

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

July 31, 2019

Mr. Don Moul Vice President, Nuclear Division and Chief Nuclear Officer Florida Power & Light Company NextEra Energy Seabrook, LLC Mail Stop: NT3/JW 15430 Endeavaor Drive Jupiter, FL 33478

SUBJECT: SEABROOK STATION, UNIT NO. 1; ST. LUCIE PLANT, UNIT NOS. 1 AND 2; AND TURKEY POINT NUCLEAR GENERATING UNIT NOS. 3 AND 4 -ISSUANCE OF AMENDMENT NOS. 161, 249, 200, 287, AND 281 TO ADD TECHNICAL SPECIFICATION LIMITING CONDITION FOR OPERATION 3.0.6 (EPID L-2018-LLA-0152)

Dear Mr. Moul:

The U.S. Nuclear Regulatory Commission (the Commission) has issued the following enclosed amendments:

- Amendment No. 161 to Renewed Facility Operating License No. NPF-86 for the Seabrook Station, Unit No. 1 (Seabrook);
- Amendment Nos. 249 and 200 to Renewed Facility Operating License Nos. DPR-67 and NPF-16 for the St. Lucie Plant, Unit Nos. 1 and 2 (St. Lucie), respectively; and
- Amendment Nos. 287 and 281 to Renewed Facility Operating License Nos. DPR-31 and DPR-41 for the Turkey Point Nuclear Generating Unit Nos. 3 and 4 (Turkey Point), respectively.

These amendments revise the Technical Specifications (TSs) to include the provisions of Limiting Condition for Operation (LCO) 3.0.6 in the Standard Technical Specifications in response to your application dated May 29, 2018, as supplemented by letter dated March 26, 2019. In support of this change, the amendments also add a new Safety Function Determination Program to the administrative section of the TSs; add new notes and actions that direct entering the actions for the appropriate supported systems; make changes to LCO 3.0.2 for Seabrook, St. Lucie, and Turkey Point; and make changes to LCO 3.0.1 for Seabrook and Turkey Point.

D. Moul

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

Sincerely,

Justin C. Poole, Project Manager Plant Licensing Branch I Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Docket Nos. 50-443, 50-335, 50-389, 50-250, and 50-251

Enclosures:

- 1. Amendment No.161 to NPF-86
- 2. Amendment No. 249 to DPR-67
- 3. Amendment No. 200 to NPF-16
- 4. Amendment No. 287 to DPR-31
- 5. Amendment No. 281 to DPR-41
- 6. Safety Evaluation

cc: Listserv



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

# NEXTERA ENERGY SEABROOK, LLC, ET AL.\*

## DOCKET NO. 50-443

## SEABROOK STATION, UNIT NO. 1

# AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 161 Renewed License No. NPF-86

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

- A. The application for amendment filed by NextEra Energy Seabrook, LLC, et al. (the licensee), dated May 29, 2018, as supplemented by letter dated March 26, 2019, 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.

<sup>\*</sup>NextEra Energy Seabrook, LLC, is authorized to act as agent for the: Hudson Light & Power Department, Massachusetts Municipal Wholesale Electric Company, and Taunton Municipal Lighting Plant and has exclusive responsibility and control over the physical construction, operation and maintenance of the facility.

- 2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-86 is hereby amended to read as follows:
  - (2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A, and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 161, are incorporated into the Renewed Facility Operating License No. NPF-86. NextEra Energy Seabrook, LLC 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 90 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

James G. Danna, Chief Plant Licensing Branch I Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Attachment:

Changes to the Renewed Facility Operating License and Technical Specifications

Date of Issuance: July 31, 2019

## ATTACHMENT TO LICENSE AMENDMENT NO. 161

### **SEABROOK STATION, UNIT NO. 1**

## **RENEWED FACILITY OPERATING LICENSE NO. NPF-86**

# DOCKET NO. 50-443

Replace the following page of Renewed Facility Operating License No. NPF-86 with the attached revised page. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

<u>Remove</u>	Insert
3	3

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

<u>Remove</u>	Insert
3/4 0-1	3/4 0-1
3/4 0-2	3/4 0-2
3/4 0-3	3/4 0-3
3/4 4-16	3/4 4-16
3/4 6-7	3/4 6-7
3/4 6-16	3/4 6-16
3/4 7-12	3/4 7-12
3/4 7-13	3/4 7-13
3/4 7-13A	3/4 7-13A
3/4 7-13B	3/4 7/13B
3/4 8-1	3/4 8-1
3/4 8-2a	3/4 8-2a
3/4 8-2b	3/4 8-2b
3/4 8-11	3/4 8-11
3/4 8-17	3/4 8-17
6-14c	6-14c
	6-14d

- (3) NextEra Energy Seabrook, LLC, pursuant to the Act and 10 CFR Part 70, to receive, possess, and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
- (4) NextEra Energy Seabrook, LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use at any time any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (5) NextEra Energy Seabrook, LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (6) NextEra Energy Seabrook, LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility authorized herein.
- (7) DELETED
- C. This renewed license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I 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 or incorporated below:
  - (1) Maximum Power Level

NextEra Energy Seabrook, LLC, is authorized to operate the facility at reactor core power levels not in excess of 3648 megawatts thermal (100% of rated power).

(2) Technical Specifications

The Technical Specifications contained in Appendix A, and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 161, are incorporated into the Renewed Facility Operating License No. NPF-86. NextEra Energy Seabrook, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

# 3/4.0 APPLICABILITY

# LIMITING CONDITION FOR OPERATION

3.0.1 LCOs shall be met during the MODES or other specified conditions in the Applicability, except as provided in LCO 3.0.2.

3.0.2 Upon discovery of a failure to meet an LCO, the ACTIONS shall be met, except as provided in LCO 3.0.5 and LCO 3.0.6. If the LCO is met or is no longer applicable prior to expiration of the specified time interval, completion of the ACTION(S) is not required unless otherwise stated.

3.0.3 When a Limiting Condition for Operation is not met, except as provided in the associated ACTION requirements, within 1 hour action shall be initiated to place the unit in a MODE in which the specification does not apply by placing it, as applicable, in:

- a. At least HOT STANDBY within the next 6 hours,
- b. At least HOT SHUTDOWN within the following 6 hours, and
- c. At least COLD SHUTDOWN within the subsequent 24 hours.

Where corrective measures are completed that permit operation under the ACTION requirements, the action may be taken in accordance with the specified time limits as measured from the time of failure to meet the Limiting Condition for Operation. Exceptions to these requirements are stated in the individual specifications.

This specification is not applicable in MODE 5 or 6.

3.0.4 When an LCO is not met, entry into a MODE or other specified condition in the Applicability shall only be made:

- When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time;
- b. After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate; exceptions to this Specification are stated in the individual Specifications, or

SEABROOK - UNIT 1

3/4 0-1

Amendment No. 57, 114, 161

# **APPLICABILITY**

# LIMITING CONDITION FOR OPERATION

# 3.0.4 (Continued)

c. When an allowance is stated in the individual value, parameter or other Specification.

This Specification shall not prevent changes in 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.

3.0.5 Equipment removed from service or declared inoperable to comply with ACTIONS may be returned to service under administrative control solely to perform testing required to demonstrate its OPERABILITY or the OPERABILITY of other equipment. This is an exception to Specifications 3.0.1 and 3.0.2 for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY.

3.0.6 When a supported system LCO is not met solely due to a support system LCO not being met, the ACTIONS associated with this supported system are not required to be entered. Only the support system LCO ACTIONS are required to be entered. This is an exception to LCO 3.0.2 for the supported system. In this event, an evaluation shall be performed in accordance with Specification 6.7.6.0, "Safety Function Determination Program (SFDP)." If a loss of safety function is determined to exist by this program, the appropriate ACTIONS of the LCO in which the loss of safety function exists are required to be entered.

When a support system's ACTION directs a supported system to be declared inoperable or directs entry into the ACTIONS for a supported system, the applicable ACTIONS shall be entered in accordance with LCO 3.0.2.

# SURVEILLANCE REQUIREMENTS

**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 meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the Limiting Condition for Operation. Failure to perform a Surveillance within the specified surveillance interval shall be failure to meet the Limiting Condition for Operation except as provided in Specification 4.0.3. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits.

**4.0.2** Each Surveillance Requirement shall be performed within the specified surveillance interval with a maximum allowable extension not to exceed 25 percent of the specified surveillance interval.

**4.0.3** If it is discovered that a Surveillance was not performed within its specified surveillance interval, then compliance with the requirement to declare the Limiting Condition for Operation not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified surveillance interval, 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.

**SEABROOK - UNIT 1** 

## APPLICABILITY

### SURVEILLANCE REQUIREMENTS

If the Surveillance is not performed within the delay period, the Limiting Condition for 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 for 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 a Limiting Condition for Operation (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** Surveillance Requirements for inservice inspection of ASME Code Class 1, 2, and 3 components shall be applicable as follows:

- a. Inservice inspection of ASME Code Class 1, 2, and 3 components shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR Part 50, Section 50.55a(g), except where specific written relief has been granted by the Commission pursuant to 10 CFR Part 50, Section 50.55a(g)(6)(i).
- b. Surveillance intervals specified in Section XI of the ASME Boiler and Pressure Vessel Code including applicable Addenda for the inservice inspection activities required by the ASME Boiler and Pressure Vessel Code including applicable Addenda shall be applicable as follows in these Technical Specifications:

ASME Boiler and Pressure Vessel Code including applicable Addenda terminology for inservice inspection activities	Required frequencies for performing service Inspection activities.
Weekly	At least once per 7 days
Monthly	At least once per 31 days
Semi-quarterly	At least once per 46 days
Quarterly or every 3 months	At least once per 92 days
Semiannually or every 6 months	At least once per 184 days
Every 9 months	At least once per 276 days
Yearly or annually	At least once per 366 days
Biennially or every 2 years	At least once per 731 days

# REACTOR COOLANT SYSTEM

# REACTOR COOLANT SYSTEM LEAKAGE

# **OPERATIONAL LEAKAGE**

3.4.6.2

ACTION: (Continued)

Enter applicable ACTIONS for systems made inoperable by an inoperable pressure isolation valve.

c. With any Reactor Coolant System Pressure Isolation Valve leakage greater than the above limit, isolate the high pressure portion of the affected system from the low pressure portion within 4 hours by use of at least two closed manual or deactivated automatic valves, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

# SURVEILLANCE REQUIREMENTS

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

- a. Not Used
- b. Not Used
- c. Measurement of the CONTROLLED LEAKAGE to the reactor coolant pump seals when the Reactor Coolant System pressure is  $2235 \pm 20$  psig in accordance with the Surveillance Frequency Control Program with the modulating valve fully open. The provisions of Specification 4.0.4 are not applicable for entry into MODE 3 or 4;
- d. Performance of a Reactor Coolant System water inventory balance in accordance with the Surveillance Frequency Control Program during steady-state operation, except that not more than 96 hours shall elapse between any two successive inventory balances; <sup>(1) (2)</sup>
- e. Monitoring the Reactor Head Flange Leakoff System in accordance with the Surveillance Frequency Control Program, and
- f. Verifying primary to secondary leakage is  $\leq$  150 gallons per day through any one SG in accordance with the Surveillance Frequency Control Program. <sup>(2)</sup>

(2) Not required to be performed until 12 hours after establishment of steady state operation.

**SEABROOK - UNIT 1** 

<sup>(1)</sup> Not applicable to primary to secondary leakage.

## CONTAINMENT SYSTEMS

### PRIMARY CONTAINMENT

## **CONTAINMENT AIR-LOCKS**

## LIMITING CONDITION FOR OPERATION

3.6.1.3 Each containment air lock shall be OPERABLE in accordance with the Containment Leakage Rate Testing Program.

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

## ACTION:

Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when air lock leakage results in exceeding the overall containment leakage rate acceptance criteria.

- a. With one containment air lock door inoperable:
  - 1. Maintain at least the OPERABLE air lock door closed\* and either restore the inoperable air lock door to OPERABLE status within 24 hours or lock the OPERABLE air lock door closed,
  - 2. Operation may then continue until performance of the next required overall air lock leakage test provided that the OPERABLE air lock door is verified to be locked closed at least once per 31 days,
  - 3. Otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours, and
- b. With the containment air lock inoperable, except as the result of an inoperable air lock door, maintain at least one air lock door closed; restore the inoperable air lock to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

<sup>\*</sup>Except during entry to repair an inoperable inner door, for a cumulative time not to exceed 1 hour per year.

# CONTAINMENT SYSTEMS

## 3/4.6.3 CONTAINMENT ISOLATION VALVES

## LIMITING CONDITION FOR OPERATION

3.6.3 Each containment isolation valve shall be OPERABLE\*.

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

## ACTION:

## -----NOTES------

- 1. Enter applicable ACTIONS for systems made inoperable by containment isolation valves.
- 2. Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when isolation valve leakage results in exceeding the overall containment leakage rate acceptance criteria.

With one or more of the isolation valve(s) inoperable, maintain at least one isolation valve

OPERABLE in each affected penetration that is open and:

- a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, or
- b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or
- c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange; or
- d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

## SURVEILLANCE REQUIREMENTS

## 4.6.3.1 Not used

4.6.3.2 Each containment isolation valve shall be demonstrated OPERABLE in accordance with the Surveillance Frequency Control Program by:

- a. Verifying that on a Phase "A" Isolation test signal, each Phase "A" Isolation valve actuates to its isolation position,
- b. Verifying that on a Phase "B" Isolation test signal, each Phase "B" Isolation valve actuates to its isolation position, and

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<sup>\*</sup>Locked or sealed closed valves may be opened on an intermittent basis under administrative control.

## 3/4.7.3 PRIMARY COMPONENT COOLING WATER SYSTEM

## LIMITING CONDITION FOR OPERATION

3.7.3 At least two independent primary component cooling water loops shall be OPERABLE, including one OPERABLE pump in each loop.

<u>APPLICABILITY</u>: MODES 1, 2, 3, and 4.

## ACTION:

Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant Loops and Coolant Circulation," for residual heat removal loops made inoperable by PCCW.

With one primary component cooling water (PCCW) loop inoperable, restore the required primary component cooling water loop 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.

## SURVEILLANCE REQUIREMENTS

4.7.3 At least two primary component cooling water loops shall be demonstrated OPERABLE:

- a. In accordance with the Surveillance Frequency Control Program by verifying that each valve (manual, power-operated, or automatic) servicing safety-related equipment that is not locked, sealed, or otherwise secured in position is in its correct position; and
- b. In accordance with the Surveillance Frequency Control Program by verifying that each automatic valve servicing safety-related equipment actuates to its correct position on its associated Engineered Safety Feature actuation signal.

SEABROOK - UNIT 1

# 3/4.7.4 SERVICE WATER SYSTEM/ULTIMATE HEAT SINK

# LIMITING CONDITION FOR OPERATION

- 3.7.4 The Service Water System shall be OPERABLE with:
  - a. An OPERABLE service water pumphouse and two service water loops with one OPERABLE service water pump in each loop,
  - b. An OPERABLE mechanical draft cooling tower and two cooling tower service water loops with one OPERABLE cooling tower service water pump in each loop, and
  - c. A portable cooling tower makeup system stored in its design operational readiness state.

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

### ACTION:

- Enter applicable ACTIONS of LCO 3.8.1.1, "AC Sources- Operating," for diesel generator made inoperable by service water.
- 2. Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant Loops and Coolant Circulation," for residual heat removal loops made inoperable by service water.
- a. With one service water loop inoperable, return the loop to OPERABLE status within 72 hours, or be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With one cooling tower service water loop or one cooling tower cell inoperable, return the affected loop or cell to OPERABLE status within 7 days, or be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.
- c. With two cooling tower service water loops or the mechanical draft cooling tower inoperable, return at least one loop and the mechanical draft cooling tower to OPERABLE status within 72 hours, or be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.
- d. With two loops (except as described in c) or the service water pumphouse inoperable, return at least one of the affected loops and the service water pumphouse to OPERABLE status within 24 hours, or be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

## 3/4.7.4 SERVICE WATER SYSTEM/ULTIMATE HEAT SINK

### SURVEILLANCE REQUIREMENTS

e. With the portable tower makeup pump system not stored in its design operational readiness state, restore the portable tower makeup pump system to its required condition within 72 hours, or continue operation and notify the NRC within the following 8 hours of actions to ensure an adequate supply of makeup water for the service water cooling tower for a minimum of 30 days.

4.7.4.1 Each service water loop shall be demonstrated OPERABLE:

- a. In accordance with the Surveillance Frequency Control Program by verifying that each valve (manual, power-operated, or automatic) servicing safety related equipment that is not locked, sealed, or otherwise secured in position is in its correct position; and
- b. In accordance with the Surveillance Frequency Control Program by verifying that each automatic valve servicing safety-related equipment actuates to its correct position on its associated Engineered Safety Feature actuation test signal.
- 4.7.4.2 Each service water cooling tower loop shall be demonstrated OPERABLE:
  - a. In accordance with the Surveillance Frequency Control Program by verifying that each valve (manual, power-operated, or automatic) servicing safety related equipment that is not locked, sealed, or otherwise secured in position is in its correct position; and
  - b. In accordance with the Surveillance Frequency Control Program by verifying that:
    - Each automatic valve servicing safety-related equipment actuates to its correct position on its associated Engineered Safety Feature actuation test signal,
    - 2) Each automatic valve in the flowpath actuates to its correct position on a Tower Actuation (TA) test signal and
    - 3) Each service water cooling tower pump starts automatically on a TA signal.

4.7.4.3 The service water pumphouse shall be demonstrated OPERABLE in accordance with the Surveillance Frequency Control Program by verifying the water level to be at or above 25.1' (-15.9' Mean Sea Level).

# 3/4.7.4 SERVICE WATER SYSTEM/UTIMATE HEAT SINK

## SURVEILLANCE REQUIREMENTS

- 4.7.4.4 The mechanical draft cooling tower shall be demonstrated OPERABLE:
  - a. In accordance with the Surveillance Frequency Control Program by verifying the water in the mechanical draft cooling tower basin to be at a level of greater than or equal to 42.15\* feet.
  - b. In accordance with the Surveillance Frequency Control Program by verifying that the water in the cooling tower basin to be at a bulk average temperature of less than or equal to 70°F.
  - c. In accordance with the Surveillance Frequency Control Program by:
    - Starting from the control room each cooling tower fan that is required to be OPERABLE and operating each of these fans for at least 15 minutes, and
    - 2) Verifying that the portable tower makeup pump system is stored in its design operational readiness state.
    - d. In accordance with the Surveillance Frequency Control Program by verifying that the portable tower makeup pump develops a flow greater than or equal to 200 gpm.

