



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

February 14, 2017

Mr. Mano Nazar
President and Chief Nuclear Officer
Nuclear Division
NextEra Energy
Mail Stop NT3/JW
15430 Endeavor Drive
Jupiter, FL 33478

SUBJECT: TURKEY POINT NUCLEAR GENERATING UNIT NOS. 3 AND 4 - ISSUANCE OF AMENDMENTS REGARDING TECHNICAL SPECIFICATIONS FOR AUXILIARY FEEDWATER PUMPS (CAC NOS. MF8068 AND MF8069)

Dear Mr. Nazar:

The U.S. Nuclear Regulatory Commission (NRC or the Commission) has issued the enclosed Amendment No. 273 to Renewed Facility Operating License No. DPR-31 and Amendment No. 268 to Renewed Facility Operating License No. DPR-41 for Turkey Point Nuclear Generating Unit Nos. 3 and 4 (Turkey Point), respectively. The amendments change the Technical Specifications (TSs) in response to the application from Florida Power & Light Company dated June 30, 2016 (L-2016-128), as supplemented by letter dated November 15, 2016 (L-2016-213).

The amendments revised TS 3/4.7.1.2, "Auxiliary Feedwater System," to correct a nonconservative TS for Turkey Point.

The NRC staff's safety evaluation of the amendments is enclosed. A Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

A handwritten signature in black ink, appearing to be "A. Klett", written over a horizontal line.

Audrey L. Klett, Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-250 and 50-251

Enclosures:

1. Amendment No. 273 to DPR-31
2. Amendment No. 268 to DPR-41
3. Safety Evaluation

cc w/enclosures: Distribution via Listserv



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

FLORIDA POWER & LIGHT COMPANY

DOCKET NO. 50-250

TURKEY POINT NUCLEAR GENERATING UNIT NO. 3

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 273
Renewed License No. DPR-31

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Florida Power & Light Company (the licensee) dated June 30, 2016, as supplemented by letter dated November 15, 2016, 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 Facility Operating License and Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B. of Renewed Facility Operating License No. DPR-31 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 273 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 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Benjamin G. Beasley, Chief
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Facility Operating License
and Technical Specifications

Date of Issuance: February 14, 2017



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. 268
Renewed License No. DPR-41

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Florida Power & Light Company (the licensee) dated June 30, 2016, as supplemented by letter dated November 15, 2016, 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.

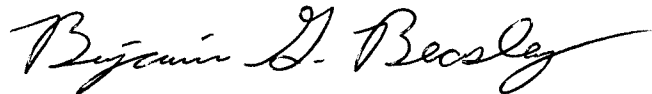
2. Accordingly, the license is amended by changes to the Operating License and Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B. of Renewed Facility Operating License No. DPR-41 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 268 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 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Benjamin G. Beasley, Chief
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Facility Operating License
and Technical Specifications

Date of Issuance: February 14, 2017

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 273 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-31

AMENDMENT NO. 268 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-41

TURKEY POINT NUCLEAR GENERATING UNIT NOS. 3 AND 4

DOCKET NOS. 50-250 AND 50-251

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

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

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

Remove
x [index]
3/4 7-3
3/4 7-4
3/4 7-5

Insert
x [index]
3/4 7-3
3/4 7-4
3/4 7-5

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

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

The Technical Specifications contained in Appendix A, as revised through Amendment No. 273 are hereby incorporated into this renewed license. The Environmental Protection Plan contained in Appendix B is hereby incorporated into this renewed license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.
 - C. Final Safety Analysis Report

The licensee's Final Safety Analysis Report supplement submitted pursuant to 10 CFR 54.21(d), as revised on November 1, 2001, describes certain future inspection activities to be completed before the period of extended operation. The licensee shall complete these activities no later than July 19, 2012.

