



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

June 12, 2018

Mr. Mano Nazar  
President, Nuclear Division  
and Chief Nuclear Officer  
Florida Power & Light Company  
Mail Stop EX/JB  
700 Universe Blvd.  
Juno Beach, FL 33408

**SUBJECT: TURKEY POINT NUCLEAR GENERATING UNIT NOS. 3 AND 4 - ISSUANCE OF AMENDMENTS REGARDING TECHNICAL SPECIFICATIONS PERTAINING TO INSERVICE TESTING PROGRAM AND INSERVICE INSPECTION PROGRAM REQUIREMENTS AND SURVEILLANCE FREQUENCY CONTROL PROGRAM APPLICABILITY (CAC NOS. MF9907 AND MF9908; EPID L-2017-LLA-0252)**

Dear Mr. Nazar:

The U.S. Nuclear Regulatory Commission (NRC or the Commission) has issued the enclosed Amendment No. 281 to Renewed Facility Operating License No. DPR-31 and Amendment No. 275 to Renewed Facility Operating License No. DPR-41 for Turkey Point Nuclear Generating Unit Nos. 3 and 4, respectively. The amendments change the Technical Specifications (TSs) in response to the application from Florida Power & Light Company dated June 28, 2017 (L-2017-100), as supplemented by letter L-2018-043 dated February 28, 2018.

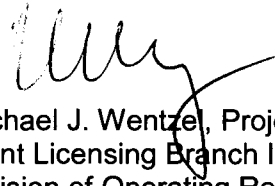
The amendments revise the TSs by relocating to licensee-controlled documents, select acceptance criteria specified in TS surveillance requirements credited for satisfying Inservice Testing Program and Inservice Inspection Program requirements, deleting the surveillance requirements for the American Society of Mechanical Engineers Code Class 1, 2 and 3 components, replacing references to the Surveillance Frequency Control Program with reference to the Turkey Point Inservice Testing Program where appropriate, establishing a Reactor Coolant Pump Flywheel Inspection Program, and making related editorial changes. Additionally, the amendments delete a redundant surveillance requirement for Accumulator check valve testing and add a footnote to the surveillance requirement for Pressure Isolation Valve testing. The NRC staff's safety evaluation of the amendments is enclosed.

M. Nazar

- 2 -

A Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

A handwritten signature in black ink, appearing to read "Wentzel", with a long horizontal stroke extending to the right.

Michael J. Wentzel, Project Manager  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-250 and 50-251

Enclosures:

1. Amendment No. 281 to DPR-31
2. Amendment No. 275 to DPR-41
3. Safety Evaluation

cc: Listserv



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

FLORIDA POWER & LIGHT COMPANY

DOCKET NO. 50-250

TURKEY POINT NUCLEAR GENERATING UNIT NO. 3

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 281  
Renewed License No. DPR-31

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Florida Power & Light Company (the licensee) dated June 28, 2017, as supplemented by letter dated February 28, 2018, 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 Renewed Facility Operating License and Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B. of Renewed Facility Operating License No. DPR-31 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 281, are hereby incorporated into this renewed license. The Environmental Protection Plan contained in Appendix B is hereby incorporated into this renewed 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 its date of issuance and shall be implemented within 120 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Booma Venkataraman, Acting Chief  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Renewed  
Facility Operating License  
and Technical Specifications

Date of Issuance: June 12, 2018



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

FLORIDA POWER & LIGHT COMPANY

DOCKET NO. 50-251

TURKEY POINT NUCLEAR GENERATING UNIT NO. 4

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 275  
Renewed License No. DPR-41

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Florida Power & Light Company (the licensee) dated June 28, 2017, as supplemented by letter dated February 28, 2018, 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 Renewed Facility Operating License and Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B. of Renewed Facility Operating License No. DPR-41 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 275, are hereby incorporated into this renewed license. The Environmental Protection Plan contained in Appendix B is hereby incorporated into this renewed 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 its date of issuance and shall be implemented within 120 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Booma Venkataraman, Chief  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Renewed  
Facility Operating License  
and Technical Specifications

Date of Issuance: June 12, 2018

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 281 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-31

AMENDMENT NO. 275 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-41

TURKEY POINT NUCLEAR GENERATING UNIT NOS. 3 AND 4

DOCKET NOS. 50-250 AND 50-251

Replace page 3 of Renewed Facility Operating License No. DPR-31 with the attached page 3. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

Replace page 3 of Renewed Facility Operating License No. DPR-41 with the attached page 3. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

Replace the following pages of the Appendix A Technical Specifications with the attached pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

<u>Remove</u>	<u>Insert</u>
viii	viii
3/4 0-3	3/4 0-3
3/4 0-4	3/4 0-4
3/4 4-11	3/4 4-11
3/4 4-15	3/4 4-15
3/4 4-16	3/4 4-16
3/4 4-29	3/4 4-29
3/4 5-2	3/4 5-2
3/4 5-5	3/4 5-5
3/4 5-6	3/4 5-6
3/4 6-12	3/4 6-12
3/4 6-14	3/4 6-14

- E. Pursuant to the Act and 10 CFR Parts 40 and 70 to receive, possess, and use at any time 100 milligrams each of any source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactively contaminated apparatus;
  - F. Pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of Turkey Point Units Nos. 3 and 4.
3. This renewed operating license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations: 10 CFR Part 20, Section 30.34 of 10 CFR Part 30, Section 40.41 of 10 CFR Part 40, Sections 50.54 and 50.59 of 10 CFR Part 50, and Section 70.32 of 10 CFR Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect, and is subject to the additional conditions specified below:
- A. Maximum Power Level  
  
The applicant is authorized to operate the facility at reactor core power levels not in excess of 2644 megawatts (thermal).
  - B. Technical Specifications  
  
The Technical Specifications contained in Appendix A, as revised through Amendment No. 281, are hereby incorporated into this renewed license. The Environmental Protection Plan contained in Appendix B is hereby incorporated into this renewed license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.
  - C. Final Safety Analysis Report  
  
The licensee's Final Safety Analysis Report supplement submitted pursuant to 10 CFR 54.21(d), as revised on November 1, 2001, describes certain future inspection activities to be completed before the period of extended operation. The licensee shall complete these activities no later than July 19, 2012.  
  
The Final Safety Analysis Report supplement as revised on November 1, 2001, described above, shall be included in the next scheduled update to the Final Safety Analysis Report required by 10 CFR 50.71(e)(4), following the issuance of this renewed license. Until that update is complete, the licensee may make changes to the programs described in such supplement without prior Commission approval, provided that the licensee evaluates each such change pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.



