Docket Nos. 50-250
and 50-251

November 14, 1984

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Mr. J. W. Williams, Vice President
Nuclear Energy Department
Florida Power and Light
Post Office Box 14000
Juno Beach, Florida 33408

Dear Mr. Williams:

Reference: Technical Assignment Control Numbers 54480 and 54481

SUBJECT: ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT - SPENT FUEL POOL EXPANSIONS, TURKEY POINT PLANT, UNITS 3 AND 4

By letter dated March 14, 1984, you requested Technical Specification amendments in support of the proposed spent fuel pool expansions at the Turkey Point Plant site. We have enclosed our Environmental Assessment related to this proposed action. Based on our assessment, we have concluded that there are no significant radiological or non-radiological impacts associated with the proposed spent fuel pool expansions and will have no significant impact on the quality of the human environment.

We have also enclosed a Notice of Issuance of Environmental Assessment and Finding of No Significant Impact. This notice is being forwarded to the Office of Federal Register for publication.

Sincerely,

/s/SVarga

Steven A. Varga, Chief
Operating Reactors Branch #1
Division of Licensing

Enclosures:
1. Environmental Assessment
2. Notice

cc w/enclosures:
See next page

ORB#1:DL	ORB#1:DL	C-ORB#1:DL	OELD
CParrish	DMcDonald/tgw	SVarga	MYoung
11/6/84	11/6/84	11/6/84	11/13/84

AD:OR:DL	D:DL
GLainas	DEisenhut
11/14/84	11/ /84

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Florida Power and Light Company

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Units 3 and 4

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Environmental Assessment

By The Office of Nuclear Reactor Regulation

Relating to Expansion of Spent Fuel Pools

Facility Operating License Nos. DPR-31 and 41

Florida Power and Light Company

Turkey Point Plant Units Nos. 3 and 4

Docket Nos. 50-250 and 50-251

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1.0 INTRODUCTION

1.1 Identification of Proposed Action

The amendments would permit the increase in the licensed storage capacity from 621 spent fuel assemblies to 1404 spent fuel assemblies for each of the two Turkey Point spent fuel pools. This would extend the full core discharge capability for each generating unit from the 1990-91 time frame to the year 2005 for Unit 4 and the year 2006 for Unit 3.

1.2 Need For Increased Storage Capacity

When originally licensed, the SFPs for each of the Turkey Point units had the capacity to hold 217 fuel assemblies. This represented the requirement for one refueling of each unit with reserve capacity to receive a full core. At that time it was expected that the spent fuel would be removed from the site. By letter dated March 17, 1977, NRC approved amendments to the Turkey Point Licenses to allow modifying the fuel pool racks to accommodate 621 fuel assemblies. The current rack configuration will be adequate to retain the reserve capacity for full core unloading until about 1986. Since this date is earlier than the date a federal depository is expected to be available for spent fuel [1998 - Nuclear Waste Policy Act of 1982, Section 302(a)(5)] the proposed rack modifications are essential to allow continued operation beyond that 1986. This current application is to expand the storage capacity of the SFP for each unit to accommodate 1404 assemblies.

The additional SFP capacity is achieved by removing the racks not in the fuel pools and installing new racks which can accommodate a greater number of assemblies by reducing the distance between adjacent assemblies. The net result is that after 1986 the older spent fuel assemblies ranging in age-out-of-reactor up to 13 years can be left in the fuel pool while newly spent fuel assemblies are added.

1.3 Alternatives

Commercial reprocessing of spent fuel has not developed as had been originally anticipated. In 1975 the Nuclear Regulatory Commission directed the staff to prepare a Generic Environmental Impact Statement (GEIS, the Statement) on spent fuel storage. The Commission directed the staff to analyze alternatives for the handling and storage of spent light water power reactor fuel with particular emphasis on developing long range policy. The Statement was to consider alternative methods of spent fuel storage as well as the possible restriction or termination of the generation of spent fuel through nuclear power plant shutdown.

