March 8, 1978

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Docket Nos. 50-250
and 50-251

Florida Power & Light Company
ATTN: Dr. R. E. Uhrig
Vice President
Post Office Box 013100
Miami, Florida 33101

Gentlemen:

In response to your application dated March 6, 1978, the Commission has issued the enclosed Amendment Nos. 34 and 28 to Facility Operating License Nos. DPR-31 and DPR-41 for the Turkey Point Nuclear Generating Plant, Unit Nos. 3 and 4.

The amendments consist of changes in the Technical Specifications that add a new K(Z) curve (Figure 3.2-3a of the Technical Specifications).

Copies of the related Safety Evaluation and the Notice of Issuance also are enclosed.

Sincerely,

/s/

A.Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

Enclosures:
1. Amendment No. 34 to DPR-31
2. Amendment No. 28 to DPR-41
3. Safety Evaluation
4. Notice

cc w/encl:
See next page

OFFICE ➤	DOR:ORB#1	OELD	DOR:ORB#1			
SURNAME ➤	MGrotenhuis:lb		ASchwencer			
DATE ➤	3/8/78	3/ /78	3/ /78			

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

March 8, 1978

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and 50-251

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Sincerely,

A. Schwencer

A.Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

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cc w/encl:
See next page

cc w/encl:
Mr. Robert Lowenstein, Esquire
Lowenstein, Newman, Reis & Axelrad
1025 Connecticut Avenue, NW.
Suite 1214
Washington, D.C. 20036

Environmental & Urban Affairs Library
Florida International University
Miami, Florida 33199

Mr. Norman A. Coll, Esquire
Steel, Hector and Davis
1400 Southeast First National
Bank Building
Miami, Florida 33131

Bureau of Intergovernmental
Relations
660 Apalachee Parkway
Tallahassee, Florida 32304

Honorable Dewey Knight
County Manager of Metropolitan
Dade County
Miami, Florida 33130

Florida Power & Light Company
ATTN: Mr. Henry Yaeger
Plant Manager, Turkey Point Plant
Post Office Box 013100
Maiami, Florida 33101

Chief, Energy Systems
Analysis Branch (AW-459)
Office of Radiation Programs
U.S. Environmental Protection Agency
Room 645, East Tower
401 M Street, SW
Washington, D.C. 20460

U.S. Environmental Protection Agency
Region VI Office
ATTN: EIS COORDINATOR
345 Courtland Street, NW.
Atlanta, Georgia 30308

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

FLORIDA POWER AND LIGHT COMPANY

DOCKET NO. 50-250

TURKEY POINT NUCLEAR GENERATING UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 34
License No. DPR-31

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Florida Power and Light Company (the licensee) dated March 6, 1978, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 3.B of Facility License No. DPR-31 is hereby amended to read as follows:

   "B Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 34, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications."

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 8, 1978

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

FLORIDA POWER AND LIGHT COMPANY

DOCKET NO. 50-251

TURKEY POINT NUCLEAR GENERATING UNIT NO. 4

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 28
License No. DPR-41

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Florida Power and Light Company (the licensee) dated March 6, 1978, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 3.B of Facility License No. DPR-41 is hereby amended to read as follows:

   "B Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 28 , are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications."

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

A. Schwencer

A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 8, 1978

ATTACHMENT TO LICENSE AMENDMENT NOS. 34 AND 28

FACILITY OPERATING LICENSE NOS. DPR-31 AND DPR-41

DOCKET NOS. 50-250 AND 50-251

Replace the following pages of the Technical Specifications contained in Appendix A of the above indicated license with the attached pages bearing the same numbers, except as otherwise indicated. The changed areas on the revised pages are reflected by a marginal line.