\*With the cooling tower in operation with valves aligned for tunnel heat treatment, the tower basin level shall be maintained at greater than or equal to 40.55 feet.

## **SEABROOK - UNIT 1**

# 3/4.8 ELECTRICAL POWER SYSTEMS

# 3/4.8.1 A.C. SOURCES

# **OPERATING**

# LIMITING CONDITION FOR OPERATION

- 3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:
  - Two physically independent circuits between the offsite transmission network and the onsite Class 1E Distribution System, and
  - b. Two separate and independent diesel generators, each with:
    - 1) A separate day fuel tank containing a minimum fuel volume fraction of 3/8 (600 gallons),
    - 2) A separate Fuel Storage System containing a minimum volume of 62,000 gallons of fuel,
    - 3) A separate fuel transfer pump,
    - 4) Lubricating oil storage containing a minimum total volume of 275 gallons of lubricating oil, and
    - 5) Capability to transfer lubricating oil from storage to the diesel generator unit.

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

# ACTION:

LCO 3.0.4.b is not applicable to the diesel generators.

- a. With an offsite circuit of the above required A.C. electrical power sources inoperable:
  - 1. Perform Surveillance Requirement 4.8.1.1.1.a for the OPERABLE offsite circuit within 1 hour and at least once per 8 hours thereafter;
  - Within 24 hours from discovery of no offsite power to one train concurrent with inoperability of redundant required feature(s), declare required feature(s) with no offsite power available inoperable when its redundant required feature(s) is inoperable; and
  - 3. Restore at least two offsite circuits 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.

# ELECTRICAL POWER SYSTEMS

## A.C. SOURCES

### **OPERATING**

## LIMITING CONDITION FOR OPERATION

# 3.8.1.1 (Continued)

ACTION:

Enter applicable ACTIONS of LCO 3.8.3.1, "Onsite Power Distribution – Operating," when ACTION c is entered with no AC power to any train.

c. With one offsite circuit and one diesel generator of the above required A.C. electrical power sources inoperable:

1) Demonstrate the OPERABILITY of the remaining A.C. source by performing Specification 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter. Perform ACTION d. Demonstrate the OPERABILITY of the remaining diesel generator by performing Specification 4.8.1.1.2a.5) within 8 hours.\*

2) Restore at least one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

3) Restore at least two offsite circuits and two diesel generators to OPERABLE status within 72 hours from the time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours, unless the following condition exists:

(a) The requirement for restoration of the diesel generators to OPERABLE status within 72 hours may be extended to 14 days if the Supplemental emergency Power System (SEPS) is available, as specified in the Bases, and

(b) If at any time the SEPS availability cannot be met, either restore the SEPS to available status within 72 hours (not to exceed 14 days from the time the diesel generator originally became inoperable), or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

- 1. Preplanned preventive maintenance or testing,
- 2. An inoperable support system with no potential common mode failure for the remaining diesel generator, or
- 3. An independently testable component with no potential common mode failure for the remaining diesel generator.

SEABROOK - UNIT 1

<sup>\*</sup> The OPERABILITY of the remaining diesel generator need not be verified if it has been successfully operated within the last 24 hours, or if currently operating, or if the diesel generator became inoperable due to:

## 3.8.1.1 (Continued)

### ACTION:

- d. With one diesel generator inoperable in addition to ACTION b. or c. above, verify that:
  - 1. All required systems, subsystems, trains, components, and devices that depend on the remaining OPERABLE diesel generator as a source of emergency power are also OPERABLE, and
  - 2. When in MODE 1, 2, or 3, the steam-driven emergency feedwater pump is OPERABLE.

If these conditions are not satisfied within 4 hours be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

- e. With two of the above required offsite A.C. circuits inoperable
  - 1. Within 12 hours from discovery of two offsite circuits inoperable concurrent with inoperability of redundant required feature(s), declare required feature(s) inoperable when its redundant required feature(s) is inoperable;
  - 2. Restore at least one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours.
  - With only one offsite source restored, restore at least two offsite circuits to OPERABLE status within 72 hours from time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- f. With two of the above required diesel generators inoperable:

1) Demonstrate the OPERABILITY of two offsite A.C. circuits by performing Specification 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter.

Restore at least one diesel generator to OPERABLE status within
 hours or be in at least HOT STANDBY within the next 6 hours and in COLD
 SHUTDOWN within the following 30 hours,

3) Restore at least two diesel generators to OPERABLE status within 72 hours from the time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours, unless the following condition exists:

(a) The requirement for restoration of the diesel generators to OPERABLE status within 72 hours may be extended to 14 days if the Supplemental Emergency Power System (SEPS) is available, as specified in the Bases, and

(b) If at any time the SEPS availability cannot be met, either restore the SEPS to available status within 72 hours (not to exceed 14 days from the time the diesel generator originally became inoperable), or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

**SEABROOK - UNIT 1** 

Amendment No. <del>30, 80, 97</del>, 161

# ELECTRICAL POWER SYSTEMS

# A.C. SOURCES

# <u>SHUTDOWN</u>

# LIMITING CONDITION FOR OPERATION

- 3.8.1.2 As a minimum, the following A.C. electrical power sources shall be OPERABLE:
  - a. One circuit between the offsite transmission network and the Onsite Class 1E Distribution System, and
  - b. One diesel generator with:
    - 1) A day fuel tank containing a minimum fuel volume fraction of 3/8 (600 gallons of fuel),
    - 2) A fuel storage system containing a minimum volume of 60,000 gallons of fuel,
    - 3) A fuel transfer pump, lubricating oil, and
    - 4) Lubricating oil storage containing a minimum total volume of 275 gallons of lubricating oil, and
    - 5) Capability to transfer lubricating oil from storage to the diesel generator unit.

APPLICABILITY: MODES 5 and 6.

## <u>ACTION</u>

Enter the ACTION of LCO 3.8.3.2, "Onsite Power Distribution – Shutdown," with one required train de-energized as a result of inoperable offsite circuit.

-----NOTE------

With less than the above minimum required A.C. electrical power sources OPERABLE, immediately suspend all operations involving CORE ALTERATIONS, positive reactivity changes, movement of irradiated fuel, or crane operation with loads over the fuel storage pool, and within 8 hours, depressurize and vent the Reactor Coolant System through a greater than or equal to 1.58-square-inch vent. In addition, when in MODE 5 with the reactor coolant loops not filled, or in MODE 6 with the water level less than 23 feet above the reactor vessel flange, immediately initiate corrective action to restore the required sources to OPERABLE status as soon as possible.

## SURVEILLANCE REQUIREMENTS

4.8.1.2 The above required A.C. electrical power sources shall be demonstrated OPERABLE by the performance of each of the requirements of Specifications 4.8.1.1.1a, 4.8.1.1.2a [except for Specification 4.8.1.1.2a.6] and 4.8.1.1.2 b, c, d, e.

**SEABROOK - UNIT 1** 

# ELECTRICAL POWER SYSTEMS

# **ONSITE POWER DISTRIBUTION**

# **OPERATING**

# LIMITING CONDITION FOR OPERATION

## 3.8.3.1 (Continued)

- i. Train A, 125-volt D.C. Busses consisting of:
  - 1) 125-volt D.C. Bus #11A energized from Battery Bank 1A or 1C, and
  - 2) 125-volt D.C. Bus #11C energized from Battery Bank 1C or 1A.
- j. Train B, 125-volt D.C. Busses consisting of:
  - 1) 125-volt D.C. Bus #11B energized from Battery Bank 1B or 1D, and
  - 2) 125-volt D.C. Bus #11D energized from Battery Bank 1D or 1B.

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

## ACTION:

- a. With one of the required trains of A.C. emergency busses (except 480-volt Emergency Bus # E64) not fully energized, reenergize the train within 8 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
  - 1. With 480-volt Emergency bus #E64 not fully engergized, reenergize the bus within 7 days or be in HOT STANDBY within 6 hours and COLD SHUTDOWN within the following 30 hours.
- b. With one A.C. vital panel either not energized from its associated inverter, or with the inverter not connected to its associated D.C. bus: (1) reenergize the A.C. vital panel within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; and (2) reenergize the A.C. vital panel from its associated inverter connected to its associated D.C. bus within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours;
- c. With one D.C. bus not energized from an OPERABLE battery bank, reenergize the D.C. bus from an OPERABLE battery bank within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

## ADMINISTRATIVE CONTROLS

## PROCEDURES AND PROGRAMS

## 6.7.6 (Continued)

- 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.

# o. <u>Safety Function Determination Program (SFDP)</u>

This program ensures loss of safety function is detected and appropriate actions taken. Upon entry into LCO 3.0.6, an evaluation shall be made to determine if loss of safety function exists. Additionally, other appropriate actions may be taken as a result of the support system inoperability and corresponding exception to entering supported system ACTIONS. This program implements the requirements of LCO 3.0.6. The SFDP shall contain the following:

- a. Provisions for cross train checks to ensure a loss of the capability to perform the safety function assumed in the accident analysis does not go undetected,
- b. Provisions for ensuring the plant is maintained in a safe condition if a loss of function condition exists,
- c. Provisions to ensure that an inoperable supported system's allowed outage time is not inappropriately extended as a result of multiple support system inoperabilities, and
- d. Other appropriate limitations and remedial or compensatory actions.

A loss of safety function exists when, assuming no concurrent single failure, no concurrent loss of offsite power, or no concurrent loss of onsite diesel generator(s), a safety function assumed in the accident analysis cannot be performed. For the purpose of this program, a loss of safety function may exist when a support system is inoperable, and:

- a. A required system redundant to the system(s) supported by the inoperable support system is also inoperable, or
- b. A required system redundant to the system(s) in turn supported by the inoperable support system is also inoperable, or

**SEABROOK - UNIT 1** 

6-14c

Amendment No. <del>138, 141</del>, 161

# ADMINISTRATIVE CONTROLS

## PROCEDURES AND PROGRAMS

## 6.7.6 (Continued)

c. A required system redundant to the support system(s) for the supported systems (a) and (b) above is also inoperable.

The SFDP identifies where a loss of safety function exists. If a loss of safety function is determined to exist by this program, the appropriate ACTIONS of the LCO in which the loss of safety function exists are required to be entered. When a loss of safety function is caused by the inoperability of a single Technical Specification support system, the appropriate ACTIONS to enter are those of the support system.

# 6.8 <u>REPORTING REQUIREMENTS</u>

### **ROUTINE REPORTS**

6.8.1 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted to the Regional Administrator of the Regional Office of the NRC unless otherwise noted.

### STARTUP REPORT

6.8.1.1 A summary report of station startup and power escalation testing shall be submitted following: (1) receipt of an Operating License, (2) amendment to the license involving a planned increase in power level, (3) installation of fuel that has a different design or has been manufactured by a different fuel supplier, and (4) modifications that may have significantly altered the nuclear, thermal, or hydraulic performance of the station.

The Startup Report shall address each of the tests identified in the Final Safety Analysis Report and shall include a description of the measured values of the operating conditions or characteristics obtained during the test program and a comparison of these values with design predictions and specifications. Any corrective actions that were required to obtain satisfactory operation shall also be described. Any additional specific details required in license conditions based on other commitments shall be included in this report.

Startup Reports shall be submitted within: (1) 90 days following completion of the Startup Test Program, (2) 90 days following resumption or commencement of commercial power operation, or (3) 9 months following initial criticality, whichever is earliest. If the Startup Report does not cover all three events (i.e., initial criticality, completion of Startup Test Program, and resumption or commencement of commercial operation), supplementary reports shall be submitted at least every 3 months until all three events have been completed.



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

## FLORIDA POWER & LIGHT COMPANY

## DOCKET NO. 50-335

### ST. LUCIE PLANT, UNIT NO. 1

### AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 249 Renewed License No. DPR-67

- 1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Florida Power & Light Company (FPL, the licensee), dated May 29, 2018, as supplemented by letter dated March 26, 2019, 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, Renewed Facility Operating License No. DPR-67 is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and by amending paragraph 3.B to read as follows:
  - B. <u>Technical Specifications</u>

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 249, are hereby incorporated in the renewed license. FPL shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented within 90 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

James G. Danna, Chief Plant Licensing Branch I Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Attachment:

Changes to the Renewed Facility Operating License and Technical Specifications

Date of Issuance: July 31, 2019

### ATTACHMENT TO LICENSE AMENDMENT NO. 249

# ST. LUCIE PLANT, UNIT NO. 1

### **RENEWED FACILITY OPERATING LICENSE NO. DPR-67**

### DOCKET NO. 50-335

Replace the following page of Renewed Facility Operating License No. DPR-67 with the attached revised page. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

<u>Remove</u>	<u>Insert</u>
3	3

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

<u>Remove</u>	Insert
3/4 0-1	3/4 0-1
	3/4 0-1a
3/4 4-14	3/4 4-14
3/4 6-10	3/4 6-10
3/4 6-18	3/4 6-18
3/4 7-14	3/4 7-14
3/4 7-16	3/4 7-16
3/4 8-1	3/4 8-1
	3/4 8-1a
3/4 8-2	3/4 8-2
3/4 8-7	3/4 8-7
3/4 8-8	3/4 8-8
6-15i	6-15i
****	6-15j

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 or incorporated below:

### A. <u>Maximum Power Level</u>

FPL is authorized to operate the facility at steady state reactor core power levels not in excess of 3020 megawatts (thermal).

#### B. <u>Technical Specifications</u>

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 249, are hereby incorporated in the renewed license. FPL shall operate the facility in accordance with the Technical Specifications.

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Appendix B, the Environmental Protection Plan (Non-Radiological), contains environmental conditions of the renewed license. If significant detrimental effects or evidence of irreversible damage are detected by the monitoring programs required by Appendix B of this license, FPL will provide the Commission with an analysis of the problem and plan of action to be taken subject to Commission approval to eliminate or significantly reduce the detrimental effects or damage.

### C. Updated Final Safety Analysis Report

The Updated Final Safety Analysis Report supplement submitted pursuant to 10 CFR 54.21(d), as revised on March 28, 2003, describes certain future activities to be completed before the period of extended operation. FPL shall complete these activities no later than March 1, 2016, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.

The Updated Final Safety Analysis Report supplement as revised on March 28, 2003, described above, shall be included in the next scheduled update to the Updated Final Safety Analysis Report required by 10 CFR 50.71(e)(4), following issuance of this renewed license. Until that update is complete, FPL may make changes to the programs described in such supplement without prior Commission approval, provided that FPL evaluates each such change pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.

### D. <u>Sustained Core Uncovery Actions</u>

Procedural guidance shall be in place to instruct operators to implement actions that are designed to mitigate a small-break loss-of-coolant accident prior to a calculated time of sustained core uncovery.

#### 3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

### 3/4.0 APPLICABILITY

#### LIMITING CONDITION FOR OPERATION

- 3.0.1 Limiting Conditions for Operation (LCO) shall be met during the MODES or other specified conditions in the Applicability, except as provided in LCO 3.0.2.
- 3.0.2 Upon discovery of a failure to meet an LCO, the ACTIONS shall be met, except as provided in LCO 3.0.5 and LCO 3.0.6. If the LCO is met or is no longer applicable prior to expiration of the specified time interval(s), completion of the ACTIONS is not required, unless otherwise stated.
- 3.0.3 When a Limiting Condition for Operation (LCO) is not met, except as provided in the associated ACTION requirements, within 1 hour action shall be initiated to place the unit in a MODE in which specification does not apply by placing it, as applicable in:
  - 1. At least HOT STANDBY within the next 6 hours,
  - 2. At least HOT SHUTDOWN within the following 6 hours, and
  - 3. At least COLD SHUTDOWN within the subsequent 24 hours.

Where corrective measures are completed that permit operation under the ACTION requirements, the ACTION may be taken in accordance with the specified time limits as measured from the time of failure to meet the LCO. Exceptions to these requirements are stated in the individual specifications.

This specification is not applicable in MODES 5 or 6.

- 3.0.4 When an LCO is not met, entry into a MODE or other specified condition in the Applicability shall only be made:
  - When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time;
  - b. After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate (exceptions to this Specification are stated in the individual Specifications); or
  - c. When an allowance is stated in the individual value, parameter, or other Specification.

This Specification shall not prevent changes in 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.

3.0.5 Equipment removed from service or declared inoperable to comply with ACTION(s) may be returned to service under administrative control solely to perform testing required to demonstrate its OPERABILITY or the OPERABILITY of other equipment. This is an exception to LCO 3.0.2 for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY.

### **APPLICABILITY**

### LIMITING CONDITION FOR OPERATION (continued)

3.0.6 When a supported system LCO is not met solely due to a support system LCO not being met, the ACTIONS associated with this supported system are not required to be entered. Only the support system LCO ACTIONS are required to be entered. This is an exception to LCO 3.0.2 for the supported system. In this event, an evaluation shall be performed in accordance with Specification 6.8.4.s, "Safety Function Determination Program (SFDP)." If a loss of safety function is determined to exist by this program, the appropriate ACTIONS of the LCO in which the loss of safety function exists are required to be entered. When a support system's ACTION directs a supported system to be declared inoperable or directs entry into ACTIONS for a supported system, the applicable ACTIONS shall be entered in accordance with LCO 3.0.2.

### REACTOR COOLANT SYSTEM

### REACTOR COOLANT SYSTEM LEAKAGE

#### LIMITING CONDITION FOR OPERATION

- 3.4.6.2 Reactor Coolant System operational leakage shall be limited to:
  - a. No PRESSURE BOUNDARY LEAKAGE,
  - b. 1 GPM UNIDENTIFIED LEAKAGE,
  - c. 150 gallons per day primary-to-secondary leakage through any one steam generator (SG),
  - d. 10 GPM IDENTIFIED LEAKAGE from the Reactor Coolant System, and
  - e. Leakage as specified in Table 3.4.6-1 for each Reactor Coolant System Pressure Isolation Valve identified in Table 3.4.6-1.

APPLICABILITY: MODES 1, 2, 3 and 4.

