

September 12, 1996

Mr. T. F. Plunkett
President - Nuclear Division
Florida Power and Light Company
P.O. Box 14000
Juno Beach, Florida 33408-0420

SUBJECT: ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT
REGARDING POWER UPRATE - TURKEY POINT UNITS 3 AND 4 (TAC NOS. M94314
AND M94315)

Dear Mr. Plunkett:

Enclosed is a copy of the Environmental Assessment and Finding of No
Significant Impact related to your application for amendment dated
December 18, 1995, as supplemented on May 3, June 11, July 1, July 3, and
August 22, 1996. The proposed amendment allows operation at 2300 Megawatts
thermal. The assessment is being forwarded to the Office of the Federal
Register for publication.

Sincerely,

Original signed by

Richard P. Croteau, Project Manager
Project Directorate II-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-250 and 50-251

Enclosure: Environmental Assessment

cc w/enclosure: See next page

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UNITED STATES NUCLEAR REGULATORY COMMISSION
FLORIDA POWER AND LIGHT COMPANY
TURKEY POINT UNIT 3 AND UNIT 4
DOCKET NOS. 50-250 AND 50-251
ENVIRONMENTAL ASSESSMENT AND FINDING OF
NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating License Nos. DPR-31 and DPR-41, issued to Florida Power and Light Company (the licensee or FPL), for operation of Turkey Point Units 3 and 4 (TP), respectively, located in Dade County, Florida.

ENVIRONMENTAL ASSESSMENT

Identification of the Proposed Action:

The proposed action would allow the licensee to increase allowed core power level from 2200 Megawatts thermal (Mwt) to 2300 Mwt which is approximately a 4.5 percent increase in rated core power.

The proposed action is in accordance with the licensee's application for amendment dated December 18, 1995, as supplemented on May 3, June 11, July 1, July 3, and August 22, 1996.

The Need for the Proposed Action:

The proposed action is needed to allow the licensee to increase the electrical output of each Turkey Point unit by approximately 30 MWe and thus provide additional electrical power to the grid which serves commercial and domestic areas on the Florida Power and Light grid. The thermal power uprate will result in direct displacement of higher cost fossil fuel generation with lower cost nuclear fuel generation.

UNITED STATES NUCLEAR REGULATORY COMMISSION

FLORIDA POWER AND LIGHT COMPANY

TURKEY POINT UNIT 3 AND UNIT 4

DOCKET NOS. 50-250 AND 50-251

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Environmental Impacts of the Proposed Action:

The Commission has completed its evaluation of the proposed action and concludes that no significant change in the environmental impact can be expected for the proposed increase in power. The proposed core uprate is projected to increase the heat rejected to the environment by approximately 4.4 percent over the present power level but is insignificant when compared to the heat load from all four units and the incident solar radiation heat gain to the canal. The thermal loading on the canal from the units is approximately 14×10^9 British thermal units per hour (Btu/hr) and the heat duty increase associated with the uprate will be approximately $.44 \times 10^9$ Btu/hr. This is expected to increase the temperature between inlet and outlet by a maximum of 0.7°F over existing plant operation. The impact on intake temperatures is estimated to be about 0.2°F . There are no discharges to Biscayne Bay or Card Sound from the plant site since the units obtain their cooling water from and discharge to a closed cooling canal system. Therefore, the National Pollutant Discharge Elimination System (NPDES) permit does not place any operating limits on either flow or temperature. Technical Specification (TS) 3.7.4 limits intake temperature to 100°F and this limit will continue to be in effect following the uprate. No changes to any federal, state, or local permits were required for the thermal uprate. Turkey Point has no specifically prescribed protective actions associated with endangered wildlife. FPL does have a monitoring permit to tag and count American crocodiles that is issued by both the U.S. Fish and Wildlife Service and the State of Florida.

The licensee concluded that the uprate will have no adverse impacts on the environment nor result in exceeding NPDES permit limits. There will be no

significant increase in non-radiological impacts over those evaluated in the Final Environmental Statement (FES) and evaluations associated with the amendments to recapture the construction period in the license term (CP/OL recapture amendments) dated April 7, 1994. The staff considers that continued compliance with applicable Federal, State, and Local agency requirements relating to environmental protection will preclude any significant non-radiological environmental impacts associated with the proposed uprate.

The licensee evaluated the offsite radiation exposure to the maximally exposed individual member of the general public for the proposed uprate. Section V.D. of the FES projected doses and anticipated annual release of radioactive materials released to the environment from routine operations of the two reactors. Table III-2 of the FES estimated a total annual release of radioactive material in gaseous effluent of 3650 curies/year/unit for noble gases. The latest actual releases in 1995 were <1 curie/year/unit. The FES estimate for iodines and particulates was 0.8 curies/year/unit and the 1995 releases were <0.1 curies/year/unit. Table III-3 estimated the annual release of radioactive materials in liquid effluents to be 27 curie/year/unit from steam generator blowdown and 1 curie/year/unit from waste disposal. The actual 1995 releases were 0 curies/year/unit for steam generator blowdown and <0.1 curie/year/unit for the waste disposal system. A 5 percent increase in power does not necessarily result in any increase in effluents. Moreover, data for years prior to 1995 were reviewed by the staff and found to be well within the FES estimates, even if increased by 5 percent. Therefore, the staff concludes that the actual releases at the Turkey Point units will still remain well within the FES estimates.