A final Generic Environmental Impact Statement on Handling and Storage of Spent Light Water Power Reactor Fuel (NUREG-0575), Volumes 1-3 (the FGEIS) was issued by the NRC in August 1979. The finding of the FGEIS is that the environmental impact costs of interim storage are essentially negligible, regardless of where such spent fuel is stored. A comparison of the impact costs of various alternatives reflects the advantage of continued generation of nuclear power versus its replacement by coal-fired power generation. In

the bounding case considered in the FGEIS, that of shutting down the reactor when the existing spent fuel storage capacity is filled, the cost of replacing nuclear stations before the end of their normal lifetime makes this alternative uneconomical. In the FGEIS, consistent with long range policy, the storage of spent fuel is considered to be interim storage to be used until the issue of permanent disposal is resolved and implemented.

One spent fuel storage alternative considered in detail in the FGEIS is the expansion of onsite fuel storage capacity by modification of the existing spent fuel pools. Applications for approximately 108 spent fuel pool capacity increases have been received and over 100 have been approved. The remaining ones are still under review. The finding in each case has been that the environmental impact of such increased storage capacity is negligible. However, since there are variations in storage designs and limitations caused by the spent fuel already stored in some of the pools, the FGEIS recommends that licensing reviews be done on a case-by-case basis to resolve plant-specific concerns.

This Environmental Assessment (EA) addresses only the specific concerns related to the proposed expansion of the Turkey Point SFPs. The environmental impacts associated with the operation of the Turkey Point Plant were evaluated in the NRCs Final Environmental Statement (FES) dated July 1972.

1.4 Fuel Reprocessing History

Currently, spent fuel is not being reprocessed on a commercial basis in the United States. The Nuclear Fuel Services (NFS) plant at West Valley, New York, was shut down in 1972 for alterations and expansion; in September 1976, NFS informed the Commission that it was withdrawing from the nuclear fuel reprocessing business. The Allied General Nuclear Services (AGNS) proposed plant in Barnwell, South Carolina, is not licensed to operate.

On April 17, 1977, President Carter issued a policy statement on commercial reprocessing of spent nuclear fuel which effectively eliminated reprocessing as part of the relatively near term nuclear fuel cycle.

The General Electric Company (GE) Morris Operation (formerly Midwest Recovery Plant) in Morris, Illinois, is in a decommissioned condition. Although no plants are licensed for reprocessing fuel, the storage pools at Morris and at West Valley are licensed to store spent fuel. The storage pool at West Valley is not full, but the licensee* is presently not accepting any additional spent fuel for storage, even from those power generating facilities that had contractual arrangements with West Valley.** On May 4, 1982, the license held by GE for spent fuel storage activities at its Morris operation

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*The current licensee is New York Energy Research and Development Authority.
**In fact, spent fuel is being removed from NFS and returned to various utilities.

was renewed for another 20 years; however, GE is committed to accept only limited quantities of additional spent fuel for storage at this facility from Cooper and San Onofre Unit 1.

2.0 FACILITY

The principal features of spent fuel storage at the Turkey Point Plant, as they relate to this action, are briefly described here as an aid in following the evaluation in subsequent sections of this EA.

2.1 Spent Fuel Pools

Spent fuel assemblies are radioactive due to their fresh fission product content when initially removed from the reactor core; also, they have a high thermal output. The SFPs are designed for storage of these assemblies to allow for radioactive and thermal decay prior to shipment. Space permitting, the assemblies may be stored for longer periods, allowing continued fission product decay and thermal cooling. The walls and floor of the spent fuel pit are lined with a 1/4-inch-thick stainless steel liner. Monitoring trenches are provided behind the liner for detecting and collecting any leakage. Any leakage is directed to the waste disposal drainage system, thus preventing uncontrolled leakage of SFP water.