#### ACTION:

- a. With any PRESSURE BOUNDARY LEAKAGE, or with primary-to-secondary leakage not within limit, be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With any Reactor Coolant System operational leakage greater than any one of the above limits, excluding primary-to-secondary leakage, PRESSURE BOUNDARY LEAKAGE, and Reactor Coolant System Pressure Isolation Valve leakage, reduce the leakage rate to within limits within 4 hours or be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### NOTE

Enter applicable ACTIONS for systems made inoperable by an inoperable pressure isolation valve.

c. With any Reactor Coolant System Pressure Isolation Valve leakage greater than the limit in 3.4.6.2.e above reactor operation may continue provided that at least two valves, including check valves, in each high pressure line having a non-functional valve are in and remain in the mode corresponding to the isolated condition. Motor operated valves shall be placed in the closed position, and power supplies deenergized. Otherwise, reduce the leakage rate to within limits within 4 hours or be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

- 4.4.6.2 Reactor Coolant System operational leakages shall be demonstrated to be within each of the above limits by:
  - a. Monitoring the containment atmosphere gaseous and particulate radioactivity in accordance with the Surveillance Frequency Control Program.

ST. LUCIE - UNIT 1

### CONTAINMENT SYSTEMS

#### CONTAINMENT AIR LOCKS

#### LIMITING CONDITION FOR OPERATION

- 3.6.1.3 Each containment air lock shall be OPERABLE with:
  - a. Both doors closed except when the air lock is being used for normal transit entry and exit through the containment, then at least one air lock door shall be closed, and
  - b. An overall air lock leakage rate in accordance with the Containment Leakage Rate Testing Program.

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

#### ACTION:

### <u>NOTE</u>

- If the inner air lock door is inoperable, passage through the OPERABLE outer air lock door is permitted to effect repairs to the inoperable inner air lock door. No more than one air lock door shall be open at any time.
- Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when air lock leakage results in exceeding overall containment leakage rate acceptance criteria.
  - a. With one containment air lock door inoperable:
    - 1. Maintain at least the OPERABLE air lock door closed and either restore the inoperable air lock door to OPERABLE status within 24 hours or lock the OPERABLE air lock door closed.
    - 2. Operation may then continue until performance of the next required overall air lock leakage test provided that the OPERABLE air lock door is verified to be closed at least once per 31 days.
    - 3. Otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.
  - b. With one or both containment air lock(s) inoperable, except as the result of an inoperable air lock door, maintain at least one air lock door closed in the affected air lock(s) and restore the inoperable air lock(s) to OPERABLE status within 24 hours or in accordance with the Risk Informed Completion Time Program; otherwise be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

#### SURVEILLANCE REQUIREMENTS

4.6.1.3 Each containment air lock shall be demonstrated OPERABLE:

ST. LUCIE - UNIT 1

#### CONTAINMENT SYSTEMS

#### 3/4.6.3 CONTAINMENT ISOLATION VALVES

#### LIMITING CONDITION FOR OPERATION

3.6.3.1 The containment isolation valves shall be OPERABLE:

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

### ACTION:

#### NOTE

- 1. Enter applicable ACTIONS for systems made inoperable by containment isolation valves.
- 2. Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when leakage results in exceeding overall containment leakage rate acceptance criteria.

With one or more of the isolation valve(s) inoperable, either:

- a. Restore the inoperable valve(s) to OPERABLE status within 4 hours or in accordance with the Risk Informed Completion Time Program, or
- b. Isolate each affected penetration within 4 hours or in accordance with the Risk Informed Completion Time Program by use of at least one deactivated automatic valve secured in the isolation position, or
- c. Isolate each affected penetration within 4 hours or in accordance with the Risk Informed Completion Time Program by use of at least one closed manual valve or blind flange; or
- d. Be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

#### SURVEILLANCE REQUIREMENTS

4.6.3.1.1 The isolation valves shall be demonstrated OPERABLE prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of the cycling test, and verification of isolation time.

#### 3/4.7.3 COMPONENT COOLING WATER SYSTEM

#### LIMITING CONDITION FOR OPERATION

3.7.3.1 At least two independent component cooling water loops shall be OPERABLE.

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

### ACTION:

**NOTE** Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant System - Hot Shutdown," for shutdown cooling loops made inoperable by CCW.

With only one component cooling water loop OPERABLE, restore at least two loops to OPERABLE status within 72 hours or in accordance with the Risk Informed Completion Time Program, or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

#### SURVEILLANCE REQUIREMENTS

4.7.3.1 At least two component cooling water loops shall be demonstrated OPERABLE:

- a. In accordance with the Surveillance Frequency Control Program by verifying that each valve (manual, power operated or automatic) servicing safety related equipment that is not locked, sealed or otherwise secured in position, is in its correct position.
- b. In accordance with the Surveillance Frequency Control Program during shutdown by verifying that each automatic valve servicing safety related equipment actuates to its correct position on a Safety Injection Actuation Signal.

### 3/4.7.4 INTAKE COOLING WATER SYSTEM

#### LIMITING CONDITION FOR OPERATION

3.7.4.1 At least two independent intake cooling water loops shall be OPERABLE.

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

#### ACTION:

#### <u>NOTE</u>

Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant System - Hot Shutdown," for shutdown cooling loops made inoperable by ICW.

With only one intake cooling water loop OPERABLE, restore at least two loops to OPERABLE status within 72 hours or in accordance with the Risk Informed Completion Time Program, or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

#### SURVEILLANCE REQUIREMENTS

- 4.7.4.1 At least two intake cooling water loops shall be demonstrated OPERABLE:
  - a. In accordance with the Surveillance Frequency Control Program by verifying that each valve (manual, power operated or automatic) servicing safety related equipment that is not locked, sealed, or otherwise secured in position, is in its correct position.
  - b. In accordance with the Surveillance Frequency Control Program during shutdown by verifying that each automatic valve servicing safety related equipment actuates to its correct position on a Safety Injection Actuation signal.

### 3/4.8 ELECTRICAL POWER SYSTEMS

## 3/4.8.1 A.C. SOURCES

### **OPERATING**

#### LIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

- a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system, and
- b. Two separate and independent diesel generator sets each with:
  - 1. Engine-mounted fuel tanks containing a minimum of 152 gallons of fuel,
  - 2. A separate fuel storage system containing a minimum of 19,000 gallons of fuel, and
  - 3. A separate fuel transfer pump.

APPLICABILITY: MODES 1, 2, 3 and 4.

#### ACTION:

- a. With one offsite circuit of 3.8.1.1.a inoperable, except as provided in Action f below:
  - 1. Demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter.
  - 2. Within 24 hours from discovery of no offsite power to one train concurrent with inoperability of redundant required features(s), declare required features(s) with no offsite power available inoperable when its redundant required features(s) is inoperable.
  - Restore the offsite circuit to OPERABLE status within 72 hours or in accordance with the Risk Informed Completion Time Program, or be in at least HOT STANDBY within the next 6 hours and HOT SHUTDOWN within the following 6 hours.
  - 4. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

### ELECTRICAL POWER SYSTEMS

### ACTION (continued)

### NOTE

If the absence of any common-cause failure cannot be confirmed, Surveillance Requirement 4.8.1.1.2.a.4 shall be completed regardless of when the inoperable EDG is restored to OPERABILITY.

- b. With one diesel generator of 3.8.1.1.b inoperable:
  - 1. Demonstrate the OPERABILITY of the A. C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter.
  - 2. Additionally, within 4 hours from the discovery of concurrent inoperability of required redundant feature(s) (including the steam driven auxiliary feed pump in MODE 1, 2, and 3), declare required feature(s) supported by the inoperable EDG inoperable if its redundant required feature(s) is inoperable.
  - 3. If the EDG became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE EDG by performing Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours, unless it can be confirmed that the cause of the inoperable EDG does not exist on the remaining EDG.
  - 4. Restore the diesel generator to OPERABLE status within 14 days\* or in accordance with the Risk Informed Completion Time Program, or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
  - 5. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

 A one-time AOT extension for the inoperable 1B EDG allows 30 days to restore the EDG to OPERABLE status. Compensatory Measure within FPL Letter L-2019-153 dated July 25, 2019 will remain in effect during the extended AOT period. This extension expires on August 14, 2019 at 0736 hours EDT.

ST. LUCIE - UNIT 1

# ACTION (continued)

# <u>NOTE</u>

- 1. Enter applicable ACTIONS of LCO 3.8.2.1, "A.C. Distribution Operating," when ACTION c is entered with no AC power to any train.
- 2. If the absence of any common-cause failure cannot be confirmed, Surveillance Requirement 4.8.1.1.2.a.4 shall be completed regardless of when the inoperable EDG is restored to OPERABILITY.
  - c. With one offsite A.C. circuit and one diesel generator inoperable:
    - 1. Demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter.
    - 2. Additionally, within 4 hours from the discovery of concurrent inoperability of required redundant feature(s) (including the steam driven auxiliary feed pump in MODE 1, 2, and 3), declare required feature(s) supported by the inoperable EDG inoperable if its redundant required feature(s) is inoperable.
    - 3. If the EDG became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE EDG by performing Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours unless it can be confirmed that the cause of the inoperable EDG does not exist on the remaining EDG\*.
    - 4. Restore at least one of the inoperable sources to OPERABLE status within 12 hours or in accordance with the Risk Informed Completion Time Program, or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
    - 5. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.
    - 6. Restore the other A.C. power source (offsite circuit or diesel generator) to OPERABLE status in accordance with the provisions of Section 3.8.1.1 ACTION a or b, as appropriate, with the time requirement of that ACTION based on the time of the initial loss of the remaining inoperable A.C. power source.
  - d. With two of the required offsite A.C. circuits inoperable:
    - 1. Within 12 hours from discovery of two offsite circuits inoperable concurrent with inoperability of redundant required feature(s), declare required feature(s) inoperable when its redundant required feature(s) is inoperable.
    - Restore one of the inoperable offsite sources to OPERABLE status within 24 hours or in accordance with the Risk Informed Completion Time Program, or be in at least HOT STANDBY within the next 6 hours.
    - 3. Following restoration of one offsite source, follow ACTION a with the time requirement of that ACTION based on the time of the initial loss of the remaining inoperable offsite A.C. circuit.

#### <u>SHUTDOWN</u>

### LIMITING CONDITION FOR OPERATION

- 3.8.1.2 As a minimum, the following A.C. electrical power sources shall be OPERABLE:
  - a. One circuit between the offsite transmission network and the onsite Class 1E distribution system, and
  - b. One diesel generator set with:
    - 1. Engine-mounted fuel tanks containing a minimum of 152 gallons of fuel,
    - 2. A fuel storage system containing a minimum of 19,000 gallons of fuel, and
    - 3. A fuel transfer pump.

### **APPLICABILITY:** MODES 5 and 6.

# ACTION:

# <u>NOTE</u>

Enter the ACTION of LCO 3.8.2.2, "A.C. Distribution - Shutdown," with one required train de-energized as a result of inoperable offsite circuit.

With less than the above minimum required A.C. electrical power sources OPERABLE, immediately suspend all operations involving CORE ALTERATIONS, operations involving positive reactivity additions that could result in loss of required SHUTDOWN MARGIN or boron concentration, movement of irradiated fuel, or crane operation with loads over the fuel storage pool. In addition, when in MODE 5 with the reactor coolant loops not filled, or in MODE 6 with the water level less than 23 feet above the top of irradiated fuel assemblies seated within the reactor vessel, immediately initiate corrective action to restore the required sources to OPERABLE status as soon as possible.

#### SURVEILLANCE REQUIREMENTS

4.8.1.2.1 The above required A.C. electrical power sources shall be demonstrated OPERABLE by the performance of each of the Surveillance Requirements of 4.8.1.1.1 and 4.8.1.1.2 except for requirement 4.8.1.1.2a.5.

### 3/4.8.2 ONSITE POWER DISTRIBUTION SYSTEMS

#### A.C. DISTRIBUTION - OPERATING

### LIMITING CONDITION FOR OPERATION

3.8.2.1 The following A.C. electrical busses shall be OPERABLE and energized from sources of power other than the diesel generator sets:

4160	volt Emergency Bus	1A3
4160	volt Emergency Bus	1B3
480	volt Emergency Bus	1A2
480	volt Emergency Bus	1B2
480	volt Emergency MCC Busses	1A5, 1A6, 1A7
480	volt Emergency MCC Busses	1B5, 1B6, 1B7
120	volt A.C. Instrument Bus	1MA
120	volt A.C. Instrument Bus	1MB
120	volt A.C. Instrument Bus	1MC
120	volt A.C. Instrument Bus	1MD

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

#### ACTION:

### NOTE

Enter applicable ACTIONS of LCO 3.8.2.3, "D.C. Distribution - Operating," for DC trains made inoperable by inoperable AC distribution system.

With less than the above complement of A.C. busses OPERABLE, restore the inoperable bus to OPERABLE status within 8 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

4.8.2.1 The specified A.C. busses shall be determined OPERABLE and energized from A.C. sources other than the diesel generators in accordance with the Surveillance Frequency Control Program by verifying indicated power availability.

### ADMINISTRATIVE CONTROLS (continued)

- c. When a RICT is being used, any plant configuration change within the scope of the Configuration Risk Management Program must be considered for the effect on the RICT.
  - 1. For planned changes, the revised RICT must be determined prior to implementation of the change in configuration.
  - 2. For emergent conditions, the revised RICT must be determined within the time limits of the Required Action Completion Time (i.e., not the RICT) or 12 hours after the plant configuration change, whichever is less.
  - 3. Revising the RICT is not required If the plant configuration change would lower plant risk and would result in a longer RICT.
- d. Use of a RICT is not permitted for entry into a configuration which represents a loss of a specified safety function or inoperability of all required trains of a system required to be OPERABLE.
- e. If the extent of condition evaluation for inoperable structures, systems, or components (SSCs) is not complete prior to exceeding the Completion Time, the RICT shall account for the increased possibility of common cause failure (CCF) by either:
  - 1. Numerically accounting for the increased possibility of CCF in the RICT calculation, or
  - 2. Risk Management Actions (RMAs) not already credited in the RICT calculation shall be implemented that support redundant or diverse SSCs that perform the function(s) of the inoperable SSCs, and, if practicable, reduce the frequency of initiating events that challenge the function(s) performed by the inoperable SSCs.

#### s. <u>Safety Function Determination Program (SFDP)</u>

This program ensures loss of safety function is detected and appropriate actions taken. Upon entry into LCO 3.0.6, an evaluation shall be made to determine if loss of safety function exists. Additionally, other appropriate actions may be taken as a result of the support system inoperability and corresponding exception to entering supported system ACTIONS. This program implements the requirements of LCO 3.0.6. The SFDP shall contain the following:

- a. Provisions for cross train checks to ensure a loss of the capability to perform the safety function assumed in the accident analysis does not go undetected,
- b Provisions for ensuring the plant is maintained in a safe condition if a loss of function condition exists,
- Provisions to ensure that an inoperable supported system's allowed outage time is not inappropriately extended as a result of multiple support system inoperabilites, and
- d. Other appropriate limitations and remedial or compensatory actions.

### ADMINISTRATIVE CONTROLS (continued)

A loss of safety function exists when, assuming no concurrent single failure, no concurrent loss of offsite power, or no concurrent loss of onsite diesel generator(s), a safety function assumed in the accident analysis cannot be performed. For the purpose of this program, a loss of safety function may exist when a support system is inoperable, and:

- a. A required system redundant to the system(s) supported by the inoperable support system is also inoperable, or
- b. A required system redundant to the system(s) in turn supported by the inoperable supported system is also inoperable, or
- c. A required system redundant to the support system(s) for the supported systems (a) and (b) above is also inoperable.

The SFDP identifies where a loss of safety function exists. If a loss of safety function is determined to exist by this program, the appropriate ACTIONS of the LCO in which the loss of safety function exists are required to be entered. When a loss of safety function is caused by the inoperability of a single Technical Specification support system, the appropriate ACTIONS to enter are those of the support system.

### 6.9 REPORTING REQUIREMENTS

#### **ROUTINE REPORTS**

6.9.1 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted to the NRC.

### STARTUP REPORT

- 6.9.1.1 A summary report of plant startup and power escalation testing shall be submitted following:
  - (1) receipt of an operating license,
  - (2) amendment of the license involving a planned increase in power level,
  - (3) installation of fuel that has a different design or has been manufactured by a different fuel supplier, and
  - (4) modifications that may have significantly altered the nuclear, thermal or hydraulic performance of the plant.



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

# FLORIDA POWER & LIGHT COMPANY

# ORLANDO UTILITIES COMMISSION OF THE CITY OF ORLANDO, FLORIDA

<u>AND</u>

# FLORIDA MUNICIPAL POWER AGENCY

# DOCKET NO. 50-389

# ST. LUCIE PLANT, UNIT NO. 2

### AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 200 Renewed License No. NPF-16

- 1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Florida Power & Light Company, et al. (FPL, the licensee), dated May 29, 2018, as supplemented by letter dated March 26, 2019, 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, Renewed Facility Operating License No. NPF-16 is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and by amending paragraph 3.B to read as follows:
  - B. <u>Technical Specifications</u>

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 200, are hereby incorporated in the renewed license. FPL shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented within 90 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

m

James G. Danna, Chief Plant Licensing Branch I Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Attachment:

Changes to the Renewed Facility Operating License and Technical Specifications

Date of Issuance: July 31, 2019

# ATTACHMENT TO LICENSE AMENDMENT NO. 200

## ST. LUCIE PLANT, UNIT NO. 2

# RENEWED FACILITY OPERATING LICENSE NO. NPF-16

# DOCKET NO. 50-389

Replace the following page of Renewed Facility Operating License No. NPF-16 with the attached revised page. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

<u>Remove</u>	<u>Insert</u>
3	3

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

Remove	Insert
3/4 0-1	3/4 0-1
	3/4 0-1a
3/4 4-19	3/4 4-19
3/4 6-9	3/4 6-9
3/4 6-19	3/4 6-19
3/4 7-13	3/4 7-13
3/4 7-14	3/4 7-14
3/4 8-1	3/4 8-1
	3/4 8-1a
3/4 8-2	3/4 8-2
3/4 8-3	3/4 8-3
3/4 8-9	3/4 8-9
3/4 8-15	3/4 8-15
6-16a	6-16a
	6-16b

neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required.

- D. Pursuant to the Act and 10 CFR Parts 30, 40, and 70, FPL to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- E. Pursuant to the Act and 10 CFR Parts 30, 40, and 70, FPL to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- 3. This renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission's regulations: 10 CFR Part 20, Section 30.34 of 10 FR Part 30, Section 40.41 of 10 CFR Part 40, Section 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

FPL is authorized to operate the facility at steady state reactor core power levels not in excess of 3020 megawatts (thermal).

