April 29, 1988

Docket Nos. 50-250
and 50-251

Mr. W. F. Conway
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Dear Mr. Conway:

SUBJECT: TURKEY POINT UNITS 3 AND 4 - ISSUANCE OF AMENDMENTS RE: COMPONENT COOLING WATER HEAT EXCHANGERS (TAC NOS. 67804 AND 67805)

The Commission has issued the enclosed Amendment No. 130 to Facility Operating License No. DPR-31 and Amendment No.124 to Facility Operating License No. DPR-41 for the Turkey Point Plant, Units Nos. 3 and 4, respectively. The amendments consist of changes to the Technical Specifications in response to your application transmitted by letter dated April 4, 1988.

These amendments revise Section 3.4.4 of the Technical Specifications (TS) related to the Component Cooling Water (CCW) system. Specifically, the following changes are made: (1) require applicability in Modes 1, 2, 3 and 4, (2) allow one CCW heat exchanger to be out of service for 72 hours, (3) revise the action requirements to be consistent with the operational modes specified in Table 1.1 of the TS, and (4) reduce the time allowed to go from hot standby to cold shutdown to be consistent with the Standard TS. In addition, the format is revised to be consistent with NUREG-0452, Standard Technical Specifications (STS) for Westinghouse Pressurized Water Reactors.

A copy of the Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

Original Signed by

Gordon E. Edison, Sr. Project Manager
Project Directorate II-2
Division of Reactor Projects-I/II
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 130 to DPR-31
2. Amendment No. 124 to DPR-41
3. Safety Evaluation

cc w/enclosures:
See next page

LA:PDII-2	PM:PDII-2	SC:SPLB	D:PDII-2	OGC-WF
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04/20/88	04/20/88	04/21/88	04/21/88	04/22/88

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

FLORIDA POWER AND LIGHT COMPANY

DOCKET NO. 50-250

TURKEY POINT PLANT UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 130
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 April 4, 1988, 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 Operating License No. DPR-31 is hereby amended to read as follows:

(B) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 130, are hereby incorporated in the license. The Environmental Protection Plan contained in Appendix B is hereby incorporated into the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of issuance and shall be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION

Herbert N. Berkow, Director
Project Directorate II-2
Division of Reactor Projects-I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: April 29, 1988

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

FLORIDA POWER AND LIGHT COMPANY

DOCKET NO. 50-251

TURKEY POINT PLANT UNIT NO. 4

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 124
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 April 4, 1988, 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 Operating License No. DPR-41 is hereby amended to read as follows:

(B) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 124, are hereby incorporated in the license. The Environmental Protection Plan contained in Appendix B is hereby incorporated into the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of issuance and shall be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION

Herbert N. Berkow, Director
Project Directorate II-2
Division of Reactor Projects-I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: April 29, 1988

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 130 FACILITY OPERATING LICENSE NO. DPR-31

AMENDMENT NO. 124 FACILITY OPERATING LICENSE NO. DPR-41

DOCKET NOS. 50-250 AND 50-251

Revise Appendix A as follows:

Remove Pages	Insert Pages
3.4-4	3.4-4
---	3.4-4a
3.4-5	3.4-5

1. ONE emergency containment cooling unit may be out of service for a period of 24 hours. Prior to initiating maintenance the other TWO units shall be tested to demonstrate operability.

2. ONE containment spray pump may be out of service provided it is restored to operable status within 24 hours. The remaining containment spray pump shall be tested to demonstrate operability before initiating maintenance of the inoperable pump.

3. Any valve in the system may be inoperable provided repairs are completed within 24 hours. Prior to initiating repairs, all valves that provide the duplicate function shall be tested to demonstrate operability.

3. EMERGENCY CONTAINMENT FILTERING SYSTEM

a. The reactor shall not be made critical, except for low power physics tests unless:

1. THREE emergency containment filtering units are operable.

2. All valves, interlocks and piping associated with the above components and required for post-accident operation, are operable.

b. During power operation:

1. ONE unit may be inoperable for a period of 7 days if the other TWO are operable.

2. Any valve in the system may be inoperable provided repairs are completed within 7 days. Prior to initiating maintenance, all valves that provide the duplicate function shall be tested to demonstrate operability.

3. If after 7 days the unit is still inoperable Specification 3.0.1 applies to 3.4.3.b.

3.4 Engineered Safety Features

3.4.4 Component Cooling Water System

The component cooling water system shall be operable with:

a) Three operable component cooling water pumps

b) Three operable component cooling water heat exchangers

c) All valves, interlocks, and piping associated with the above components operable.

Applicability: Modes 1, 2, 3 and 4

Action:

1. With one CCW pump inoperable, restore the pump to OPERABLE status within 7 days, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

2. With two CCW pumps inoperable, within 24 hours either restore one CCW pump to OPERABLE status and follow action statement 1 above for the other pump, or restore both CCW pumps to OPERABLE status, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

3. With one CCW heat exchanger inoperable, restore the heat exchanger to OPERABLE status within 72 hours, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

4. With any of the components specified in 3.4.4.c above inoperable, declare the associated component inoperable and follow the appropriate action statement for the respective component.