- E. Pursuant to the Act and 10 CFR Parts 40 and 70 to receive, possess, and use at any time 100 milligrams each of any source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactively contaminated apparatus;
  - F. Pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of Turkey Point Units Nos. 3 and 4.
3. This renewed operating license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations: 10 CFR Part 20, Section 30.34 of 10 CFR Part 30, Section 40.41 of 10 CFR Part 40, Sections 50.54 and 50.59 of 10 CFR Part 50, and Section 70.32 of 10 CFR Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect, and is subject to the additional conditions specified below:
- A. Maximum Power Level

The applicant is authorized to operate the facility at reactor core power levels not in excess of 2644 megawatts (thermal).
  - B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 275, are hereby incorporated into this renewed license. The Environmental Protection Plan contained in Appendix B is hereby incorporated into this renewed license. The licensee shall operate the facility in accordance With the Technical Specifications and the Environmental Protection Plan.
  - C. Final Safety Analysis Report

The licensee's Final Safety Analysis Report supplement submitted pursuant to 10 CFR 54.21(d), as revised on November 1, 2001, describes certain future inspection activities to be completed before the period of extended operation. The licensee shall complete these activities no later than April 10, 2013.

The Final Safety Analysis Report supplement as revised on November 1, 2001, described above, shall be included in the next scheduled update to the Final Safety Analysis Report required by 10 CFR 50.71(e)(4), following the issuance of this renewed license. Until that update is complete, the licensee may make changes to the programs described in such supplement without prior Commission approval, provided that the licensee evaluates each such change pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

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<u>SECTION</u>	<u>PAGE</u>
3/4.4.9 PRESSURE/TEMPERATURE LIMITS Reactor Coolant System .....	3/4 4-23
FIGURE 3.4-2 TURKEY POINT UNITS 3&4 REACTOR COOLANT SYSTEM HEATUP LIMITATIONS (Heatup Rates of 60 and 100°F/hr) APPLICABLE FOR 48 EFPY (Without Margins for Instrumentation Errors).....	3/4 4-25
FIGURE 3.4-3 TURKEY POINT UNITS 3&4 REACTOR COOLANT SYSTEM COOLDOWN LIMITATIONS (Cooldown Rates of 0, 20, 40, 60 and 100°F/hr) APPLICABLE FOR 48 EFPY(Without Margins for Instrumentation Errors) .....	3/4 4-25
Pressurizer .....	3/4 4-26
Overpressure Mitigating Systems.....	3/4 4-27
3/4.4.10 DELETED	
3/4.4.11 REACTOR COOLANT SYSTEM VENTS .....	3/4 4-29
<u>3/4.5 EMERGENCY CORE COOLING SYSTEMS</u>	
3/4.5.1 ACCUMULATORS.....	3/4 5-1
3/4.5.2 ECCS SUBSYSTEMS - $T_{avg}$ GREATER THAN OR EQUAL TO 350°F.....	3/4 5-3
FIGURE 3.5-1 DELETED .....	3/4 5-6
3/4.5.3 ECCS SUBSYSTEMS - $T_{avg}$ LESS THAN 350°F.....	3/4 5-9
3/4.5.4 REFUELING WATER STORAGE TANK.....	3/4 5-10

## APPLICABILITY

### SURVEILLANCE REQUIREMENTS

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- 4.0.1 Surveillance Requirements shall be met during the OPERATIONAL MODES or other conditions specified for individual Limiting Conditions for Operation unless otherwise stated in an individual Surveillance Requirement. Failure to perform a Surveillance Requirement within the allowed surveillance interval, defined by Specification 4.0.2, shall constitute noncompliance with the OPERABILITY requirements for a Limiting Condition for Operation. Surveillance Requirements do not have to be performed on inoperable equipment.
- 4.0.2 Each Surveillance Requirement shall be performed within the specified time interval with a maximum allowable extension not to exceed 25% of the surveillance interval. If an ACTION item requires periodic performance on a "once per . . ." basis, the above frequency extension applies to each performance after the initial performance. Exceptions to this Specification are stated in the individual Specifications.
- 4.0.3 If it is discovered that a Surveillance was not performed within its specified frequency, then compliance with the requirement to declare the Limiting Condition of Operation not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified frequency, whichever is greater. This delay period is permitted to allow performance of the Surveillance. A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

If the surveillance is not performed within the delay period, the Limiting Condition of Operation must immediately be declared not met, and the applicable ACTION(s) must be entered.

When the Surveillance is performed within the delay period and the Surveillance is not met, the Limiting Condition of Operation must immediately be declared not met, and the applicable ACTION(s) must be entered.

- 4.0.4 Entry into a MODE or other specified condition in the Applicability of an LCO shall only be made when the LCO's Surveillances have been met within their specified frequency, except as provided by Specification 4.0.3. When an LCO is not met due to Surveillances not having been met, entry into a MODE or other specified condition in the Applicability shall only be made in accordance with Specification 3.0.4.

This provision shall not prevent entry into MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

#### 4.0.5 DELETED

- a. DELETED

APPLICABILITY

SURVEILLANCE REQUIREMENTS (CONTINUED)

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- b. DELETED
- c. DELETED
- d. DELETED
- e. DELETED
- f. DELETED

4.0.6 Surveillance Requirements shall apply to each unit individually unless otherwise indicated as stated in Specification 3.0.5 for individual specifications or whenever certain portions of a specification contain surveillance parameters different for each unit, which will be identified in parentheses, footnotes or body of the requirement.

REACTOR COOLANT SYSTEM

RELIEF VALVES

SURVEILLANCE REQUIREMENTS

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- 4.4.4 In accordance with the INSERVICE TESTING PROGRAM each block valve shall be demonstrated OPERABLE by operating the valve through one complete cycle of full travel unless the block valve is closed with power removed in order to meet the requirements of Specification 3.4.4 or is closed to provide an isolation function.

REACTOR COOLANT SYSTEM  
OPERATIONAL LEAKAGE  
LIMITING CONDITION FOR OPERATION (Continued)

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2. The leakage\* from the remaining isolating valves in each high pressure line having a valve not meeting the criteria of Table 3.4-1, as listed in Table 3.4-1, shall be determined and recorded daily. The positions of the other valves located in the high pressure line having the leaking valve shall be recorded daily unless they are manual valves located inside containment.

Otherwise be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

- d. With any Reactor Coolant System Pressure Isolation Valve leakage greater than 5 gpm, reduce leakage to below 5 gpm within 1 hour, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

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4.4.6.2.1 Reactor Coolant System operational leakages shall be demonstrated to be within each of the above limits by:

- a. Monitoring the containment atmosphere gaseous or particulate radioactivity monitor in accordance with the Surveillance Frequency Control Program.
- b. Monitoring the containment sump level in accordance with the Surveillance Frequency Control Program.
- c.\*\* Performance of a Reactor Coolant System water inventory balance in accordance with the Surveillance Frequency Control Program\*\*\*; and
- d. Monitoring the Reactor Head Flange Leakoff System in accordance with the Surveillance Frequency Control Program; and
- e. Verifying primary-to-secondary leakage is  $\leq$  150 gallons per day through any one SG in accordance with the Surveillance Frequency Control Program\*\*\*.