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

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

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

The Technical Specifications contained in Appendix A, as revised through Amendment No. 268 are hereby incorporated into this renewed license. The Environmental Protection Plan contained in Appendix B is hereby incorporated into this renewed license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.
 - C. Final Safety Analysis Report

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

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

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

<u>SECTION</u>	<u>PAGE</u>
<u>3/4.7 PLANT SYSTEMS</u>	
3/4.7.1	TURBINE CYCLE
	Safety Valves..... 3/4 7-1
TABLE 3.7-1	MAXIMUM ALLOWABLE POWER LEVEL WITH INOPERABLE STEAM LINE SAFETY VALVES DURING THREE LOOP OPERATION 3/4 7-2
TABLE 3.7-2	STEAM LINE SAFETY VALVES PER LOOP 3/4 7-2
	Auxiliary Feedwater System 3/4 7-3
TABLE 3.7-3	DELETED 3/4 7-5
	Condensate Storage Tank..... 3/4 7-6
	Specific Activity..... 3/4 7-8
TABLE 4.7-1	SECONDARY COOLANT SYSTEM SPECIFIC ACTIVITY SAMPLE AND ANALYSIS 3/4 7-9
	Main Steam Line Isolation Valves 3/4 7-10
	Standby Feedwater System 3/4 7-11
	Feedwater Isolation 3/4 7-13
3/4.7.2	COMPONENT COOLING WATER SYSTEM 3/4 7-14
3/4.7.3	INTAKE COOLING WATER SYSTEM 3/4 7-16
3/4.7.4	ULTIMATE HEAT SINK..... 3/4 7-17
3/4.7.5	CONTROL ROOM EMERGENCY VENTILATION SYSTEM 3/4 7-18
3/4.7.6	SNUBBERS 3/4 7-22
3/4.7.7	SEALED SOURCE CONTAMINATION 3/4 7-23
3/4.7.8	EXPLOSIVE GAS MIXTURE..... 3/4 7-25
3/4.7.9	GAS DECAY TANKS..... 3/4 7-26

PLANT SYSTEMS

AUXILIARY FEEDWATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.1.2 Two independent auxiliary feedwater trains including 3 steam supply flowpaths, 3 pumps and associated discharge water flowpaths shall be OPERABLE.⁽¹⁾⁽²⁾

APPLICABILITY: MODES 1, 2 and 3

ACTION:

- 1) With one of the two required independent auxiliary feedwater trains inoperable, either restore the inoperable train to an OPERABLE status within 72 hours, or place the affected unit(s) in at least HOT STANDBY within the next 6 hours* and in HOT SHUTDOWN within the following 6 hours.
- 2) With both required auxiliary feedwater trains inoperable, within 2 hours either restore both trains to an OPERABLE status, or restore one train to an OPERABLE status and follow ACTION statement 1 above for the other train. If neither train can be restored to an OPERABLE status within 2 hours, verify the OPERABILITY of both standby feed-water pumps and place the affected unit(s) in at least HOT STANDBY within the next 6 hours* and in HOT SHUTDOWN within the following 6 hours. Otherwise, initiate corrective action to restore at least one auxiliary feedwater train to an OPERABLE status as soon as possible and follow ACTION statement 1 above for the other train.
- 3) With a single auxiliary feedwater pump inoperable, within 4 hours, verify OPERABILITY of two independent auxiliary feedwater trains, or follow ACTION statements 1 or 2 above as applicable. Upon verification of the OPERABILITY of two independent auxiliary feedwater trains, restore the inoperable auxiliary feedwater pump to an OPERABLE status within 30 days, or place the operating unit(s) in at least HOT STANDBY within 6 hours* and in HOT SHUTDOWN within the following 6 hours. The provisions of Specification 3.0.4 are not applicable during the 30 day period for the inoperable auxiliary feedwater pump.
- 4) With a single steam supply flowpath inoperable, within 4 hours verify OPERABILITY of two independent steam supply flowpaths or follow ACTION statement 1 or 2 above as applicable. Upon verification of the OPERABILITY of two independent steam supply flowpaths, restore the inoperable steam supply flowpath to OPERABLE status within 7 days of discovery, or place the affected Unit(s) in at least HOT STANDBY within 6 hours* and in HOT SHUTDOWN within the following 6 hours.