#### B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 200, are hereby incorporated in the renewed license. FPL shall operate the facility in accordance with the Technical Specifications.

Renewed License No. NPF-16 Amendment No. 200

#### 3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

### 3/4.0 APPLICABILITY

#### LIMITING CONDITION FOR OPERATION

- 3.0.1 Limiting Conditions for Operation (LCO) shall be met during the MODES or other specified conditions in the Applicability, except as provided in LCO 3.0.2.
- 3.0.2 Upon discovery of a failure to meet an LCO, the ACTIONS shall be met, except as provided in LCO 3.0.5 and LCO 3.0.6. If the LCO is met or is no longer applicable prior to expiration of the specified time interval(s), completion of the ACTIONS is not required, unless otherwise stated.
- 3.0.3 When a Limiting Condition for Operation is not met, except as provided in the associated ACTION requirements, within 1 hour, action shall be initiated to place the unit in a MODE in which specification does not apply by placing it, as applicable, in:
  - 1. At least HOT STANDBY within the next 6 hours,
  - 2. At least HOT SHUTDOWN within the following 6 hours, and
  - 3. At least COLD SHUTDOWN within the subsequent 24 hours.

Where corrective measures are completed that permit operation under the ACTION requirements, the ACTION may be taken in accordance with the specified time limits as measured from the time of failure to meet the Limiting Condition for Operation. Exceptions to these requirements are stated in the individual specifications.

This specification is not applicable in MODE 5 or 6.

- 3.0.4 When an LCO is not met, entry into a MODE or other specified condition in the Applicability shall only be made:
  - When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time;
  - b. After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate (exceptions to this Specification are stated in the individual Specifications); or
  - c. When an allowance is stated in the individual value, parameter, or other Specification.

This Specification shall not prevent changes in 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.

3.0.5 Equipment removed from service or declared inoperable to comply with ACTION(s) may be returned to service under administrative control solely to perform testing required to demonstrate its OPERABILITY or the OPERABILITY of other equipment. This is an exception to LCO 3.0.2 for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY.

## **APPLICABILITY**

#### LIMITING CONDITION FOR OPERATION (continued)

3.0.6 When a supported system LCO is not met solely due to a support system LCO not being met, the ACTIONS associated with this supported system are not required to be entered. Only the support system LCO ACTIONS are required to be entered. This is an exception to LCO 3.0.2 for the supported system. In this event, an evaluation shall be performed in accordance with Specification 6.8.4.t, "Safety Function Determination Program (SFDP)." If a loss of safety function is determined to exist by this program, the appropriate ACTIONS of the LCO in which the loss of safety function exists are required to be entered.

When a support system's ACTION directs a supported system to be declared inoperable or directs entry into ACTIONS for a supported system, the applicable ACTIONS shall be entered in accordance with LCO 3.0.2.

### **REACTOR COOLANT SYSTEM**

#### **OPERATIONAL LEAKAGE**

#### LIMITING CONDITION FOR OPERATION

- 3.4.6.2 Reactor Coolant System operational leakage shall be limited to:
  - a. No PRESSURE BOUNDARY LEAKAGE,
  - b. 1 gpm UNIDENTIFIED LEAKAGE,
  - c. 150 gallons per day primary-to-secondary leakage through any one steam generator (SG),
  - d. 10 gpm IDENTIFIED LEAKAGE from the Reactor Coolant System, and
  - e. 1 gpm leakage (except as noted in Table 3.4-1) at a Reactor Coolant System pressure of 2235 ± 20 psig from any Reactor Coolant System Pressure Isolation Valve specified in Table 3.4-1.

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

### ACTION:

- a. With any PRESSURE BOUNDARY LEAKAGE or with primary-to-secondary leakage not within limit, be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With any Reactor Coolant System operational leakage greater than any one of the limits, excluding primary-to-secondary leakage, PRESSURE BOUNDARY LEAKAGE, and leakage from Reactor Coolant System Pressure Isolation Valves, reduce the leakage rate to within limits within 4 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### NOTE

Enter applicable ACTIONS for systems made inoperable by an inoperable pressure isolation valve.

- c. With any Reactor Coolant System Pressure Isolation Valve leakage greater than the above limit, isolate the high pressure portion of the affected system from the low pressure portion within 4 hours by use of at least two closed manual or deactivated automatic valves, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- d. With RCS leakage alarmed and confirmed in a flow path with no flow indication, commence an RCS water inventory balance within 1 hour to determine the leak rate.

# SURVEILLANCE REQUIREMENTS

- 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 and particulate radioactivity monitor in accordance with the Surveillance Frequency Control Program.
  - b. Monitoring the containment sump inventory and discharge in accordance with the Surveillance Frequency Control Program.

#### CONTAINMENT SYSTEMS

## CONTAINMENT AIR LOCKS

#### LIMITING CONDITION FOR OPERATION

- 3.6.1.3 Each containment air lock shall be OPERABLE with:
  - a. Both doors closed except when the air lock is being used for normal transit entry and exit through the containment, then at least one air lock door shall be closed, and
  - b. An overall air lock leakage rate in accordance with the Containment Leakage Rate Testing Program.

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

### ACTION:

# <u>NOTE</u>

- If the inner air lock door is inoperable, passage through the OPERABLE outer air lock door is permitted to effect repairs to the inoperable inner air lock door. No more than one airlock door shall be open at any time.
- Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when air lock leakage results in exceeding overall containment leakage rate acceptance criteria.
  - a. With one containment air lock door inoperable:
    - 1. Maintain at least the OPERABLE air lock door closed and either restore the inoperable air lock door to OPERABLE status within 24 hours or lock the OPERABLE air lock door closed.
    - 2. Operation may then continue until performance of the next required overall air lock leakage test provided that the OPERABLE air lock door is verified to be locked closed at least once per 31 days.
    - 3. Otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.
  - b. With one or both containment air lock(s) inoperable, except as the result of an inoperable air lock door, maintain at least one air lock door closed in the affected air lock(s) and restore the inoperable air lock(s) to OPERABLE status within 24 hours or in accordance with the Risk Informed Completion Time Program; otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

## CONTAINMENT SYSTEMS

## 3/4.6.3 CONTAINMENT ISOLATION VALVES

### LIMITING CONDITION FOR OPERATION

3.6.3 The containment isolation valves shall be OPERABLE.

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

## ACTION:

### NOTE

- Enter applicable ACTIONS for systems made inoperable by containment isolation valves.
- Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when leakage results in exceeding overall containment leakage rate acceptance criteria.

With one or more of containment isolation valve(s) inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open and either:

- a. Restore the inoperable valve(s) to OPERABLE status within 4 hours or in accordance with the Risk Informed Completion Time Program, or
- b. Isolate each affected penetration within 4 hours or in accordance with the Risk Informed Completion Time Program by use of at least one deactivated automatic valve secured in the isolation position, or
- c. Isolate each affected penetration within 4 hours or in accordance with the Risk Informed Completion Time Program by use of at least one closed manual valve or blind flange; or
- d. Be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

### SURVEILLANCE REQUIREMENTS

4.6.3.1 The containment isolation valves shall be demonstrated OPERABLE prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of a cycling test and verification of isolation time.

# PLANT SYSTEMS

### 3/4.7.3 COMPONENT COOLING WATER SYSTEM

## LIMITING CONDITION FOR OPERATION

# <u>NOTE</u>

- When CCW pump 2C is being used to satisfy the requirements of this specification, the alignment of the discharge valves shall be verified to be consistent with the appropriate power supply at least once per 24 hours. Upon receipt of annunciation for improper alignment of the pump 2C motor power in relation to any of its motor-operated discharge valves positions, restore proper system alignment within 2 hours.
- Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant System Hot Shutdown," for shutdown cooling loops made inoperable by CCW.

3.7.3 At least two independent component cooling water loops shall be OPERABLE.

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

### ACTION:

With only one component cooling water loop OPERABLE, restore at least two loops to OPERABLE status within 72 hours or in accordance with the Risk Informed Completion Time Program, or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

### SURVEILLANCE REQUIREMENTS

- 4.7.3 At least two component cooling water loops shall be demonstrated OPERABLE:
  - a. In accordance with the Surveillance Frequency Control Program by verifying that each valve (manual, power-operated or automatic) servicing safety-related equipment that is not locked, sealed, or otherwise secured in position, is in its correct position.
  - b. In accordance with the Surveillance Frequency Control Program during shutdown by verifying that each automatic valve servicing safety-related equipment actuates to its correct position on an SIAS test signal.

### PLANT SYSTEMS

### 3/4.7.4 INTAKE COOLING WATER SYSTEM

#### LIMITING CONDITION FOR OPERATION

# NOTE

- When ICW pump 2C is being used to satisfy the requirements of this specification, the alignment of the discharge valves must be verified to be consistent with the appropriate power supply at least once per 24 hours.
- Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant System Hot Shutdown," for shutdown cooling loops made inoperable by ICW.

3.7.4 At least two independent intake cooling water loops shall be OPERABLE.

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

#### ACTION:

With only one intake cooling water loop OPERABLE, restore at least two loops to OPERABLE status within 72 hours or in accordance with the Risk Informed Completion Time Program, or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

#### SURVEILLANCE REQUIREMENTS

- 4.7.4 At least two intake cooling water loops shall be demonstrated OPERABLE:
  - a. In accordance with the Surveillance Frequency Control Program by verifying that each valve (manual, power-operated, or automatic) servicing safety-related equipment that is not locked, sealed or otherwise secured in position, is in its correct position.
  - b. In accordance with the Surveillance Frequency Control Program during shutdown, by verifying that each automatic valve servicing safety-related equipment actuates to its correct position on a SIAS test signal.

# 3/4.8.1 A.C. SOURCES

### **OPERATING**

#### LIMITING CONDITION FOR OPERATION

- 3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:
  - a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system, and
  - b. Two separate and independent diesel generators, each with:
    - 1. Two separate engine-mounted fuel tanks containing a minimum volume of 238 gallons of fuel each,
    - 2. A separate fuel storage system containing a minimum volume of 42,500 gallons of fuel, and
    - 3. A separate fuel transfer pump.

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

#### ACTION:

- With one offsite circuit of 3.8.1.1.a inoperable, except as provided in ACTION f below:
  - 1. Demonstrate the OPERABILITY of the remaining A. C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter.
  - 2. Within 24 hours from discovery of no offsite power to one train concurrent with inoperability of redundant required feature(s), declare required feature(s) with no offsite power available inoperable when its redundant required feature(s) is inoperable.
  - Restore the offsite circuit to OPERABLE status within 72 hours or in accordance with the Risk Informed Completion Time Program, or be in at least HOT STANDBY within the next 6 hours and HOT SHUTDOWN within the following 6 hours.
  - LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

### <u>ACTION</u> (continued)

# <u>NOTE</u>

If the absence of any common-cause failure cannot be confirmed, Surveillance requirement 4.8.1.1.2.a.4 shall be completed regardless of when the inoperable EDG is restored to OPERABILITY.

- b. With one diesel generator of 3.8.1.1.b inoperable:
  - 1. Demonstrate the OPERABILITY of the A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter.
  - 2. Additionally, within 4 hours from the discovery of concurrent inoperability of required redundant feature(s) (including the steam driven auxiliary feed pump in MODE 1, 2, and 3), declare required feature(s) supported by the inoperable EDG inoperable if its redundant required feature(s) is inoperable.
  - If the EDG became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE EDG by performing Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours, unless it can be confirmed that the cause of the inoperable EDG does not exist on the remaining EDG.
  - 4. Restore the diesel generator to OPERABLE status within 14 days or in accordance with the Risk Informed Completion Time Program, or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

5. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

## ACTION: (Continued)

### NOTE

- If the absence of any common-cause failure cannot be confirmed, Surveillance Requirement 4.8.1.1.2.a.4 shall be completed regardless of when the inoperable EDG is restored to OPERABILITY.
- Enter applicable ACTIONS of LCO 3.8.3.1, "Onsite Power Distribution Operating," when ACTION c is entered with no AC power to any train.
  - c. With one offsite A.C. circuit and one diesel generator inoperable:
    - 1. Demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter.
    - 2. Additionally, within 4 hours from the discovery of concurrent inoperability of required redundant feature(s) (including the steam driven auxiliary feed pump in MODE 1, 2, and 3), declare required feature(s) supported by the inoperable EDG inoperable if its redundant required feature(s) is inoperable.
    - 3. If the EDG became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE EDG by performing Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours, unless it can be confirmed that the cause of the inoperable EDG does not exist on the remaining EDG.
    - 4. Restore at least one of the inoperable sources to OPERABLE status within 12 hours or in accordance with the Risk Informed Completion Time Program, or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
    - 5. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.
    - 6. Restore the other A.C. power source (offsite circuit or diesel generator) to OPERABLE status in accordance with the provisions of Section 3.8.1.1 ACTION Statement a or b, as appropriate, with the time requirement of that ACTION Statement based on the time of the initial loss of the remaining inoperable A.C. power source.

### **ACTION:** (Continued)

- d. With two of the required offsite A.C. circuits inoperable:
  - 1. Within 12 hours from discovery of two offsite circuits inoperable concurrent with inoperability of redundant required feature(s), declare required feature(s) inoperable when its redundant required feature(s) is inoperable.
  - 2. Restore one of the inoperable offsite sources to OPERABLE status within 24 hours or in accordance with the Risk Informed Completion Time Program, or be in at least HOT STANDBY within the next 6 hours.
  - 3. Following restoration of one offsite source, follow ACTION a with the time requirement of that ACTION based on the time of the initial loss of the remaining inoperable offsite A.C. circuit.
- e. With two of the above required diesel generators inoperable, demonstrate the OPERABILITY of two offsite A.C. circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter; restore one of the inoperable diesel generators to OPERABLE status within 2 hours or be in the at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN. Following restoration of one diesel generator unit, follow ACTION Statement b. with the time requirement of that ACTION Statement based on the time of initial loss of the remaining inoperable diesel generator.
- f. With one Unit 2 startup transformer (2A or 2B) inoperable and with a Unit 1 startup transformer (1A or 1B) connected to the same A or B offsite power circuit and administratively available to both units, then should Unit 1 require the use of the startup transformer administratively available to both units, Unit 2 shall demonstrate the operability of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter. Restore the inoperable startup transformer to OPERABLE status within 72 hours or in accordance with the Risk Informed Completion Time Program, or be in at least HOT STANDBY within the next 6 hours and COLD SHUTDOWN within the following 30 hours.
- g. LCO 3.0.4.b is not applicable to diesel generators.

### SURVEILLANCE REQUIREMENTS

- 4.8.1.1.1 Each of the above required independent circuits between the offsite transmission network and the onsite Class 1E distribution system shall be:
  - a. Determined OPERABLE in accordance with the Surveillance Frequency Control Program by verifying correct breaker alignments, indicated power availability; and
  - b. Demonstrated OPERABLE in accordance with the Surveillance Frequency Control Program by transferring (manually and automatically) unit power supply from the normal circuit to the alternate circuit.
- 4.8.1.1.2 Each diesel generator shall be demonstrated OPERABLE:
  - a. In accordance with the Surveillance Frequency Control Program by:

ST. LUCIE - UNIT 2

Amendment No. <del>39</del>, 4<del>3</del>, <del>78</del>, <del>170</del>, <del>173</del>, <del>184</del>, 200

### A.C. SOURCES

#### <u>SHUTDOWN</u>

#### LIMITING CONDITION FOR OPERATION

- 3.8.1.2 As a minimum, the following A.C. electrical power sources shall be OPERABLE:
  - a. One circuit between the offsite transmission network and the onsite Class 1E distribution system, and
  - b. One diesel generator with:
    - 1. Two engine-mounted fuel tanks containing a minimum volume of 238 gallons of fuel,
    - 2. A fuel storage system containing a minimum volume of 42,500 gallons of fuel, and
    - 3. A fuel transfer pump.

**APPLICABILITY:** MODES 5 and 6.

#### ACTION:

### <u>NOTE</u>

Enter the ACTION of LCO 3.8.3.2, "Onsite Power Distribution - Shutdown," with one required train de-energized as a result of inoperable offsite circuit.

With less than the above minimum required A.C. electrical power sources OPERABLE, immediately suspend all operations involving CORE ALTERATIONS, operations involving positive reactivity additions that could result in loss of required SHUTDOWN MARGIN or boron concentration, movement of irradiated fuel, or crane operation with loads over the fuel storage pool, and within 8 hours, depressurize and vent the Reactor Coolant System through a greater than or equal to 3.58 square inch vent. In addition, when in MODE 5 with the reactor coolant loops not filled, or in MODE 6 with the water level less than 23 feet above the reactor vessel flange, immediately initiate corrective action to restore the required sources to OPERABLE status as soon as possible.

#### SURVEILLANCE REQUIREMENTS

4.8.1.2.1 The above required A.C. electrical power sources shall be demonstrated OPERABLE by the performance of each of the Surveillance Requirements of 4.8.1.1.1 and 4.8.1.1.2 (except for requirement 4.8.1.1.2a.5).

## ACTION:

## NOTE

Enter applicable ACTIONS of LCO 3.8.2.1, "D.C. Sources - Operating," for DC trains made inoperable by inoperable AC distribution system.

- a. With one of the required trains of A.C. Emergency busses not fully energized, re-energize the train within 8 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With one A.C. Instrument Bus either not energized from its associated inverter, or with the inverter not connected to its associated D.C. Bus: (1) re-energize the A.C. Instrument Bus within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours and (2) re-energize the A.C. Instrument Bus from its associated inverter connected to its associated D.C. Bus within 24 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.
- c. With one D.C. Bus not energized from its associated Battery Bank, re-energize the D.C. Bus from its associated Battery Bank within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

### SURVEILLANCE REQUIREMENTS

4.8.3.1 The specified busses shall be determined energized in the required manner in accordance with the Surveillance Frequency Control Program by verifying correct breaker alignment and indicated voltage on the busses.

#### **ADMINISTRATIVE CONTROLS**

- e. If the extent of condition evaluation for inoperable structures, systems, or components (SSCs) is not complete prior to exceeding the Completion Time, the RICT shall account for the increased possibility of common cause failure (CCF) by either:
  - 1. Numerically accounting for the increased possibility of CCF in the RICT calculation, or
  - 2. Risk Management Actions (RMAs) not already credited in the RICT calculation shall be implemented that support redundant or diverse SSCs that perform the function(s) of the inoperable SSCs, and, if practicable, reduce the frequency of initiating events that challenge the function(s) performed by the inoperable SSCs.