4.4.6.2.2 Each Reactor Coolant System Pressure Isolation Valve specified in Table 3.4-1 shall be demonstrated OPERABLE by verifying leakage\* to be within its limit:

- a. When tested in accordance with the INSERVICE TESTING PROGRAM.
- b. Prior to entering MODE 2 whenever the plant has been in COLD SHUTDOWN for 7 days or more and if leakage testing has not been performed in the previous 9 months.
- c. DELETED

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\* To satisfy ALARA requirements, leakage may be measured indirectly (as from the performance of pressure indicators) if accomplished in accordance with approved procedures and supported by computations showing that the method is capable of demonstrating valve compliance with the leakage criteria.

\*\* Not applicable to primary-to-secondary leakage.

\*\*\* Not required to be performed until 12 hours after establishment of steady state operation.

REACTOR COOLANT SYSTEM

OPERATIONAL LEAKAGE

LIMITING CONDITION FOR OPERATION (Continued)

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- d. Following valve actuation due to automatic or manual action or flow through the valve\*:
  - 1. Within 24 hours by verifying valve closure, and
  - 2. Prior to entering Mode 2 by verifying leakage rate.

The provisions of Specification 4.0.4 are not applicable for entry into MODE 3 or 4.

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\* RCS Pressure Isolation Valves actuated during the performance of this surveillance are not required to be tested more than once if a repetitive testing loop cannot be avoided.

## REACTOR COOLANT SYSTEM

### 3/4.4.11 REACTOR COOLANT SYSTEM VENTS

#### LIMITING CONDITION FOR OPERATION

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3.4.11 At least one Reactor Coolant System vent path consisting of at least two vent valves in series and powered from emergency busses shall be OPERABLE and closed at each of the following locations:

- a. Reactor vessel head, and
- b. Pressurizer steam space

APPLICABILITY: MODES 1, 2, 3, and 4.

#### ACTION:

- a. With one of the above Reactor Coolant System vent paths inoperable, STARTUP and/or POWER OPERATION may continue provided the inoperable vent path is maintained closed with power removed from the valve actuator of all the vent valves in the inoperable vent path; restore the inoperable vent path to OPERABLE status within 30 days, or, be in HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With both Reactor Coolant System vent paths inoperable; maintain the inoperable vent path closed with power removed from the valve actuators of all the vent valves in the inoperable vent paths, and restore at least one of the vent paths to OPERABLE status within 72 hours or be in HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

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4.4.11 Each Reactor Coolant System vent path shall be demonstrated OPERABLE by:

- a. Verifying all manual isolation valves in each vent path are locked in the open position in accordance with the Surveillance Frequency Control Program,
- b. Cycling each vent valve through at least one complete cycle of full travel from the control room in accordance with the INSERVICE TESTING PROGRAM, and
- c. Verifying flow through the Reactor Coolant System vent paths during venting in accordance with the Surveillance Frequency Control Program.



## EMERGENCY CORE COOLING SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

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- b. In accordance with the Surveillance Frequency Control Program and within 6 hours after each solution volume increase of greater than or equal to 1% of tank volume by verifying the boron concentration of the solution in the water-filled accumulator is between 2300 and 2600 ppm;
- c. In accordance with the Surveillance Frequency Control Program, when the RCS pressure is above 1000 psig, by verifying that the power to the isolation valve operator is disconnected by a locked open breaker.
- d. Deleted

## EMERGENCY CORE COOLING SYSTEMS

### SURVEILLANCE REQUIREMENTS

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4.5.2 Each ECCS component and flow path shall be demonstrated OPERABLE:

- a. In accordance with the Surveillance Frequency Control Program by verifying by control room indication that the following valves are in the indicated positions with power to the valve operators removed:

<u>Valve Number</u>	<u>Valve Function</u>	<u>Valve Position</u>
864A and B	Supply from RWST to ECCS	Open
862A and B	RWST Supply to RHR pumps	Open
863A and B	RHR Recirculation	Closed
866A and B	H.H.S.I. to Hot Legs	Closed
HCV-758*	RHR HX Outlet	Open

To permit positive valve position indication for surveillance or maintenance purposes in the event that continuous valve position indication is unavailable in the control room, power may be restored to these valves for a period not to exceed 1 hour.

- b. In accordance with the Surveillance Frequency Control Program by:
- 1) Verifying ECCS locations susceptible to gas accumulation are sufficiently filled with water, and
  - 2) Verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.\*\*
- c. By verifying that each SI and RHR pump's developed head at the test flow point is greater than or equal to the required developed head when tested in accordance with the INSERVICE TESTING PROGRAM.

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\*Air Supply to HCV-758 shall be verified shut off and sealed closed in accordance with the Surveillance Frequency Control Program.

\*\*Not required to be met for system vent flow paths opened under administrative control.

Figure 3.5-1  
DELETED

## CONTAINMENT SYSTEMS

### 3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

#### CONTAINMENT SPRAY SYSTEM

##### LIMITING CONDITION FOR OPERATION

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3.6.2.1 Two independent Containment Spray Systems shall be OPERABLE with each Spray System capable of taking suction from the RWST and manually transferring suction to the containment sump via the RHR System.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

- a. With one Containment Spray System inoperable restore the inoperable Spray System 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.
- b. With two Containment Spray Systems inoperable restore at least one Spray System to OPERABLE status within 1 hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore both Spray Systems to OPERABLE status within 72 hours of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

##### SURVEILLANCE REQUIREMENTS

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4.6.2.1 Each Containment Spray System shall be demonstrated OPERABLE:

- a. In accordance with the Surveillance Frequency Control Program by verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position\* and that power is available to flow path components that require power for operation;
- b. By verifying that each Containment Spray pump's developed head at the test flow point is greater than or equal to the required developed head, when tested in accordance with the INSERVICE TESTING PROGRAM.
- c. In accordance with the Surveillance Frequency Control Program by verifying containment spray locations susceptible to gas accumulation are sufficiently filled with water.

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\* Not required to be met for system vent flow paths opened under administrative control.

\*\* During Unit 3 Cycle 29 only, a one-time extension from 72 hours to 14 days is allowed to perform 3A Containment Spray Pump (3P214A) planned maintenance, provided the following compensatory measures are in place:

- 3B Containment Spray Pump and associated electrical breaker [Guarded]
- 3A, 3B and 3C Emergency Containment Coolers and associated electrical breakers [Guarded]
- 3A, 3B Emergency Diesel Generators [Guarded]
- Unit 3 Startup Transformer and associated onsite AC power distribution system [Guarded]

## ADMINISTRATIVE CONTROLS

### PROCEDURES AND PROGRAMS (Continued)

#### i. Surveillance Frequency Control Program

This program provides controls for Surveillance Frequencies. The program shall ensure that Surveillance Requirements specified in the Technical Specifications are performed at intervals sufficient to assure the associated Limiting Conditions for Operations are met:

- a. The Surveillance Frequency Control Program shall contain a list of frequencies of those Surveillance Requirements for which the frequency is controlled by the program.
- b. Changes to the frequencies listed in the Surveillance Frequency Control Program shall be made in accordance with NEI 04-10, " Risk-Informed Method for Control of Surveillance Frequencies," Revision 1.
- c. The provisions of Surveillance Requirements 4.0.2 and 4.0.3 are applicable to the frequencies established in the Surveillance Frequency Control Program.

