



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

April 26, 2019

Ms. Cheryl A. Gayheart  
Regulatory Affairs Director  
Southern Nuclear Operating Co., Inc.  
3535 Colonnade Parkway  
Birmingham, AL 35243

**SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2; EDWIN I. HATCH NUCLEAR PLANT, UNITS 1 AND 2; AND VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2, ISSUANCE OF AMENDMENTS FOR LICENSE AMENDMENT REQUEST TO REVISE TECHNICAL SPECIFICATION 5.2.2.g. AND UPDATE EMERGENCY PLAN MINIMUM ON-SHIFT STAFF TABLES (EPID L-2018-LLA-0223)**

Dear Ms. Gayheart:

The U.S. Nuclear Regulatory Commission (NRC) has issued the enclosed Amendment No. 222 to Renewed Facility Operating License No. NPF-2 and Amendment No. 219 to Renewed Facility Operating License No. NPF-8 for the Joseph M. Farley Nuclear Plant, Units 1 and 2 (Farley), respectively; Amendment No. 295 to Renewed Facility Operating License No. DPR-57 and Amendment No. 240 to Renewed Facility Operating License No. NPF-5 for the Edwin I. Hatch Nuclear Plant, Units 1 and 2 (Hatch), respectively; and Amendment No. 199 to Renewed Facility Operating License NPF-68 and Amendment No. 182 to Renewed Facility Operating License NPF-81 for the Vogtle Electric Generating Plant (Vogtle), Units 1 and 2, respectively. The amendments consist of changes to the license and technical specifications (TSs) in response to your application dated August 9, 2018, as supplemented by letter dated January 31, 2019.

The amendments revise each plant's TS 5.2.2.g. with equivalent wording, comparable to TS 5.2.2.e in the Standard Technical Specifications. The amendments are based, in part, on Technical Specification Task Force Traveler TSTF-258, "Changes to Section 5.0, Administrative Controls," Revision 4, dated February 5, 1998. The amendments eliminate a dedicated shift technical advisor (STA) position by allowing the STA functions to be combined with one or more of the required senior licensed operator positions. The amendments also incorporate wording related to the modes of operation but allows the same individual to provide advisory technical support for both units.

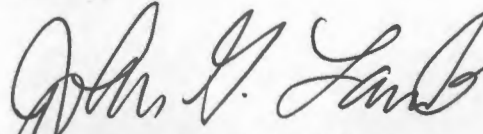
Additionally, the amendments approve the revision to the minimum on-shift staffing tables in the Hatch and Farley annexes associated with the Southern Nuclear Operating Company, Inc. (SNC) standard emergency plan (SEP) and an accompanying editorial change in the SEP. This change reduces the total number of required on-shift personnel, which is considered a reduction in the effectiveness of the Hatch and Farley emergency plans (EPs) requiring NRC approval pursuant to Title 10 of the *Code of Federal Regulations*, Section 50.54(q)(4).

C. Gayheart

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

Sincerely,



John G. Lamb, Sr. Project Manager  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-321, 50-366, 50-348,  
50-364, 50-424, and 50-425

Enclosures:

1. Amendment No. 222 to NPF-2
2. Amendment No. 219 to NPF-8
3. Amendment No. 295 to DPR-57
4. Amendment No. 240 to NPF-5
5. Amendment No. 199 to NPF-68
6. Amendment No. 182 to NPF-81
7. Safety Evaluation

cc: Listserv



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

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

ALABAMA POWER COMPANY

DOCKET NO. 50-348

JOSEPH M. FARLEY NUCLEAR PLANT, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 222  
Renewed License No. NPF-2

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Southern Nuclear Operating Company, Inc. (Southern Nuclear), dated August 9, 2019, as supplemented by letter dated January 31, 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 license 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.

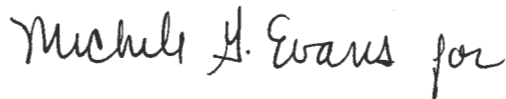
2. Accordingly, the license is amended by changes to the Technical Specifications, as indicated in the attachment to this license amendment; and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-2 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 222, are hereby incorporated in the renewed license. Southern Nuclear 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



Ho K. Nieh, Director  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: April 26, 2019



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

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

ALABAMA POWER COMPANY

DOCKET NO. 50-364

JOSEPH M. FARLEY NUCLEAR PLANT, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 219  
Renewed License No. NPF-8

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Southern Nuclear Operating Company, Inc. (Southern Nuclear), dated August 9, 2018, as supplemented by letter dated January 31, 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 license 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 2.C.(2) of Renewed Facility Operating License No. NPF-8 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 219, are hereby incorporated in the renewed license. Southern Nuclear 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

*Michelle A. Evans for*

Ho K. Nieh, Director  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: April 26, 2019