#### t. <u>Safety Function Determination Program (SFDP)</u>

This program ensures loss of safety function is detected and appropriate actions taken. Upon entry into LCO 3.0.6, an evaluation shall be made to determine if loss of safety function exists. Additionally, other appropriate actions may be taken as a result of the support system inoperability and corresponding exception to entering supported system ACTIONS. This program implements the requirements of LCO 3.0.6. The SFDP shall contain the following:

- a. Provisions for cross train checks to ensure a loss of the capability to perform the safety function assumed in the accident analysis does not go undetected,
- b Provisions for ensuring the plant is maintained in a safe condition if a loss of function condition exists,
- c. Provisions to ensure that an inoperable supported system's allowed outage time is not inappropriately extended as a result of multiple support system inoperabilites, and
- d. Other appropriate limitations and remedial or compensatory actions.

A loss of safety function exists when, assuming no concurrent single failure, no concurrent loss of offsite power, or no concurrent loss of onsite diesel generator(s), a safety function assumed in the accident analysis cannot be performed. For the purpose of this program, a loss of safety function may exist when a support system is inoperable, and:

- a. A required system redundant to the system(s) supported by the inoperable support system is also inoperable, or
- b. A required system redundant to the system(s) in turn supported by the inoperable supported system is also inoperable, or
- c. A required system redundant to the support system(s) for the supported systems (a) and (b) above is also inoperable.

The SFDP identifies where a loss of safety function exists. If a loss of safety function is determined to exist by this program, the appropriate ACTIONS of the LCO in which the loss of safety function exists are required to be entered. When a loss of safety function is caused by the inoperability of a single Technical Specification support system, the appropriate ACTIONS to enter are those of the support system.

#### ADMINISTRATIVE CONTROLS

# 6.9 REPORTING REQUIREMENTS

## **ROUTINE REPORTS**

6.9.1 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted to the NRC.

# **STARTUP REPORT**

- 6.9.1.1 A summary report of plant startup and power escalation testing shall be submitted following (1) receipt of an operating license, (2) amendment to the license involving a planned increase in power level, (3) installation of fuel that has a different design or has been manufactured by a different fuel supplier; and (4) modifications that may have significantly altered the nuclear, thermal or hydraulic performance of the plant.
- 6.9.1.2 The startup report shall address each of the tests identified in the FSAR and shall include a description of the measured values of the operating conditions or characteristics obtained during the test program and a comparison of these values with design predictions and specifications. Any corrective actions that were required to obtain satisfactory operation shall also be described. Any additional specific details required in license conditions based on other commitments shall be included in this report.
- 6.9.1.3 Startup reports shall be submitted within (1) 90 days following completion of the startup test program, (2) 90 days following resumption or commencement of commercial power operation, or (3) 9 months following initial criticality, whichever is earliest. If the Startup Report does not cover all three events (i.e., initial criticality, completion of startup test program, and resumption or commencement of commercial operation), supplementary reports shall be submitted at least every three months until all three events have been completed.



#### 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. 287 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 May 29, 2018, as supplemented by letter dated March 26, 2019, 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.

**Enclosure 4** 

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

The Technical Specifications contained in Appendix A, as revised through Amendment No. 287, 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 90 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

James G. Danna, Chief Plant Licensing Branch I Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Attachment:

Changes to the Renewed Facility Operating License and Technical Specifications

Date of Issuance: July 31, 2019



## 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. 281 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 May 29, 2018, as supplemented by letter dated March 26, 2019, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
- B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
- C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
- D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
- E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

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

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 90 days of issuance.

## FOR THE NUCLEAR REGULATORY COMMISSION

James G. Danna, Chief Plant Licensing Branch I Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Attachment:

Changes to the Renewed Facility Operating License and Technical Specifications

Date of Issuance: July 31, 2019

# ATTACHMENT TO LICENSE AMENDMENTS

### TURKEY POINT NUCLEAR GENERATING UNIT NOS. 3 AND 4

### AMENDMENT NO. 287 RENEWED FACILITY OPERATING LICENSE NO. DPR-31

#### AMENDMENT NO. 281 RENEWED FACILITY OPERATING LICENSE NO. DPR-41

#### DOCKET NOS. 50-250 AND 50-251

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

<u>Remove</u>	<u>Insert</u>
3	3

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

<u>Remove</u>	Insert
3	3

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

Remove	Insert
3/4 0-1	3/4 0-1
3/4 0-2	3/4 0-2
3/4 4-15	3/4 4-15
3/4 6-3	3/4 6-3
3/4 6-16	3/4 6-16
3/4 7-14	3/4 7-14
3/4 7-16	3/4 7-16
3/4 8-2	3/4 8-2
	3/4 8-2A
3/4 8-3	3/4 8-3
3/4 8-4	3/4 8-4
3/4 8-11	3/4 8-11
3/4 8-19	3/4 8-19
6-14B	6-14B
	6-14C

- 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. <u>Maximum Power Level</u>

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

## B. <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 287, 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.

Renewed License No. DPR-31 Amendment No. 287

- 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. <u>Maximum Power Level</u>

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

# B. <u>Technical Specifications</u>

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 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.

Unit 4

#### 3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

#### 3/4.0 APPLICABILITY

#### LIMITING CONDITIONS FOR OPERATION

- 3.0.1 LCOs shall be met during the MODES or other specified conditions in the Applicability, except as provided in LCO 3.0.2.
- 3.0.2 Upon discovery of a failure to meet an LCO, the ACTIONS shall be met, except as provided in LCO 3.0.6 and LCO 3.0.7. If the LCO is met or is no longer applicable prior to expiration of the specified time interval, completion of the ACTION(S) is not required unless otherwise stated.
- 3.0.3 When a Limiting Condition for Operation is not met, except as provided in the associated ACTION requirements, within 1 hour action shall be initiated to place the unit, as applicable, in:
  - a. At least HOT STANDBY within the next 6 hours,
  - b. At least HOT SHUTDOWN within the following 6 hours, and
  - c. At least COLD SHUTDOWN within the subsequent 24 hours.

Where corrective measures are completed that permit operation under the ACTION requirements, the action may be taken in accordance with the specified time limits as measured from the time of failure to meet the Limiting Condition for Operation. Exceptions to these requirements are stated in the individual specifications.

This specification is not applicable in MODES 5 or 6.

- 3.0.4 When an LCO is not met, entry into a MODE or other specified condition in the Applicability shall only be made:
  - a. When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time;
  - b. After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate; exceptions to this Specification are stated in the individual Specifications, or
  - c. When an allowance is stated in the individual value, parameter, or other Specification.

This Specification shall not prevent changes in 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.

#### **APPLICABILITY**

#### LIMITING CONDITIONS FOR OPERATION (Continued)

- 3.0.5 Limiting Conditions for Operation including the associated ACTION requirements shall apply to each unit individually unless otherwise indicated as follows:
  - a. Whenever the Limiting Conditions for Operation refers to systems or components which are shared by both units, the ACTION requirements will apply to both units simultaneously.
  - b. Whenever the Limiting Conditions for Operation applies to only one unit, this will be identified in the APPLICABILITY section of the specification; and
  - c. Whenever certain portions of a specification contain operating parameters, Setpoints, etc., which are different for each unit, this will be identified in parentheses, footnotes or body of the requirement.
- 3.0.6 Equipment removed from service or declared inoperable to comply with ACTION requirements may be returned to service under administrative controls solely to perform testing required to demonstrate its OPERABILITY or the OPERABILITY of other equipment. This is an exception to LCO 3.0.1 and 3.0.2 for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY.
- 3.0.7 When a supported system LCO is not met solely due to a support system LCO not being met, the ACTIONS associated with this supported system are not required to be entered. Only the support system LCO ACTIONS are required to be entered. This is an exception to LCO 3.0.2 for the supported system. In this event, an evaluation shall be performed in accordance with Specification 6.8.4.q, "Safety Function Determination Program (SFDP)." If a loss of safety function is determined to exist by this program, the appropriate ACTIONS of the LCO in which the loss of safety function exists are required to be entered.

When a support system's ACTION directs a supported system to be declared inoperable or directs entry into the ACTIONS for a supported system, the applicable ACTIONS shall be entered in accordance with LCO 3.0.2.

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

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.

- NOTE: Enter applicable ACTIONS for systems made inoperable by an inoperable pressure isolation valve.
  - 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

- 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 < 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

<sup>\*</sup> 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.

<sup>\*\*</sup> Not applicable to primary-to-secondary leakage.

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

#### **CONTAINMENT SYSTEMS**

### **CONTAINMENT AIR LOCKS**

#### LIMITING CONDITION FOR OPERATION

3.6.1.3 Each containment air lock shall be OPERABLE with:

- a. Both doors closed except when the air lock is being used for normal transit entry and exit through the containment, or during the performance of containment air lock surveillance and/or testing requirements, then at least one air lock door shall be closed, and
- b. An overall air lock leakage rate in accordance with the Containment Leakage Rate Testing Program.

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

NOTE: Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when air lock leakage results in exceeding the overall containment leakage rate acceptance criteria.

#### ACTION:

- a. With one containment air lock door inoperable:
  - 1. Maintain at least the OPERABLE air lock door closed and either restore the inoperable air lock door to OPERABLE status within 24 hours or lock the OPERABLE air lock door closed;
  - 2. Operation may then continue until performance of the next required overall air lock leakage test provided that the OPERABLE air lock door is verified to be locked closed at least once per 31 days;
  - 3. Otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With the containment air lock inoperable, except as the result of an inoperable air lock door, maintain at least one air lock door closed; restore the inoperable air lock to OPERABLE status within 24 hours or in accordance with the Risk Informed Completion Time Program, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### CONTAINMENT SYSTEMS

#### 3/4.6.4 CONTAINMENT ISOLATION VALVES

#### LIMITING CONDITION FOR OPERATION

3.6.4 Each containment isolation valve shall be OPERABLE with isolation times less than or equal to required isolation times.

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

NOTES: 1. Enter applicable ACTIONS for systems made inoperable by containment isolation valves.

2. Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when isolation valve leakage results in exceeding the overall containment leakage rate acceptance criteria.

#### ACTION:

With one or more isolation valves inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open and either:

- a. Restore the inoperable valve(s) to OPERABLE status within 4 hours or in accordance with the Risk Informed Completion Time Program, or
- b. Isolate each affected penetration within 4 hours or in accordance with the Risk Informed Completion Time Program, by use of at least one deactivated automatic containment isolation valve secured in the isolation position, or
- c. Isolate each affected penetration within 4 hours or in accordance with the Risk Informed Completion Time Program, by use of at least one closed manual valve or blind flange, or
- d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

4.6.4.1 The isolation valves shall be demonstrated OPERABLE prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of a cycling test, and verification of isolation time.

#### PLANT SYSTEMS

### 3/4.7.2 COMPONENT COOLING WATER SYSTEM

#### LIMITING CONDITION FOR OPERATION

3.7.2 The Component Cooling Water System (CCW) shall be OPERABLE with:

- a. Three CCW pumps, and
- b. Two CCW heat exchangers.

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

### ACTION:

- <u>NOTE:</u> Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant System Hot Shutdown," for residual heat removal loops made inoperable by CCW.
  - a. With only two CCW pumps with independent power supplies OPERABLE, restore the inoperable CCW pump to OPERABLE status within 30 days or be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
  - b. With only one CCW pump OPERABLE or with two CCW pumps OPERABLE but not from independent power supplies, restore two pumps from independent power supplies to OPERABLE status within 72 hours or in accordance with the Risk Informed Completion Time Program, or be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
  - c. With less than two CCW heat exchangers OPERABLE, restore two heat exchangers to OPERABLE status within 1 hour or be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

### SURVEILLANCE REQUIREMENTS

- 4.7.2 The Component Cooling Water System (CCW) shall be demonstrated OPERABLE:
  - a. In accordance with the Surveillance Frequency Control Program, by verifying that two heat exchangers and one pump are capable of removing design basis heat loads.

### PLANT SYSTEMS

#### 3/4.7.3 INTAKE COOLING WATER SYSTEM

### LIMITING CONDITION FOR OPERATION

3.7.3 The Intake Cooling Water System (ICW) shall be OPERABLE with:

- a. Three ICW pumps, and
- b. Two ICW headers.

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

<u>NOTE:</u> Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant System - Hot Shutdown," for residual heat removal loops made inoperable by ICW.

#### ACTION:

- a. With only two ICW pumps with independent power supplies OPERABLE, restore the inoperable ICW pump to OPERABLE status within 14 days or in accordance with the Risk Informed Completion Time Program, or be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With only one ICW pump OPERABLE or with two ICW pumps OPERABLE, but not from independent power supplies, restore two pumps from independent power supplies to OPERABLE status within 72 hours or in accordance with the Risk Informed Completion Time Program, or be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- c. With only one ICW header OPERABLE, restore two headers to OPERABLE status within 72 hours or in accordance with the Risk Informed Completion Time Program, or be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

4.7.3 The Intake Cooling Water System (ICW) shall be demonstrated OPERABLE:

- a. In accordance with the Surveillance Frequency Control Program by verifying that each valve (manual, power-operated, or automatic) servicing safety-related equipment that is not locked, sealed, or otherwise secured in position is in its correct position; and
- b. In accordance with the Surveillance Frequency Control Program during shutdown, by verifying that:
  - 1) Each automatic valve servicing safety-related equipment actuates to its correct position on a SI test signal, and
  - 2) Each Intake Cooling Water System pump starts automatically on a SI test signal.
  - 3) Interlocks required for system operability are OPERABLE.

#### LIMITING CONDITION FOR OPERATION (Continued)

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

### ACTION:

NOTE: LCO 3.0.4.b is not applicable to diesel generators.

- a. With one of two startup transformers or an associated circuit inoperable:
  - 1. Demonstrate the OPERABILITY of the other startup transformer and its associated circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter.
  - 2. Within 24 hours from discovery of no offsite power to one train concurrent with inoperability of redundant required feature(s), declare required feature(s) with no offsite power available inoperable when its redundant required feature(s) is inoperable.
  - 3. If the inoperable startup transformer is the associated startup transformer and became inoperable while the unit is in Mode 1:
    - a) Reduce THERMAL POWER to ≤30% RATED THERMAL POWER within 24 hours, or
    - b) Restore the inoperable startup transformer and associated circuits to OPERABLE status within the next 48 hours or in accordance with the Risk Informed Completion Time Program, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
  - 4. If THERMAL POWER is reduced to ≤30% RATED THERMAL POWER within 24 hours or if the inoperable startup transformer is associated with the opposite unit, restore the startup transformer and its associated circuits to OPERABLE status within 30 days of the loss of OPERABILITY, or be in at least HOT STANDBY within the next 12 hours and in COLD SHUTDOWN within the following 30 hours.
  - 5. If the inoperable startup transformer is the associated startup transformer and became inoperable while the unit was in MODE 2, 3, or 4, restore the startup transformer and its associated circuits to OPERABLE status within 24 hours or in accordance with the Risk Informed Completion Time Program, or be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours. This ACTION applies to both units simultaneously.

### LIMITING CONDITION FOR OPERATION (Continued)

### ACTION (Continued)

- b. With one of the required diesel generators inoperable:
  - 1. Demonstrate the OPERABILITY of the above required startup transformers and their associated circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter.
  - 2. If the diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining required diesel generators by performing Surveillance Requirement 4.8.1.1.2.a.4 within 24 hours, unless the absence of any potential common mode failure for the remaining diesel generators is determined. If testing of remaining required diesel generators is required, this testing must be performed regardless of when the inoperable diesel generator is restored to OPERABILITY.
  - Restore the inoperable diesel generator to OPERABLE status within 14 days\*\* or in accordance with the Risk Informed Completion Time Program, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- <u>NOTE:</u> Enter applicable ACTIONS of LCO 3.8.3.1, "Onsite Power Distribution Operating," when ACTION c is entered with no AC power source to any train.
  - c. With one startup transformer and one of the required diesel generators inoperable:
    - 1. Demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a on the remaining startup transformer and associated circuits within 1 hour and at least once per 8 hours thereafter.
    - 2. If the diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventive maintenance or testing, demonstrate the OPERABILITY of the remaining required diesel generators by performing Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours, unless it can be confirmed that the cause of the inoperable diesel generator does not exist on the remaining required diesel generators, unless the diesel generators are already operating. If testing of remaining required diesel generators is required, this testing must be performed regardless of when the inoperable diesel generator is restored to OPERABILITY.
    - 3. Restore one of the inoperable sources to OPERABLE status in accordance with ACTIONS a and b, as appropriate.
    - 4. Restore the other A.C. power source (startup transformer or diesel generator) to OPERABLE status in accordance with the provisions of Section 3.8.1.1 ACTION a or b, as appropriate, with the time requirement of that ACTION based on the time of initial loss of the remaining inoperable A.C. power source.

<sup>\*\* 72</sup> hours if inoperability is associated with Action Statement 3.8.1.1.c.

#### LIMITING CONDITION FOR OPERATION (Continued)

#### ACTION (Continued)

- d. With one diesel generator inoperable, in addition to ACTION b. or c. above, verify that:
  - 1. All required systems, subsystems, trains, components, and devices (except safety injection pumps) that depend on the remaining required OPERABLE diesel generators as a source of emergency power are also OPERABLE.

If this condition is not satisfied within 2 hours, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

2. At least two Safety Injection pumps are OPERABLE and capable of being powered from their associated OPERABLE diesel generators.

If this condition is not satisfied within 2 hours, be in at least HOT STANDBY within the next 12 hours and in HOT SHUTDOWN within the following 6 hours. This ACTION applies to both units simultaneously.

- e. With two of the above required startup transformers or their associated circuits inoperable:
  - 1. Within 12 hours from discovery of two offsite circuits inoperable concurrent with inoperability of redundant required feature(s), declare required feature(s) inoperable when its redundant required feature(s) is inoperable.
  - 2. Restore at least one of the inoperable startup transformers to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours\* and in COLD SHUTDOWN within the following 30 hours. This ACTION applies to both units simultaneously.
  - 3. With only one startup transformer and associated circuits restored, perform Surveillance Requirement 4.8.1.1.1.a on the OPERABLE Startup transformer at least once per 8 hours, and restore the other startup transformer and its associated circuits to OPERABLE status or shutdown in accordance with the provisions of ACTION 3.8.1.1.a with time requirements of that ACTION based on the time of initial loss of a startup transformer. This ACTION applies to both units simultaneously.

\*If the opposite unit is shutdown first, this time can be extended to 42 hours.