NOTES:

- (1) One steam supply flowpath shall be OPERABLE in each AFW train and the third steam supply flowpath (via MOV-3-1404 for Unit 3 and MOV-4-1404 for Unit 4) shall be OPERABLE and aligned to either AFW train but not both simultaneously.
- (2) During single and two unit operation, one pump shall be OPERABLE in each train and the third auxiliary feedwater pump shall be OPERABLE and capable of being powered from, and supplying water to either train, except as noted in ACTION 3 of Technical Specification 3.7.1.2. The third auxiliary feedwater pump (normally the "C" pump) can be aligned to either train to restore OPERABILITY in the event one of the required pumps is inoperable.

*If this ACTION applies to both units simultaneously, be in at least HOT STANDBY within the next 12 hours and in HOT SHUTDOWN within the following 6 hours.

PLANT SYSTEMS

AUXILIARY FEEDWATER SYSTEM

SURVEILLANCE REQUIREMENTS

4.7.1.2.1 The required independent auxiliary feedwater trains shall be demonstrated OPERABLE:

- a. In accordance with the Surveillance Frequency Control Program by:
 - 1) Verifying by control panel indication and visual observation of equipment that each steam turbine-driven pump operates for 15 minutes or greater and develops a flow of greater than or equal to 373 gpm to the entrance of the steam generators. The provisions of Specification 4.0.4 are not applicable for entry into MODES 2 and 3;
 - 2) Verifying by control panel indication and visual observation of equipment that the auxiliary feedwater discharge valves and the steam supply and turbine pressure valves operate as required to deliver the required flow during the pump performance test above;
 - 3) Verifying that each non-automatic valve in the flow path that is not locked, sealed, or otherwise secured in position is in its correct position; and
 - 4) Verifying that power is available to those components which require power for flow path operability.
- b. In accordance with the Surveillance Frequency Control Program by:
 - 1) Verifying that each automatic valve in the flow path actuates to its correct position upon receipt of each Auxiliary Feedwater Actuation test signal, and
 - 2) Verifying that each auxiliary feedwater pump receives a start signal as designed automatically upon receipt of each Auxiliary Feedwater Actuation test signal.

4.7.1.2.2 An auxiliary feedwater flow path to each steam generator shall be demonstrated OPERABLE following each COLD SHUTDOWN of greater than 30 days prior to entering MODE 1 by verifying normal flow to each steam generator.

TABLE 3.7-3

AUXILIARY FEEDWATER SYSTEM OPERABILITY

DELETED



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
AMENDMENT NO. 273 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-31
AMENDMENT NO. 268 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-41
FLORIDA POWER & LIGHT COMPANY
TURKEY POINT NUCLEAR GENERATING UNIT NOS. 3 AND 4
DOCKET NOS. 50-250 AND 50-251

1.0 INTRODUCTION

By application dated June 30, 2016 (L-2016-128),¹ as supplemented by letter dated November 15, 2016 (L-2016-213),² Florida Power & Light Company (the licensee) requested changes to the Technical Specifications (TSs) for Turkey Point Nuclear Generating Unit Nos. 3 and 4 (Turkey Point), which are contained in Appendix A of Renewed Facility Operating License Nos. DPR-31 and DPR-41, respectively. The licensee proposed to revise TS 3.7.1.2, "Auxiliary Feedwater [AFW] System," to correct a nonconservative TS.

By electronic mail (e-mail) dated October 27, 2016,³ the U.S. Nuclear Regulatory Commission (NRC or the Commission) staff sent the licensee a request for additional information (RAI). The licensee responded to the RAI by letter dated November 15, 2016. The licensee's letter dated November 15, 2016, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the NRC staff's original proposed no significant hazards consideration determination, which was published in the *Federal Register* (FR) on September 13, 2016 (81 FR 62928).