Remove	Insert
Figure 3.2-3	Figure 3.2-3
T.S. 3.2-3	T.S. 3.2-3
-	Figure 3.2-3a

reactivity insertion upon ejection greater than 0.3% Δ k/k at rated po. Inoperable rod worth shall be determined within 4 weeks.

b. A control rod shall be considered inoperable if
(a) the rod cannot be moved by the CRDM, or
(b) the rod is misaligned from its bank by more than 15 inches, or
(c) the rod drop time is not met.

c. If a control rod cannot be moved by the drive mechanism, shutdown margin shall be increased by boron addition to compensate for the withdrawn worth of the inoperable rod.

5. CONTROL ROD POSITION INDICATION

If either the power range channel deviation alarm or the rod deviation monitor alarm are not operable rod positions shall be logged once per shift and after a load change greater than 10% of rated power. If both alarms are inoperable for two hours or more, the nuclear overpower trip shall be reset to 93% of rated power.

6. POWER DISTRIBUTION LIMITS

a. Hot channel factors:

1. With steam generator tube plugging ≤ 15%, the hot channel factors (defined in the basis) must meet the following limits at all times except during low power physics tests:

F_q (Z) ≤ (2.22/P) x K(Z), for P > .5

F_q (Z) ≤ (4.44) x K(Z), for P ≤ .5

$F^N_{\Delta H}$ ≤ 1.55 [1 + 0.2 (1-P)]

Where P is the fraction of rated power at which the core is operating; K(Z) is the function given in Figure 3.2-3; Z is the core height location of F_q.

2. With steam generator tube plugging > 15% and ≤ 19%, the hot channel factors must meet the following limits at all times except during low power physics tests:

F_q (Z) ≤ (2.05/P) x K(Z), for P > .5

F_q (Z) ≤ (4.10) x K(Z), for P ≤ .5

F^N_H ≤ 1.55 [1 + 0.2 (1-P)]

Where P and Z are defined in 1. above and K(Z) is given in Figure 3.2-3a,

If predicted F_q exceeds 2.05 with tube plugging > 15% and ≤ 19%, then power will be limited to the rated power multiplied by the ratio of 2.05 divided by the predicted F_q, or augmented surveillance of hot channel factors shall be implemented.

b. Following initial loading before the reactor is operated above 75% of rated power and at regular effective full rated power monthly intervals thereafter, power distribution maps, using the movable detector system shall be made, to conform that the hot channel factor limits of the specification are satisfied. For the purpose of this comparison,

