

October 17, 2003

Mr. J. A. Stall  
Senior Vice President, Nuclear and  
Chief Nuclear Officer  
Florida Power and Light Company  
P.O. Box 14000  
Juno Beach, Florida 33408-0420

SUBJECT: TURKEY POINT PLANT UNITS 3 AND 4 - ENVIRONMENTAL ASSESSMENT  
REGARDING PROPOSED ADDITIONS TO THE SPENT FUEL POOL CASK  
AREA RACK AMENDMENT (TAC NOS. MB6909 AND MB6910)

Dear Mr. Stall:

Enclosed is a copy of the Environmental Assessment and Finding of No Significant Impact related to your application for amendments dated November 26, 2002, as supplemented in a letter dated September 8, 2003. The proposed license amendments would increase the number of fuel assemblies that can be stored at each unit at Turkey Point from 1,404 fuel assemblies to 1,535 fuel assemblies, an increase of 131. A freestanding spent fuel storage rack module would be installed in the cask pit in each unit's spent fuel pool. In addition, the new spent fuel storage racks will use Boral as a neutron absorbing material.

The assessment is being forwarded to the Office of the Federal Register for publication.

Sincerely,

**/RA/**

Eva A. Brown, Project Manager, Section 2  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-250 and 50-251

Enclosure: Environmental Assessment

cc w/encl: See next page

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\* Input provided in Memo to A. Howe

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UNITED STATES NUCLEAR REGULATORY COMMISSION

FLORIDA POWER AND LIGHT

DOCKET NOS. 50-250 AND 50-251

TURKEY POINT, UNITS 3 AND 4

ENVIRONMENTAL ASSESSMENT AND FINDING OF

NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of amendments to Renewed Facility Operating License Nos. DPR-31 and DPR-41, issued to Florida Power and Light Company, for operation of the Turkey Point Nuclear Power Plant, Units 3 and 4, located in Miami-Dade County, Florida. Therefore, as required by 10 CFR 51.21, the NRC is issuing this environmental assessment and finding of no significant impact.

ENVIRONMENTAL ASSESSMENT

Identification of the Proposed Action:

The proposed action would increase the number of fuel assemblies that can be stored at each unit at Turkey Point from 1,404 fuel assemblies to 1,535 fuel assemblies, an increase of 131. A freestanding spent fuel storage rack module would be installed in the cask pit in each unit's spent fuel pool. In addition, the new spent fuel storage racks will use Boral as a neutron absorbing material.

The proposed action is in accordance with the licensee's application for amendment dated November 26, 2002, as supplemented in a letter dated September 8, 2003.

The Need for the Proposed Action:

The Turkey Point Nuclear Plant, Units 3 and 4, has two pressurized-water reactors. Unit 3 commenced operation in 1972 and Unit 4 in 1973. Based on the current licensed capacity, current spent fuel inventory, and the projected discharges of spent fuel, Unit 3 will lose

the capability to fully offload the reactor core by the year 2007. Unit 4 will lose the capability to fully offload the reactor core by the year 2009. To extend this capability beyond the above dates, the licensee has proposed license amendments to install a freestanding spent fuel storage rack module in the cask pit of each unit's fuel handling building. The spent fuel pool for each unit is currently licensed to store a total of 1,404 fuel assemblies in high-density racks using Boraflex neutron absorbing panels. The new racks will use Boral as the neutron absorbing material. The racks are designed for storage of 131 fuel assemblies, increasing the total storage capacity of each unit to 1,535 assemblies.

The additional storage capacity provided by the cask pit racks will be used to store spent fuel to allow refueling outage fuel offloads and non-outage fuel shuffles. The cask pit racks will be removed, cleaned, and stored in an alternate location prior to any spent fuel cask loading operations.

Environmental Impacts of the Proposed Action:

The NRC has completed its evaluation of the proposed action and concludes, as set forth below, that there are no significant environmental impacts associated with the proposed amendment. The details of the staff's safety evaluation will be provided in the license amendment when it is issued by the NRC.

During refueling outages, there may be a slight increase in the amount of heat that has to be removed from the combination of the spent fuel pool and the cask pit. The peak increase will be less than one percent, and the heat load from spent fuel storage is very small compared to the heat load from normal plant operations. Therefore, the overall increase in the amount of heat released will be quite small and insignificant.

Even though additional boron will be introduced by the Boral panels in the storage racks in the cask pit, no significant increase in tritium production from the neutron capture by boron-10 is expected.

The proposed action will not significantly increase the probability or consequences of accidents, there are no significant changes in the types or significant increase in the quantities of effluents that may be released offsite, and there is no significant increase in occupational or public radiation exposure.

With regard to potential non-radiological impacts, the proposed action does not have a potential to affect any historic sites. It does not affect non-radiological plant effluents and has no other environmental impacts. Therefore, there are no significant non-radiological environmental impacts associated with the proposed action.

Accordingly, the NRC concludes that there are no significant environmental impacts associated with the proposed action.

Environmental Impacts of the Alternatives to the Proposed Action:

As an alternative to the proposed action, the staff considered denial of the proposed action (i.e., the “no-action” alternative). Denial of the application would result in no change in current environmental impacts. The environmental impacts of the proposed action and the alternative action are similar.

Alternative Use of Resources:

The action does not involve the use of any different resources than those previously considered in the Final Environmental Statement related to operation of Turkey Point Plant, dated July 1972, and Supplement 5 to NUREG-1437, “Generic Environmental Impact Statement for License Renewal of Nuclear Plants Regarding Turkey Point Units 3 and 4,” dated January 2002.

Agencies and Persons Consulted:

On September 29, 2003, the staff consulted with Michael Stevens of the Bureau of Radiological Control regarding the environmental impact of the proposed action. The State official had no comments.

## FINDING OF NO SIGNIFICANT IMPACT

On the basis of the environmental assessment, the NRC concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the NRC 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 November 26, 2002, as supplemented by a letter dated September 8, 2003. Documents may be examined, and/or copied for a fee, at the NRC's Public Document Room (PDR), located at One White Flint North, Public File Area 01 F21, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible electronically from the Agencywide Documents Access and Management System (ADAMS) Public Electronic Reading Room on the NRC Web site, <http://www.nrc.gov/reading-rm/adams.html>. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS should contact the NRC PDR Reference staff at 1-800-397-4209, or 301-415-4737, or by e-mail to [pdr@nrc.gov](mailto:pdr@nrc.gov).

Dated at Rockville, Maryland, this 17th day of October 2003.

FOR THE NUCLEAR REGULATORY COMMISSION

**/RA/**

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