Each SFP cooling loop consists of a pump, heat exchanger, filter, demineralizer, piping, and associated valves and instrumentation. The pump draws water from the SFP pit, circulates it through the heat exchanger, and returns it to the pit. Component Cooling Water cools the heat exchanger. Redundancy of this equipment is not required because of the large heat capacity of the pit and its corresponding slow heat-up rate. Nonetheless, a 100-percent-capacity spare pump which is permanently piped into the SFP cooling system has been installed. This pump is capable of operating in place of the originally installed pump, but not in parallel with the originally installed pump. Also, alternate connections are provided for connecting a temporary pump to the spent fuel pit loop.

2.2 Radioactive Waste Treatment Systems

The plant contains radioactive waste treatment systems designed to collect and process the gaseous, liquid and solid waste that might contain radioactive material. The radioactive waste treatment systems are evaluated in the Final Environmental Statement (FES) dated July 1972. There will be no change in the waste treatment systems described in the FES because of the proposed SFP expansions for Units Nos. 3 and 4.

3.0 ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION

3.1 Introduction

The potential radiological environmental impacts associated with the expansion of the spent fuel storage capacities were evaluated and determined to be environmentally insignificant as addressed below.

During the storage of the spent fuel under water, both volatile and non-volatile radioactive nuclides may be released to the water from the surface of the assemblies or from defects in the fuel cladding. Most of the material released from the surface of the assemblies consists of activated corrosion products such as Co-58, Co-60, Fe-59 and Mn-54 which are not volatile. The radionuclides that might be released to the water through defects in the cladding, such as Cs-134, Cs-137, Sr-89 and Sr-90 are also predominantly non-volatile. The primary impact of such non-volatile radioactive nuclides is their contribution to radiation levels to which workers in and near the SFPs would be exposed. The volatile fission product nuclides of most concern that might be released through defects in the fuel cladding are the noble gases (xenon and krypton), tritium and the iodine isotopes.

Experience indicates, however, that there is little radionuclide leakage from spent fuel stored in pools after the fuel has cooled for several months. The predominance of radionuclides in the SFP water appear to be radionuclides that were present in the reactor coolant system prior to refueling (which becomes mixed with water in the SFP during refueling operations) or crud dislodged from the surface of the spent fuel during transfer from the reactor core to the SFP.

During and after refueling, the SFP purification system reduces the radioactivity concentration considerably. It is theorized that most failed fuel contains small, pinhole-like perforations in the fuel cladding at reactor operating conditions of approximately 800°F. A few weeks after refueling, the spent fuel is cooled in the SFP and the fuel clad temperature becomes relatively cool, approximately 180°F. This substantial temperature reduction should reduce the rate of release of fission products from the fuel pellets and decrease the gas pressure in the gap between pellets and clad, thereby tending to retain the fission products within the gap. In addition, most of the gaseous fission products have short half-lives and decay to insignificant levels within a few months. Based on the operational reports submitted by the licensees and discussions with the operators, there has not been any significant leakage of fission products from spent fuel stored in the Morris Operation (formerly Midwest Recovery Plant) at Morris, Illinois, or at the Nuclear Fuel Services (NFS) storage pool at West Valley, New York. Some spent fuel assemblies which had significant leakage while in operating reactors have been stored in these two pools. After storage in the onsite SFPs, these fuel assemblies were later shipped to either Morris Operation or NFS for extended storage. Although the fuel exhibited significant leakage at reactor operating conditions, there was no significant leakage from these fuel assemblies in the offsite storage facility.

3.2 Radiation Exposure

3.2.1 Occupational Exposure

The licensee has estimated that the radiation doses incurred by workers taking part in the Turkey Point Unit 3 and 4 spent fuel pool (SFP) modifications will be about 60 person-rems. This represents about a 7% increase in the average annual dose from routine occupational radiation

exposure at the plant which was about 870 person-rems/year/unit over the five-year period 1978-1982 (NUREG-0713, Vol 4, December 1983).