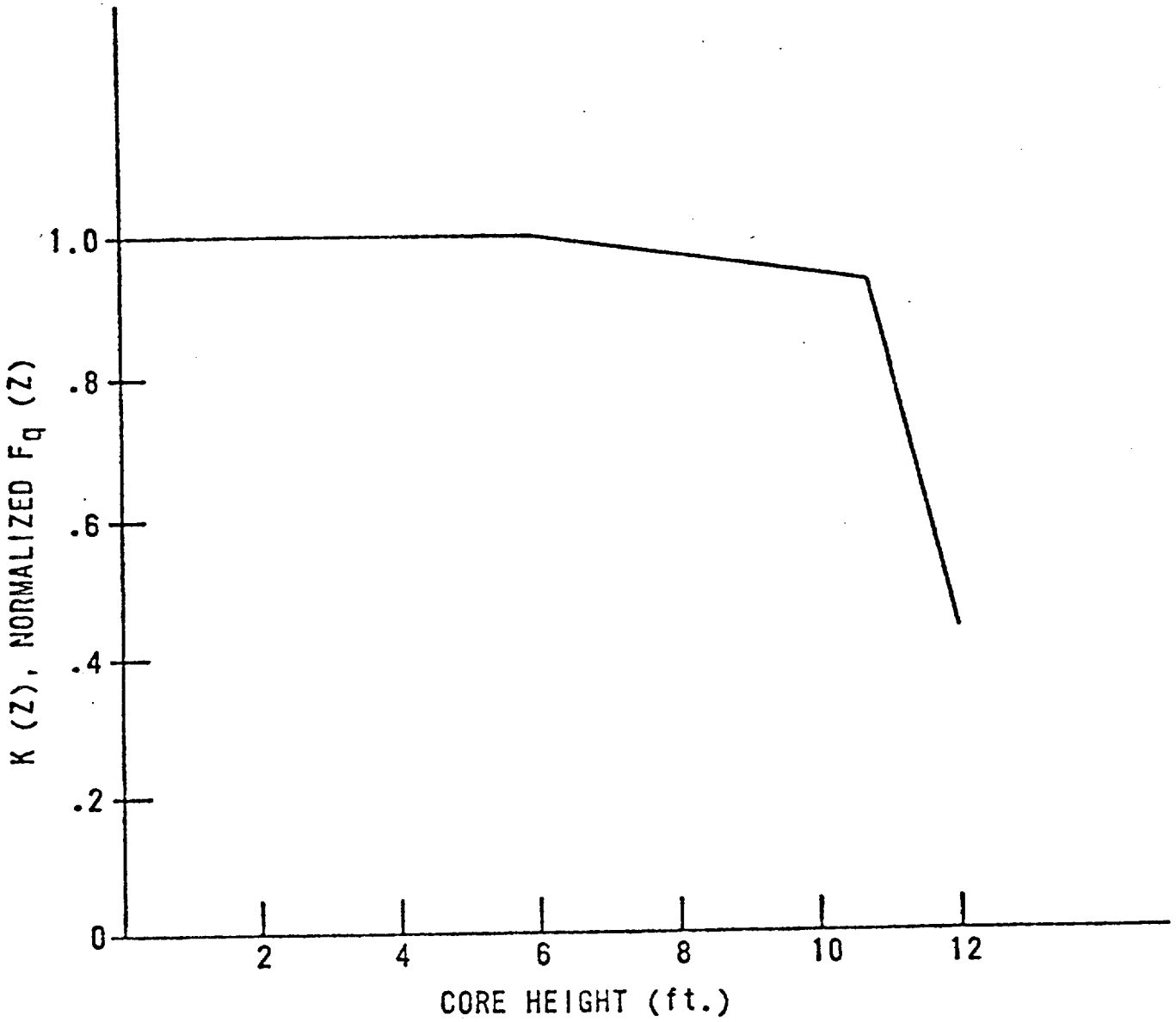
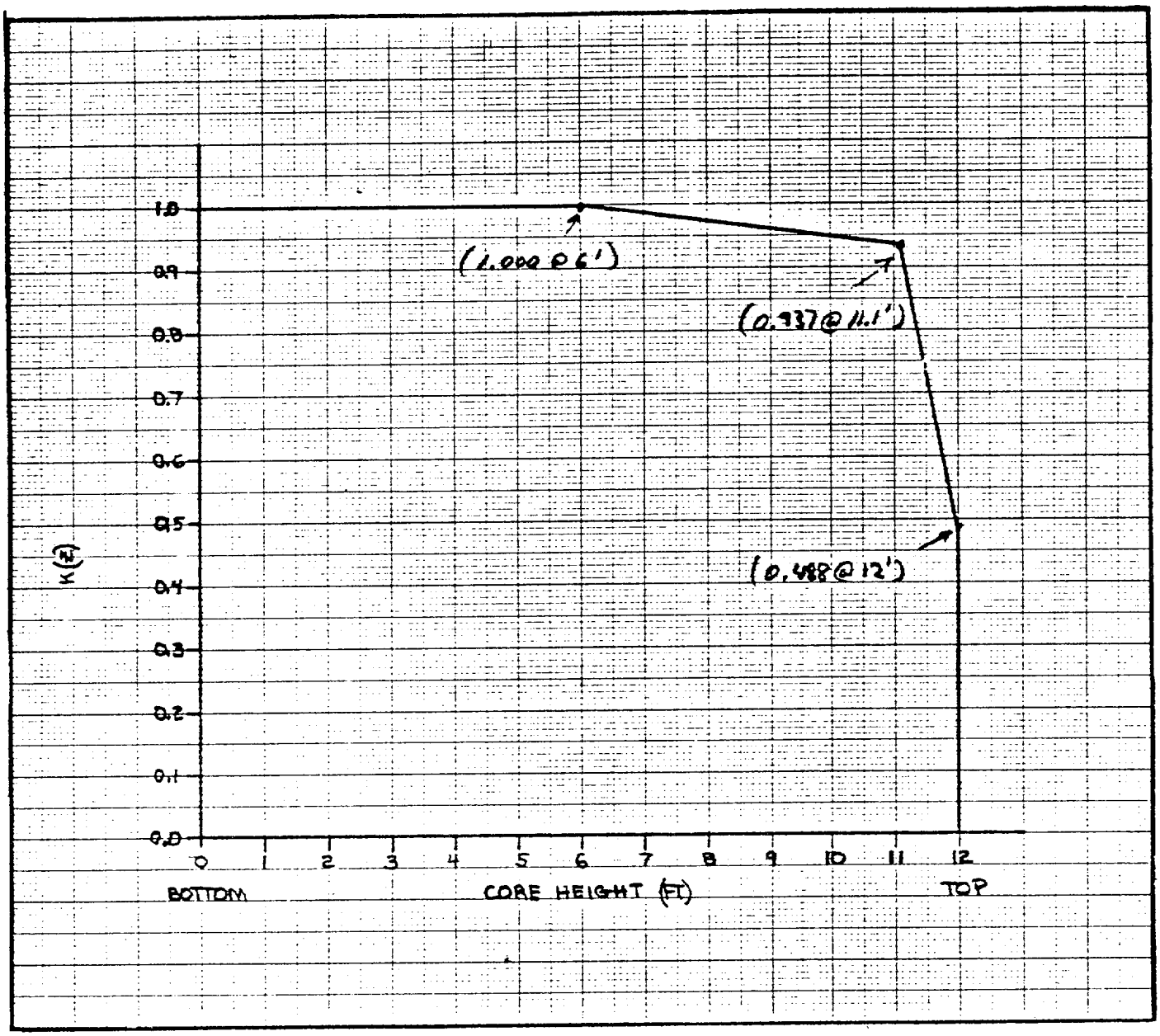