2.0 REGULATORY EVALUATION

2.1 Description of the Auxiliary Feedwater System

The AFW System is designed to:

- (1) Sustain operation, following a loss of offsite power, for a period of 13 hours to include maintaining the unit in Hot Standby for 4 hours followed by a 9-hour cooldown to Residual Heat Removal System entry conditions. Maximum hot standby is for 18 hours.

¹ Agencywide Documents Access and Management System (ADAMS) Accession No. ML16194A342.

² ADAMS Accession No. ML16340B015.

³ ADAMS Accession No. ML16301A135.

- (2) Supply AFW to the steam generators (SGs) within 120 seconds of a start signal on low-low SG water level during loss of normal feedwater events in which offsite power is available.
- (3) Supply AFW to the SGs within 95 seconds of a start signal on low-low SGs' water level during loss of normal feedwater events in which offsite power is not available.

Three quick-starting, steam turbine-driven, AFW pumps are provided for Turkey Point. Each pump is capable of delivering 624.8 gallons per minute to the SGs between 1085 pounds per square inch gauge (psig) at 5900 revolutions per minute (rpm) and 120 psig at 3200 rpm. The three AFW pumps are installed such that each supplies AFW to either Unit 3 or Unit 4, with any single pump supplying the total feedwater requirement of either unit. Two AFW pumps (B and C) are normally aligned to AFW Train 2, and the third AFW pump (A) is normally aligned to AFW Train 1.

The turbine-driven AFW pumps are supplied with steam from the unit that has lost its normal feedwater supply. RPM indicators are provided locally and in the control room to provide indication that the AFW pump/turbine is running. The turbines have an atmospheric exhaust. Steam can also be supplied from the unit having normal feedwater supply, or from the unit's auxiliary steam supply.

The supply valves will automatically open by any one of the following five signals: (1) safety injection (SI); (2) low-low level in any of the three SGs; (3) loss of both feedwater pumps under normal operating conditions; (4) bus stripping (loss of voltage on either the A or B 4.16 kilovolt bus, degraded voltage on one 480-volt (V) load center (instantaneous) coincident with SI and the diesel generator breaker open, or degraded voltage on one 480-V load center (delayed) coincident with the diesel generator breaker open); or (5) anticipated transient without scram mitigating system actuation circuitry.

Two nonsafety grade standby SG feedwater (SSGF) pumps are provided. The SSGF pumps are normally used to supply feedwater to the SGs during normal start-up, shutdown, and hot standby conditions. The SSGF pumps take suction from the demineralized water storage tank and discharge into the main feedwater header upstream of the feedwater regulating valves. These SSGF pumps can be operated from the control room or from the local control panel. One SSGF pump is motor-driven and normally powered from the 4160-V C-Bus. The other SSGF pump is diesel-engine-driven with an integral fuel tank and electric starting system. In case of loss of offsite power, the normal safety supply of feedwater to the SGs is provided by the steam turbine-driven AFW pumps. However, feedwater can also be supplied by the diesel engine-driven SSGF pump.

2.2 Licensee's Proposed Changes

The Limiting Condition for Operation (LCO) 3.7.1.2 states, "Two independent auxiliary feedwater trains including 3 pumps as specified in Table 3.7-3 and associated flowpaths shall be OPERABLE," in MODES 1, 2, and 3. The LCO has 3 required ACTIONS for when the LCO is not met.