TURKEY POINT - UNITS 3 & 4

#### LIMITING CONDITION FOR OPERATION (Continued)

### ACTION (Continued)

- f. With two of the above required diesel generators inoperable, demonstrate the OPERABILITY of two startup transformers and their associated circuits by performing the requirements of Specification 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter; restore at least one of the inoperable diesel generators to OPERABLE status within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within 14 days from time of initial loss or in accordance with the Risk Informed Completion Time Program, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- g. Following the addition of the new fuel oil\* to the Diesel Fuel Oil Storage Tanks, with one or more diesel generators with new fuel oil properties outside the required Diesel Fuel Oil Testing Program limits, restore the stored fuel oil properties to within the required limits within 30 days.
- h. With one or more diesel generators with stored fuel oil total particulates outside the required Diesel Fuel Oil Testing Program limits, restore the fuel oil total particulates to within the required limits within 7 days.

\*

The properties of API Gravity, specific gravity or an absolute specific gravity; kinematic viscosity; clear and bright appearance; and flash point shall be confirmed to be within the Diesel Fuel Oil Testing Program limits, prior to the addition of the new fuel oil to the Diesel Fuel Oil Storage Tanks.

#### A.C. SOURCES

#### <u>SHUTDOWN</u>

#### LIMITING CONDITION FOR OPERATION

3.8.1.2 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

- a. One startup transformer and associated circuits, or an alternate circuit, between the offsite transmission network and the 4160 volt bus, A or B, and
- b. One diesel generator with:
  - 1) <u>For Unit 3</u> (3A or 3B)

A skid-mounted fuel tank and a day fuel tank, with an OPERABLE solenoid valve to permit gravity flow from the day tank to the skid mounted tank, with the two tanks together containing a minimum of 2000 gallons of fuel oil

#### For Unit 4 (4A or 4B)

A day fuel tank containing a minimum volume of 230 gallons of fuel

- A fuel storage system containing a minimum volume of fuel of 38,000 gallons (Unit 3).
   34,700 gallons (Unit 4)\*\*
- 3) An associated fuel transfer pump\*\*
- 4) For Unit 3 only, lubricating oil storage containing a minimum volume of 120 gallons of lubricating oil
- 5) For Unit 3 only capability to transfer lubricating oil from storage to the diesel generator unit and
- 6) Energized MCC bus (as identified by Specification 3.8.1.1.b.).

# APPLICABILITY: MODES 5\* and 6\*.

#### ACTION:

<u>NOTE:</u> Enter the ACTION of LCO 3.8.3.2, "Onsite Power Distribution - Shutdown," with one required train de-energized as a result of inoperable offsite circuit.

With less than the above minimum required A.C. electrical power sources OPERABLE, immediately suspend all operations involving CORE ALTERATIONS, positive reactivity changes, movement of irradiated fuel, or crane operation with loads over the fuel storage pool, and within 8 hours, depressurize and vent the Reactor Coolant System through a greater than or equal to 2.2 square inch vent. In addition, when in MODE 5 with the reactor coolant loops not filled, or in MODE 6 with the water level less than 23 feet above the reactor vessel flange, immediately initiate corrective action to restore the required sources to OPERABLE status as soon as possible and increase RCS inventory as soon as possible.

TURKEY POINT – UNITS 3 & 4

<sup>\*</sup> CAUTION - If the opposite unit is in MODES 1, 2, 3, or 4 see Specification 3.8.1.1

<sup>\*\*</sup> A temporary Class III fuel storage system containing a minimum volume of 38,000 gallons of fuel oil may be used for up to 10 days during the performance of Surveillance Requirement 4.8.1.1.2i.1 for the Unit 3 storage tank while Unit 3 is in Modes 5, 6, or defueled. If the diesel fuel oil storage tank is not returned to service within 10 days, Technical Specification 3.8.1.1 Action b and 3.8.1.2 Action apply to Unit 4 and Unit 3 respectively.

### **ONSITE POWER DISTRIBUTION**

#### LIMITING CONDITION FOR OPERATION (Continued)

- j. 120 Volt AC Vital Panel 3P09 and 3P24 energized from its associated inverter connected to D.C. Bus 4A.\*\*\*\*
- k. 120 Volt AC Vital Panel 4P09 and 4P24 energized from its associated inverter connected to D.C. Bus 4A.\*\*\*\*
- I. 125 Volt D.C. Bus 3D01 energized from an associated battery charger and from Battery Bank 3A or spare battery bank D-52,
- m. 125 Volt D.C. Bus 3D23 energized from an associated battery charger and from Battery Bank 3B or spare battery bank D-52,
- n. 125 Volt D.C. Bus 4D01 energized from an associated battery charger and from Battery Bank 4B or spare battery bank D-52, and
- o. 125 Volt D.C. Bus 4D23 energized from an associated battery charger and from Battery Bank 4A or spare battery bank D-52

<u>APPLICABILITY</u>: MODES 1, 2, 3, and 4.

#### ACTION:

- <u>NOTE:</u> Enter applicable ACTIONS of LCO 3.8.2.1, "D.C. Sources Operating," for DC trains made inoperable by inoperable AC power distribution system.
  - a. With one of the required trains (3.8.3.1a., b., and c) of A.C. emergency busses not fully energized (except for the required LC's and MCC's associated with the opposite unit), reenergize the train within 8 hours or in accordance with the Risk Informed Completion Time Program, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
  - b. With any of the required LC's and/or MCC's associated with the opposite unit inoperable, restore the inoperable LC or MCC to OPERABLE status in accordance with Table 3.8-1 or Table 3.8-2 as applicable or place the unit in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.
  - c. With one A.C. vital panel either not energized from its associated inverter, or with the inverter not connected to its associated D.C. bus: (1) Reenergize the A.C. vital panel within 2 hours or in accordance with the Risk Informed Completion Time Program, or be in at least HOT STANDBY within the next 12 hours and in COLD SHUTDOWN within the following 30 hours; and (2) reenergize the A.C. vital panel from an inverter connected to its associated D.C. bus.

**TURKEY POINT -- UNITS 3 & 4** 

<sup>\*\*\*\*</sup>A back-up inverter may be used to replace the normal inverter, provided the normal inverter on the same DC bus for the opposite unit is not replaced at the same time.

#### ADMINISTRATIVE CONTROLS

#### PROCEDURES AND PROGRAMS (Continued)

p. <u>Risk Informed Completion Time Program</u>

This program provides controls to calculate a Risk Informed Completion Time (RICT) and must be implemented in accordance with NEI 06-09, "Risk-Informed Technical Specifications Initiative 4b: Risk-Managed Technical Specifications (RMTS) Guidelines," Revision 0-A, November 2006. The program shall include the following:

- The RICT may not exceed 30 days;
- b. A RICT may only be utilized in MODES 1 and 2;
- c. When a RICT is being used, any plant configuration change within the scope of the Risk Informed Completion Time Program must be considered for the effect on the RICT.
  - 1. For planned changes, the revised RICT must be determined prior to implementation of the change in configuration.
  - 2. For emergent conditions, the revised RICT must be determined within the time limits of the Required Action Completion Time (i.e., not the RICT) or 12 hours after the plant configuration change, whichever is less.
  - 3. Revising the RICT is not required if the plant configuration change would lower plant risk and would result in a longer RICT.
- d. Use of a RICT is not permitted for entry into a configuration which represents a loss of a specified safety function or inoperability of all required trains of a system required to be OPERABLE.
- e. If the extent of condition evaluation for inoperable structures, systems, or components (SSCs) is not complete prior to exceeding the Completion Time, the RICT shall account for the increased possibility of common cause failure (CCF) by either:
  - 1. Numerically accounting for the increased possibility of CCF in the RICT calculation, or
  - 2. Risk Management Actions (RMAs) not already credited in the RICT calculation shall be implemented that support redundant or diverse SSCs that perform the function(s) of the inoperable SSCs, and, if practicable, reduce the frequency of initiating events that challenge the function(s) performed by the inoperable SSCs.

#### PROCEDURES AND PROGRAMS (Continued)

q. <u>Safety Function Determination Program (SFDP)</u>

This program ensures loss of safety function is detected and appropriate actions taken. Upon entry into LCO 3.0.7, an evaluation shall be made to determine if loss of safety function exists. Additionally, other appropriate actions may be taken as a result of the support system inoperability and corresponding exception to entering supported system ACTIONS. This program implements the requirements of LCO 3.0.7. The SFDP shall contain the following:

- a. Provisions for cross train checks to ensure a loss of the capability to perform the safety function assumed in the accident analysis does not go undetected,
- b. Provisions for ensuring the plant is maintained in a safe condition if a loss of function condition exists,
- c. Provisions to ensure that an inoperable supported system's allowed outage time is not inappropriately extended as a result of multiple support system inoperabilities, and
- d. Other appropriate limitations and remedial or compensatory actions.

A loss of safety function exists when, assuming no concurrent single failure, no concurrent loss of offsite power, or no concurrent loss of onsite diesel generator(s), a safety function assumed in the accident analysis cannot be performed. For the purpose of this program, a loss of safety function may exist when a support system is inoperable, and:

- a. A required system redundant to the system(s) supported by the inoperable support system is also inoperable, or
- b. A required system redundant to the system(s) in turn supported by the inoperable supported system is also inoperable, or
- c. A required system redundant to the support system(s) for the supported systems (a) and (b) above is also inoperable.

The SFDP identifies where a loss of safety function exists. If a loss of safety function is determined to exist by this program, the appropriate ACTIONS of the LCO in which the loss of safety function exists are required to be entered. When a loss of safety function is caused by the inoperability of a single Technical Specification support system, the appropriate ACTIONS to enter are those of the support system.

#### 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. 161 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-86 AMENDMENT NO. 249 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-67 AMENDMENT NO. 200 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-16 AMENDMENT NO. 287 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-31 AMENDMENT NO. 281 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-41 SEABROOK STATION, UNIT NO. 1

ST. LUCIE PLANT, UNIT NOS. 1 AND 2

# TURKEY POINT NUCLEAR GENERATING UNIT NOS. 3 AND 4 NEXTERA ENERGY SEABROOK, LLC/FLORIDA POWER & LIGHT COMPANY, ET AL. DOCKET NOS. 50-443, 50-335, 50-389, 50-250, and 50-251

# 1.0 INTRODUCTION

By letter dated May 29, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18151A472), as supplemented by letter dated March 26, 2019 (ADAMS Accession No. ML19087A160), NextEra Energy Seabrook, LLC/Florida Power & Light Company (NextEra/FPL), requested changes to the Technical Specifications (TSs) for Seabrook Station, Unit No. 1 (Seabrook); St. Lucie Plant, Unit Nos. 1 and 2 (St. Lucie); and Turkey Point Generating Unit Nos. 3 and 4 (Turkey Point) (the facilities).

Specifically, NextEra/FPL requested adding Limiting Condition for Operation (LCO) 3.0.6 to each of the facility's TSs. The new LCO establishes an allowance for not entering conditions and required actions associated with a supported system when the supported system LCO is not met solely due to a support system LCO not being met. In support of this change, the amendments would also add a new Safety Function Determination Program to the administrative section of each TS; add new notes and actions that direct entering the actions for the appropriate supported systems; make changes to LCO 3.0.2 for Seabrook, St. Lucie, and Turkey Point; and make changes to LCO 3.0.1 for Seabrook and Turkey Point.

The supplement dated March 26, 2019, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the U.S. Nuclear Regulatory Commission (NRC or the Commission) staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on September 11, 2018 (83 FR 45985).

### 2.0 **REGULATORY EVALUATION**

### 2.1 Description of Subject TS Sections

LCOs are the lowest functional capability or performance levels of equipment required for safe operation of the facility. When an LCO of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the TSs until the condition can be met. Required action(s) and completion times (CTs) are specified with each stated condition.

TS Section 3.0 establishes the general requirements applicable to all specifications and applies at all times unless otherwise stated.

# 2.2 Description of TS Changes

The proposed changes will revise St. Lucie, Turkey Point, and Seabrook TS Section 3/4.0, "Applicability." The proposed changes are described in more detail below.

#### 2.2.1 Changes to TS Section 3.0, "Limiting Condition for Operation"

NextEra/FPL proposed to revise St. Lucie TS LCO 3.0.2 to read as follows (added text shown in bold and deleted text shown in strikeout):

Upon discovery of a failure to meet an LCO, the <del>Required</del> ACTIONS of the associated conditions</del> shall be met, except as provided in LCO 3.0.5 **and** 

**LCO 3.0.6**. If the LCO is met or is no longer applicable prior to expiration of the specified time interval(s), completion of the Required ACTIONS is not required, unless otherwise stated.

NextEra/FPL proposed to revise Seabrook and Turkey Point TS LCOs 3.0.1 and 3.0.2 to read as follows (added text shown in bold and deleted text shown in bold strikeout):

3.0.1 Compliance with the Limiting Conditions for Operation contained in the succeeding specifications is required during the OPERATIONAL MODES or other conditions specified therein; except that upon failure to meet the Limiting Conditions for Operation, the associated ACTION requirements shall be met, except as provided in Specification 3.0.5. LCOs shall be met during the MODES or other specified conditions in the Applicability, except as provided in LCO 3.0.2.

3.0.2 Noncompliance with a specification shall exist when the requirements of the Limiting Condition for Operation and associated ACTION requirements are not met within the specified time intervals, except as provided in Specification 3.0.5. If the Limiting Condition for Operation is restored prior to expiration of the specified time intervals, completion of the ACTION requirements is not required. Upon discovery of a failure to meet an LCO, the ACTIONS shall be met, except as provided in LCO 3.0.5 and LCO 3.0.6. If the LCO is met or is no longer applicable prior to expiration of the specified time interval, completion of the ACTION(S) is not required unless otherwise stated.

The license's proposed revision of Turkey Point TS LCOs 3.0.1 and 3.0.2 is identical to Seabrook's except the Turkey Point equivalent to Seabrook's TS LCO 3.0.5 is LCO 3.0.6, and Seabrook's proposed LCO 3.0.6 will be Turkey Point Unit Nos. 3 and 4 LCO 3.0.7, since Turkey Point Unit Nos. 3 and 4 TSs already contain an LCO numbered 3.0.6.

NextEra/FPL also proposed to add LCO 3.0.6 to St. Lucie and Seabrook, and the equivalent LCO as LCO 3.0.7 to Turkey Point TS Section 3.0, which states (added text shown in bold and deleted text shown in bold strikeout):

When a supported system LCO is not met solely due to a support system LCO not being met, the ACTIONS associated with this supported system are not required to be entered. Only the support system LCO ACTIONS are required to be entered. This is an exception to LCO 3.0.2 for the supported system. In this event, an evaluation shall be performed in accordance with Specification 6.8.4.s [for St. Lucie Unit No. 1, 6.8.4.t for St. Lucie Unit No. 2, 6.7.6.o for Seabrook, and 6.8.4.q for Turkey Point], "Safety Function Determination Program (SFDP)." If a loss of safety function is determined to exist by this program, the appropriate ACTIONS of the LCO in which the loss of safety function exists are required to be entered.

When a support system's ACTION directs a supported system to be declared inoperable or directs entry into ACTIONS for a supported system, the applicable ACTIONS shall be entered in accordance with LCO 3.0.2.

The adequacy of these changes is discussed in Section 3.1 of this safety evaluation.

#### 2.2.2 New Notes Directing Actions of Supported Systems

NextEra/FPL proposed the following changes to the facilities' TSs (added text shown in bold and deleted text shown in bold strikeout):

- St. Lucie Unit No. 1 LCO 3.4.6.2, "Reactor Coolant System Leakage," Action c., add the note "Enter applicable ACTIONS for systems made inoperable by an inoperable pressure isolation valve," and remove the following note: "(Note, however that this may lead to ACTION requirements for systems involved.)"
- St. Lucie Unit No. 2, Seabrook and Turkey Point LCO 3.4.6.2, "Operational Leakage," Action c., add the note "Enter applicable ACTIONS for systems made inoperable by an inoperable pressure isolation valve."
- St. Lucie, Seabrook, and Turkey Point LCO 3.6.1.3, "Containment Air Locks," add the note "Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when air lock leakage results in exceeding overall containment leakage rate acceptance criteria."
- St. Lucie LCO 3.6.3 (3.6.3.1 for St Lucie Unit No. 1), "Containment Isolation Valves," add notes "1. Enter applicable ACTIONS for systems made inoperable by containment isolation valves. 2. Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when leakage results in exceeding overall containment leakage rate acceptance criteria."

- Seabrook LCO 3.6.3, "Containment Isolation Valves," add notes "1. Enter applicable ACTIONS for systems made inoperable by containment isolation valves. 2. Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when isolation valve leakage results in exceeding the overall containment leakage rate acceptance criteria."
- Turkey Point LCO 3.6.4, "Containment Isolation Valves," add notes "1. Enter applicable ACTIONS for systems made inoperable by containment isolation valves. 2. Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when leakage results in exceeding the overall containment leakage rate acceptance criteria," and remove the following footnote: <u>\*\*CAUTION: The inoperable isolation valve(s) may be part of a system(s).</u> Isolating the affected penetration(s) may affect the use of the system(s). Consider the technical specification requirements on the affected system(s) and act accordingly."
- Turkey Point LCO 3.7.2, "Component Cooling Water System," add note "Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant System – Hot Shutdown," for residual heat removal loops made inoperable by CCW [component cooling water]."
- St. Lucie LCO 3.7.3 (3.7.3.1 for Unit No. 1), "Component Cooling Water System," add note "Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant System – Hot Shutdown," for shutdown cooling loops made inoperable by CCW."
- Seabrook LCO 3.7.3, "Primary Component Cooling Water System," add note "Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant Loops and Coolant Circulation," for residual heat removal loops made inoperable by PCCW [primary component cooling water]."
- Turkey Point LCO 3.7.3, "Intake Cooling Water System," add note "Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant System – Hot Shutdown," for residual heat removal loops made inoperable by ICW [intake cooling water system]."
- St. Lucie LCO 3.7.4 (3.7.4.1 for Unit No. 1), "Intake Cooling Water System," add note "Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant System – Hot Shutdown," for shutdown cooling loops made inoperable by ICW."
- Seabrook LCO 3.7.4, "Service Water System/Ultimate Heat Sink," add notes "1. Enter applicable ACTIONS of LCO 3.8.1.1, "AC [Alternating Current] Sources Operating," for diesel generator made inoperable by service water. 2. Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant Loops and Coolant Circulation," for residual heat removal loops made inoperable by service water."
- Seabrook, St. Lucie Unit No. 2, and Turkey Point LCO 3.8.1.1, "A.C. Sources Operating," Action c, add note "Enter applicable ACTIONS of LCO 3.8.3.1, "Onsite Power Distribution – Operating," when ACTION c is entered with no AC power to any train."
- Turkey Point LCO 3.8.1.1, "A.C. Sources Operating," Action c, add note "Enter applicable ACTIONS of LCO 3.8.3.1, "Onsite Power Distribution – Operating," when ACTION c is entered with no AC power source to any train."