#### m. Snubber Testing Program

This program conforms to the examination, testing and service life monitoring for dynamic restraints (snubbers) in accordance with 10 CFR 50.55a inservice inspection (ISI) requirements for supports. The program shall be in accordance with the following:

- a. This program shall meet 10 CFR 50.55a(g) ISI requirements for supports.
- b. The program shall meet the requirements for ISI of supports set forth in subsequent editions of the Code of Record and addenda of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BPV) Code and the ASME Code for Operation and Maintenance of Nuclear Power Plants (OM Code) that are incorporated by reference in 10 CFR 50.55a(a) subject to the use and conditions on the use of standards listed in 10 CFR 50.55a(b) and subject to Commission approval.
- c. The program shall, as required by 10 CFR 50.55a(b)(3)(v), meet Subsection ISTA, "General Requirements" and Subsection ISTD, "Preservice and Inservice Examination and Testing of Dynamic Restraints (Snubbers) in Light-Water Reactor Nuclear Power Plants".
- d. The 120-month program updates shall be made in accordance with 10 CFR 50.55a(g)(4), 10 CFR 50.55a(g)(3)(v) and 10 CFR 50.55a(b) (including 10 CFR 50.55a(b)(3)(v)) subject to the conditions listed therein.

#### n. Reactor Coolant Pump Flywheel Inspection Program

Each Reactor Coolant Pump flywheel shall be inspected at least once every 20 years by either conducting an in-place ultrasonic examination over the volume from the inner bore of the flywheel to the circle of one-half the outer radius, or by conducting a surface examination (magnetic particle and/or liquid penetrant) of exposed surfaces of the disassembled flywheel.

### 6.8.5 DELETED



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

AMENDMENT NO. 281 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-31

AMENDMENT NO. 275 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-41

FLORIDA POWER & LIGHT COMPANY

TURKEY POINT NUCLEAR GENERATING UNIT NOS. 3 AND 4

DOCKET NOS. 50-250 AND 50-251

1.0 INTRODUCTION

By application dated June 28, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17180A447), as supplemented by letter dated February 28, 2018 (ADAMS Accession No. ML18075A023) Florida Power & Light Company (the licensee) requested changes to the Technical Specifications (TSs) for Turkey Point Nuclear Generating Unit Nos. 3 and 4 (Turkey Point 3 and 4), which are contained in Appendix A of Renewed Facility Operating License Nos. DPR-31 and DPR-41. The licensee proposed to revise the TSs to relocate to licensee-controlled documents, select acceptance criteria specified in TS surveillance requirements (SRs) credited for satisfying Inservice Testing (IST) Program and Inservice Inspection (ISI) Program requirements, delete the SRs for the American Society of Mechanical Engineers (ASME) Code Class 1, 2, and 3 components, replace references to the Surveillance Frequency Control Program (SFCP) with reference to the Turkey Point IST Program where appropriate, establish a Reactor Coolant Pump (RCP) Flywheel Inspection Program, and make related editorial changes. Additionally, the licensee proposed to delete a redundant SR for accumulator check valve testing and add a footnote to the SR for Pressure Isolation Valve (PIV) testing to state that PIVs actuated during the performance of the surveillance are not required to be tested more than once if a repetitive testing loop cannot be avoided.

On August 29, 2017, the U.S. Nuclear Regulatory Commission (NRC) staff published a proposed no significant hazards consideration (NSHC) determination in the *Federal Register* (82 FR 41069) for the proposed amendment. By electronic mail (e-mail) dated January 25, 2018 (ADAMS Accession No. ML18029A043), the staff sent the licensee a request for additional information (RAI). The licensee responded to the RAI by letter dated February 28, 2018. In its letter dated February 28, 2018, the licensee provided additional information that expanded the scope of the amendment request as originally noticed in the *Federal Register*. Accordingly, the NRC staff published a second proposed NSHC determination in the *Federal Register* on April 10, 2018 (83 FR 15417), which superseded the original notice in its entirety.

## 2.0 REGULATORY EVALUATION

### 2.1. Description of ISI Requirements, IST Requirements, and the SFCP

#### ISI Requirements

ISI activities are intended to detect precursors to pressure boundary failures in reactor coolant systems, emergency core cooling systems, risk-significant piping and components, and containment systems. The regulations at paragraph 50.55a(g) of Title 10 of the *Code of Federal Regulations* (10 CFR), "Preservice and Inservice Inspection Requirements," require, in part, that Classes 1, 2, 3, metal containment, and concrete containment components and their supports meet the requirements of Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," of the ASME Boiler and Pressure Vessel Code, or equivalent quality standards. ISI activities are accomplished over successive 120-month intervals during the operating life of the plant.

#### IST Requirements

An inservice test is a test to assess the operational readiness of a system, structure, or component after first electrical generation by nuclear heat. The ASME Operations and Maintenance (OM) Code provides requirements for inservice testing of certain components in light-water nuclear power plants. The ASME OM Code identifies the components subject to the testing (i.e., pumps, valves, and dynamic restraints), responsibilities, methods, intervals, parameters to be measured and evaluated, criteria for evaluating results, corrective actions, personnel qualification, and recordkeeping. Paragraph 50.55a(f) of 10 CFR, "Preservice and Inservice testing requirements," requires, in part, that inservice testing of certain ASME Code Class 1, 2, and 3 components must meet the requirements of the ASME OM Code and applicable addenda. The TSs also prescribe inservice testing requirements and frequencies for ASME Code Class 1, 2, and 3 components.

#### SFCP

The SFCP is a licensee-controlled program in which most time-based frequencies were relocated from the TSs, in accordance with NEI 04-10, Revision 1, "Risk-Informed Technical Specifications Initiative 5b – Risk-Informed Method for Control of Surveillance Frequencies." By letter dated July 16, 2015 (ADAMS Accession No. ML15166A320), the NRC approved the licensee's request to adopt a Technical Specification Task Force (TSTF) Standard Technical Specifications (STSs) change, TSTF-425, Revision 3, "Relocate Surveillance Frequencies to Licensee Control - RITSTF [Risk Informed TSTF] Initiative 5b," which established the SFCP at Turkey Point 3 and 4. The SFCP, which is defined in TS 6.8.4.I, permits the licensee to revise surveillance frequencies based on risk insights from probabilistic risk assessments, plant operational experience, and other factors, without prior NRC authorization.