TS Table 3.7-3 states the following:

TABLE 3.7-3

AUXILIARY FEEDWATER SYSTEM OPERABILITY

<u>UNIT</u>	<u>TRAIN</u>	<u>STEAM SUPPLY FLOWPATH⁽³⁾</u>	<u>PUMP</u>	<u>DISCHARGE WATER FLOWPATH⁽³⁾</u>
3	1	SG 3C via MOV-3-1405 or SG 3B via MOV-3-1404 ⁽¹⁾	A or C ⁽²⁾	SG 3A via CV-3-2816 SG 3B via CV-3-2817 SG 3C via CV-3-2818
3	2	SG 3A via MOV-3-1403 or SG 3B via MOV-3-1404 ⁽¹⁾	B or C ⁽²⁾	SG 3A via CV-3-2831 SG 3B via CV-3-2832 SG 3C via CV-3-2833
4	1	SG 4C via MOV-4-1405 or SG 4B via MOV-4-1404 ⁽¹⁾	A or C ⁽²⁾	SG 4A via CV-4-2816 SG 4B via CV-4-2817 SG 4C via CV-4-2818
4	2	SG 4A via MOV-4-1403 or SG 4B via MOV-4-1404 ⁽¹⁾	B or C ⁽²⁾	SG 4A via CV-4-2831 SG 4B via CV-4-2832 SG 4C via CV-4-2833

NOTES:

(1) Steam admission valves MOV-3-1404 and MOV-4-1404 can be aligned to either train (but not both) to restore OPERABILITY in the event MOV-3-1403 or MOV-3-1405, or MOV-4-1403 or MOV-4-1405 are inoperable.

(2) During single and two unit operation, one pump shall be OPERABLE in each train and the third auxiliary feedwater pump shall be OPERABLE and capable of being powered from, and supplying water to either train, except as noted in ACTION 3 of Technical Specification 3.7.1.2. The third auxiliary feedwater pump (normally the "C" pump) can be aligned to either train to restore OPERABILITY in the event one of the required pumps is inoperable.

(3) If any local manual realignment of valves is required when operating the auxiliary feedwater pumps, a dedicated individual, who is in communication with the control room, shall be stationed at the auxiliary feedwater pump area. Upon instructions from the control room, this operator would realign the valves in the AFW system train to its normal operational alignment.

The licensee proposed to change LCO 3.7.1.2 as follows, with deletions shown in stricken text and additions underlined:

Two independent auxiliary feedwater trains including 3 steam supply flowpaths, 3 pumps ~~as specified in Table 3.7-3~~ and associated discharge water flowpaths shall be OPERABLE. ⁽¹⁾⁽²⁾

The licensee proposed the following new Note 1 for LCO 3.7.1.2:

(1) One steam supply flowpath shall be OPERABLE in each AFW train and the third steam supply flowpath (via MOV-3-1404 for Unit 3 and MOV-4-1404 for Unit 4) shall be OPERABLE and aligned to either AFW train but not both simultaneously.

The licensee proposed the following new Note 2 for LCO 3.7.1.2, which was Note 2 from Table 3.7-3:

(2) During single and two unit operation, one pump shall be OPERABLE in each train and the third auxiliary feedwater pump shall be OPERABLE and capable of being powered from, and supplying water to either train, except as noted in ACTION 3 of Technical Specification 3.7.1.2. The third auxiliary feedwater pump (normally the "C" pump) can be aligned to either train to restore OPERABILITY in the event one of the required pumps is inoperable.

The licensee proposes to add the following fourth ACTION for when LCO 3.7.1.2 is not met:

4) With a single steam supply flowpath inoperable, within 4 hours verify OPERABILITY of two independent steam supply flowpaths or follow ACTION statement 1 or 2 above as applicable. Upon verification of the OPERABILITY of two independent steam supply flowpaths, restore the inoperable steam supply flowpath to OPERABLE status within 7 days of discovery, or place the affected Unit(s) in at least HOT STANDBY within 6 hours* and in HOT SHUTDOWN within the following 6 hours.

The licensee proposes to delete Table 3.7-3, including its Notes.

The licensee also proposed conforming editorial changes to the TSs. The licensee proposed to change the Index page x to state that Table 3.7-3 has been deleted. The licensee also proposed to move the Surveillance Requirements on page 3/4.7-3 to 3/4 7-4 to accommodate the addition of ACTION 4 on page 3/4 7-3.

