemical is not authorized without prior authorization by the Department. Permit revisions shall be processed in accordance with the requirements of Chapter 62-620, F.A.C.

- 10. Discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream which ultimately may be released to waters of the State is prohibited unless specifically authorized elsewhere in this permit. This requirement is not applicable to products used for lawn and agricultural purposes or to the use of herbicides if used in accordance with labeled instructions and any applicable State permit. Discharge of Continuum AEC3145, Inhibitor AZ8101, Inhibitor OP8413, sulfuric acid, sodium hypochlorite, Foamtrol AF2290 and biocides such as Spectrus CT1300 or an equivalent product from the use of the cooling tower is authorized. Also chemicals used in the water treatment systems including soda ash, polymer, hydrated lime, Kleen MCT511, Betz Dearborn DCL30, Hypersperse MDC120 and Kleen MCT103, and products that may be used to clean the RO membranes including ROClean L212, ROClean L403, ROClean P111 and ROClean L811 or an equivalent product are authorized.
- 10. Hydrazine and Monoethanolamine (ETA) Monitoring Requirements

a) Discharge of hydrazine, carbohydrazide, dimethylamine, and monoethanolamine (ETA) in the boiler or steam generator blowdown is authorized without limitation or monitoring requirements.

b) Hydrazine from plant layup water during overhauls and/or refueling outages shall be measured at the outlet from the unit being serviced. Sampling shall be once per day of discharge by grab sample at the maximum expected concentration. Results of sampling will be submitted to the Department upon request. To determine the hydrazine concentration being discharged to the cooling canal system, the following equation shall be used:

(B/S) Blowdown Flow x (B/S) Hydrazine Concentration = Once-through Cooling Water Flow

Hydrazine concentration at the closed cycle cooling canal system

Where (B/S) refers to boiler or steam generator

In the event that any value exceeds 3.4 mg/l, the permittee shall immediately modify its release pattern and resample. The Department's Southeast District office will be notified of the situation within five days.

11. Molybdate, Tolytriazole, and Nitrite Discharge Requirements The discharge of molybdate, tolytriazole, and nitrite to the closed cycle recirculating cooling canal system

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

2600 BLAIR STONE ROAD TALLAHASSEE, FLORIDA 32399-2400

STATEMENT OF BASIS FOR REVISION TO INCLUDE UNIT 5

Permit Number: FL0001562 Permit Writer: Bala Nori Application Date:May 16, 2006Additional Information:August 8, 2006Application No:FL0001562-006-IWB/MR

1. SYNOPSIS OF APPLICATION

A. Name and Address of Applicant Florida Power & Light Company Post Office Box 14000 Juno Beach, Florida 33408-0420

For:

Turkey Point Power Plant 9760 S.W. 344 Street Florida City, Florida 33035

B. Description of Proposed Activity:

The Florida Power & Light Company (FPL) submitted a minor revision application dated May 16, 2006 for wastewater permit number FL0001562. The proposed permit modification is to authorize the discharge of wastewater streams from the new combined cycle electric generation unit (Unit 5) at Turkey Point Power Plant. On June 23, 2006, the Department requested additional information from FPL in order to process the application. The Department received FPL's response on August 8. Unit 5 is currently under construction. FPL filed a Site Certification application for Unit 5 with the Department in November 2003. The final Order of Certification was signed in February 2005.

All industrial wastewater generated from the operation and maintenance of Unit 5 is to be discharged to the existing cooling canal system, which does not discharge to surface waters of the State. Non-equipment storm water associated with Unit 5 will be collected and routed to three of the existing storm water detention ponds. Storm water detention pond 1 will flow into the natural environment directly west of the pond. Non-equipment area storm water collected in detention pond 3 will overflow into detention pond 2 and will be discharged through existing internal outfall I-001 to the cooling canal system. As a result, no new or expanded wastewater discharges to surface waters of the State are proposed for Unit 5.

The high-purity make-up water for the Unit 5 heat recovery steam generator (HRSG) will be produced through a reverse osmosis and demineralization system. The Department has authorized the use of chemical additives to further treat the HRSG make-up water for controlling pH, corrosion

and scale formation. These additives include hydrazine, an oxygen scavenger; ammonia or an amine; sodium hydroxide; and Optisperse HP 4930, a phosphate containing chemical.

The reject water and backwash from the reverse osmosis and demineralization system will be discharged through internal outfall I-001 to the existing cooling canal system. The Department has authorized the use of the following antifouling and cleaning chemicals for the reverse osmosis membranes: Betz Dearborn DCL 30, Hypersperse MDC120, Kleen MCT103, Kleen MCT511, ROClean L212, ROClean L403, ROClean P111 and ROClean L811 or an equivalent product.

Make-up water for the cooling tower will be supplied from Floridan Aquifer wells. The cooling tower blowdown will be discharged through internal outfall I-001 to the existing cooling canal system. The Department has authorized the use of the following chemical products to control pH, corrosion, fouling and foaming in the cooling tower: sulfuric acid; Inhibitor AZ8101; Inhibitor OP8413; Continuum AEC3145; Corrshield MD 4100; biocides, such as Spectrus CT1300 and sodium hypochlorite; and Foamtrol AF2290, an antifoaming agent.

After review of the application, the Department's Toxicity Coordinator decided that toxicity testing is not warranted since the cooling canal system does not discharge to surface waters of the State.

C. Revisions to the Permit:

The description of plant operations and treatment facilities provided on the cover page and pages 2 and 3 of the permit have been revised to incorporate operation activities associated with Unit 5. In addition, page 6 of the permit was revised to authorize the discharge of Continuum AEC3145, Inhibitor AZ8101, Inhibitor OP8413, sulfuric acid, sodium hypochlorite, Foamtrol AF2290 and biocides such as Spectrus CT1300 or an equivalent product from the use of the cooling tower. Also chemicals used in the water treatment systems including soda ash, polymer, hydrated lime, Kleen MCT511, Betz Dearborn DCL30, Hypersperse MDC120 and Kleen MCT103, and products that may be used to clean the RO membranes including ROClean L212, ROClean L403, ROClean P111 and ROClean L811 or an equivalent product.

This constitutes Revision A (Rev. A) to the permit. All changes to the permit are noted in Rev. A by underline or strike-through, with a margin bar indicating lines where changes have been made for this revision.