## 2.2 Licensee's Proposed Changes

### Deletion of SR 4.0.5 and Relocation of RCP Flywheel Inspection Requirements

The licensee proposes to delete SR 4.0.5.a through SR 4.0.5.f, transferring the requirements of SR 4.0.5.f to a new program entitled "Reactor Coolant Pump Flywheel Inspection Program." This new program would be described in a new entry in TS 6.8.4, as indicated below:

#### n. Reactor Coolant Pump Flywheel Inspection Program

Each Reactor Coolant Pump flywheel shall be inspected at least once every 20 years by either conducting an in-place ultrasonic examination over the volume from the inner bore of the flywheel to the circle of one-half the outer radius, or by conducting a surface examination (magnetic particle and/or liquid penetrant) of exposed surfaces of the disassembled flywheel.

### Relocation of Acceptance Criteria in Select SRs Credited by the IST Program

The licensee proposes to relocate the acceptance criteria for the Safety Injection (SI), Residual Heat Removal (RHR), and Containment Spray (CS) pumps from SR 4.5.2.c, Figure 3.5-1, and SR 4.6.2.1.b from the TSs to the IST Program procedures. In addition, the acceptance criteria contained in SR 4.5.2.c would be placed in the TS Bases. The proposed changes would result in the deletion of Figure 3.5-1, as well as the following changes to SR 4.5.2.c and SR 4.6.2.1.b (deletions shown in stricken text and additions underlined):

- SR 4.5.2

- c. By verifying the each SI and RHR pump's developed head at the test flow point is greater than or equal to the required developed head pump ~~develops the indicated differential pressure applicable to the operating conditions~~ when tested in accordance with the INSERVICE TESTING PROGRAM.

- 1) SI pump ~~—————~~  $\geq 1083$  psid at a metered flowrate  $\geq 300$  gpm ~~(normal alignment or Unit 4 SI pumps aligned to Unit 3 RWST), or~~  
 $\geq 1113$  psid at a metered flowrate  $\geq 280$  gpm (Unit 3 SI pumps aligned to Unit 4 RWST)

- 2) RHR pump ~~—————~~ Develops the indicated differential pressure applicable to the operating conditions in accordance with Figure 3.5-1.

- SR 4.6.2.1

- b. By verifying that each Containment Spray pump's developed head at the test flow point is greater than or equal to the required developed head ~~on~~



~~recirculation flow, each pump develops the indicated differential pressure, when tested in accordance with the INSERVICE TESTING PROGRAM.~~

~~Containment Spray Pump  $\geq 241.6$  psid while aligned in recirculation mode.~~

#### Replacement of References to the SFCP in SRs Credited by the IST Program

The licensee proposes to replace references to the SFCP in SRs 4.4.4, 4.4.6.2.2, and 4.4.11 with references to the IST Program. In addition, the licensee proposes to add a footnote to SR 4.4.6.2.2.d to designate that PIV testing is not required more than once if a repetitive testing loop cannot be avoided. The proposed changes would result in the following changes to SRs 4.4.4, 4.4.6.2.2, and 4.4.11 (deletions shown in stricken text and additions underlined):

- SR 4.4.4

4.4.4 In accordance with the ~~Surveillance Frequency Control Program~~ INSERVICE TESTING PROGRAM each block valve shall be demonstrated OPERABLE by operating the valve through one complete cycle of full travel unless the block valve is closed with power removed in order to meet the requirements of Specification 3.4.4 or is close to provide isolation function.

- SR 4.4.6.2.2

- a. ~~In~~ When tested in accordance with the Surveillance Frequency Control Program INSERVICE TESTING PROGRAM.
- b. Prior to entering MODE 2 whenever the plant has been in COLD SHUTDOWN for 7 days or more and if leakage testing has not been performed in the previous 9 months, ~~and~~
- c. ~~Prior to returning the valve to service following maintenance, repair or replacement work on the valve.~~ DELETED
- d. Following valve actuation due to automatic or manual action or flow through the valve\*:
  - 1. Within 24 hours by verifying valve closure, and
  - 2. Prior to entering Mode 2 by verifying leakage rate.

\* RCS Pressure Isolation Valves actuated during the performance of this surveillance are not required to be tested more than once if a repetitive testing loop cannot be avoided.

- SR 4.4.11

4.4.11 Each Reactor Coolant System vent path shall be demonstrated OPERABLE in accordance with the ~~Surveillance Frequency Control Program~~ by:

- a. Verifying all manual isolation valves in each vent path are locked in the open position in accordance with the Surveillance Frequency Control Program,
- b. Cycling each vent valve through at least one complete cycle of full travel from the control room in accordance with the INSERVICE TESTING PROGRAM, and
- c. Verifying flow through the Reactor Coolant System vent paths during venting in accordance with the Surveillance Frequency Control Program.

#### Deletion of SR 4.5.1.1.d

The licensee proposes to delete SR 4.5.1.1.d and its associated footnote (deletions shown in stricken text and additions underlined):

- SR 4.5.1.1

- d. ~~In accordance with the Surveillance Frequency Control Program\*, each accumulator check valve shall be checked for operability.~~ Deleted

~~\* During Unit 3 Cycle 26 only, in lieu of the Technical Specification specified 18 month refueling frequency and 4.5 month grace period allowance, the maximum allowed surveillance test interval will be extended to no more than 24.5 months.~~

## 2.3 Regulatory Review

The NRC staff reviewed the licensee's application to determine whether (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) activities proposed will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or the health and safety of the public. The NRC staff considered the following regulatory requirements, guidance, and licensing and design-basis information during its review of the proposed changes.

Paragraph 50.36(c)(3) of 10 CFR states, in part, that the TS shall contain SRs relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation will be met.

Paragraph 50.36(c)(5) of 10 CFR states that administrative controls are the provisions relating to organization and management, procedures, recordkeeping, review and audit, and reporting necessary to assure operation of the facility in a safe manner.

Paragraph 50.55a(f) of 10 CFR states, in part, that systems and components of pressurized water-cooled nuclear power reactors must meet the IST requirements of the ASME Boiler and Pressure Vessel (BPV) Code and ASME OM Code, as specified later in the paragraph. Further, 10 CFR 50.55a(f)(5)(ii) states, in part, that if a revised IST program for a facility conflicts with the TSs for the facility, the licensee must apply to the NRC for amendment of the TSs to conform them to the revised program.

Paragraph 50.55a(g) of 10 CFR states, in part, that systems and components of pressurized water-cooled nuclear power reactors must meet the ISI requirements of the ASME BPV Code, as specified later in the paragraph. Further, 10 CFR 50.55a(g)(5)(ii) states, in part, that if a revised ISI program for a facility conflicts with the TSs for the facility, the licensee must apply to the NRC for amendment of the TSs to conform them to the revised program.