- St. Lucie Unit No. 1 LCO 3.8.1.1, "A.C. Sources Operating," Action c, add note "Enter applicable ACTIONS of LCO 3.8.2.1, "A.C. Distribution Operating," when ACTION c is entered with no AC power to any train."
- St. Lucie Unit No. 1 LCO 3.8.1.2, "Electrical Power Systems Shutdown," add note "Enter the ACTION of LCO 3.8.2.2, "A.C. Distribution – Shutdown," with one required train de-energized as a result of inoperable offsite circuit."
- St. Lucie Unit No. 2 and Seabrook LCO 3.8.1.2, "Electrical Power Systems A.C. Sources – Shutdown," add note "Enter the ACTION of LCO 3.8.3.2, "Onsite Power Distribution – Shutdown," with one required train de-energized as a result of inoperable offsite circuit."
- Turkey Point LCO 3.8.1.2, "A.C. Sources Shutdown," add note "Enter the ACTION of LCO 3.8.3.2, "Onsite Power Distribution – Shutdown," with one required train de-energized as a result of inoperable offsite circuit."
- St. Lucie Unit No. 1 LCO 3.8.2.1, "A.C. Distribution Operating," add note "Enter applicable ACTIONS of LCO 3.8.2.3, "D.C. Distribution Operating," for DC [direct current] trains made inoperable by inoperable AC distribution system."
- St. Lucie Unit No. 2 LCO 3.8.3.1, "Onsite Power Distribution Operating," Action a, add note "Enter applicable ACTIONS of LCO 3.8.2.1, "D.C. Sources – Operating," for DC trains made inoperable by inoperable AC distribution system."
- Seabrook and Turkey Point LCO 3.8.3.1, "Onsite Power Distribution Operating," Action a, add note "Enter applicable ACTIONS of LCO 3.8.2.1, "D.C. Sources – Operating," for DC trains made inoperable by inoperable AC power distribution system."

The adequacy of these changes is discussed in Section 3.2 of this safety evaluation.

### 2.2.3 Changes to LCO 3.8.1.1, "A.C. Sources"

NextEra/FPL proposed the following changes to St. Lucie Unit No. 1 and 2 TS LCO 3.8.1.1 (added text shown in bold and deleted text shown in strikeout. The changes to the notes were previously described in Section 2.2.2 of this safety evaluation.) (NOTE: two amendments (ADAMS Accession Nos. ML19113A099 and ML19203A166) were issued which changed some of the wording in LCO 3.8.1.1 since this application was submitted. The TS pages issued with this amendment reflect the changes made by the previous two amendments.):

### ACTION:

a. With one offsite circuit of 3.8.1.1.a inoperable, except as provided in Action f. below, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. Restore the offsite circuit to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN. With one offsite circuit of 3.8.1.1.a inoperable, except as provided in ACTION f. below:

- 1. Demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter.
- 2. Within 24 hours from discovery of no offsite power to one train concurrent with inoperability of redundant required feature(s), declare required feature(s) with no offsite power available inoperable when its redundant required feature(s) is inoperable.
- 3. Restore the offsite circuit to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and HOT SHUTDOWN within the following 6 hours.
- 4. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.
- b. With one diesel generator of 3.8.1.1.b inoperable, demonstrate the **OPERABILITY** of the A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter; and if the EDG [emergency diesel generator] became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE EDG by performing Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours, unless it can be confirmed that the cause of the inoperable EDG does not exist on the remaining EDG\*; restore the diesel generator to OPERABLE status within 14 days or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN. Additionally, within 4 hours from the discovery of concurrent inoperability of required redundant feature(s) (including the steam driven auxiliary feed pump in MODE 1, 2, and 3). declare required feature(s) supported by the inoperable EDG inoperable if its redundant required feature(s) is inoperable. With one diesel generator of 3.8.1.1.b inoperable:
  - 1. Demonstrate the OPERABILITY of the A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter.
  - 2. Additionally, within 4 hours from the discovery of concurrent inoperability of required redundant feature(s) (including the steam driven auxiliary feed pump in MODE 1, 2, and 3), declare required feature(s) supported by the inoperable EDG inoperable if its redundant required feature(s) is inoperable.
  - 3. If the EDG became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE EDG by performing

Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours, unless it can be confirmed that the cause of the inoperable EDG does not exist on the remaining EDG\*.

- 4. Restore the diesel generator to OPERABLE status within 14 days or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
- 5. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

c. With one offsite A.C. circuit and one diesel generator inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter: and if the EDG became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the **OPERABILITY** of the remaining **OPERABLE EDG** by performing Surveillance Requirement 4.8.1.1.2a.4 within 8 hours, unless it can be confirmed that the cause of the inoperable EDG does not exist on the remaining EDG\*. Restore at least one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN. Restore the other A.C. power source (offsite circuit or diesel generator) to OPERABLE status in accordance with the provisions of Section 3.8.1.1 ACTION Statement a or b, as appropriate, with the time requirement of that ACTION Statement based on the time of the initial loss of the remaining inoperable A.C. power source. Additionally, within 4 hours from the discovery of concurrent inoperability of required redundant feature(s) (including the steam driven auxiliary feed pump in MODE 1, 2, and 3), declare required feature(s) supported by the inoperable EDG inoperable if its redundant required feature(s) is inoperable.

- c. With one offsite A.C. circuit and one diesel generator inoperable:
  - 1. Demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter.
  - 2. Additionally, within 4 hours from the discovery of concurrent inoperability of required redundant feature(s) (including the steam driven auxiliary feed pump in MODE 1, 2, and 3), declare required feature(s) supported by the inoperable EDG inoperable if its redundant required feature(s) is inoperable.

- 3. If the EDG became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE EDG by performing Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours unless it can be confirmed that the cause of the inoperable EDG does not exist on the remaining EDG\*.
- 4. Restore at least one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next
  6 hours and in HOT SHUTDOWN within the following 6 hours.
- 5. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.
- 6. Restore the other A.C. power source (offsite circuit or diesel generator) to OPERABLE status in accordance with the provisions of Section 3.8.1.1 ACTION a or b, as appropriate, with the time requirement of that ACTION based on the time of the initial loss of the remaining inoperable A.C. power source.
- d. With two of the required offsite A.C. circuits inoperable, restore one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours. Following restoration of one offsite source, follow ACTION Statement a. with the time requirement of that ACTION Statement based on the time of the initial loss of the remaining inoperable offsite A.C. circuit. With two of the required offsite A.C. circuits inoperable:
  - Within 12 hours from discovery of two offsite circuits inoperable concurrent with inoperability of redundant required feature(s), declare required feature(s) inoperable when its redundant required feature(s) is inoperable.
  - Restore one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next
     6 hours.
  - 3. Following restoration of one offsite source, follow ACTION a with the time requirement of that ACTION based on the time of the initial loss of the remaining inoperable offsite A.C. circuit.

NextEra/FPL proposed the following changes to Seabrook TS LCO 3.8.1.1 (added text shown in bold and deleted text shown in strikeout):

 a. With an offsite circuit of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. source by performing Specification 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter; restore at least two offsite circuits 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. With an offsite circuit of the above required A.C. electrical power sources inoperable:

- 1. Perform Surveillance Requirement 4.8.1.1.1.a for the OPERABLE offsite circuit within 1 hour and at least once per 8 hours thereafter;
- 2. Within 24 hours from discovery of no offsite power to one train concurrent with inoperability of redundant required feature(s), declare required feature(s) with no offsite power available inoperable when its redundant required feature(s) is inoperable; and
- 3. Restore at least two offsite circuits 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.
- [...]
- e. With two of the above required offsite A.C. circuits inoperable; restore at least one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours. With only one offsite source restored, restore at least two offsite circuits to OPERABLE status within 72 hours from time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. With two of the above required offsite A.C. circuits inoperable
  - 1. Within 12 hours from discovery of two offsite circuits inoperable concurrent with inoperability of redundant required feature(s), declare required feature(s) inoperable when its redundant required feature(s) is inoperable;
  - 2. Restore at least one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours.
  - 3. With only one offsite source restored, restore at least two offsite circuits to OPERABLE status within 72 hours from time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

NextEra/FPL proposed the following changes to Turkey Point TS LCO 3.8.1.1 (added text shown in bold and deleted text shown in strikeout. The changes to the notes were previously described in Section 2.2.2 of this safety evaluation.):

a. With one of two startup transformers or an associated circuit inoperable, demonstrate the OPERABILITY of the other startup transformer and its associated circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. If the inoperable startup transformer is the associated startup transformer and became inoperable while the unit is in MODE 1, reduce THERMAL POWER to ≤30% RATED THERMAL POWER within 24 hours, or restore the inoperable startup transformer and associated circuits to OPERABLE status within the next 48 hours or in accordance with the Risk Informed Completion Time Program, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If THERMAL POWER is reduced to ≤30% RATED THERMAL POWER within 24 hours or if the inoperable startup transformer is associated with the opposite unit restore the startup transformer and its associated circuits to OPERABLE status within 30 days of the loss of OPERABILITY, or be in at least HOT STANDBY within the next 12 hours and in COLD SHUTDOWN within the following 30 hours. If the inoperable startup transformer is the associated startup transformer and became inoperable while the unit was in MODE 2, 3, or 4 restore the startup transformer and its associated circuits to OPERABLE status within 24 hours or in accordance with the Risk Informed Completion Time Program, or be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours. This ACTION applies to both units simultaneously.With one of two startup transformers or an associated circuit inoperable:

- 1. Demonstrate the OPERABILITY of the other startup transformer and its associated circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter.
- 2. Within 24 hours from discovery of no offsite power to one train concurrent with inoperability of redundant required feature(s), declare required feature(s) with no offsite power available inoperable when its redundant required feature(s) is inoperable.
- 3. If the inoperable startup transformer is the associated startup transformer and became inoperable while the unit is in MODE 1:
  - a) Reduce THERMAL POWER to ≤30% RATED THERMAL POWER within 24 hours, or
  - b) Restore the inoperable startup transformer and associated circuits to OPERABLE status within the next 48 hours or in accordance with the Risk Informed Completion Time Program, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- 4. If THERMAL POWER is reduced to ≤30% RATED THERMAL POWER within 24 hours or if the inoperable startup transformer is associated with the opposite unit, restore the startup transformer and its associated circuits to OPERABLE status within 30 days of the loss of OPERABILITY, or be in at least HOT STANDBY within the next 12 hours and in COLD SHUTDOWN within the following 30 hours.
- 5. If the inoperable startup transformer is the associated startup transformer and became inoperable while the unit was in MODE 2, 3, or 4 restore the startup transformer and its associated circuits to OPERABLE status within 24 hours or in accordance with the Risk Informed Completion Time Program, or be in at least HOT STANDBY

within 6 hours and in COLD SHUTDOWN within the following 30 hours. This ACTION applies to both units simultaneously.

- b. With one of the required diesel generators inoperable, demonstrate the **OPERABILITY** of the above required startup transformers and their associated circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. If the diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining required diesel generators by performing Surveillance Requirement 4.8.1.1.2.a.4 within 24 hours, unless the absence of any potential common mode failure for the remaining diesel generators is determined. If testing of remaining required diesel generators is required, this testing must be performed regardless of when the inoperable diesel generator is restored to **OPERABILITY.** Restore the inoperable diesel generator to OPERABLE status within 14 days\*\* or in accordance with the Risk Informed Completion Time Program, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. With one of the required diesel generators inoperable:
  - 1. Demonstrate the OPERABILITY of the above required startup transformers and their associated circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter.
  - 2. If the diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining required diesel generators by performing Surveillance Requirement 4.8.1.1.2.a.4 within 24 hours, unless the absence of any potential common mode failure for the remaining diesel generators is determined. If testing of remaining required diesel generators is required, this testing must be performed regardless of when the inoperable diesel generator is restored to OPERABILITY.
  - 3. Restore the inoperable diesel generator to OPERABLE status within 14 days\*\* or in accordance with the Risk Informed Completion Time Program, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- c. With one startup transformer and one of the required diesel generators inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a on the remaining startup transformer and associated circuits within one hour and at least once per 8 hours thereafter; and if the diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventive maintenance or testing, demonstrate the OPERABILITY of the remaining required diesel generators by performing Surveillance Requirement 4.8.1.1.2a.4 within 8 hours, unless it can be

confirmed that the cause of the inoperable diesel generator does not exist on the remaining required diesel generators, unless the diesel generators are already operating; restore one of the inoperable sources to OPERABLE status in accordance with Action Statements a and b, as appropriate. If testing of remaining required diesel generators is required, this testing must be performed regardless of when the inoperable diesel generator is restored to OPERABILITY. Notify the NRC within 4 hours of declaring both a start-up transformer and diesel generator inoperable. Restore the other A.C. power source (startup transformer or diesel generator) to OPERABLE status in accordance with the provisions of Section 3.8.1.1 Action Statement a or b, as appropriate, with the time requirement of that Action Statement based on the time of initial loss of the remaining inoperable A.C. power source.

<u>NOTE</u>: Enter applicable ACTIONS of LCO 3.8.3.1, "Onsite Power Distribution - Operating," when ACTION c is entered with no AC power source to any train.

- c. With one startup transformer and one of the required diesel generators inoperable:
  - 1. Demonstrate the operability of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a on the remaining startup transformer and associated circuits within 1 hour and at least once per 8 hours thereafter.
  - 2. If the diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventive maintenance or testing, demonstrate the OPERABILITY of the remaining required diesel generators by performing Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours, unless it can be confirmed that the cause of the inoperable diesel generator does not exist on the remaining required diesel generators, unless the diesel generators are already operating. If testing of remaining required diesel generators is required, this testing must be performed regardless of when the inoperable diesel generator is restored to OPERABILITY.
  - 3. Restore one of the inoperable sources to OPERABLE status in accordance with ACTIONS a and b, as appropriate.
  - 4. Restore the other A.C. power source (startup transformer or diesel generator) to OPERABLE status in accordance with the provisions of Section 3.8.1.1 ACTION a or b, as appropriate, with the time requirement of that ACTION based on the time of initial loss of the remaining inoperable A.C. power source.
- [...]
- e. With two of the above required startup transformers or their associated circuits inoperable; restore at least one of the inoperable startup transformers to OPERABLE status within 24 hours or be in at least HOT STANDBY within

the next 6 hours\* and in COLD SHUTDOWN within the following 30 hours. This ACTION applies to both units simultaneously. With only one startup transformer and associated circuits restored, perform Surveillance Requirement 4.8.1.1.1a on the OPERABLE Startup transformer at least once per 8 hours, and restore the other startup transformer and its associated circuits to OPERABLE status or shutdown in accordance with the provisions of Action Statement 3.8.1.1a with time requirements of that Action Statement based on the time of initial loss of a startup transformer. This ACTION applies to both units simultaneously. With two of the above required startup transformers or their associated circuits inoperable:

- 1. Within 12 hours from discovery of two offsite circuits inoperable concurrent with inoperability of redundant required feature(s), declare required feature(s) inoperable when its redundant required feature(s) is inoperable.
- 2. Restore at least one of the inoperable startup transformers to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours\* and in COLD SHUTDOWN within the following 30 hours. This ACTION applies to both units simultaneously.
- 3. With only one startup transformer and associated circuits restored, perform Surveillance Requirement 4.8.1.1.1.a on the OPERABLE Startup transformer at least once per 8 hours, and restore the other startup transformer and its associated circuits to OPERABLE status or shutdown in accordance with the provisions of ACTION 3.8.1.1.a with time requirements of that ACTION based on the time of initial loss of a startup transformer. This ACTION applies to both units simultaneously.

The adequacy of these changes is discussed in Section 3.3 of this safety evaluation.

#### 2.2.4 Changes to TS Section 6.0, "Administrative Controls"

NextEra/FPL proposed to add the Safety Function Determination Program (SFDP) to the facilities' TS Section 6.0. The SFDP numbering for each facility will differ as follows: 6.8.4.s for St. Lucie Unit No. 1, 6.8.4.t for St. Lucie Unit No. 2, 6.7.6.o for Seabrook, and 6.8.4.q for Turkey Point. The program will be described in the facilities' TSs as follows (added text shown in bold and deleted text shown in bold strikeout):

#### Safety Function Determination Program (SFDP)

This program ensures loss of safety function is detected and appropriate actions taken. Upon entry into LCO 3.0.6 [3.0.7 for Turkey Point], an evaluation shall be made to determine if loss of safety function exists. Additionally, other appropriate actions may be taken as a result of the support system inoperability and corresponding exception to entering supported system ACTIONS. This program implements the requirements of LCO 3.0.6 [3.0.7 for Turkey Point]. The SFDP shall contain the following:

- a. Provisions for cross train checks to ensure a loss of the capability to perform the safety function assumed in the accident analysis does not go undetected,
- b. Provisions for ensuring the plant is maintained in a safe condition if a loss of function condition exists,
- c. Provisions to ensure that an inoperable supported system's allowed outage time is not inappropriately extended as a result of multiple support system inoperabilities, and
- d. Other appropriate limitations and remedial or compensatory actions.

A loss of safety function exists when, assuming no concurrent single failure, no concurrent loss of offsite power, or no concurrent loss of onsite diesel generator(s), a safety function assumed in the accident analysis cannot be performed. For the purpose of this program, a loss of safety function may exist when a support system is inoperable, and:

- a. A required system redundant to the system(s) supported by the inoperable support system is also inoperable, or
- b. A required system redundant to the system(s) in turn supported by the inoperable supported system is also inoperable, or
- c. A required system redundant to the support system(s) for the supported systems (a) and (b) above is also inoperable.

The SFDP identifies where a loss of safety function exists. If a loss of safety function is determined to exist by this program, the appropriate ACTIONS of the LCO in which the loss of safety function exists are required to be entered. When a loss of safety function is caused by the inoperability of a single Technical Specification support system, the appropriate ACTIONS to enter are those of the support system.

The adequacy of these changes is discussed in Section 3.4 of this safety evaluation.

