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

August 14, 2017

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

SUBJECT: ST. LUCIE PLANT, UNIT NOS. 1 AND 2 – ISSUANCE OF AMENDMENTS REGARDING RELOCATION OF RADIATION MONITOR REQUIREMENTS FROM TECHNICAL SPECIFICATIONS TO LICENSEE-CONTROLLED DOCUMENTS (CAC NOS. MF8408 AND MF8409)

Dear Mr. Nazar:

The U.S. Nuclear Regulatory Commission (Commission) has issued the enclosed Amendment Nos. 239 and 190 to Renewed Facility Operating License Nos. DPR-67 and NPF-16 for the St. Lucie Plant, Unit Nos. 1 and 2, respectively. These amendments consist of changes to the Technical Specifications (TSs) in response to Florida Power & and Light Company's application dated September 16, 2016.

The amendments revise the St. Lucie Plant, Units Nos. 1 and 2, TSs by removing process radiation monitor channels and their requirements from Unit Nos. 1 and Unit 2 TSs and relocating them to the licensee-controlled Offiste Dose Calculation Manual. In addition, the proposed Unit No. 2 amendment changes the containment atmosphere particulate radiation monitor range to correct a longstanding legacy error in Unit No. 2, TS 3.3.3.1, Table 3.3-6, "Radiaton Monitoring Instrumentation."

A copy of our related safety evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

Perry H. Buckberg, Senior Project Manager
Plant Licensing Branch II-2
Division of Operator Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-335 and 50-389

Enclosures:
1. Amendment No. 239 to DPR-67
2. Amendment No. 190 to NPF-16
3. Safety Evaluation

cc w/enclosures: Distribution via Listserv

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

FLORIDA POWER AND LIGHT COMPANY

DOCKET NO. 50-335

ST. LUCIE PLANT, UNIT NO. 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 239
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 September 16, 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, 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. Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 239, 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.

FOR THE NUCLEAR REGULATORY COMMISSION

Undine Shoop, Chief
Plant Licensing Branch II-2
Division of Operator Reactor Licensing
Office of Nuclear Reactor Regulation

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

Date of Issuance: August 14, 2017

ATTACHMENT TO LICENSE AMENDMENT NO. 239

ST. LUCIE PLANT, UNIT NO. 1

RENEWED FACILITY OPERATING LICENSE NO. DPR-67

DOCKET NO. 50-335

Replace page 3 of Renewed Facility Operating License No. DPR-67 with the attached revised page 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 marginal lines indicating the areas of change.

Remove	Insert
3/4 3-22	3/4 3-22
3/4 3-22a	3/4 3-22a
3/4 3-23	3/4 3-23

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. 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. 239 are hereby incorporated in the renewed license. FPL shall operate the facility in accordance with the Technical Specifications.

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. Sustained Core Uncovery Actions

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.

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	MEASUREMENT RANGE	ACTION
1. AREA MONITORS					
a. Fuel Storage Pool Area	1	*	≤ 15 mR/hr	$10^{-1} - 10^{4}$ mR/hr	13
b. Containment (CIS)	3	****	≤ 90 mR/hr	$1 - 10^{5}$ mR/hr	16
c. Containment Area – Hi Range	1	1, 2, 3, & 4	≤ 10 R/hr	$1 - 10^{7}$ R/hr	15
d. Control Room Isolation	1 per intake	ALL MODES	≤ 320 cpm	$10 - 10^{7}$ cpm	17
2. PROCESS MONITORS					
a. Containment					
i. Gaseous Activity RCS Leakage Detection	1	1, 2, 3 & 4	Not Applicable	$10 - 10^{6}$ cpm	14
ii. Particulate Activity RCS Leakage Detection	1	1, 2, 3 & 4	Not Applicable	$10 - 10^{6}$ cpm	14

* With fuel in the storage pool or building.
**** During movement of recently irradiated fuel assemblies within containment.