NUREG-1431, Revision 4, Volume 1, "Standard Technical Specifications – Westinghouse Plants" (ADAMS Accession No. ML12100A222). Although the Turkey Point 3 and 4 TSs are not based on the guidance in NUREG-1431, the STSs present an acceptable method for licensees of Westinghouse plants to meet the NRC's requirements in 10 CFR 50.36.

TSTF-545, Revision 3, "TS Inservice Testing Program Removal & Clarify SR Usage Rule Application to Section 5.5 Testing" was published in the *Federal Register* on March 26, 2016 (81 FR 17208). TSTF-545, Revision 3 provides guidance to licensees on how to request license amendments that would eliminate conflicting requirements between 10 CFR 50.55a and the TSs. The NRC staff approved the licensee's request to adopt TSTF-545, Revision 3 at Turkey Point by Amendments 274 and 269, dated April 7, 2017 (ADAMS Accession No. ML17027A078)

### 3.0 TECHNICAL EVALUATION

The NRC staff evaluated the licensee's application to determine if the proposed changes are consistent with the guidance, regulations, and plant-specific design and licensing basis information discussed in Section 2.3 of this safety evaluation.

#### 3.1 Deletion of SR 4.0.5 and Relocation of RCP Flywheel Inspection Requirements

In its application dated June 28, 2017, as modified by letter dated February 28, 2018, the licensee proposed to delete SR 4.0.5.a, SR 4.0.5.b, SR 4.0.5.c, SR 4.0.5.d, and SR 4.0.5.f, relocating the requirements of SR 4.0.5.f to ISI Program procedures. In addition, the licensee proposed to add a new paragraph n in TS 6.8.4 entitled, "Reactor Coolant Pump Flywheel Inspection Program," to describe the new program.

##### 3.1.1 Deletion of SR 4.0.5.a and SR 4.0.5.b

The licensee proposed to delete SR 4.0.5.a and SR 4.0.5.b, which require that ISI of ASME Code Class 1, 2, and 3 components be performed in accordance with Section XI of the ASME

BPV Code and Applicable Addenda, as required by 10 CFR 50.55a. The regulations at 10 CFR 50.55a(g) require, in part, that a plant-specific ISI program be developed and implemented by the nuclear facility owner in accordance with the applicable edition and addenda of the Section XI of the ASME Code. Pursuant to the regulations at 10 CFR 50.55a(g), the licensee has developed and implemented a plant-specific ISI program, including inspection frequencies. Therefore, the NRC staff finds that TS 4.0.5.a and TS 4.0.5.b are duplicative of the requirements at 10 CFR 50.55a(g) and not necessary. Furthermore, the proposed change is consistent with the STSs contained in NUREG-1431. The STSs do not include ISI requirements on the basis that requirements to perform ISIs are contained in the plant-specific ISI Program. As such, the NRC staff concludes that the proposed change does not eliminate any ISI activities, which will continue to be covered by the existing ISI Program at Turkey Point 3 and 4, and that SR 4.0.5.a and SR 4.0.5.b are not necessary to meet the requirements of 10 CFR 50.36(c)(3). Therefore, the NRC staff finds the proposed deletion of SR 4.0.5.a and SR 4.0.5.b acceptable.

### 3.1.2 Deletion of SR 4.0.5.c

The licensee proposed to delete SR 4.0.5.c, which states that the requirements of SR 4.0.2 apply to the ISI activities identified in SR 4.0.5.b. SR 4.0.2 allows up to a 25-percent extension of the surveillance interval identified in an SR. The regulations of 10 CFR 50.55a(g) require, in part, that a plant-specific ISI program be developed and implemented by the nuclear facility owner in accordance with the applicable edition and addenda of the Section XI of the ASME Code. Pursuant to 10 CFR 50.55a(g), the licensee has developed and implemented a plant-specific ISI program, including specific inspection frequencies without a 25-percent frequency allowance. The requirements at 10 CFR 50.55a(g)(5)(ii) require that if a revised ISI program for a facility conflicts with the TSs, the licensee shall apply to the NRC for amendment of the TSs to conform the TSs to the revised ISI program. SR 4.0.5.c conflicts with the regulations and Section XI requirements because it allows for a 25-percent frequency extension for ISI activities. Further, because the frequencies are governed by the requirements of 10 CFR 50.55a(g) and Section XI of the ASME Code, SR 4.0.5.c is not necessary to meet the requirements at 10 CFR 50.36(c)(3). Therefore, the NRC staff finds the deletion of SR 4.0.5.c acceptable.

### 3.1.3 Deletion of SR 4.0.5.d

The licensee proposed to delete SR 4.0.5.d, which requires ISI activities to be performed in addition to other TS-specified SRs. SR 4.0.5.d is redundant because ISI activities are required to be performed in accordance with the regulations at 10 CFR 50.55a(g). As such, SR 4.0.5.d is not necessary to meet the requirements at 10 CFR 50.36(c)(3). Therefore, the NRC staff finds the deletion of SR 4.0.5.d acceptable.

### 3.1.4 Deletion of SR 4.0.5.f and Relocation of Requirement to RCP Flywheel Inspection Program

The licensee proposed to delete SR 4.0.5.f, which specifies the periodicity, scope and methodology for non-destructive examination of the RCP flywheels. The proposed change deletes SR 4.0.5.f and relocates the RCP flywheel inspection requirements to a new program in TS 6.8.4.n, "Reactor Coolant Pump Flywheel Inspection Program." Relocation of the RCP flywheel inspection requirements to ISI Program procedures and the establishment of

TS 6.8.4.n is consistent with Section 5.5 of STSs contained in NUREG-1431. Further, the proposed inspection of the RCP flywheel at least once every 20 years is consistent with the inspection requirement in current SR 4.0.5.f and with the STS (STS 5.5.7). The NRC staff finds the proposed deletion of TS 4.0.5.f does not impact the licensee's implementation or performance of the TS-required inspection and is consistent with the requirements at 10 CFR 50.36(c)(5). Therefore, the deletion of SR 4.0.5.f, the relocation of the RCP flywheel inspection requirements to ISI Program procedures and the establishment of TS 6.8.4.n are acceptable.

### 3.2 Relocation of Acceptance Criteria in Select SRs Credited by the IST Program

#### 3.2.1 Relocation of Acceptance Criteria in SR 4.5.2.c.1 and SR 4.5.2.c.2 to IST Program Procedures

The licensee proposed to relocate the acceptance criteria in SR 4.5.2.c and Figure 3.5-1 to IST Program procedures. This change would delete Figure 3.5-1 and revise SR 4.5.2.c to state the following:

By verifying that each SI and RHR pump's developed head at the test flow point is greater than or equal to the required developed head in accordance with the INSERVICE TESTING PROGRAM.