Figure 3.2-3 HOT CHANNEL FACTOR NORMALIZED OPERATING ENVELOPE (FOR TUBE PLUGGING ≤15%)

FIGURE 3.2-3a

HOT CHANNEL FACTOR
NORMALIZED OPERATING
ENVELOPE (FOR TUBE PLUGGING
>15% ≤19%)



Amendment No. 34 & 28

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NOS. 34 AND 28 TO LICENSE NOS. DPR-31 AND DPR-41

FLORIDA POWER AND LIGHT COMPANY

TURKEY POINT NUCLEAR GENERATING STATION, UNITS 3 & 4

DOCKET NOS. 50-250 AND 50-251

Introduction

By application dated March 6, 1978, Florida Power & Light Company (FPL) requested an amendment to Operating License Nos. DPR-31 and DPR-41 for Turkey Point Units 3 and 4. Via this letter of March 6, 1978, which confirmed phone calls of March 4 and 5, Florida Power & Light (FPL) informed the NRC that Westinghouse had not considered three Region 3 fuel assemblies in the safety analysis submitted on January 27, 1978. The ECCS analyses performed for that submittal used enveloping fuel parameters rather than plant specific parameters. The envelope of generic fuel parameters, which applies to all fuel manufactured after 1973, was found to not apply to three of the Region 3 fuel assemblies manufactured in 1972. This necessitated reanalysis with the three Region 3 assemblies as the limiting assemblies. That reanalysis was submitted under the March 6 letter.