2.3 Regulatory Review

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

Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Paragraph 50.36(c) requires that the TSs include items in the following categories related to station operation: (1) safety limits, limiting safety system settings, and limiting control settings; (2) LCOs; (3) SRs; (4) design features; and (5) administrative controls. Paragraph 50.36(c)(2) states LCOs are the lowest functional capability or performance levels of equipment required for safe operation of the facility and that when an LCO 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.

Paragraph 50.36(c)(2)(ii) of 10 CFR states that a TS LCO of a nuclear reactor must be established for each item meeting one or more of the following criteria:

(A) Criterion 1. Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.

(B) Criterion 2. A process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

(C) Criterion 3. A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

(D) Criterion 4. A structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

Generic Letter (GL) 91-18, Revision 1, "Information to Licensees Regarding NRC Inspection Manual Section on Resolution of Degraded and Nonconforming Conditions," provides guidance to licensees on the type and time frame of any required corrective action. As stated in the GL, whenever degraded or nonconforming conditions are discovered, Title 10 of the *Code of Federal Regulations* (10 CFR), Appendix B to Part 50, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," requires prompt corrective action to correct or resolve the condition.

GL 91-18, Revision 1 was superseded by NRC Regulatory Issue Summary 2005-20,⁴ "Revision to Guidance Formerly Contained in NRC Generic Letter 91-18, 'Information to Licensees Regarding Two NRC Inspection Manual Sections on Resolution of Degraded and Nonconforming Conditions and on Operability.'"

NRC Administrative Letter 98-10,⁵ "Dispositioning of Technical Specifications that are Insufficient to Assure Plant Safety," discusses that an improper or inadequate TS value or required action is considered a degraded or nonconforming condition, and imposing administrative controls in response to an improper or inadequate TS is considered an acceptable short-term corrective action. The NRC staff expects that, following the imposition of administrative controls, an amendment to the TSs, with appropriate justification and schedule, will be submitted in a timely fashion. This proposed license amendment request addresses the TSs with an appropriate justification and schedule.

3.0 TECHNICAL EVALUATION

The staff evaluated the licensee's application to determine if the proposed changes are consistent with the guidance, regulations, and plant-specific licensing basis information discussed in Section 2.3 of this safety evaluation. The staff reviewed the proposed changes for compliance with 10 CFR 50.36.

⁴ ADAMS Accession No. ML052020424.

⁵ ADAMS Legacy Library Accession No. 9812280273.

3.1 Changes to LCO 3.7.1.2

The AFW pumps' steam supplies include a Train 1 supply from SG-C, a Train 2 supply from SG-A, and a supply from SG-B that can be aligned to either Train 1 or Train 2. The third steam supply serves to maintain one operable steam supply in each Train when one of the train-associated steam supplies is inoperable. However, the current LCO of TS 3.7.1.2 is met with one operable steam supply in each redundant train. Therefore, the TS does not include an action that limits the out-of-service time for one of the three steam supplies.

Operation with only two operable steam supplies results in a nonconservative condition. The AFW system is required to withstand a single active failure, and the system requires three operable steam supplies to meet this requirement. With one steam supply out of service, a faulted SG in another loop would leave only one AFW steam supply. Then, a single active failure in the one remaining AFW steam supply would result in a loss of the specified AFW safety function. Since TS 3.7.1.2 currently requires only two operable AFW steam supplies and permits unlimited operation with one of the three steam supplies out of service, the TS is inadequate to ensure safety.

The licensee proposed to resolve the nonconservative LCO by requiring three operable AFW steam supplies. This proposed change adds a more restrictive requirement than currently exists, because the LCO can no longer be met with only two AFW steam supplies operable.

The revised LCO statement provides a more concise and complete description of the requirements necessary for continued plant operation and remedies the existing nonconservative LCO.

The NRC staff reviewed the proposed change to LCO 3.7.1.2, as well as the current plant accident analyses. The NRC staff finds that the change would assure that the AFW safety function would still be accomplished, and that the change would result in a more conservative LCO than what is currently in use.