##### 3.2.1.1 Relocation of Acceptance Criteria in SR 4.5.2.c.1 to IST Program Procedures

The proposed change replaces the acceptance criteria specified in SR 4.5.2.c.1 with a statement that each SI pump's developed head at the test flow point shall be equal to or greater than the required developed head when tested in accordance with the INSERVICE TEST PROGRAM. These acceptance criteria are incorporated in the INSERVICE TEST PROGRAM procedures. The licensee stated that to ensure that pump performance does not degrade below that assumed in the plant safety analyses, IST Program procedures specify the minimum allowable pump differential pressure as the most restrictive of the required (i.e., the design basis minimum and the minimum allowed by ASME OM Code). Hence, testing of the SI pump in accordance with IST program procedures would neither change the methodology, nor the manner in which the test results are evaluated, as required by SR 4.5.2.c.1. In its RAI response dated February 28, 2018, the licensee confirmed that the IST program test procedures are designed to demonstrate compliance with both the SR 4.5.2.c.1 and the ASME OM Code operability requirements. Furthermore, these changes are consistent with TSTF-545, Revision 3, and, as such, consistent with the regulations at 10 CFR 50.36(c)(3) and 10 CFR 50.55a(f). Therefore, the NRC staff finds the proposed changes acceptable.

##### 3.2.1.2 Relocation of Acceptance Criteria in SR 4.5.2.c.2 to IST Program Procedures

The proposed changes also delete the RHR pump curve in Figure 3.5-1 and replace the acceptance criteria specified in SR 4.5.2.c.2 with a statement that each RHR pump's developed head at the test flow point shall be equal to or greater than the required developed head when tested in accordance with the INSERVICE TEST PROGRAM. These acceptance criteria are incorporated in the INSERVICE TEST PROGRAM procedures. The licensee stated that to ensure that pump performance does not degrade below that assumed in the plant safety analyses, IST Program procedures specify the minimum allowable pump differential pressure

deletion of Figure 3.5.1 and testing the RHR pumps in accordance with IST program procedures would neither change the methodology nor the manner in which the test results are evaluated as required by TS 4.5.2.c.2. In its RAI response dated February 28, 2018, the licensee confirmed that the IST program test procedures are designed to demonstrate compliance with both the SR 4.5.2.c.2 and the ASME OM Code operability requirements. Furthermore, these changes are consistent with TSTF-545, Revision 3, and, as such, consistent with the regulations at 10 CFR 50.36(c)(3) and 10 CFR 50.55a(f). Therefore, the NRC staff finds the proposed changes acceptable.

### 3.2.2 Relocation of Acceptance Criteria in 4.6.2.1.b to IST Program Procedures

SR 4.6.2.1.b. specifies the CS pumps' minimum allowable  $\Delta p$  when tested under the specified conditions for pump recirculation flow. The licensee's proposed change would replace the minimum allowable  $\Delta p$  specified in SR 4.6.2.1.b with a statement that each pump's developed head at the test flow point shall be greater than or equal to the required developed head when tested in accordance with the INSERVICE TESTING PROGRAM. The licensee stated that that acceptance criteria for the CS pumps, which are incorporated in the IST Program procedures, account for available margin for the test and ensure that the design basis minimums are met. The licensee further stated that the CS pump flow must be established through the pump mini-recirculation piping or otherwise by substantially throttling flow through full-flow recirculation piping in order to satisfy the current test conditions specified in SR 4.6.2.1.b. However, since the licensee's installation of full-flow recirculation piping in 2012, quarterly CS pump testing is still required under mini-recirculation conditions in order to satisfy SR 4.6.2.1.b, and full-flow recirculation conditions is also performed to fulfill IST Program requirements. Because the testing under full flow test is more desirable than the quarterly CS pump testing through the mini-recirculation line, the NRC staff finds that replacing the SR 4.6.2.1.b with an IST full-flow test is acceptable. To ensure that CS pump performance does not degrade below that assumed in plant safety analyses, IST Program procedures specify the minimum allowable  $\Delta p$  as the more restrictive of the required  $\Delta p$  and the minimum  $\Delta p$  allowed by ASME OM Code. Hence, replacing the CS pump mini-recirculation test requirement and minimum allowable  $\Delta p$  in SR 4.6.2.1.b with a statement that each CS pump's developed head at the test flow point shall be greater than or equal to the required developed head when tested in accordance with the INSERVICE TESTING PROGRAM is acceptable.

The purpose of the IST program is to monitor the degradation and rate of degradation, and to determine the operational readiness of a component for the period until the next IST. The purpose of a SR is used to determine the operability of a component (during the period since the last SR was performed and going into a new period). In its RAI response dated February 28, 2018, the licensee confirmed that the IST program test procedures are designed to demonstrate compliance with both the SR 4.6.2.1.b and the ASME OM Code operability requirements. Furthermore, the relocation of acceptance criteria to IST is consistent with TSTF-545, Revision 3, and, as such, consistent with the regulations at 10 CFR 50.36(c)(3) and 10 CFR 50.55a(f). Therefore, the NRC staff finds that the proposed changes are acceptable.

### 3.3 Replacement of References to the SFCP in SRs Credited by the IST Program

In its application dated June 28, 2017, the licensee proposed to replace references to the SFCP in SR 4.4.4, and SR 4.4.6.2.2.a, SR 4.4.6.2.2.d with references to testing in accordance with the

INSERVICE TESTING PROGRAM. The licensee also proposed to relocate the reference to the SFCP from SR 4.4.11 to SR 4.4.11.a and SR 4.4.11.c, and modify SR 4.4.11.b to reference testing in accordance with the INSERVICE TESTING PROGRAM. Further, the licensee proposed to end SR 4.4.6.2.2.b with a period and delete SR 4.4.6.2.2.c, which requires each Reactor Coolant System Pressure Isolation Valve to be demonstrated OPERABLE prior to returning them to service following maintenance, repair, or replacement. Finally, the licensee proposed to delete the footnote denoted by an asterisk for SR 4.5.1.1, which specifies the maximum allowed surveillance test interval for Unit 3 Cycle 26, as this requirement is no longer applicable. In its RAI response letter dated February 28, 2018, the licensee proposed to delete SR 4.5.1.1.d and to add a footnote with an asterisk in SR 4.4.6.2.2.d.

### 3.3.1 Replacement of References to the SFCP with References to the IST Program in SR 4.4.4, SR 4.4.6.2.2.a, and SR 4.4.11.b

The licensee stated in its application that SR 4.4.4, SR 4.4.6.2.2.a, and SR 4.4.11.b are credited for satisfying IST Program requirements and that replacing references to the SFCP with references to testing in accordance with the INSERVICE TESTING PROGRAM is reasonable because the SFCP cannot modify the IST frequency established in 10 CFR 50.55a. In its RAI response dated February 28, 2018, the licensee clarified its requested change to SR 4.4.11 by stating that “the change merely relocates the generic reference to SFCP in SR 4.4.11 to apply explicitly to SR 4.4.11.a and SR 4.4.11.c, and changes SR 4.4.11.b to specify testing in accordance with the INSERVICE TESTING PROGRAM.” The NRC staff agrees that the proposed changes to the SRs would not change any frequencies and would ensure that the SFCP cannot be used to reduce the frequency of SRs credited for satisfying IST program requirements. Furthermore, these changes are consistent with TSTF-545, Revision 3, as such, consistent with the regulations at 10 CFR 50.36(c)(3) and 10 CFR 50.55a(f). Therefore, the NRC staff finds the proposed changes acceptable.