DELETED

TABLE 3.3-6 (Continued)

TABLE NOTATION

ACTION 12 - DELETED

ACTION 13 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, perform area surveys of the monitored area with portable monitoring instrumentation at least once per 24 hours.

ACTION 14 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.4.6.1.

ACTION 15 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, either restore the inoperable Channel(s) to OPERABLE status within 72 hours, or:

1) Initiate the preplanned alternate method of monitoring the appropriate parameter(s),and

2) Prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 14 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

ACTION 16 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirements, comply with the ACTION requirements of Specification 3.9.9.

ACTION 17 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, within 1 hour initiate and maintain operation of the control room emergency ventilation system in the recirculation mode of operation. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

UNITED STATES
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WASHINGTON, D.C. 20555-0001

FLORIDA POWER AND LIGHT COMPANY

ORLANDO UTILITIES COMMISSION OF THE CITY OF ORLANDO, FLORIDA

AND

FLORIDA MUNICIPAL POWER AGENCY

DOCKET NO. 50-389

ST. LUCIE PLANT, UNIT NO. 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 190
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 (FPL, the licensee), dated September 16, 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, 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. Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 190, 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.

FOR THE NUCLEAR REGULATORY COMMISSION

Undine Shoop, Chief
Plant Licensing Branch II-2
Division of Operator Reactor Licensing
Office of Nuclear Reactor Regulation

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

Date of Issuance: August 14, 2017

ATTACHMENT TO LICENSE AMENDMENT NO. 190

ST. LUCIE PLANT, UNIT NO. 2

RENEWED FACILITY OPERATING LICENSE NO. NPF-16

DOCKET NO. 50-389

Replace page 3 of Renewed Facility Operating License No. NPF-16 with the attached revised page 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 marginal lines indicating the areas of change.

Remove	Insert
3/4 3-25	3/4 3-25
3/4 3-26	3/4 3-26
3/4 3-27	3/4 3-27

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 CFR 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. 190 are hereby incorporated in the renewed license. FPL shall operate the facility in accordance with the Technical Specifications.

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

	INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	MEASUREMENT RANGE	ACTION
1.	AREA MONITORS					
	a. Fuel Storage Pool Area					
	i. Criticality and Ventilation System Isolation Monitor	4	*	≤ 20 mR/hr	$10^{-1} - 10^{4}$ mR/hr	22
	b. Containment Isolation	3	****	≤ 90 mR/hr	$1 - 10^{7}$ mR/hr	25
	c. Containment Area – Hi Range	1	1, 2, 3 & 4	Not Applicable	$1 - 10^{7}$ R/hr	27
	d. Control Room Isolation	1 per intake	ALL MODES	≤ 320 cpm	$10^{-7} - 10^{-2}$ μCi/cc	26
2.	PROCESS MONITORS					
	a. Containment					
	i. Gaseous Activity RCS Leakage Detection	1	1, 2, 3 & 4	Not Applicable	$10^{-7} - 10^{-2}$ μCi/cc	23
	ii. Particulate Activity RCS Leakage Detection	1	1, 2, 3 & 4	Not Applicable	$10 - 10^{7}$ cpm	23

* With fuel in the storage pool or building.
**** During movement of recently irradiated fuel assemblies within containment.

DELETED

TABLE 3.3-6 (Continued)

ACTION STATEMENTS

ACTION 22 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, perform area surveys of the monitored area with portable monitoring instrumentation at least once per 24 hours.

ACTION 23 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.4.6.1.

ACTION 24 - DELETED

ACTION 25 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.9.

ACTION 26 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirements, within 1 hour initiate and maintain operation of the control room emergency ventilation system in the recirculation mode of operation. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

ACTION 27 - With the number of OPERABLE Channels less than required by the Minimum Channels OPERABLE requirement, either restore the inoperable Channel(s) to OPERABLE status within 72 hours, or:

1) Initiate the preplanned alternate method of monitoring the appropriate parameter(s), and

2) Prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 14 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

UNITED STATES
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WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 239 AND 190

TO RENEWED FACILITY OPERATING LICENSE NOS. DPR-67 AND NPF-16

FLORIDA POWER AND LIGHT COMPANY, ET AL.,

ST. LUCIE PLANT, UNIT NOS. 1 AND 2

DOCKET NOS. 50-335 AND 50-389

1.0 INTRODUCTION

By application dated September 16, 2016 (Agencywide Documents Access and Management System Accession No. ML16271A181), Florida Power & Light Company (FPL, the licensee) submitted to the U.S. Nuclear Regulatory Commission (NRC, the Commission) a license amendment request for the St. Lucie Plant, Unit Nos. 1 and 2 (hereafter St. Lucie 1 and 2 or Units 1 and 2).

Specifically, the proposed amendments would remove certain process radiation monitor channels and their requirements from the St. Lucie 1 and 2 Technical Specifications (TSs) and relocate them to the Offsite Dose Calculation Manual (ODCM). In addition, the proposed St. Lucie Unit 2, amendment would change the containment atmosphere particulate radiation monitor range to correct a longstanding legacy error in Unit No. 2, TS 3.3.3.1, Table 3.3-6, "Radiation Monitoring Instrumentation."

2.0 REGULATORY EVALUATION

2.1 Description of Radiation Monitoring Instruments

The purpose of the radioactive effluent monitors proposed for relocation to the ODCM is to monitor routine radioactive releases and initiate alarm or control functions that will terminate the release prior to exceeding the limits of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 20. Another purpose of the effluent monitors is to provide monitoring functions during and following a design-basis accident in order to provide plant operators and emergency planning agencies with information on releases of radioactive isotopes, as required by the licensee's commitments to NUREG-0737, Supplement No. 1, "Clarification of TMI [Three Mile Island] Action Plan Requirements, Requirements for Emergency Response Capability," and Regulatory Guide (RG) 1.97, Revision 3, "Instrumentation for Light-Water Cooled Nuclear Power Plants to Assess Plant and Environs Conditions During and Following an Accident."

The Unit 2 containment atmosphere particulate radiation monitor is designed for compliance with General Design Criteria 30 of Appendix A, "General Design Criteria for Nuclear Power Plants," to 10 CFR Part 50, Criterion 30, "Quality of reactor coolant pressure boundary," as a means to provide detection, and, to the extent practical, identify the location of the source of

reactor coolant leakage. The particulate containment atmosphere radioactivity monitor is designed to perform the function of reactor coolant pressure boundary leak detection following a design-basis earthquake. The monitor is required to be capable of detecting a one gallon per minute increase in unidentified leakage within 1 hour, given a reactor coolant system activity equivalent to that assumed in the design calculation for the radiation monitor. This monitor has no specific function credited during or following an accident.

TS Limiting Condition for Operation (LCO) 3.3.3.1 currently requires the radiation monitoring channels in TS Table 3.3-6 to be operable with their alarm/trip setpoints within the specified limits. Table 3.3-6 lists the required radiation monitoring channels, along with the minimum channels required to be operable, the applicable modes, the alarm/trip setpoints, the actions required for inoperability, and the instrument ranges.

2.2 Description of Proposed Changes

For St. Lucie 1, FPL has proposed removing six of the process radiation monitors from Table 3.3-6 of the Unit 1 TSs. The changes described in the license amendment request would remove and relocate the specific requirements for the following radiation monitor channels from St. Lucie 1 TS Table 3.3-6 to the ODCM:

- Fuel Storage Pool Area Ventilation System Gaseous Monitor (Table 3.3-6, Instrument 2.b.i.)
- Fuel Storage Pool Area Ventilation System Particulate Monitor (Table 3.3-6, Instrument 2.b.ii.)
- Radwaste Building Exhaust System (Plant Vent Exhaust) Noble Gas Effluent Monitor (Table 3.3-6, Instrument 2.c.i.)
- Steam Generator Blowdown Treatment Facility (SGBTF) Exhaust System Noble Gas Effluent Monitor (Table 3.3-6, Instrument 2.c.ii.)
- Steam Safety Valve Discharge Noble Gas Effluent Monitor (Table 3.3-6, Instrument 2.c.iii.)
- Emergency Core Cooling System Exhaust Noble Gas Effluent Monitors (Table 3.3-6, Instrument 2.c.iv.)

For St. Lucie 2, FPL has proposed removing eight of the process radiation monitors from Table 3.3-6 of the Unit 2 TSs. The changes described in the license amendment request will remove and relocate the specific requirements for the following radiation monitor channels from the St. Lucie 2 TS Table 3.3-6 to the ODCM:

- Fuel Storage Pool Area Ventilation System Gaseous Monitor (Table 3.3-6, Instrument 2.a.i.)
- Fuel Storage Pool Area Ventilation System Particulate Monitor (Table 3.3-6, Instrument 2.a.ii.)
- Reactor Auxiliary Building Exhaust System (Plant Vent Low Range) Noble Gas Effluent Monitor (Table 3.3-6, Instrument 2.c.i.)
- Reactor Auxiliary Building Exhaust System (Plant Vent High Range) Noble Gas Effluent Monitor (Table 3.3-6, Instrument 2.c.ii.)
- Steam Generator Blowdown Treatment Facility Building Exhaust System Noble Gas Effluent Monitor (Table 3.3-6, Instrument 2.c.iii.)
- Steam Safety Valve Discharge Noble Gas Effluent Monitors (Table 3.3-6, Instrument 2.c.iv.)

- Atmospheric Steam Dump Valve Discharge Noble Gas Effluent Monitors (Table 3.3-6, Instrument 2.c.v.)
- Emergency Core Cooling System Exhaust Noble Gas Effluent Monitors (Table 3.3-6, Instrument 2.c.vi.)

In addition, the range for the St. Lucie 2 containment particulate monitor will be changed in Table 3.3-6 of the Unit 2 TSs from 1 – 10^6 counts per minute (cpm) to 10 – 10^7 cpm.

2.3 Regulatory Review

The regulatory requirements and guidance that the NRC staff considered in its review of the application are as follows:

- 10 CFR 20.1101, "Radiation protection programs," requires that licensees use, to the extent practical, procedures and engineering controls to achieve occupational doses and doses to members of the public that are as low as is reasonably achievable (ALARA).

- 10 CFR 20.1301, "Dose limits for individual members of the public," establishes dose limits for individual members of the public such that the total effective dose equivalent does not exceed 100 millirem (mrem) in a year. In addition, 10 CFR 20.1301(e) requires compliance with the EPA's 40 CFR Part 190 dose limits for any member of the public in the general environment (i.e., 25 mrem to the whole body, 75 mrem to the thyroid, and 25 mrem to any other organ).

- 10 CFR 50.36, "Technical specifications" requires that the TSs include items in specific categories, including: (1) safety limits, limiting safety system settings, and limiting control settings; (2) LCOs; (3) surveillances requirements; (4) design features; and (5) administrative controls. The regulation does not specify the particular requirements to be included in the TSs.

  The four criteria defined by 10 CFR 50.36(c)(2)(ii) for determining whether particular items are required to be included in the TS LCOs, are as follows:

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

The Commission's Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors, which was published in the *Federal Register* on July 22, 1993 (58 FR 39132), states that LCOs that did not meet any of the above four criteria may be proposed for removal from the TSs and relocated to licensee-controlled documents.