Discussion

On January 27, 1978, Florida Power & Light Company requested an amendment to Turkey Point, Units 3 and 4, Facility Operating Licenses to authorize operation of the Units with up to 19% of the steam generator tubes plugged. An ECCS reanalysis was submitted in support of this request. The amendments requested were issued as Amendment Nos. 33 and 27 on March 3, 1978. The March 6, 1978 amendment request indicates that FPL subsequently determined that a revised K(Z) curve (Technical Specification Figure 3.2-3a) should have been included in the January 27, 1978 submittal. Page 3.2-2 and Figure 3.2-3 are also corrected to be consistent with Figure 3.2-3a. In addition, the ECCS analysis did not include the parameters of three fuel assemblies which are presently in the Unit 4 core. A supplemental ECCS analysis including these fuel elements was also submitted in the March 6, 1978 application. This safety evaluation supplements that issued by the NRC with Amendment Nos. 33 and 27 on March 3, 1978.

Evaluation

The information submitted on March 6 indicates that for any part of the fuel cycle for which the Region 3 fuel has a higher calculated pellet average temperature than the generic fuel curve indicates, the Region 3 fuel will determine the peaking factor (F_Q) limit. Analysis using the Region 3 fuel parameters indicates that until a burnup of 7400 MWD/MTU is reached the F_Q limit for the Region 3 fuel should be 2.04.

The analyses submitted indicate that when the generic fuel meets the LOCA limit of F_Q=2.05, as previously submitted, the Region 3 assemblies will meet their F_Q limit of 2.04 because:

1. The limiting peak to average powers, $F_{xy}(Z)$ do not occur inthe Region 3 assemblies.

2. There is over 10% margin to the F_Q=2.04 LOCA limit for the Region 3 assemblies when the 3-D calculated values of $F_{xy}(Z)$ are used for those assemblies.

Therefore, the licensee has demonstrated that the requirements of 10 CFR 50.46 are met for all fuel assemblies present in cycle 4 operation of Turkey Point Unit 4.

Technical Specifications

To insure that the above limits are met, the licensee has submitted a revised K(Z) function for cycle 4 burnup greater than or equal to 5,000 MWD/MTU. We have examined the figure and find it to be acceptable for inclusion in the Technical Specifications for Turkey Point.

Environmental Considerations

We have determined that the amendments do not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendments involve an action which is insignificant from the standpoint of environmental impact and pursuant to 10 CFR §51.5(d)(4) that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of these amendments.

Conclusion

The licensee has submitted acceptable information to demonstrate that the Turkey Point plant can be safely operated with up to 19% of the steam generator tubes plugged. The information updates the previous submittal by completing the information available for all core regions. We find that the submittal is acceptable.

We have concluded, based on the considerations discussed above, that: (1) because the amendments do not involve a significant increase in the probability or conseqeunces of accidents previously considered and do not involve a significant decrease in a safety margin, the amendments do not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: March 8, 1978

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NOS. 50-250 AND 50-251

FLORIDA POWER AND LIGHT COMPANY

NOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY OPERATING LICENSES

The U.S. Nuclear Regulatory Commission (the Commission) has issued Amendment Nos. 34 and 28 to Facility Operating License Nos. DPR-31 and DPR-41 issued to Florida Power and Light Company, for operation of the Turkey Point Nuclear Generating Station, Unit Nos. 3 and 4, located in Dade County, Florida. The amendments are effective as of the date of issuance.

The amendments to the operating licenses revised the Technical Specifications of Turkey Point, Unit Nos. 3 and 4, to correct the hot channel factor envelope for the facility.

The application for the amendments complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendments. Prior public notice of these amendments was not required since the amendments do not involve a significant hazards consideration.

The Commission has determined that the issuance of these amendments will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement, negative declaration or environmental impact appraisal need not be prepared in connection with issuance of these amendments.

For further details with respect to this action, see (1) the application for amendments dated March 6, 1978, (2) Amendment Nos. 34 and 28 to License Nos. DPR-31 and DPR-41, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, NW., Washington, D.C. and at the Environmental & Urban Affairs Library, Florida International University, Miami, Florida 33199. A copy of items (2) and (3) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 8th day of March 1978.

FOR THE NUCLEAR REGULATORY COMMISSION

A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors