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Dockets Nos. 50-250
and 50-251

Florida Power and Light Company
ATTN: Dr. Robert E. Uhrig
Vice President
P. O. Box 013100
Miami, Florida 33101

Gentlemen:

The Commission has issued the enclosed Amendment No. 21 to Facility Operating License No. DPR-31 and Amendment No. 19 to Facility Operating License No. DPR-41 for the Turkey Point Nuclear Generating Units 3 and 4. The amendments consist of changes to the Technical Specifications in response to your application dated March 26, 1976.

These changes to the Technical Specifications will modify certain specified surveillance test frequencies and acceptance criteria so that surveillance tests are not required during those facility operational modes when the relevant limiting conditions for operation (LCO's) are not applicable. The requested changes clarify the wording of the specified surveillance tests but do not modify the original intent of the specifications.

Copies of the Safety Evaluation and the Federal Register Notice are also enclosed.

Sincerely,

Original signed by

George Lear, Chief
Operating Reactors Branch #3
Division of Operating Reactors

Enclosures:
1. Amendment No. 21 to License DPR-31
2. Amendment No. 19 to License DPR-41
3. Safety Evaluation
4. Federal Register Notice

cc: See page 2					
OFFICE ➤	ORB #3	ORB #3	OELD	ORB #3	
SURNAME ➤	CParrish:	DElliott:mjf		GLear	
DATE ➤	10/ /76	10/ /76	10/ /76	10/ /76	

Form AEC-318 (Rev. 9-53) AECM 0240 ☆ U. S. GOVERNMENT PRINTING OFFICE: 1974-526-166

cc:

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Bureau of Intergovernmental Relations
725 South Bronough Street
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Honorable Dewey Knight
County Manager of Metropolitan
Dade County
Miami, Florida 33130

Florida Power & Light Company
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Turkey Point Plant
P. O. Box 013100
Miami, Florida 33101

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

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. 21
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 26, 1976, 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 a change to the Technical Specifications as indicated in the attachment to this license amendment.

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

FOR THE NUCLEAR REGULATORY COMMISSION

George Lear

George Lear, Chief
Operating Reactors Branch #3
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: November 15, 1976

ATTACHMENT TO LICENSE AMENDMENT NO. 21

TO THE TECHNICAL SPECIFICATIONS

FACILITY OPERATING LICENSE NO. DPR-31

DOCKET NO. 50-250

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
Page 4.1-1	4.1-1
The two continued pages of Table 4.1-1	Table 4.1-1 (Sheets 2 and 3)
Table 4.1-2 (2 pages)	Table 4.1-2 (3 Sheets)
Page 4.5-2	4.5-2
Page 4.6-2	4.6-2
Page 4.10-1	4.10-1

4.0 SURVEILLANCE REQUIREMENTS

4.0.1 Specified intervals may be adjusted plus or minus 25% to accommodate normal test schedules.

4.0.2 When the reactor is in a shutdown condition, some of the surveillance requirements discussed in this section are not required to be satisfied provided that the safety limits or limiting conditions for operation for the shutdown status are satisfied. When a surveillance activity is not completed because the reactor is shutdown and the surveillance is not required, the surveillance requirement shall be met prior to the time indicated in the applicable footnote.

4.1 OPERATIONAL SAFETY REVIEW

Applicability: Applies to items directly related to safety limits and limiting conditions for operation.

Objective: To specify the minimum frequency and type of surveillance to be applied to equipment and conditions.

Specification: Calibration, testing, and checking of analog channels and testing of logic channels shall be performed as specified in Table 4.1-1.

Equipment and sampling tests shall be conducted as specified in Table 4.1-2.

Amendment No. 21

TABLE 4.1-1 SHEET 2

	Channel Description	Check	Calibrate	Test	Remarks
10.	Rod Position Bank Counters	S†	N.A.	N.A.	With analog Rod Position
11.	Steam Generator Level	S†	R	M†	
12.	Charging Flow	N.A.	R	N.A.	
13.	Residual Heat Removal Pump Flow	N.A.	R	N.A.	
14.	Boric Acid Tank Level	W	R	N.A.	
15.	Refueling Water Storage Tank Level	W†	R	N.A.	
16.	Volume Control Tank Level	N.A.	R	N.A.	
17A.	Containment Pressure	D††	R	M††	Wide Range
17B.	Containment Pressure	D††	R	M††	Narrow Range
18A.	Process Radiation	D	A***	M	
18B.	Area Radiation	D	A	M	
19.	Boric Acid Control	N.A.	N.A.	R	
20.	Containment Sump Level	N.A.	R	N.A.	
21.	Accumulator Level and Pressure	S†	R	N.A.	
22.	Steam Line Pressure	S†	R	M†	

Amendment No. 21

TABLE 4.1-1 SHEET 3

	Channel Description	Check	Calibrate	Test	Remarks
23.	Environmental Radiological Monitors	N.A.	A(1)	M(1)	(1) Flow
24.	Logic Channels	N.A.	N.A.	M†	
25.	Emer. Portable Survey Instruments	N.A.	A	M	
26.	Seismograph	N.A.	N.A.	Q	Make trace Test battery (change semi-annually)

* Using moveable in-core detector system.
** Frequency only
*** Effluent monitors only. Calibration shall be as specified in 3.9.

S - Each Shift

D - Daily

W - Weekly

B/W - Every Two Weeks

M - Monthly

Q - Quarterly

P - Prior to each startup if not done previous week

R - Each Refueling Shutdown

A - Annually

N.A. - Not applicable

† - N.A. during cold or refueling shutdowns. The specified tests, however, shall be performed within one surveillance interval prior to startup.

†† - N.A. during cold or refueling shutdowns. The specified tests, however, shall be performed within one surveillance interval prior to heatup above 200F.

TABLE 4.1-2 (Sheet 1 of 3)

MINIMUM FREQUENCIES FOR EQUIPMENT AND SAMPLING TESTS

	Check	Frequency	Max. Time Between Tests (Days)
1. Reactor Coolant Samples	Radiochem. ($T_{1/2}$>30 Min)	Monthly	45
	Cl & O_2	5/Week	3
	Tritium Activity	Weekly	10
	Gross β,γ Activity (uCi/cc)	5/Week	3
	Boron Concentration	2/Week	5
	$\bar{E}$ Determination	Semi-annually	30 Wks
	Boron Concentration	Weekly †	10
2. Refueling Water Storage Tank Water Sample	Boron Concentration	2/Week	5
3. Boric Acid Tank	Boron Concentration	Monthly †	45
4. Boron Injection Tank	Rod drop times of all full length rods	For all rods at least once per 18 months and following each removal of the reactor vessel head. For specifically affected individual rods following maintenance on or modification of the control rod drive system which could affect the drop time of those specific rods.	NA
5. Control Rods	Partial movement of full length rods	Biweekly while critical	20
6. Pressurizer Safety Valves	Set point	Each refueling shutdown	NA
7. Main Steam Safety Valves	Set point	Each refueling shutdown	NA
8. Containment Isolation Trip	Functioning	Each refueling shutdown	NA
9. Refueling System Interlocks	Functioning	Prior to each refueling shutdown	NA
10. Accumulator	Boron Concentration	At least once per 31 days and within 6 hours after each solution volume increase of $\geq$ 1% of tank volume. †	NA

MINIMUM FREQUENCIES FOR EQUIPMENT AND SAMPLING TESTS

11.	Reactor Coolant System Leakage	Evaluate	Daily	NA
12.	Diesel Fuel Supply	Fuel inventory	Weekly	10
13.	Spent Fuel Pit	Boron Concentration	Prior to refueling	NA
14.	Secondary Coolant	I-131 Concentration	Weekly * †	10
15.	Vent Gas & Particulates	I-131 & Particulate Activity	Weekly *	10
16.	Fire Protection Pump & Power Supply	Operable	Monthly	45
17.	Turbine Stop and Control Valves, Reheater Stop and Intercept Valves	Closure	Monthly ***	45
18.	LP Turbine Rotor Inspection (w/o rotor disassembly)	V, MT, PT	Every 5 Years	6 Years
19.	Spent Fuel** Cask Crane Interlocks	Functioning	Within 7 days of using crane to lift spent fuel cask	7 days when crane is being used to maneuver spent fuel cask

† - N.A. during cold or refueling shutdowns. The specified tests, however, shall be performed prior to heatup above 200 F.

* - When activity exceeds 10% of specification, frequency shall be changed to daily.

** - In the interim period until the spent fuel cask crane interlocks are installed (installation is to be completed no later than June 1977) the following controls shall be used to prevent movement of the cask over spent fuel:

1. Indexing of the crane and trolley will be implemented.
2. Once properly positioned, the respective crane bridge and trolley drives will be de-energized as appropriate.
3. In addition, a mechanical bumper will be installed to limit trolley travel in the westward direction, such that movement of the spent fuel shipping cask over spent fuel is prevented.