- 10 CFR 50.36a requires licensees to develop and follow operating procedures for the control of effluents, to keep average annual releases of radioactive material in effluents and their resultant committed effective dose equivalents at small percentages of the dose limits specified in 10 CFR 20.1301, and to establish TSs that require compliance with the public dose limits in 10 CFR 20.1301. In addition, 10 CFR 50.36a provides licensees operational flexibility, which may temporarily result in effluent releases higher than such small percentages of the dose limits, and expects that the licensee will exert its best efforts to keep levels of radioactive effluent ALARA (i.e., within the numerical guides established in 10 CFR Part 50, Appendix I).

- 10 CFR 50.47(b)(9) establishes an emergency planning standard to provide adequate methods, systems, and equipment to assess and monitor actual or potential offsite consequences of a radiological emergency condition.

- 10 CFR Part 50, Appendix I, "Numerical Guides for Design Objectives and Limiting Conditions for Operation to Meet the Criterion 'As Low As Is Reasonably Achievable' for Radioactive Material in Light-Water-Cooled Nuclear Power Reactor Effluents," provides the numerical guidance on limiting conditions for operation sufficient to meet the ALARA requirement for light-water-cooled nuclear power reactors.

- GDC 13, "Instrumentation and Control," states, in part, that instrumentation shall be provided to monitor variables and systems over their anticipated ranges for normal operation, for anticipated operational occurrences, and for accident conditions as appropriate to ensure adequate safety.

- GDC 30, "Quality of reactor coolant pressure boundary," states, in part, that means shall be provided for detecting and, to the extent practical, identifying the location of the source of reactor coolant leakage.

- GDC 60, "Control of releases of radioactive materials to the environment," states, in part, that the nuclear power unit design shall include means to control suitably the release of radioactive materials in gaseous and liquid effluents and to handle radioactive solid wastes produced during normal reactor operation, including anticipated operational occurrences.

- GDC 64, "Monitoring radioactivity releases," states that means shall be provided for monitoring of the reactor containment atmosphere, spaces containing components for recirculation of loss-of-coolant accident fluids, effluent discharge paths, and the plant environs for radioactivity that may be released from normal operations, including anticipated operational occurrences, and from postulated accidents.

- RG 1.97, Revision 3, describes a method that the NRC staff considers acceptable for use in complying with the agency's requirements with respect to satisfying criteria for accident monitoring instrumentation in nuclear power plants.

- NUREG-1432, Revision 4.0, "Standard Technical Specifications – Combustion Engineering Plants," Section 3.3.11 provides the Standard Technical Specification (STS) for the "post-accident monitoring instrumentation" for combustion engineering plants.

- Generic Letter (GL) 89-01, "Implementation of Programmatic Controls for Radiological Effluent Technical Specifications in the Administrative Controls Section of the Technical Specifications and the Relocation of Procedural Details of RETS to the Offsite Dose Calculation Manual of the Process Control Program," provides guidance on the contents of the radiological effluent technical specifications (RETS) in relation to the Commission's Interim Policy Statement on Technical Specifications Improvements. The guidance in GL 89-01 states that the procedural details of the current TSs on radioactive effluents and radiological environmental monitoring can be relocated to the ODCM.

Because the St. Lucie 1 construction permit was issued prior to the publication of 10 CFR Part 50, Appendix A, the St. Lucie 1 design approval for the construction phase was based on the proposed GDC published by the Atomic Energy Commission in the *Federal Register* (32 FR 10213) on July 11, 1967. Section 1.3.2, "Comparison of Preliminary and Final Design," and Chapter 3, "Design Criteria - Structures, Components, Equipment and Systems," of the St. Lucie 1 Updated Final Safety Analysis Report (UFSAR) describe the St. Lucie 1 GDC. The St. Lucie 1 UFSAR descriptions of GDC 13, 30, 60, and 64 reflect design requirements similar to those specified in the GDC. Therefore, St. Lucie 1 conforms to the same design standards as St. Lucie 2, which was designed and constructed in compliance with the GDC, as relevant to the evaluation of this LAR.