Additionally, we have estimated the increment in onsite occupational dose during normal operations after the pool modifications resulting from the proposed increase in stored fuel assemblies. This estimate is based on information supplied by the licensee, relevant assumptions for occupancy times and for dose rates in the spent fuel area from radionuclide concentrations in the water of the SFPs. The spent fuel assemblies themselves contribute a negligible amount to dose rates in the pool area because of the depth of water shielding the fuel. Based on present and projected operations in the SFP area, we estimate that the proposed modification should add less than one percent of the total annual occupational radiation exposure at both units. The small increase in radiation exposure should not affect the licensee's ability to maintain individual occupational doses to as low as is reasonably achievable (ALARA) levels and within the limits of 10 CFR Part 20. Thus, we conclude that storing additional fuel in the two pools will not result in any significant increase in doses received by workers.

3.2.2 Public Exposure

The staff has completed an analysis of radiation exposure experience, based on estimated source terms and assessment of public doses resulting from 38 prior spent fuel pool modifications at 37 plants.

Estimated doses to a hypothetical maximally exposed individual at the boundary of a plant site, during such modifications, have fallen within a range from 0.00004 to 0.1 millirem per year, with an average dose of 0.02 millirem per year. Similarly, estimated total doses to the population within a 50-mile radius of these plants have fallen within a range from 0.0001 to 0.1 person-rem per year, with an average population dose of 0.006 person-rem per year. Doses at these levels are essentially unmeasurable.

Based on the manner in which the licensee will perform the modification; their radiation protection/as low as reasonably achievable (ALARA) program; the radiation protection measures proposed for the modification task, including radiation, contamination, and airborne radioactivity monitoring; and relevant experience from other operating reactors that have performed similar SFP modifications, the staff concludes that adequate radiation protection measures have been taken to assure worker protection, and the Turkey Point SFP modifications can be performed in a manner that will ensure that doses to workers and the general public will be ALARA.

Based on this review of historical data relating to the storage of spent fuel, we conclude that for the proposed SFP expansions at Turkey Point, the additional dose to the total body that might be received by an individual at the site boundary, and by the population within a 50-mile radius, respectively, would be less than or equal to 0.1 millirem and 0.1 person-rem per year, respectively. These doses are very small compared to annual exposure to natural background radiation in the United States, which varies from about 70 millirems per year to about 300 millirems per year depending on geographical location. (Reference: "Natural Radiation Exposure in the United

States," Donald T. Oakley, U.S. Environmental Protection Agency, Office of Radiation Programs (ORP/SID 72-1, June 1972).

3.3 Radioactive Material Released to the Atmosphere

As of February 1984, the Unit No. 3 SFP contained 372 spent fuel assemblies. The Unit No. 4 SFP contained 313 spent fuel assemblies and one new fuel assembly. The current usable storage capacities for spent fuel assemblies are 621 and 614 for Unit Nos. 3 and 4, respectively. The proposed amendments will increase the licensed storage capacity to 1404 fuel assemblies for each unit. Fifty-two (52) to sixty eight (68) fuel assemblies are expected to be added to the SFPs following each refueling. Since space must be reserved to accommodate a complete reactor core unloading operation (normally 157 fuel assemblies), the useful pool capacities are 875 and 934 fuel assemblies for Unit Nos. 3 and 4, respectively, with the proposed modification. At an input of 52 to 68 spent fuel assemblies per refueling operation (17 months), adequate storage capacity will be available for approximately 20 years.

With respect to releases of gaseous materials to the atmosphere, the only radioactive gas of significance which could be attributable to storing additional spent fuel assemblies for a longer period of time would be the noble gas radionuclide Krypton-85 (Kr-85). Experience has demonstrated that after spent fuel has decayed 4 to 6 months, there is no longer a significant release of fission products, including Kr-85, from stored spent fuel containing cladding defects.