TABLE 4.1-2 (Sheet 3 of 3)

*** - N.A. during cold or refueling shutdowns, or at hot shutdown when all main steam isolation valves are shut. The specified tests, however, shall be performed within one surveillance period prior to starting the turbine.

2. Pumps shall start and reach required head for normal or recirculation flow, whichever is applicable to the operating condition; the instruments and visual observations shall indicate proper functioning. Test operation shall be for a least 15 minutes.

b. Valves

1. The boron injection tank isolation valves receiving a Safety Injection signal shall be cycled monthly.††

2. The containment recirculation sump suction valves shall be cycled monthly.†

3. Accumulator check valves shall be checked for operability during each refueling shutdown.

4. The refueling water storage tank outlet valves shall be tested in performing the respective pump tests.†

† - N.A. during cold or refueling shutdowns. The specified tests, however, shall be performed within one surveillance interval prior to reactor startup.

†† - N.A. during cold or refueling shutdowns. The specified tests, however, shall be performed within one surveillance interval prior to heatup above 200 F.

2. COMPONENT TESTS

Pumps and Fans

The containment spray pumps and the Emergency Containment Cooling fans shall be started at intervals not greater than one (1) month. ††

Acceptable levels of performance shall be that the pumps reach their rated shut off heads, the fan motors reach their nominal operating current for the containment atmosphere during the test, and both operate for at least fifteen minutes.

Valves

The systems motor operated isolation valves will be tested for operation during system tests.

†† - N.A. during cold or refueling shutdowns. The specified tests, however, shall be performed within one surveillance interval prior to heatup above 200 F.

4.10 AUXILIARY FEEDWATER SYSTEM

Applicability: Applies to periodic testing requirements of the auxiliary feedwater system.†

Objective: To verify the operability of the auxiliary feedwater system and its ability to respond properly when required.

Specifications:

1. Each turbine-driven auxiliary feedwater pump shall be started at intervals not greater than one month; run for 15 minutes and a flow rate of 600 gpm established to the steam generators.

2. The auxiliary feedwater discharge valves shall be tested by operator action during pump tests.

3. Steam supply and turbine pressure valves shall be tested during pump tests.

4. These tests shall be considered satisfactory if control panel indication and visual observation of the equipment demonstrate that all components have operated properly.

†- N.A. during cold or refueling shutdowns (only for the Unit at cold or refueling shutdown). The specified tests, however, shall be performed within one surveillance interval prior to starting the turbine.

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. 19
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 26, 1976, 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 a change to the Technical Specifications as indicated in the attachment to this license amendment.

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

FOR THE NUCLEAR REGULATORY COMMISSION

George Lear

George Lear, Chief
Operating Reactors Branch #3
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: November 15, 1976

ATTACHMENT TO LICENSE AMENDMENT NO. 19

TO THE TECHNICAL SPECIFICATIONS

FACILITY OPERATING LICENSE NO. DPR-41

DOCKET NO. 50-251

Replace the following pages of the Technical Specifications contained in Appendix A of the above-mentioned 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
Page 4.1-1	4.1-1
The two continued pages of Table 4.1-1	Table 4.1-1 (Sheets 2 and 3)
Table 4.1-2 (2 pages)	Table 4.1-2 (3 Sheets)
Page 4.5-2	4.5-2
Page 4.6-2	4.6-2
Page 4.10-1	4.10-1

4.0 SURVEILLANCE REQUIREMENTS

4.0.1 Specified intervals may be adjusted plus or minus 25% to accommodate normal test schedules.

4.0.2 When the reactor is in a shutdown condition, some of the surveillance requirements discussed in this section are not required to be satisfied provided that the safety limits or limiting conditions for operation for the shutdown status are satisfied. When a surveillance activity is not completed because the reactor is shutdown and the surveillance is not required, the surveillance requirement shall be met prior to the time indicated in the applicable footnote.

4.1 OPERATIONAL SAFETY REVIEW

Applicability: Applies to items directly related to safety limits and limiting conditions for operation.

Objective: To specify the minimum frequency and type of surveillance to be applied to equipment and conditions.

Specification: Calibration, testing, and checking of analog channels and testing of logic channels shall be performed as specified in Table 4.1-1.

Equipment and sampling tests shall be conducted as specified in Table 4.1-2.