5. INTAKE COOLING WATER SYSTEM

a. The reactor shall not be made critical unless the following conditions are met:

1. THREE intake cooling water pumps and TWO headers are operable.

2. All valves, interlocks and piping associated with the operation of these pumps, and required for post accident operation, are operable.

b. During power operation, the requirements of 3.4.5.a., above, may be modified to allow any one of the following components to be inoperable provided the remaining systems are in continuous operation. If the system is not restored to meet the requirements of 3.4.5.a. within the time period specified, the reactor shall be placed in the hot shutdown condition. If the requirements of 3.4.5.a. are not satisfied within an additional 48 hours, the reactor shall be placed in the cold shutdown condition. Specification 3.0.1 applies to 3.4.5.b.

1. One of the two headers may be out of service for a period of 24 hours.

2. One intake cooling water pump may be out of service for a period of 24 hours.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 130 TO FACILITY OPERATING LICENSE NO. DPR-31

AND AMENDMENT NO. 124 TO FACILITY OPERATING LICENSE NO. DPR-41

FLORIDA POWER AND LIGHT COMPANY

TURKEY POINT UNIT NOS. 3 AND 4

DOCKET NOS. 50-250 AND 50-251

I. INTRODUCTION

By letter dated April 4, 1988, the Florida Power and Light Company (FPL, the licensee), submitted a request for amendments to the facility operating licenses to change Technical Specifications relating to requirements for Component Cooling Water (CCW) heat exchangers. The staff's review of this matter included the existing Technical Specifications, as well as the proposed changes and supporting technical justification.

Specifically, the changes proposed by the licensee will: (1) require applicability in Modes 1, 2, 3 and 4, (2) allow one CCW heat exchanger to be out of service for 72 hours, (3) revise the action requirements to be consistent with the operational modes specified in Table 1.1 of the TS, and (4) reduce the time allowed to go from hot standby to cold shutdown to be consistent with the Standard TS. In addition, the format will be revised to be consistent with NUREG-0452, Standard Technical Specifications (STS) for Westinghouse Pressurized Water Reactors.

The licensee indicated that the amendments are desired because it will improve the Turkey Point TS by making them closer to the modern Standard TS, and it will permit the licensee to install an on-line heat exchanger tube cleaning capability with a minimum of disruption to plant operations. This approach is expected by the NRC to improve safety as well as operational efficiency because it should reduce the potential for human error associated with frequently taking the six CCW heat exchangers in and out of service for cleaning, and should result in cleaner heat exchangers (and therefore more heat removal capability), on the average, over a long period of time.

II. EVALUATION

The current TS require operability of the CCW system whenever the reactor is critical, except for low-power physics tests. At the time the current TS were established, there were no defined operating modes. Since that time the licensee has defined a set of operating modes in Table 1.1 of the TS that are comparable to those used by the rest of the industry. The proposed TS will

require operability in Modes 1, 2, 3 and 4, which includes all modes (Modes 1 and 2) in which the reactor is critical, as well as two modes (Modes 3 and 4) in which the reactor is subcritical. Therefore, the proposed change regarding mode applicability will be more restrictive, will clarify the TS to be like the Standard TS, and is acceptable.

The current Turkey Point TS also permit one CCW heat exchanger to be out of service for 24 hours. The licensee proposed to extend the allowable outage time to 72 hours. The current Standard TS permits one CCW loop (including the heat exchanger) to be out of service for 72 hours. The licensee's proposal is equivalent to the Standard TS in that it requires operability of enough heat exchangers to meet the design basis heat removal requirement (two heat exchangers for Turkey Point) while permitting a redundant heat exchanger to be out of service for 72 hours.

In a meeting with the licensee on March 15, 1988, the staff agreed with the licensee that two CCW heat exchangers operating together can remove the total design basis heat load, provided a monitoring program is in place to assure this capability continues to exist. In a letter dated March 18, 1988, the licensee stated that a surveillance program is in place for monitoring CCW heat exchanger capability and is implemented by Procedure TP-419 (this is further discussed in a letter from the licensee dated November 18, 1987). For Turkey Point, the NRC staff believes it is not necessary to specify an allowable outage time for the third CCW heat exchanger. Should the two operating heat exchangers show degraded performance while the third heat exchanger is out of service, this situation can be accommodated by reducing power and shutting the plant down. However, operational experience in the industry with CCW heat exchangers, which are considered to be passive components, shows they rarely, if ever, fail catastrophically in a way that would threaten safety. Instead, their usual failure modes are gradual degradation of heat removal surfaces due to silt or chemicals in the coolant or small random leaks in individual tubes. In addition, the licensee has a natural incentive to maintain the third heat exchanger in a an operable condition to guard against having to shut the plant down. Therefore, the licensee's proposal to relax the allowable outage time to 72 hours for one CCW heat exchanger is acceptable.