The NRC staff finds the proposed change meets 10 CFR 50.36 and is acceptable.

3.2 New LCO 3.7.1.2 Notes

Notes 1 and 2 are currently associated with TS Table 3.7-3. Notes 1 and 2 describe the allowable plant configurations, which satisfy the LCO requirement for three operable AFW pumps and associated flow paths. The licensee proposed to revise Note 1 of Table 3.7-3 and make it Note 1 for LCO 3.7.1.2. The licensee also proposed to make Note 2 for LCO 3.7.1.2. The proposed change to Note 1 describes the allowable plant configurations for three operable AFW steam supplies. The proposed change to Note 1 is to explicitly require that all three AFW steam supply flowpaths are operable. This proposed change is appropriate, because three steam supply flowpaths are needed to ensure that the AFW system can perform its specified function for all postulated events in the presence of a single failure. With three steam supply flowpaths available, at least one steam supply flowpath would remain available in the event of a loss of one steam supply flowpath following an accident involving a faulted SG and loss of a second steam supply flowpath due to a single failure. This proposed change to Note 1 adds a more restrictive requirement than currently exists, because the LCO can no longer be met with only two AFW steam supply flowpaths operable. The revised Note 1 explicitly requires all three AFW steam supply flowpaths to be operable. The NRC staff finds that there will be no loss of conservatism with the change to Note 1, and the change would result in more conservative

thresholds for meeting LCO 3.7.1.2 in regard to the effects on current accident analysis. Applying Notes 1 and 2 to the LCO facilitates the deletion of TS Table 3.7-3 as described later in this safety evaluation. The NRC staff finds the proposed change meets 10 CFR 50.36 and is acceptable.

3.3 Addition of ACTION 4

The licensee proposes to add ACTION 4 to TS 3.7.1.2 to limit the duration of plant operation with one of the three AFW steam supply flowpaths inoperable. This proposed ACTION 4 verifies operability of two independent steam supply flowpaths. If this condition is not met, the proposed ACTION 4 directs complying with the more limiting requirements of Action 1 or 2, as applicable. Otherwise, ACTION 4 provides a completion time of 7 days to restore the inoperable steam supply flowpath to operable status before a plant shutdown is required.

The NRC staff evaluated the 7-day completion time for the condition when one of the three AFW steam supply flowpaths is inoperable. The NRC staff determined that 7 days is a reasonable time to allow continued plant operation because the system remains capable of performing its function for a loss of normal feedwater or loss of offsite power events with one steam supply flowpath unavailable and two trains of two steam supplies would be available to the AFW pumps. Given the current nonconservative nature of the TS, the addition of the new action is necessary and appropriate.

The NRC staff reviewed the proposed addition of ACTION 4, as well as the current plant accident analysis and Standard TS (STS) bases. The NRC staff finds that the basis of the proposed ACTION 4 is consistent with Condition A of STS 3.7.5. With the addition of ACTION 4, TS 3.7.1.2 will provide more conservative and robust protection against single failure criterion for the entire AFW steam supply train, rather than just for the AFW pumps. The NRC staff finds this change is acceptable with regard to the effect of the change on the current accident analysis. The NRC staff finds the proposed change meets 10 CFR 50.36 and is acceptable.

3.4 Deletion of Table 3.7-3 and Note 3

The licensee proposes to delete TS Table 3.7-3 and Note 3. TS Table 3.7-3 describes the allowable plant configurations that satisfy the current LCO requirement of three operable AFW pumps and associated flow paths. As currently written, the TS Table 3.7-3 adequately describes the allowable pump configurations, but it does not align with the proposed requirement for three independent AFW steam supply flowpaths. The proposed change to Note 1 (see above) fulfills this function and, by attaching Note 1 to the LCO in lieu of Table 3.7-3, facilitates the deletion of TS Table 3.7-3.

The NRC staff finds that there will be no loss of conservatism with the elimination of Table 3.7-3, and the change would result in more conservative thresholds for meeting LCO 3.7.1.2 in regard to the effects on current accident analysis. Given the revised LCO statement along with changes to Note 1, the explicit requirements contained in Table 3.7-3 are no longer needed. The NRC staff finds the proposed change meets 10 CFR 50.36 and is acceptable.

Note 3 of Table 3.7-3 describes the procedure to be implemented in the event manual realignment of the AFW system is required when operating the AFW pumps. A dedicated individual in communication with the Control Room must be stationed in the AFW pump area during these times.

The information contained in Note 3 is currently a requirement for operation of the AFW system that may not necessarily meet the criteria of an LCO. By letter dated November 15, 2016, the licensee stated that this information exists in AFW procedures, which are controlled by the licensee. The licensee stated that changes to the procedures are subject to the requirements of 10 CFR 50.59. The proposed deletion meets the intent of the final policy statement, which holds that requirements that do not meet the criteria of an LCO should be relocated to a licensee-controlled document with change controls similar to 10 CFR 50.59.

The NRC staff finds that there will be no loss of conservatism with the elimination of Note 3, and the change would result in more conservative thresholds for meeting LCO 3.7.1.2 in regard to the effects on current accident analysis. The NRC staff finds the proposed change meets 10 CFR 50.36 and is acceptable.

3.5 Editorial Changes

The NRC staff reviewed the following editorial changes: (1) marking Table 3.7-3 as "Deleted" on Index page x, and (2) moving Surveillance Requirements from page 3/4 7-3 to 3/4 7-4. The NRC staff concludes that these conforming changes are editorial in nature and do not change requirements and, therefore, are acceptable.

5.0 STATE CONSULTATION

In accordance with the Commission's regulations, the NRC staff notified the State of Florida official (Ms. Cynthia Becker, M.P.H., Chief of the Bureau of Radiation Control, Florida Department of Health) on November 30, 2016,⁶ of the proposed issuance of the amendments. The State official had no comments.

6.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts and no significant change in the types of any effluents that may be released offsite and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding, which was published in the FR on September 13, 2016 (81 FR 62928), that the amendments involve no significant hazards consideration, and there has been no public comment on such finding. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

6.0 CONCLUSION

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

⁶ The NRC staff notified the State official by e-mail (ADAMS Accession No. ML16342B034).

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 Contributors: John G. Lamb
Matthew E. Hamm
Nicholas P. Hobbs

Date: February 14, 2017.

M.Nazar

- 2 -

SUBJECT: TURKEY POINT NUCLEAR GENERATING UNIT NOS. 3 AND 4 - ISSUANCE OF AMENDMENTS REGARDING TECHNICAL SPECIFICATIONS FOR AUXILIARY FEEDWATER PUMPS (CAC NOS. MF8068 AND MF8069)

DISTRIBUTION:

PUBLIC	RidsACRS_MailCTR	RidsNrrDssSpsb
LPL2-2 R/F	RidsNrrPMTurkeyPoint	RidsNrrDssStsb
RidsNrrDorlLpl2-2	RidsNrrLABClayton	NHobbs, NRR
RidsRgn2MailCenter	RidsNrrDorlDpr	MHamm, NRR
RecordsAmend	J. Lamb, NRR	

ADAMS Accession No.: AMD: ML16335A195

*by memorandum

OFFICE	NRR/DORL/LPL4-2/PM	NRR/DORL/LPL2-2/LA	NRR/DSS/SPSB/BC
NAME	JLamb	BClayton	RDennig*
DATE	2/1/2017	1/31/2017	1/17/2017
OFFICE	NRR/DSS/STSB/BC	OGC - NLO	NRR/DORL/LPL2-2/BC
NAME	AKlein*	RNorwood	BBeasley
DATE	1/23/2017	2/8/2017	2/14/2017
OFFICE	NRR/DORL/LPL2-2/PM		
NAME	AKlett		
DATE	2/14/2017		

OFFICIAL RECORD COPY