Amendment NO. 19

TABLE 4.1-1 SHEET 2

	Channel Description	Check	Calibrate	Test	Remarks
10.	Rod Position Bank Counters	S†	N.A.	N.A.	With analog Rod Position
11.	Steam Generator Level	S†	R	M†	
12.	Charging Flow	N.A.	R	N.A.	
13.	Residual Heat Removal Pump Flow	N.A.	R	N.A.	
14.	Boric Acid Tank Level	W	R	N.A.	
15.	Refueling Water Storage Tank Level	W†	R	N.A.	
16.	Volume Control Tank Level	N.A.	R	N.A.	
17A.	Containment Pressure	D††	R	M††	Wide Range
17B.	Containment Pressure	D††	R	M††	Narrow Range
18A.	Process Radiation	D	A***	M	
18B.	Area Radiation	D	A	M	
19.	Boric Acid Control	N.A.	N.A.	R	
20.	Containment Sump Level	N.A.	R	N.A.	
21.	Accumulator Level and Pressure	S†	R	N.A.	
22.	Steam Line Pressure	S†	R	M†	

TABLE 4.1-1 SHEET 3

	Channel Description	Check	Calibrate	Test	Remarks
23.	Environmental Radiological Monitors	N.A.	A(1)	M(1)	(1) Flow
24.	Logic Channels	N.A.	N.A.	M†	
25.	Emer. Portable Survey Instruments	N.A.	A	M	
26.	Seismograph	N.A.	N.A.	Q	Make trace Test battery (change semi-annually)

* Using moveable in-core detector system.
** Frequency only
*** Effluent monitors only. Calibration shall be as specified in 3.9.

S - Each Shift
D - Daily
W - Weekly
B/W - Every Two Weeks
M - Monthly
Q - Quarterly
P - Prior to each startup if not done previous week
R - Each Refueling Shutdown
A - Annually
N.A. - Not applicable
† - N.A. during cold or refueling shutdowns. The specified tests, however, shall be performed within one surveillance interval prior to startup.
†† - N.A. during cold or refueling shutdowns. The specified tests, however, shall be performed within one surveillance interval prior to heatup above 200F.

TABLE 4.1-2 (Shee of 3)

MINIMUM FREQUENCIES FOR EQUIPMENT AND SAMPLING TESTS

	Check	Frequency	Max. Time Between Tests (Days)
1. Reactor Coolant Samples	Radiochem. ($T_{1/2}$>30 Min)	Monthly	45
	Cl & O_2	5/Week	3
	Tritium Activity	Weekly	10
	Gross β,γ Activity (uCi/cc)	5/Week	3
	Boron Concentration	2/Week	5
	$\bar{E}$ Determination	Semi-annually	30 Wks
2. Refueling Water Storage Tank Water Sample	Boron Concentration	Weekly+	10
3. Boric Acid Tank	Boron Concentration	2/Week	5
4. Boron Injection Tank	Boron Concentration	Monthly +	45
5. Control Rods	Rod drop times of all full length rods	For all rods at least once per 18 months and following each removal of the reactor vessel head. For specifically affected individual rods following maintenance on or modification of the control rod drive system which could affect the drop time of those specific rods.	NA
	Partial movement of full length rods	Biweekly while critical	20
6. Pressurizer Safety Valves	Set point	Each refueling shutdown	NA
7. Main Steam Safety Valves	Set point	Each refueling shutdown	NA
8. Containment Isolation Trip	Functioning	Each refueling shutdown	NA
9. Refueling System Interlocks	Functioning	Prior to each refueling shutdown	NA
10. Accumulator	Boron Concentration	At least once per 31 days and within 6 hours after each solution volume increase of > 1% of tank volume. +	NA

MINIMUM FREQUENCIES FOR EQUIPMENT AND SAMPLING TESTS

11.	Reactor Coolant System Leakage	Evaluate	Daily	NA
12.	Diesel Fuel Supply	Fuel inventory	Weekly	10
13.	Spent Fuel Pit	Boron Concentration	Prior to refueling	NA
14.	Secondary Coolant	I-131 Concentration	Weekly * †	10
15.	Vent Gas & Particulates	I-131 & Particulate Activity	Weekly *	10
16.	Fire Protection Pump & Power Supply	Operable	Monthly	45
17.	Turbine Stop and Control Valves, Reheater Stop and Intercept Valves	Closure	Monthly ***	45
18.	LP Turbine Rotor Inspection (w/o rotor disassembly)	V, MT, PT	Every 5 Years	6 Years
19.	Spent Fuel** Cask Crane Interlocks	Functioning	Within 7 days of using crane to lift spent fuel cask	7 days when crane is being used to maneuer spent fuel cask

† - N.A. during cold or refueling shutdowns. The specified tests, however, shall be performed prior to heatup above 200 F.