The licensee also proposed revision of the TS action requirements to reflect the applicable modes. This is an administrative change without safety significance and is acceptable.

In addition, the licensee proposed a revision in action requirements for the CCW system which, if the system is not restored to operable status within 72 hours, would require action to place the reactor unit in hot standby within six hours and in cold shutdown within the following 30 hours. The proposed action requirement time is the same as that in the current Standard TS, is more restrictive than the current TS (which permits 48 hours instead of 30 hours to go to cold shutdown), and is acceptable.

Finally, the licensee also proposed to reformat the TS to be consistent with Standard TS. This represents a safety improvement because the current Standard TS have improved organization and logic in their structure compared to the older, current Turkey Point TS. Therefore, the reformatting is acceptable.

III. FINDINGS

The staff has concluded that the proposed changes to the TS for the CCW system are acceptable based on the details discussed above.

IV. EXIGENT CIRCUMSTANCES

On April 13, 1988, a short notice was published in the Federal Register (53 FR 12203) requesting public comments on the proposed amendments within 15 days of the publication date. In that notice, the staff indicated that the Commission had determined that failure to act in a timely manner would result in a significant delay in installation and optimization of the CCW heat exchanger tube-cleaning system. FPL had planned to modify the Unit 4 heat exchangers during the Unit 4 refueling outage in late 1988. However, based on experience in 1987 with Unit 3, FPL has determined that it is in the best interests of smooth operation (and therefore, safety) to install the cleaning system before the summer of 1988. Therefore, we have determined that the licensee did not purposely create this situation to avoid the normal notice period for the proposed license amendments.

V. FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The standards used to arrive at a proposed determination that a request for amendment involves no significant hazards considerations are included in the Commission's regulations, 10 CFR 50.92, which state that the operation of the facilities in accordance with the proposed amendments would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

The following evaluation in relation to the three standards demonstrates that the proposed amendments do not involve a significant hazards consideration.

First Standard - Involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed changes introduce no new mode of operation nor do they involve a physical modification to the plant. The proposed increase in allowed out of service time would not invalidate the assumptions used in the accident analysis regarding CCW system capability, or affect the ability of the two operable heat exchangers to remove 100 percent of the design basis accident heat loads. CCW heat exchanger operability is determined by a surveillance program which considers a number of factors including flow rates, intake cooling water inlet temperature, and heat exchanger tube cleanliness. The probability of a passive failure of one of the two operable heat exchangers during the 72 hours one heat exchanger is out of service is sufficiently small that operation with the heat exchanger out of service will not involve a significant increase in the probability or consequences of an accident previously analyzed.

Second Standard - Create the possibility of a new or different kind of accident from any accident previously evaluated.

Since the changes do not involve a change in design or operation from those previously evaluated, neither the staff nor licensee could identify a new or different kind of accident from any accident previously evaluated.

Third Standard - Involve a significant reduction in a margin of safety.

The basis for the TS states that one pump and two heat exchangers meet the requirements of the safety analysis. With one heat exchanger out of service, the two operable heat exchangers are capable of removing the design basis accident heat loads. CCW heat exchanger operability is determined by a surveillance program which considers a number of factors including flow rates, intake cooling water inlet temperature, and heat exchanger tube cleanliness. Therefore, there is no significant reduction in a margin of safety.

In addition, the Commission has provided guidance for the application of the criteria in 10 CFR 50.92 specified above by providing examples of changes that are not likely to involve a significant hazards consideration (51 FR 7751).

Example (i): A purely administrative change to technical specifications: for example, a change to achieve consistency throughout the Technical Specifications, correction of an error, or a change in nomenclature.

Example (ii): A change that constitutes an additional limitation, restriction, or control not presently included in the Technical Specifications, e.g. a more stringent surveillance requirement.

The reformatting to be consistent with the STS is an administrative change and is similar to example (i). The requirement that the CCW system be operable in Modes 1 through 4, and the revised action statements are more restrictive requirements, and are similar to example (ii).

Based on the foregoing, the Commission has concluded that the standards of 10 CFR 50.92 are satisfied. Therefore, the Commission has made a final determination that the proposed amendments do not involve a significant hazards consideration.

ENVIRONMENTAL CONSIDERATION

These amendments involve changes in the installation or use of the facilities components located within the restricted areas as defined in 10 CFR 20. The staff has determined that these amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that these amendments involve no significant hazards consideration and there has been no public comment on such finding. Accordingly, these amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of these amendments.

CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) these amendments will not (a) significantly increase the probability or consequences of an accident previously evaluated, (b) create the possibility of a new or different kind of accident from any accident previously evaluated, or (c) significantly reduce a margin of safety, and therefore, the amendments do not involve significant hazards considerations, (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: April 29, 1988

Principal Contributor:

G. E. Edison