3.0 TECHNICAL EVALUATION

The St. Lucie 1 and 2 radiation monitoring instrumentation proposed by the licensee for removal from TSs would be relocated to the ODCM. The ODCM is part of the current St. Lucie licensing basis. Therefore, changes to the ODCM can only be made in accordance with TS 6.14, "Offsite Dose Calculation Manual," or by a license amendment pursuant to 10 CFR 50.90. The proposed St. Lucie 2 containment particulate monitor change would merely reset the monitor range to the correct nominal range specified by the radiation monitor system vendor. The proposed TS modifications do not involve any physical alterations to the St. Lucie reactor units.

3.1 Radiation Monitoring Instrumentation

The current St. Lucie 1 and 2 TSs for radiation monitoring instrumentation are located in TSs 3.3.3.1 and 4.3.3.1. The current TSs for both units require that all of the radiation monitors included in Table 3.3-6 of the unit-specific TSs be operable with their alarm/trip setpoints within the specified limits. For Unit 1, FPL has proposed removing six of the process radiation monitors from Table 3.3-6 of the TSs and relocating the requirements for those specific monitors to the ODCM. Additionally, for Unit 2, FPL has proposed removing eight of the process radiation monitors from Table 3.3-6 of the TSs and relocating the specific requirements for those monitors to the ODCM.

The licensee's proposal to relocate the specific process monitors from Table 3.3-6 of TS 3.3.3.1 to the ODCM does not change the design or function of the effluent monitors, the required action for inoperable monitors, or the surveillance requirements. The specific function of these process monitors also does not warrant inclusion in the TSs in accordance with the criteria in 10 CFR 50.36(c)(2).

The NRC staff's evaluation of the proposed changes against the 10 CFR 50.36(c)(2)(ii) criteria described in Section 2.3 of the safety evaluation is as follows:

Criterion 1:

The requirements for the process monitors proposed for removal from the TSs and relocation to the ODCM are contained in TS 3.3.3.1 and described in Section 2.1 of this safety evaluation. These monitors are not used to detect, or indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary. Therefore, the NRC staff concludes that none of the monitors proposed for removal from the TSs satisfies Criterion 1.

Criterion 2:

The process monitors proposed for removal from the TSs and relocation to the ODCM are not process variables, design features, or operating restrictions that are 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. Therefore, the NRC staff concludes that none of the monitors proposed for removal from the TSs satisfies Criterion 2.

Criterion 3:

The process monitors proposed for removal from the TSs and relocation to the ODCM are not structures, systems, or components that are a part of the primary success path and that function or actuate 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. Therefore, the NRC staff concludes that none of the monitors proposed for removal from the TSs satisfies Criterion 3.

Criterion 4:

The process monitors proposed for removal from the TSs and relocation to the ODCM are not structures, systems, or components that operating experience or probabilistic risk assessment has shown to be significant to public health and safety. These monitors are not risk-significant components and are not credited in the St. Lucie probabilistic risk assessment. Therefore, the NRC staff concludes that none of the monitors proposed for removal from the TSs satisfy Criterion 4.

Additionally, the guidance contained in NUREG-1432 indicates that the monitors being proposed for removal from the TSs do not need to be contained in the TSs. NUREG-1432 does not contain LCOs for any of the effluent monitors that the licensee is proposing to relocate from the TSs to the ODCM. Specifically, Table 3.3.11-1 of NUREG-1432 provides guidance pertaining to which instrumentation needs to be incorporated in the TSs for post-accident monitoring instrumentation. The guidance contains a reviewer's note that says the post-accident monitoring instrumentation TSs in STSs should contain:

1. All RG 1.97, Type A instruments and

2. All RG 1.97, Category 1, non-Type A instruments specified in the unit's RG 1.97 safety evaluation report.

Consistent with the note in NUREG-1432, none of the monitors being proposed for removal from TSs are RG 1.97 Type A or Category 1 non-Type A instruments. Additionally, the particulate monitors are not listed as RG 1.97 instruments.