* - When activity exceeds 10% of spec, frequency shall be changed to Daily.

** - In the interim period until the spent fuel cask crane interlocks are installed (installation is to be completed no later than June 1977) the following coltrols shall be used to prevent movement of the cash over spent fuel:

1. Indexing of the crane and trolley will be implemented.
2. Once properly positioned, the respective crane bridge and trolley drives will be de-energized as appropriate.
3. **In addition, a mechanical bumper will be installed to limit trolley travel in the westward direction, such that movement of the spent fuel shipping cask over spent fuel is prevented.**

TABLE 4.1-2 (Sheet 3 of 3)

*** - N.A. during cold or refueling shutwodns, or at hot shutdown, when all main steam isolation valves are shut. The specified tests, however, shall be performed within one surveillance period prior to starting the turbine.

2. Pumps shall start and reach required head for normal or recirculation flow, whichever is applicable to the operating condition; the instruments and visual observations shall indicate proper functioning. Test operation shall be for a least 15 minutes.

b. Valves

1. The boron injection tank isolation valves receiving a Safety Injection signal shall be cycled monthly.††

2. The containment recirculation sump suction valves shall be cycled monthly.†

3. Accumulator check valves shall be checked for operability during each refueling shutdown.

4. The refueling water storage tank outlet valves shall be tested in performing the respective pump tests.†

† - N.A. during cold or refueling shutdowns. The specified tests, however, shall be performed within one surveillance interval prior to reactor startup.

†† - N.A. during cold or refueling shutdowns. The specified tests, however, shall be performed within one surveillance interval prior to heatup above 200 F.

2. COMPONENT TESTS

Pumps and Fans

The containment spray pumps and the Emergency Containment Cooling fans shall be started at intervals not greater than one (1) month. ††

Acceptable levels of performance shall be that the pumps reach their rated shut off heads, the fan motors reach their nominal operating current for the containment atmosphere during the test, and both operate for at least fifteen minutes.

Valves

The systems motor operated isolation valves will be tested for operation during system tests.

†† - N.A. during cold or refueling shutdowns. The specified tests, however, shall be performed within one surveillance interval prior to heatup above 200 F.

4.10 AUXILIARY FEEDWATER SYSTEM

Applicability: Applies to periodic testing requirements of the auxiliary feedwater system.†

Objective: To verify the operability of the auxiliary feedwater system and its ability to respond properly when required.

Specifications:

1. Each turbine-driven auxiliary feedwater pump shall be started at intervals not greater than one month; run for 15 minutes and a flow rate of 600 gpm established to the steam generators.

2. The auxiliary feedwater discharge valves shall be tested by operator action during pump tests.

3. Steam supply and turbine pressure valves shall be tested during pump tests.

4. These tests shall be considered satisfactory if control panel indication and visual observation of the equipment demonstrate that all components have operated properly.

†- N.A. during cold or refueling shutdowns (only for the Unit at cold or refueling shutdown). The specified tests, however, shall be performed within one surveillance interval prior to starting the turbine.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 21 TO LICENSE NO. DPR-31, AND

AMENDMENT NO. 19 TO LICENSE NO. DPR-41

FLORIDA POWER AND LIGHT COMPANY

TURKEY POINT NUCLEAR GENERATING UNITS 3 AND 4

DOCKETS NOS. 50-250 AND 50-251

Introduction

By letter dated March 26, 1976, Florida Power and Light Company (FPL) proposed changes to the Technical Specifications of Facility Operating License DPR-31 and DPR-41 for Turkey Point Nuclear Generating Units No. 3 and No. 4. The proposed changes modify certain specified surveillance test frequencies and acceptance criteria so that surveillance tests are not required during those facility operational modes when the relevent limiting conditions for operation (LCO's) are not applicable. The requested changes clarify the wording of the specified surveillance tests but do not modify the original intent of the specifications.