With respect to onsite radiation exposure, the licensee stated that the uprate is not expected to increase the day-to-day radiation exposures encountered by plant workers since the in-plant radiation levels will not change significantly compared to the evaluations in the FES and the evaluations associated with the CP/OL recapture amendments. The licensee has developed and implemented programs to maintain doses as-low-as-reasonably-achievable (ALARA). The annual average dose for the 3-year period from 1993-1995 was 159 person-rem per unit at Turkey Point. This is low compared to similar plants and the 1990-1992 Turkey Point average of 332 person-rem per unit. Considering a potential increase of 5 percent, onsite radiation exposure would still be low compared to peer groups. Therefore, the staff concludes that operation at the uprated power level will not significantly impact occupation exposures.

Regarding radioactive waste production, the licensee stated that the annual volume of solid low level radioactive waste is not expected to increase significantly and the current disposal volume is well below the median value for similar facilities. The ALARA program includes maintaining the waste generated and waste released as low as reasonable. The existing design of the liquid and gaseous radwaste systems was based on a core power level of 2300 MWt; therefore, the ability of the systems to provide adequate processing and maintain the radioactive releases within regulatory limits is not impacted by the uprate. Therefore, the staff concludes that operation at the uprated power will not significantly affect the licensee's ability to handle radioactive waste production.

TS 5.6.1 limits the storage of spent fuel to fuel assemblies with a maximum enrichment loading of 4.5 percent of U-235. No change in enrichment is necessary for the uprate condition. On November 14, 1984, the staff issued its "Environmental Assessment and Finding of No Significant Impact," covering the storage of fuel with an enrichment loading of 4.5 percent U-235, which concluded that the proposed action will not have a significant effect on the quality of the human environment. Therefore, the environmental impacts of this aspect of the licensee's power uprate proposal has been previously evaluated and found acceptable by the Commission. TS 5.6.1.3 specifies the requirements regarding burnup of spent fuel for fuel storage. No changes were necessary to TS 5.6.1.3 to support the power uprate request.

The proposed change will not significantly change the types or amounts or any radiological effluents over those that have already been evaluated and found acceptable in the FES and evaluations associated with the CP/OL recapture amendments, and there is no significant increase in the allowable individual or cumulative radiation exposure. Accordingly, the Commission concludes that there are no significant radiological environmental impacts associated with the proposed action.

The amendment does not significantly affect nonradiological plant effluents, has no other environmental impact, and continued compliance with applicable Federal, State, and Local agency requirements relating to environmental protection will preclude any significant non-radiological environmental impacts associated with the proposed uprate. Accordingly, the Commission concludes that there are no significant nonradiological environmental impacts associated with the proposed action.

Alternatives to the Proposed Action:

Since the Commission has concluded there is no significant environmental impact associated with the proposed action, any alternatives with equal or greater environmental impact need not be evaluated. As an alternative to the proposed action, the NRC staff considered denial of the proposed action. Denial of the application would result in no change in current environmental impacts.

Alternative Use of Resources:

This action does not involve the use of any resources not previously considered in the Final Environmental Statement dated July 1972 for Turkey Point Units 3 and 4.

Agencies and Persons Consulted:

In accordance with its stated policy, on September 12, 1996 the NRC staff consulted with the Florida State official, Mr. Harland Keaton of the State Office of Radiation Control, regarding the environmental impact of the proposed action. The State official had no comments.

FINDING OF NO SIGNIFICANT IMPACT

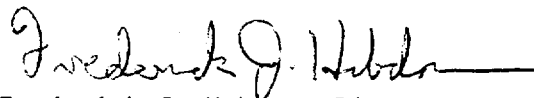
Based upon the environmental assessment, the Commission concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the Commission has determined not to prepare an environmental impact statement for the proposed action.

For further details with respect to the proposed action, see the licensee's letter dated December 18, 1995, as supplemented on May 3, June 11, July 1, July 3, and August 22, 1996, which are available for public inspection at the Commission's Public Document Room, The Gelman Building, 2120

L Street, NW., Washington, DC, and at the local public document room located at the Florida International University, University Park, Miami, Florida 33199.

Dated at Rockville, Maryland, this 12th day of September 1996.

FOR THE NUCLEAR REGULATORY COMMISSION



Frederick J. Hebdon, Director
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Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Mr. T. F. Plunkett
Florida Power and Light Company

Turkey Point Plant

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