The controls, alarm/trip setpoints, and surveillance requirements for these process radiation monitors will be moved to the ODCM, a licensee-controlled manual that is a part of the St. Lucie 1 and 2 licensing basis. The proposed changes to the TSs are, therefore, consistent with GL 89-01, the NRC's Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors (50 FR 39132) and the previously approved NRC guidance in NUREG-1432, Revision 4.0.

3.2 Unit 2 Containment Particulate Monitor

The current St. Lucie 2 TSs provide requirements for the minimum channels operable, applicable modes, alarm/trip setpoints, and measurement ranges for all of the radiation monitoring instrumentation in TS Table 3.3-6. The current TS Table 3.3-6 requires that the measurement range for the Unit 2 containment particulate monitor be $1 - 10^6$ counts per minute (cpm). The licensee has proposed changing the range of this monitor from $1 - 10^6$ cpm to $10 - 10^7$ cpm to be consistent with the vendor's specifications. The change to the measurement range of the monitor is meant to correct a longstanding legacy error in the TSs where the original TSs incorrectly stated the actual nominal range of the monitor specified by the radiation monitor manufacturer. The proposed change will not prevent the monitor from performing its designed function, which is to detect reactor coolant pressure boundary leakage following a design-basis earthquake. The proposed change also does not impact the licensee's ability to comply with TS 3.4.6, which requires that one containment atmosphere radioactivity monitor (gaseous or particulate) be operable. Therefore, based on the reasons discussed above, the NRC staff finds the proposed change acceptable.

3.3 Technical Summary

The controls, alarm/trip setpoints, and surveillance requirements for the radiation monitoring instrumentation located in TSs 3.3.3.1 and 4.3.3.1 will be moved to the ODCM, a licensee-controlled manual, which is part of the St. Lucie 1 and 2 licensing basis. Changes to the ODCM can only be made in accordance with TS 6.14 or by a license amendment pursuant to 10 CFR 50.90. The licensee would remain subject to the 10 CFR 50.36a requirement to keep average annual releases of radioactive material in effluents ALARA and their resultant committed effective dose equivalent at small percentages of the dose limits specified in 10 CFR 20.1301 and in the license. The proposed changes do not affect any of the St. Lucie 1 or 2 plant systems; structures, systems, or components; or their performance characteristics. Consequently, the licensee maintains the ability to meet 10 CFR 50.47(b)(9) and the criteria of GDC 13, GDC 30, GDC 60, and GDC 64. The proposed changes to the TSs also will not change the licensee's ability to meet the radiation protection requirements in 10 CFR 20.1101; 10 CFR 20.1301; 10 CFR 50.36a; or 10 CFR Part 50, Appendix I, because the amount of radioactive material stored and released in effluents remains unchanged under the revised TSs. Additionally, the proposed changes are consistent with the criteria in 10 CFR 50.36(c)(2) and the previously approved NRC guidance in GL 89-01 and NUREG-1432, Revision 4.0. Therefore, the NRC staff finds these changes acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, on July 13, 2017, 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) of the proposed issuance of the amendments. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

These amendments change inspection or surveillance requirements or requirements with respect to 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 change in the types, or significant increase in the amounts, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. By *Federal Register* notice dated December 6, 2016 (81 FR 87972), the Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on this finding. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, 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.

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Date: August 14, 2017

SUBJECT: ST. LUCIE PLANT, UNIT NOS. 1 AND 2 – ISSUANCE OF AMENDMENTS REGARDING RELOCATION OF RADIATION MONITOR REQUIREMENTS FROM TECHNICAL SPECIFICATIONS TO LICENSEE-CONTROLLED DOCUMENTS (CAC NOS. MF8408 AND MF8409) DATED AUGUST 14, 2017

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