Discussion

Surveillance requirements involve test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within the safety limits, and that the limiting conditions of operation will be met. Surveillance requirements for an individual limiting condition for operation (LCO) need only apply during the operational modes or other conditions for which the LCO is applicable. Since the Turkey Point Technical Specifications do not adequately state that the specified surveillance requirements are applicable only during certain operational modes or other conditions, FPL proposed changes to modify the stated surveillance test requirements for: (1) containment pressure, (2) refueling water storage tanks (boron concentration and outlet valves), (3) boron injection tank (boron concentration and isolation valves), (4) accumulator boron concentration, (5) turbine stop and control valves, reheater stop and intercept valves, (6) containment recirculation sump suction valves, (7) containment spray pumps and emergency cooling fans, (8) auxiliary feed water system, (9) secondary

coolant I-131 concentration, (10) residual heat removal system pumps. The proposed changes would modify the Technical Specifications to state clearly that certain surveillance requirements are not required during specified modes of facility operation. The proposed changes would achieve the objective of requiring certain surveillance tests for LCO's only during the operational modes or other conditions for which the LCO's are applicable.

The requested changes clarify the wording of the specified surveillance tests but do not modify the original intent of the specifications. In all cases where the surveillance test frequency has been modified so that the test is not required during specified modes of facility operation (e.g., cold or refueling shutdown), the modified Technical Specifications require performance of the surveillance test within one surveillance interval prior to the resumption of facility operation.

Evaluation

1. Containment Pressure

Containment internal pressure is periodically monitored during reactor operation to assure that the containment internal pressure is maintained at a value such that following a major loss of coolant accident (LOCA) the design pressure of the containment is not exceeded. Since a LOCA or other steam line break accident, which would result in increased containment pressure, could not occur when the reactor coolant temperature is below the boiling temperature of water at atmospheric pressure, FPL proposed that the Technical Specifications regarding surveillance of containment pressure measuring instruments be modified. FPL proposed that the containment pressure measuring instruments need not be tested or checked for operation during periods of cold or refueling shutdowns. During our review, we suggested that containment pressure channel checks be performed daily during periods of reactor operation instead of weekly as required by the present Technical Specifications. FPL concurred with this modification to this required frequency for the performance of containment channel checks. The proposed change as modified satisfies current NRC requirements as expressed in the Standard Technical Specifications.

The proposed change does not affect the original intent of the specification which was to require a check on the operability of the containment pressure measuring instruments and thereby assures measurement of the containment internal pressure during a LOCA or steam line break accident. The staff evaluated the change and determined that it does not reduce the effectiveness of the containment pressure measuring instrument surveillance test or the containment internal pressure test. Therefore, the change is acceptable.

2. Refueling Water Storage Tank: Boron Concentration and Outlet Valves

The refueling water storage tank (RWST) provides borated water to the emergency core cooling system (ECCS) in sufficient amount and with sufficient boron concentration to: (1) permit continuous recirculation coolant flow to the reactor core following a LOCA, and (2) maintain the reactor subcritical in the cold condition after the RWST and reactor coolant system water volumes are mixed. Periodic surveillance is required of: (1) the RWST boron concentration to assure that it corresponds to concentrations assumed in the accident analyses and (2) the RWST outlet valves to assure that these valves will close after the borated water from the RWST in injected into the reactor following a LOCA. FPL proposed that the monthly surveillance test requirements on RWST boron concentration and outlet valves not be required during cold or refueling shutdowns.

The change does not modify the original intent of the surveillance specifications which was to require periodic assurance that: (1) the RWST solution is adequately borated during those periods when a LOCA could occur and (2) the RWST isolation valves would function as required following a LOCA. Since a LOCA cannot occur during cold or refueling shutdowns, we have concluded that the proposed changes do not reduce the effectiveness of the RWST boron concentration and isolation valve surveillance tests. Therefore, the proposed change is acceptable.

3. Boron Injection Tank: Boron Concentration and Isolation Valves

The boron injection tank (BIT) is part of the safety injection system and assures that sufficient negative reactivity is provided by boron being injected into the core. The addition of boron is to counteract any positive increase in reactivity caused by reactor coolant system (RCS) cooldown. RCS cooldown can be caused by inadvertent reactor depressurization or a steam line rupture. The specified limits on liquid volume and boron concentration in the BIT assure that the assumptions used in the steam line break accident analyses are satisfied. FPL proposed that the monthly surveillance requirements on BIT boron concentation and the BIT isolation valves not be required during cold or refueling shutdowns.

The changes do not modify the original intent of the surveillance specifications which was to require periodic assurance that the BIT solution is adequately borated and the BIT isolation valves will function during those periods when RCS cooldown could result in a reactivity increase.

Since significant RCS cooldown cannot occur during cold or refueling shutdown, we have concluded that the proposed changes do not reduce the effectiveness of the BIT boron concentration and BIT isolation valves surveillance tests. Therefore, the proposed changes are acceptable.