To determine the average annual release of Kr-85, we assumed that all the Kr-85 released from any defective fuel discharged to the SFPs will be released prior to the next refueling. The assumption of prompt release is conservative and maximizes the amount of Kr-85 to be released. The enlarged capacities of the pools have negligible effect on calculated average annual quantities of Kr-85 released to the atmosphere each year.

Iodine-131 releases from spent fuel assemblies to the SFP water will not be significantly increased because of the expansion of the fuel storage capacity since the Iodine-131 inventory in the fuel will decay to negligible levels between refuelings.

Most of the tritium in the SFP water results from activation of boron and lithium in the primary coolant and this will not be affected by the proposed expanded capacity.

A relatively small amount of tritium is added during reactor operation by fissioning of reactor fuel and subsequent diffusion of tritium through the fuel and the Zircaloy cladding. Tritium release from the fuel essentially occurs while the fuel is hot, that is, during operations and, to a limited extent, shortly after shutdown. Thus, expanding SFP capacities will not increase the tritium activity in the SFPs.

Storing additional spent fuel assemblies is not expected to increase the bulk water temperature during normal refuelings above the 150°F used in the design analysis. Therefore, it is not expected that there will be any

significant change in the annual release of tritium or iodine as a result of the proposed modifications from that previously evaluated in the FES.

3.4 Solid Radioactive Wastes

The concentration of radionuclides in the pool water is controlled by the filters and the demineralizer and decay of short-lived isotopes. The activity is highest during refueling operation when reactor coolant water is introduced into the pool and decreases as the pool water is processed through the filters and demineralizer. The increase of radioactivity, if any, due to the proposed modifications should be minor because of the capability of the cleanup system to continuously remove radioactivity in the SFP water to acceptable levels.

The licensee does not expect any significant increase in the amount of solid waste generated from the SFP cleanup systems due to the proposed modifications. While we agree with the licensee's conclusion, as a conservative estimate we have assumed that the amount of solid radwaste may be increased additionally by two resin beds (120 cubic feet solidified) and four spent filter cartridges (60 cubic feet solidified) per year from both units due to the increased operation of the SFP cleanup systems. The annual average volume of solid wastes shipped offsite for burial from a typical PWR is approximately 20,000 cubic feet. If the storage of additional spent fuel does increase the amount of solid waste from the SFP cleanup systems by about 180 cubic feet per year from both units, the increase in total waste volume shipped from Turkey Point Unit Nos. 3 and 4, would be less than 1% and would not have any significant additional environmental impact.

If the present spent fuel racks to be removed from the SFPs because of the proposed modification are contaminated, they may be disposed of as low level solid waste. We have estimated that approximately 26,000 cubic feet of solid radwaste will be removed from both units because of the proposed modifications. Averaged over the lifetime of both units, this would increase the total waste volume shipped from the facility by less than 2%. This will not have any significant additional environmental impact.

3.5 Radioactive Material Released to Receiving Waters

There should not be a significant increase in the liquid release of radionuclides from the plant as a result of the proposed modifications. Since the SFP cooling and cleanup systems operate as closed systems, only water originating from cleanup of SFP floors and resin sluice water need be considered as potential sources of radioactivity.

It is expected that neither the quantity nor activity of the floor cleanup water will change as a result of these modifications. The SFP demineralizer resin removes soluble radioactive materials from the SFP water. These resins are periodically sluiced with water to the spent resin storage tank. The amount of radioactivity on the SFP demineralizer resin may increase slightly due to the additional spent fuel in the pool, but the soluble radioactive material should be retained on the resins. If any radioactive material is transferred from the spent resin to the sluice water, it will be removed by the liquid radwaste system. After processing in the liquid

radwaste system, the amount of radioactivity released to the environment as a result of the proposed modifications would be negligible.