### 3.3.2 Deletion of SR 4.4.6.2.2.c

SR 4.4.6.2.2.c requires that each Reactor Coolant System PIV specified in Table 3.4.1 shall be demonstrated OPERABLE by verifying leakage to be within its limit prior to returning the valve to service following maintenance, repair or replacement work on the valve.

The licensee proposed to delete SR 4.4.6.2.2.c because it is redundant with the requirements of Appendix B to 10 CFR Part 50, Section XIV, “Inspection, Test, and Operating Status,” Section XV, “Nonconforming Materials, Parts, or Components,” and Section XVI, “Corrective Action.” In its RAI response dated February 28, 2018, the licensee stated that the requirements of SR 4.4.6.2.2.c are embedded in its work management processes, which subject structures, systems, and components undergoing maintenance, repair or replacement to post-maintenance testing prior to returning to service. The licensee’s Nuclear Fleet Administrative procedure MA-AA-203-1000, “Maintenance Testing,” specifies post-maintenance testing in order to provide positive verification that the preventive or corrective maintenance activity corrected the original component deficiency, did not introduce a new deficiency, and provides a high degree of confidence that the component(s) worked-upon will perform intended design function(s) reliably when placed in service. The licensee’s Nuclear Fleet procedure WM-AA-200, “Work Management Process Overview,” requires return-to-service testing following maintenance, which is defined in WM-AA-200 as operability testing performed to demonstrate the satisfactory

operation of plant structures, systems, and components after maintenance. These fleet requirements are transcribed into site-specific procedures to assure uniform adherence to the post-maintenance performance expectations within. All structures, systems, and components undergoing maintenance, repair or replacement are thereby subject to post-maintenance testing that demonstrates operability, including PIV leak testing where applicable.

Additionally, the licensee stated that SR 4.4.6.2.2.c is not sufficiently comprehensive to establish PIV operability following maintenance, repair or replacement. The Turkey Point 3 and 4 PIVs also perform a safety function in the open direction and, as such, are subject to exercise-open testing in accordance with the IST Program. Failure to satisfy the exercise-open testing following maintenance, repair or replacement can preclude a declaration of operability.

The NRC staff notes that SR 4.4.6.2.2.c is comparable to the repair and replacement requirements of ASME OM Code paragraphs ISTC-3630(e) and ISTC-5115(e). Since 10 CFR 50.55a(f) requires compliance with the ASME OM Code, paragraphs ISTC-3630(e) and ISTC-5115(e) supersede and thereby render SR 4.4.6.2.2.c unnecessary. Therefore, the NRC staff finds that the deletion of SR 4.4.6.2.2.c is acceptable.

### 3.3.3 Addition of a Footnote to SR 4.4.6.2.2.d

In its RAI response dated February 28, 2018, the licensee proposed to modify SR 4.4.6.2.2.d regarding PIV testing. Specifically, the proposed change adds a footnote to SR 4.4.6.2.2.d to state that PIVs actuated during the performance of the SR are not required to be tested more than once if a repetitive testing loop cannot be avoided. The proposed change is necessary to avoid repetitive testing of normal RHR inlet from reactor coolant system motor-operated valves, MOV-750 and MOV-751. These valves are in series, leakage testing one in accordance with SR 4.4.6.2.2.d requires cycling open the other, and thereby subjects the opened valve to another leakage test. As such, an infinite testing loop cannot be avoided. The proposed change is consistent with the STSs contained in NUREG-1431, which contains a similar provision for PIV leakage testing. As such, the proposed change is consistent with the requirements at 10 CFR 50.36(c)(3). Therefore, the NRC staff finds the proposed change is acceptable.

### 3.3.4 Deletion of SR 4.5.1.1.d

In its RAI response dated February 28, 2018, the licensee proposed the deletion of SR 4.5.1.1.d and its associated footnote. The licensee stated that SR 4.5.1.1.d currently requires operability testing of the accumulator discharge check valves, but neither specifies test criteria, nor conditions. Instead, SR 4.5.1.1.d is satisfied by testing in accordance with the IST Program whereby the accumulator discharge check valves are subject to exercise open and closure testing consistent with ASME OM Code requirements. The current SFCP-specified frequency for testing the accumulator discharge check valves aligns with test frequency in the IST Program such that the proposed deletion of SR 4.5.1.1.d will not impact the test periodicity. IST Program requirements derive from 10 CFR 50.55a(f) and as such, the ASME OM Code requirements for testing the accumulator discharge check valves supersede and thereby render SR 4.5.1.1.d unnecessary. Moreover, deletion of SR 4.5.1.1.d is consistent with the STSs contained in NUREG-1431, which does not specify a SR for the accumulator discharge check



requirements for testing the accumulator discharge check valves supersede and thereby render SR 4.5.1.1.d unnecessary. Moreover, deletion of SR 4.5.1.1.d is consistent with the STSs contained in NUREG-1431, which does not specify a SR for the accumulator discharge check valves. As such, the proposed change is consistent with the requirements at 10 CFR 50.36(c)(3). Therefore, the NRC staff finds the proposed changes acceptable.

#### 4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the NRC staff notified the State of Florida official (Ms. Cynthia Becker, M.P.H., Chief of the Bureau of Radiation Control, Florida Department of Health) on May 10, 2018 (ADAMS Accession No. ML18131A184), of the proposed issuance of the amendments. The State official had no comments.

#### 5.0 ENVIRONMENTAL CONSIDERATION

The amendments change requirements with respect to the use of facility components located within the restricted area as defined in 10 CFR Part 20 and change surveillance requirements. The NRC staff has determined that the 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, which was published in the *Federal Register* on April 10, 2018 (83 FR 15417), that the amendments involve NSHC, and there has been no public comment on such finding. Accordingly, the 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 the amendments.

#### 6.0 CONCLUSION

The Commission has concluded, based on the aforementioned considerations, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Gurjendra Bedi

Date: June 12, 2018

SUBJECT: TURKEY POINT NUCLEAR GENERATING UNIT NOS. 3 AND 4 - ISSUANCE OF AMENDMENTS REGARDING TECHNICAL SPECIFICATIONS PERTAINING TO INSERVICE TESTING PROGRAM AND INSERVICE INSPECTION PROGRAM REQUIREMENTS AND SURVEILLANCE FREQUENCY CONTROL PROGRAM APPLICABILITY (CAC NOS. MF9907 AND MF9908; EPID L-2017-LLA-0252) DATED JUNE 12, 2018

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