4. Accumulator Boron Concentration

Borated water is stored in the accumulators to assure that a sufficient volume of borated water will be available for injection into the reactor core in the event the reactor pressure falls below the accumulator pressure. This initial surge of water into the core provides the initial cooling mechanism during large reactor cooling system pipe ruptures. Periodic surveillance is required of the accumulator boron concentration to assure that it corresponds to concentrations assumed in the accident analyses. The present Turkey Point Technical Specifications do not require periodic surveillance during those periods when the accumulator is drained.

The proposed change clarifies the wording of the present specification so that boron concentration need not be determined during cold or refueling shutdowns. The change does not modify the original intent of the surveillance specification which was to require periodic assurance that the accumulator solution is adequately borated during those periods when boron injection is assumed by the accident analysis. Since no accidents which require core cooling or boration by the accumulator solution can occur during cold or refueling shutdown, we have concluded that the proposed change does not reduce the effectiveness of the accumulator solution boron concentration surveillance test. Therefore, the proposed change is acceptable.

5. Turbine Stop and Control Valves; Reheater Stop and Intercept Valves

The turbine stop and control valves, and the reheater stop and intercept valves are incorporated into the steam and power conversion system to: (1) prevent main turbine overspeed and (2) shutoff the turbine steam source in the event of abnormal operating conditions. The turbine stop and control valves control steam flow into the high pressure portion of the main turbine and their closure shuts off the main turbine steam source. The reheater stop and intercept valves close rapidly on load rejection to shutoff the reheater steam flow to the low pressure portions of the main turbine.

The present Technical Specifications do not require that surveillance test on these valves be performed when the reactor is in a shutdown condition. To maintain consistency in the specifications, FPL proposed

that the Technical Specifications be changed to state that the surveillance tests are not required during: (1) cold or refueling shutdown or (2) at hot shutdown when all main steam isolation valves are closed. Since: (1) the operability of these valves is not required during cold or refueling shutdowns, or during hot shutdown when the main steam isolation valves are closed and (2) testing during these conditions gives no indication of their capability to function properly during power operation, surveillance testing of these valves during these conditions has no safety significance. Therefore, modifying the Technical Specifications so that testing is not required (1) during cold or refueling shutdown or (2) during hot shutdown when the steam isolation valves are closed does not change the original intent of the specification and is acceptable.

6. Containment Recirculation Sump Suction Valves

The containment recirculation sump suction valves connect the containment sump suction lines to the residual heat removal (RHR) system and are opened following the LOCA when the ECCS is switched from the injection phase to the recirculation phase. To assure that these valves will operate when required following a LOCA, they are periodically tested during reactor operation. However, when the reactor is in the cold or refueling shutdown, the RHR is in operation to remove reactor core decay heat. Testing of these valves during cold or refueling shutdowns is not practical since operation of the RHR system would have to be terminated to open the valves. In addition, since a LOCA cannot occur during cold or refueling shutdowns, FPL requested that the periodic surveillance test on the containment recirculation sump suction valves not be required during cold or refueling shutdowns.

The change does not modify the original intent of the specification which was to give increased assurance that the valves will function when required following a LOCA. Moreover, the change does not reduce the effectiveness of the containment recirculation sump suction valve surveillance test. Therefore, the change is acceptable.

7. Containment Spray Pumps and Emergency Cooling Fans

The emergency containment cooling system is designed to remove sufficient heat from the reactor containment following a LOCA to maintain the containment pressure below its design value. The present Technical Specifications require periodic operation of the containment spray pump and the emergency cooling fan to assure that these components will function when required following a LOCA. FPL has proposed that the required monthly test for the containment spray pumps and emergency containment cooling fans need not be performed during cold or refueling shutdowns. Since a LOCA cannot occur during cold or refueling shutdowns, the

proposd change does not modify the original intent of the required tests. The change does not reduce the effectiveness of the containment spray pump and emergency containment fan operational surveillance test. Therefore, the change is acceptable.

8. Auxiliary Feedwater System

The auxiliary feedwater system provides adequate cooling water to the steam generators in the event of a unit trip coupled with a loss of offsite power. When an operating unit is tripped and loses its normal feedwater supply, feedwater is supplied by the auxiliary feedwater system using a turbine driven auxiliary feedwater pump. The pump turbine is supplied by steam from the tripped unit. The use of steam from the tripped unit helps lower the reactor temperature and pressure to a level where the RHR system can be put into operation. During cold or refueling shutdown conditions, the steam supply and feedwater control portions of the auxiliary feedwater system associated with the shutdown unit cannot be tested since no steam is available for the test. In addition, since availability of the auxiliary feedwater system is not required during shutdown conditions, FPL proposed that the periodic surveillance test for the auxiliary feedwater water system need not be performed during cold or refueling shutdowns. We evaluated the proposed change and determined that it does not modify the original intent or reduce the effectiveness of the auxiliary feedwater system surveillance test. Therefore, the change is acceptable.