4.0 NON-RADIOLOGICAL IMPACT

The spent fuel storage racks that will be removed from the pool will be decontaminated and will be disposed of either as low level radioactive waste or as non-radioactive waste, depending on the effectiveness of decontamination. Because of the small quantity (less than 20 tons), this should pose no significant environmental problem.

The new assemblies will be fabricated at a Westinghouse facility at Pensacola, Florida, and moved directly to the fuel pool areas for installation. Installation is not expected to impact terrestrial resources not previously disturbed during original station construction.

The only non-radiological discharge altered by the fuel pool modifications is the waste heat. The contribution of the thirteen year old and older fuel assemblies to the total station heat discharge will be negligible. Heat is removed from the fuel pool by the spent fuel pit cooling system. This is a completely closed system which uses a heat exchanger to transfer the removed heat to the Component Cooling Water System. This system transfers the heat to the station cooling reservoir which also receives the waste heat from the main condensers. The licensee has conservatively estimated that the normal maximum rate of heat rejection from each of the two spent fuel pools will increase from 8.8×10^6 Btu/hr to $17.0\ 10^6$ Btu/hr. This is the rate which will occur later in the station life when the pools are again filled to capacity. The total heat load to the plant closed cycle cooling canals will be increased by about 0.3 percent. Because there is no significant environmental impact attributable to the discharge of waste heat from the plant as indicated in the FES dated July 1972 and the very small increase which will occur as a result of the fuel pool expansions, the staff finds the impact of the additional heat load to be negligible.

The licensee has not proposed any change in the discharge of chemicals nor changes to the National Pollutant Discharge Elimination System permit in conjunction with the fuel pool modifications. No increase in service water usage is proposed. Therefore, we conclude that the Turkey Point Plant spent fuel pool expansion will not result in nonradiological environmental effects significantly greater or different from those already reviewed and analyzed in the FES.

5.0 SUMMARY

The Final Generic Environmental Impact State (FGEIS) on Handling and Storage of Spent Light Water Power Reactor Fuel concluded that the environmental impact of interim storage of spent fuel was negligible and the cost of the various alternatives reflects the advantage of continued generation of nuclear power with the accompanying spent fuel storage. Because of the differences in SFP designs the FGEIS recommended licensing SFP expansion on a case-by-case basis.

For Turkey Point Plant, the expansion of the storage capacity of the SFPs will not create any significant additional radiological effects or measurable non-radiological environmental impacts. The additional whole body dose that might be received by an individual at the site boundary is less than 0.1 millirems per year; the estimated dose to the population within a 50-mile radius is estimated to be less than 0.1 person-rems per year. These doses are small compared to the fluctuations in the annual dose this population receives from exposure to background radiation. The occupational radiation dose to workers during the modification of the storage racks is estimated by the licensee to be about 60 person-rems. This is a small fraction of the total person-rems from occupational dose at the plant. The small increase in radiation dose should not affect the licensee's ability to maintain individual occupational dose within the limits of 10 CFR Part 20, and as low as reasonably achievable.

5.1 Alternative Use Of Resources

This action does not involve the use of resources not previously considered in connection with the Nuclear Regulatory Commission's Final Environmental Statement dated July 1972 related to these facilities.

5.2 Agencies And Persons Consulted

The NRC staff reviewed the licensee's request and did not consult other agencies or persons.

6.0 BASIS AND CONCLUSIONS FOR NOT PREPARING AN ENVIRONMENTAL IMPACT STATEMENT

The staff has reviewed these proposed modifications to the facilities relative to the requirements set forth in 10 CFR Part 51. Based upon the environmental assessment, the staff concluded that there are no significant radiological or non-radiological impacts associated with the proposed action and that the proposed license amendments will not have a significant effect on the quality of the human environment. Therefore, the Commission has determined, pursuant to 10 CFR 51.31, not to prepare an environmental impact statement for the proposed amendments.