### 2.3 <u>Regulatory Requirements, Licensing Information, and Guidance Documents</u>

Per Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.36(b), each license authorizing operation of a utilization facility will include TSs. The TSs will be derived from the analyses and evaluations included in the safety analysis report, and amendments thereto, submitted pursuant to 10 CFR 50.34 (describing the technical information to be included in applications for an operating license). Pursuant to 10 CFR 50.36(c), TSs are required to include items in, among other things, the following five specific categories related to station operation: (1) safety limits, limiting safety system settings, and limiting control settings; (2) LCOs;

(3) surveillance requirements; (4) design features; and (5) administrative controls. The Commission may include such additional TSs as it finds appropriate.

The regulation in 10 CFR 50.36(c)(2) establishes the requirement for TSs to include LCOs. LCOs are the lowest functional capability or performance level of equipment required for the safe operation of the facility. When an LCO is not met, the licensees must shut down the reactor or follow any remedial action permitted by the TSs until the LCO can be met.

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

In general, there are two classes of changes to TSs: (1) changes needed to reflect modifications to the design basis (TSs are derived from the design basis), and (2) voluntary changes to take advantage of the evolution in policy and guidance as to the required content and preferred format of TSs over time. The proposed amendments relate to the second class of changes. Specifically, the proposed changes are based on TS improvements contained in the Standard Technical Specifications(STS).<sup>1</sup> The NRC staff used this guidance in evaluating the proposed amendments.

# 3.0 TECHNICAL EVALUATION

The NRC staff evaluated the proposed changes to determine if the amended licenses, which include TSs, provide reasonable assurance that the activities at issue will not endanger the health and safety of the public.

3.1 <u>Changes to TS Section 3.0, "Limiting Condition for Operation"</u>

3.1.1 Addition to LCO 3.0.6

Each of the TSs define the term "OPERABLE – OPERABILITY" thusly [variations for Seabrook TSs]:

A system, subsystem, train, component or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified function(s), and when all necessary attendant instrumentation, controls, [normal or emergency] electrical power, cooling [and] or seal water, lubrication [and] or other auxiliary equipment that are required for the system, subsystem, train, component or device to perform its [specified safety] function(s) are also capable of performing their related support function(s).

If equipment that is subject to an LCO is inoperable, then the licensee must take the actions in the TSs. NextEra/FPL proposed to add LCO 3.0.6 (3.0.7 for Turkey Point) to the facilities' TSs. LCO 3.0.6 states when the licensee does not have to take the applicable actions for the supported system. This exception is provided because LCO 3.0.2 would require the conditions and required actions of the associated LCO for the inoperable supported system LCO be

<sup>&</sup>lt;sup>1</sup> NUREG-1431, Revision 4.0, "Standard Technical Specifications: Westinghouse Plants," Volume 1, dated April 2012 (ADAMS Accession No. ML12100A222); and NUREG-1432, Revision 4.0, "Standard Technical Specifications: Combustion Engineering Plants," Volume 1, dated April 2012 (ADAMS Accession No. ML12102A165).

entered solely due to the inoperability of the support system. This exception is justified because the actions that are required to ensure the facilities are maintained in a safe condition are specified in the support system's LCO required actions.

When a support system is inoperable and there is an LCO specified for it in the TSs, the supported system(s) are required to be declared inoperable as a result of the support system inoperability. However, with the addition of LCO 3.0.6, it is not necessary to take the actions specified in the supported system's LCO unless directed to do so by the support system's LCO.

There are instances where a support system's required action may either direct a supported system to be declared inoperable or direct entry into conditions and required actions for the supported system. When a support system's required action directs a supported system to be declared inoperable or directs entry into conditions and required actions for a supported system, the applicable conditions and required actions shall be entered in accordance with the facilities' LCO 3.0.2.

The NRC staff finds that the proposed addition of LCO 3.0.6 to the facilities' TSs (3.0.7 for Turkey Point) would eliminate potential confusion related to the entry into multiple support and supported systems' LCOs and required actions, by providing all the actions that are necessary to ensure the plant is maintained in a safe condition in the support system's LCO. The addition of LCO 3.0.6 makes each facility's TSs more similar to the associated STS guidance, which presents TSs that the NRC has already determined to be acceptable for similarly designed facilities. Based on these considerations, the NRC staff concludes that the addition of LCO 3.0.6 to the facilities' TSs provides reasonable assurance of public health and safety, and therefore, is acceptable.

### 3.1.2 Changes to TS LCO 3.0.1 and LCO 3.0.2

For St. Lucie, LCO 3.0.2 requires that upon discovery of a failure to meet an LCO, the action requirements be met. Proposed new LCO 3.0.6 would be an exception to LCO 3.0.2. As such, NextEra/FPL proposed to add the new LCO 3.0.6 as an exception to St. Lucie LCO 3.0.2. In addition, NextEra/FPL proposed to remove the words "Required" and "of the associated conditions" from St. Lucie's LCO 3.0.2 since these are based on the STS and do not apply to the St. Lucie TSs. The NRC staff finds that removal of these terms is editorial and does not alter the requirements of the subject LCO.

For Seabrook and Turkey Point, NextEra/FPL proposed changes to LCO 3.0.1 and LCO 3.0.2 to be consistent with the STS. The proposed changed essentially divides LCO 3.0.1 and LCO 3.0.2 into two distinct requirements: (1) LCO 3.0.1 requires compliance with the LCOs when within the applicability, and (2) LCO 3.0.2 requires actions be met upon discovery of a failure to meet the LCO. The NRC staff finds these proposed changes to Seabrook and Turkey Point acceptable since they are administrative in nature and do not alter the requirements of the subject LCOs. In addition, and similar to St. Lucie, for Seabrook and Turkey Point, NextEra/FPL added new LCO 3.0.6 (3.0.7 for Turkey Point) as an exception to LCO 3.0.2.

Since new proposed LCO 3.0.6 (3.0.7 for Turkey Point) is an exception to LCO 3.0.2, LCO 3.0.2 needed to be modified accordingly to reference the new LCOs as exceptions. The NRC staff finds the proposed changes to the facilities' LCO 3.0.2 provides reasonable assurance of public health and safety, and therefore, are acceptable and necessary in order for NextEra/FPL to apply the exceptions allowed by LCO 3.0.6 (3.0.7 for Turkey Point).

### 3.2 <u>New Notes Directing Actions of Supported Systems</u>

As described in Section 2.2.2 of this safety evaluation, NextEra/FPL proposed to add notes to several LCOs within the facilities' TSs. These notes modify support systems' actions to direct entering the actions of supported systems or other TS systems affected by the inoperable support system or component. The proposed notes are consistent with the STS.

For all facilities, NextEra/FPL proposed adding a note to LCO 3.4.6.2, Action c., directing entering applicable actions for systems made inoperable by an inoperable pressure isolation valve. The note is appropriate since it requires an evaluation of affected systems if a pressure isolation valve is inoperable, since leakage may have affected system operability or isolation of a leaking flow path with an alternate valve may have degraded the ability of the interconnected system to perform its safety function. For St. Lucie Unit No. 1, NextEra/FPL proposed removing an existing note in LCO 3.4.6.2, Action c., which states, "however that this may lead to ACTION requirements for systems involved." The new note replaces the deleted note and does not alter current technical requirements.

For all facilities, NextEra/FPL proposed adding a note to LCO 3.6.1.3 directing entering applicable actions of LCO 3.6.1.2 when air lock leakage results in exceeding overall containment leakage rate acceptance criteria. The note is appropriate, as it ensures proper actions are taken for supported systems rendered inoperable.

For all facilities, NextEra/FPL proposed adding a note to LCO 3.6.3 (3.6.3.1 for St. Lucie Unit No. 1 and LCO 3.6.4 for Turkey Point) directing entering applicable actions for systems made inoperable by containment isolation valves and LCO 3.6.1.2 when isolation valve leakage results in exceeding the overall containment leakage rate acceptance criteria. For Turkey Point, the first note replaces the footnote that is deleted. The note is appropriate since it requires entering the supported systems' actions that may have been affected by the containment isolation valves inoperability.

For all facilities, NextEra/FPL proposed adding a note to the component cooling water (CCW) system (primary CCW for Seabrook) directing entering applicable actions of LCO 3.4.1.3 for residual heat removal (shutdown cooling for St. Lucie) loops made inoperable by CCW (primary component cooling water for Seabrook). The note is appropriate as it ensures proper actions are taken for supported systems rendered inoperable.

For all facilities, NextEra/FPL proposed adding a note to the intake cooling water system (service water system/ultimate heat sink for Seabrook) directing entering applicable actions of LCO 3.4.1.3 for residual heat removal (shutdown cooling for St. Lucie) loops made inoperable. For Seabrook, NextEra/FPL also proposed adding a note to direct entering applicable actions of LCO 3.8.1.1 for diesel generator made inoperable. The notes are appropriate as they ensure proper actions are taken for supported systems rendered inoperable.

For all facilities, NextEra/FPL proposed adding a note to LCO 3.8.1.1, Action c, directing entering applicable actions of LCO 3.8.3.1 (3.8.2.1 for St. Lucie Unit No. 1), when Action c is entered with no alternating current (AC) power to any train. Due to the addition of LCO 3.0.6, the actions required by LCO 3.8.3.1 would not be entered even if all AC sources to it were inoperable, resulting in deenergization. The note is added to indicate that when the action is entered with no AC source to any train, the actions for LCO 3.8.3.1 must be immediately entered. This note is appropriate since it allows Action c to provide requirements for the loss of

one offsite circuit and one diesel generator without regard to whether a train is deenergized while LCO 3.8.3.1 provides the appropriate restrictions for a deenergized train.

For all facilities, NextEra/FPL proposed adding a note to the electrical power system's shutdown LCO 3.8.1.2 directing entering applicable actions of LCO 3.8.3.2 (3.8.2.2 for St. Lucie Unit No. 1) with one required train deenergized as a result of inoperable offsite circuit. Due to the addition of LCO 3.0.6, the actions required by LCO 3.8.3.2 (3.8.2.2 for St. Lucie Unit No. 1) would not be entered even if all AC sources to it are inoperable, resulting in deenergization. The note is added to indicate that when an offsite circuit is inoperable with no AC power to any required engineered safety feature bus, the actions for LCO 3.8.3.2 (3.8.2.2 for St. Lucie Unit No. 1) must be immediately entered. This note allows the actions in the electrical power system's shutdown LCO 3.8.1.2 to provide requirements for the loss of the offsite circuit whether or not a train is deenergized. The note is appropriate since it would provide the appropriate restrictions for the situation involving a deenergized train.

For all facilities, NextEra/FPL proposed adding a note to LCO 3.8.3.1 (3.8.2.1 for St. Lucie Unit No. 1) directing entering applicable actions of LCO 3.8.2.1 (3.8.2.3 for St. Lucie Unit No. 1) for direct current (DC) trains made inoperable by inoperable AC distribution system. The note ensures the proper actions are taken for these components. Inoperability of a distribution system can result in loss of charging power to batteries and eventual loss of DC power. This note is appropriate since it ensures the appropriate attention is given to restoring charging power to batteries, if necessary, after loss of distribution systems.

The NRC staff finds the proposed notes described above acceptable since they direct entering actions for the supported systems in accordance with the use of newly proposed LCO 3.0.6 (3.0.7 for Turkey Point). This will ensure that appropriate actions are taken for the plant conditions when the support system LCO is not met, and are necessary to ensure the facilities are maintained in a safe condition.

### 3.3 Changes to LCO 3.8.1.1, "A.C. Sources"

For all facilities, NextEra/FPL proposed to add Action a.2 to LCO 3.8.1.1. Action a.2 is intended to provide assurance that an event coincident with a single failure of the associated diesel generator will not result in a complete loss of safety function of critical redundant required features. The 24-hour CT is intended to allow the operator time to evaluate and repair any discovered inoperability and begins on discovery that a train has no offsite power supplying its loads, and a required feature on the other train is inoperable. The 24-hour CT takes into account the component operability of the redundant counterpart to the inoperable required feature. Additionally, the 24-hour CT takes into account the capacity and capability of the remaining AC sources and a reasonable time for repairs. The NRC staff finds the proposed addition of Action a.2 and its 24-hour CT acceptable since the remaining operable offsite circuit and emergency diesel generators are adequate to supply electrical power to remaining trains of the onsite Class 1E distribution system. There is a low probability of a design-basis accident occurring during this period, and risk is minimized while allowing time for restoration before subjecting the unit to transients associated with shutdown. The NRC staff finds that the addition of Action a.2 to LCO 3.8.1.1 provides reasonable assurance of public health and safety, and therefore, is acceptable.

For all facilities, NextEra/FPL proposed to add an action to LCO 3.8.1.1. The new action (Action d.1 for St Lucie, Action e.1 for Seabrook, and Action e.2 for Turkey Point) adds a requirement to declare required feature(s) inoperable when its redundant required feature(s) is

inoperable within 12 hours from discovery of two offsite circuits inoperable concurrent with inoperability of redundant required feature(s). The new action is intended to provide assurance that an event with a coincident single failure will not result in a complete loss of redundant required safety functions. These features are powered from redundant AC safety trains. The CT for the new action would start upon discovery that both offsite circuits are inoperable and a required feature is discovered inoperable. With two offsite circuits inoperable, the CT for inoperable redundant required features is reduced to 12 hours from that allowed for one train without offsite power. The CT is intended to allow the operator time to evaluate and repair any discovered inoperability. The NRC staff finds the proposed addition of Action d.1 for St Lucie, Action e.1 for Seabrook, and Action e.2 for Turkey Point and its 12-hour CT acceptable since, with both of the required offsite circuits inoperable, sufficient onsite AC sources are available to maintain the unit in a safe shutdown condition in the event of a design-basic accident or transient occurring during this short period. The NRC staff finds that the addition of Action d.1 for St Lucie, Ration e.1 for Seabrook, and Action e.2 for Turkey Point to LCO 3.8.1.1 provides reasonable assurance of public health and safety, and therefore, is acceptable.

For all facilities, NextEra/FPL proposed to reformat certain actions of LCO 3.8.1.1 from a narrative paragraph to a list of discrete steps. For Seabrook, Actions a and e were proposed to be reformatted. For Turkey Point, Actions a, b, c, and e were proposed to be reformatted. For St. Lucie, Actions a, b, c, and d were proposed to be reformatted (NOTE: two amendments (ADAMS Accession Nos. ML19113A099 and ML19203A166) were issued which changed some of the wording in LCO 3.8.1.1 since this application was submitted. The TS pages issued with this amendment reflect the changes made by the previous two amendments.) The NRC staff finds that these proposed changes do not alter the technical requirements, and enhance the presentation and clarity of the actions, and therefore, are acceptable.

The technical adequacy of the notes added to LCO 3.8.1.1 is discussed in Section 3.2 of this safety evaluation.

### 3.4 Changes to TS Section 6.0, "Administrative Controls"

NextEra/FPL proposed to add the SFDP to the administrative controls section of the facilities' TSs. In accordance with the SFDP, upon entry into LCO 3.0.6 (3.0.7 for Turkey Point), NextEra/FPL is required to make an evaluation to determine if a loss of safety function exists. Additionally, the SFDP could identify other limitations, remedial actions, or compensatory actions as a result of the support system inoperability, as well as a corresponding exception to entering supported system conditions and required actions. In brief, the SFDP implements the requirements of LCO 3.0.6. Since the SFDP could identify additional limitations or actions necessary to assure operation of the facilities in a safe manner, its addition to the TSs is acceptable. Therefore, in conjunction with the evaluation in Section 3.1.1 of this safety evaluation, the NRC staff concludes that the addition of TS 6.8.4.s for St. Lucie Unit No. 1, TS 6.8.4.t for St. Lucie Unit No. 2, TS 6.7.6.o for Seabrook, and TS 6.8.4.q for Turkey Point, is acceptable.

#### 3.5 Technical Evaluation Conclusion

Based on the discussion in Sections 3.1 through 3.4 of this safety evaluation, the NRC staff concludes that the proposed amendments are acceptable because:

- The addition of the new LCO 3.0.6 (3.0.7 for Turkey Point) makes it clear that supported system TS actions are only required to be entered if directed to do so by the support system TS actions;
- The associated addition of TS notes and modifications to the actions of the support systems' LCOs eliminates potential confusion when a support system is determined to be inoperable. The changes also eliminate inconsistency of requirements related to the entry into multiple support and supported systems' LCO actions by providing all the remedial actions necessary to ensure the plant, is maintained in a safe condition; and

• The addition of the SFDP into the administrative controls section of the TSs for each facility ensures that the appropriate checks are done as a result of the support systems' inoperability and completes implementation of LCO 3.0.6 (3.0.7 for Turkey Point) for each facility.

The proposed changes enhance the presentation and clarity of the actions for all the facilities' TSs and more closely match the STS guidance. In accordance with the Commission's Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors (58 FR 39132) (July 22, 1993), improved STS have been developed and are maintained for each nuclear steam supply system owners group. The Commission encourages licensees to use the improved STS as the basis for plant-specific TSs.

In addition to the above changes, NextEra/FPL proposed a few editorial changes (e.g., capitalization). The NRC staff finds these changes acceptable since they do not alter the technical requirements while enhancing the presentation and clarity of the actions. The letter dated May 29, 2018, also provided proposed changes to the TS Bases, which are summary statements of the bases or reasons for non-administrative controls TSs, but are not part of the TSs.

# 4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the NRC staff notified officials from the States of New Hampshire and Florida and the Commonwealth of Massachusetts on May 20, 2019, of the proposed issuance of the amendments. Each official had no comment.

### 5.0 ENVIRONMENTAL CONSIDERATION

The amendments change requirements with respect to the installation or 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 that the amendments involve no significant hazards consideration, and there has been no public comment on such finding published in the *Federal Register* on September 11, 2018 (83 FR 45985). 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 <u>CONCLUSION</u>

Based on the aforementioned considerations, the NRC staff concluded 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: C. Tilton

Date: July 31, 2019

### D. Moul

SUBJECT: SEABROOK STATION, UNIT NO. 1; ST. LUCIE PLANT, UNIT NOS. 1 AND 2; AND TURKEY POINT NUCLEAR GENERATING UNIT NOS. 3 AND 4 -ISSUANCE OF AMENDMENT NOS. 161, 249, 200, 287, AND 281 TO ADD TECHNICAL SPECIFICATION LIMITING CONDITION FOR OPERATION 3.0.6 (EPID L-2018-LLA-0152) DATED JULY 31, 2019

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