9. Secondary Coolant I-131 Concentration

Limitations on secondary system specific activity are specified in the Technical Specifications to assure that, in the event of a steam line rupture, the resultant off-site radiation dose will be limited to a small fraction of 10 CFR Part 100 limits. Periodic surveillance of the I-131 concentration in the secondary coolant is required to assure that its concentration is less than the concentration assumed in the accident analyses. The present Technical Specifications do not require the surveillance testing of secondary coolant I-131 concentration during cold shutdown conditions. To maintain consistency, the Technical Specifications are being changed to state that the surveillance test is not required during cold or refueling shutdown conditions. Since: (1) a secondary coolant steam release is impossible during cold or refueling shutdown conditions and (2) testing is required for all plant operating conditions other than cold or refueling shutdowns, the modified surveillance test requirements assure that the I-131 concentration is known for all potential accident conditions. We have concluded that the Technical Specification change does not reduce the effectiveness of the surveillance test on secondary coolant I-131 concentration or change the original intent of

the specification. Therefore, the change is acceptable.

10. Residual Heat Removal (RHR) System Pumps

One of the primary functions of the residual heat removal (RHR) system is to remove heat energy from the reactor core and reactor coolant system during reactor shutdown and refueling conditions. The RHR is also employed with the safety injection (SI) system for emergency core cooling following a LOCA. The present Technical Specifications require testing of the RHR pumps monthly and state that visual observation of flow and pressure instruments verifies required pump head with flow recirculating around the RHR pump. This test can be performed during normal reactor operation. However, during cold or refueling shutdown conditions the RHR pumps are used to remove core decay heat and this test cannot be performed without shutting down the RHR system. Therefore, FPL has proposed that the RHR pump test performance criteria be modified to require the pump to reach required head for either normal flow (RHR operation for removal of core decay heat) or recirculation flow (flow recirculating around the RHR pump), whichever is applicable to the operating conditions. Observation of pump head and flow when the RHR system is used in either of the previously described operating modes will give adequate information to determine that pump performance has not deteriorated. We have evaluated the proposed Technical Specification change and we have concluded that the modified performance criteria: (1) will provide adequate assurance that the pumps will function as required during accident conditions and (2) does not modify the original intent of the specifications. Therefore, the change is acceptable.

Summary

Our evaluation supports the conclusion that the proposed Technical Specification changes are acceptable because they: (1) are consistent with current NRC requirements, (2) do not modify the original intent of the specifications, and (3) do not decrease the effectiveness of the presently specified surveillance tests. We further conclude that the changes do not increase the probability or consequences of accidents previously considered and do not significantly decrease a safety margin. Moreover, we have concluded that the changes have been appropriately incorporated into the Technical Specifications and are acceptable.

Environmental Considerations

We have determined that the amendments and incorporated Technical Specification changes 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, negative declaration, or environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendments do not involve a significant increase in the probability or consequences 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: November 15, 1976

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKETS NOS. 50-250 AND 50-251

FLORIDA POWER AND LIGHT COMPANY

NOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY OPERATING LICENSES

Notice is hereby given that the U. S. Nuclear Regulatory Commission (the Commission) has issued Amendments Nos. 21 and 19 to Facility Operating Licenses Nos. DPR-31 and DPR-41, respectively, issued to Florida Power and Light Company which revised Technical Specifications for operation of the Turkey Point Nuclear Generating Units Nos. 3 and 4, located in Dade County, Florida. The amendments are effective as of the date of issuance.

The amendments modify the Technical Specifications to change certain specified surveillance test frequencies and acceptance criteria so that surveillance tests are not required during those facility operational modes when the relevant limiting conditions for operation (LCO's) are not applicable. The requested changes clarify the wording of the specified surveillance tests but do not modify the original intent of the specifications.

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 26, 1976, (2) Amendments Nos. 21 and 19 to Licenses 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 N. W., 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 15th day of November, 1976

FOR THE NUCLEAR REGULATORY COMMISSION

George Lear

George Lear, Chief
Operating Reactors Branch #3
Division of Operating Reactors