Dated November 14, 1984

Principal Contributors:
D. McDonald, Project Manager
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J. Lee, Meteorology and Effluent Treatment Branch
J. Minns, Radiological Assessment Branch
E. Branagan, Radiological Assessment Branch
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7590-01

UNITED STATED NUCLEAR REGULATORY COMMISSION

FLORIDA POWER AND LIGHT COMPANY

DOCKET NOS. 50-250 AND 50-251

NOTICE OF ISSUANCE OF ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

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

Identification of Proposed Action: The amendments would consist of changes to the operating licenses and Technical Specifications (TSs) and would authorize an increase of the storage capacity of both spent fuel pools (SFPs) from 621 fuel assemblies to 1404 fuel assemblies with enrichments no greater than 4.5 weight percent U-235.

The amendments to the TSs are responsive to the licensee's application dated March 14, 1984. The NRC staff has prepared an Environmental Assessment of the Proposed Action, "Environmental Assessment By the Office of Nuclear Reactor Regulation Relating to the Modification of the Spent Fuel Storage Pools, Operating License Nos. DPR-31 and DPR-41, Florida Power and Light Company, Turkey Point Plant Unit Nos. 3 and 4, Docket Nos. 50-251 and 251," dated November 14, 1984.

Summary of Environmental Assessment: The Final Generic Environmental Impact Statement (FGEIS) on Handling and Storage of Spent Light Water Power Reactor Fuel (NUREG-0575), Volumes 1-3, concluded that the environmental impact of interim storage of spent fuel was negligible and the cost of the various alternatives reflects the advantage of continued generation of nuclear power with the accompanying spent fuel storage. Because of the differences in SFP designs, the FGEIS recommended licensing SFP expansions on a case-by-case basis.

For Turkey Point Plant Unit Nos. 3 and 4, the expansion of the storage capacity of the SFPs will not create any significant additional radiological effects or non-radiological environmental impacts.

The additional whole body dose that might be received by an individual at the site boundary is less than 0.1 millirem per year; the estimated dose to the population within a 50-mile radius is estimated to be less than 0.1 person-rem per year. These doses are small compared to the fluctuations in the annual dose this population receives from exposure to background radiation. The estimated radiation doses incurred by workers taking part in the modifications to the SFPs will be about 60 person-rems. This represents about a 7% increase in the average annual dose from routine occupational radiation exposure at the plant which was about 870 person-rems/year/unit over the five year period of 1978-1982.

The only non-radiological discharge altered by the modifications to the SFPs is the waste heat. The total load to the station closed cycle cooling canals will be increased by about 0.3 percent. Thus, there is no significant environmental impact attributable to the discharge waste heat from the station due to this very small increase.

FINDING OF NO SIGNIFICANT IMPACT

The staff has reviewed the proposed modifications to the facilities relative to the requirements set forth in 10 CFR Part 51. Based on this assessment, the staff concludes that there are no significant radiological or non-radiological impacts associated with the proposed action and that the issuance of the proposed amendments to the licenses will have no significant impact on the quality of the human environment. Therefore, pursuant to 10 CFR 51.31, an environmental impact statement need not be prepared for this action.

For further details with respect to this action, see (1) the application for amendments to the Technical Specifications dated March 14, 1984 and supplemented July 23, August 22 and September 16, 1984, (2) the FGEIS on Handling and Storage of Spent Light Water Power Reactor Fuel (NUREG-0575), (3) the Final Environmental Statement for Turkey Point Plant Units 3 and 4 issued July 1972, and (4) the Environmental Assessment dated November 14, 1984. These documents are available for public inspection at the Commission's Public Document Room 1717 H Street, N.W., Washington D.C. 20555 and at the Environmental and Urban Affairs Library, Florida International University Miami, Florida 33199.

Dated at Bethesda, Maryland, this 14th day of November 1984.

FOR THE NUCLEAR REGULATORY COMMISSION

Dominic V. Vassallo, Acting Assistant Director
for Operating Reactors
Division of Licensing