ATTACHMENT

JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2

TO LICENSE AMENDMENT NO. 222

TO RENEWED FACILITY OPERATING LICENSE NO. NPF-2

DOCKET NO. 50-348

AND

TO LICENSE AMENDMENT NO. 219

TO RENEWED FACILITY OPERATING LICENSE NO. NPF-8

DOCKET NO. 50-364

Replace the following pages of the License and Appendix "A" Technical Specifications (TSs) with the enclosed pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove Pages

License

License No. NPF-2, page 4

License No. NPF-8, page 3

TSs

5.2-3

Insert Pages

License

License No. NPF-2, page 4

License No. NPF-8, page 3

TSs

5.2-3

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 222, are hereby incorporated in the renewed license. Southern Nuclear shall operate the facility in accordance with the Technical Specifications.

(3) Additional Conditions

The matters specified in the following conditions shall be completed to the satisfaction of the Commission within the stated time periods following the issuance of the renewed license or within the operational restrictions indicated. The removal of these conditions shall be made by an amendment to the renewed license supported by a favorable evaluation by the Commission.

- a. Southern Nuclear shall not operate the reactor in Operational Modes 1 and 2 with less than three reactor coolant pumps in operation.
- b. Deleted per Amendment 13
- c. Deleted per Amendment 2
- d. Deleted per Amendment 2
- e. Deleted per Amendment 152  
Deleted per Amendment 2
- f. Deleted per Amendment 158
- g. Southern Nuclear shall maintain a secondary water chemistry monitoring program to inhibit steam generator tube degradation. This program shall include:
  - 1) Identification of a sampling schedule for the critical parameters and control points for these parameters;
  - 2) Identification of the procedures used to quantify parameters that are critical to control points;
  - 3) Identification of process sampling points;
  - 4) A procedure for the recording and management of data;
  - 5) Procedures defining corrective actions for off control point chemistry conditions; and



- (2) Alabama Power Company, pursuant to Section 103 of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess but not operate the facility at the designated location in Houston County, Alabama in accordance with the procedures and limitations set forth in this renewed license.
- (3) Southern Nuclear, 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) Southern Nuclear, 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) Southern Nuclear, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproducts, 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) Southern Nuclear, 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.

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 incorporate below:

(1) Maximum Power Level

Southern Nuclear is authorized to operate the facility at reactor core power levels not in excess of 2775 megawatts thermal.

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 219, are hereby incorporated in the renewed license. Southern Nuclear shall operate the facility in accordance with the Technical Specifications.

- (3) Delete per Amendment 144
- (4) Delete Per Amendment 149
- (5) Delete per Amend 144

5.2 Organization

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5.2.2 Unit Staff (continued)

- f. The operations manager or at least one assistant operations manager shall hold an SRO license.
  
  - g. An individual shall provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. This individual shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift. This individual shall be available for duty when an operating unit is in MODE 1, 2, 3, or 4. This same individual may provide advisory technical support for both units.
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UNITED STATES  
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WASHINGTON, D.C. 20555-0001

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

GEORGIA POWER COMPANY

OGLETHORPE POWER CORPORATION

MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA

CITY OF DALTON, GEORGIA

DOCKET NO. 50-321

EDWIN I. HATCH NUCLEAR PLANT, UNIT NO. 1

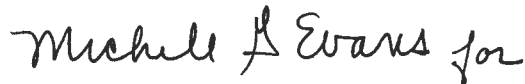
AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 295  
Renewed License No. DPR-57

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment to the Edwin I. Hatch Nuclear Plant, Unit No. 1 (the facility) Renewed Facility Operating License No. DPR-57 filed by Southern Nuclear Operating Company, Inc. (the licensee), acting for itself, Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the owners), dated August 9, 2018, as supplemented by letter dated January 31, 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 as 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 set forth in 10 CFR Chapter I;
  - 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 hereby amended by page 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. DPR-57 is hereby amended to read as follows:
- (2) Technical Specifications
- The Technical Specifications (Appendix A) and the Environmental Protection Plan (Appendix B), as revised through Amendment No. 295, are hereby incorporated in the renewed license. Southern Nuclear 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 from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Ho K. Nieh, Director  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to Renewed Facility  
Operating License No. DPR-57  
and Technical Specifications

Date of Issuance: April 26, 2019

ATTACHMENT TO LICENSE AMENDMENT NO. 295

EDWIN I. HATCH NUCLEAR PLANT, UNIT NO. 1

RENEWED FACILITY OPERATING LICENSE NO. DPR-57

DOCKET NO. 50-321

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

Remove Pages

Insert Pages

License

License No. DPR-57, page 4

License

License No. DPR-57, page 4

TSs

5.0-4

TSs

5.0-4

for sample analysis or instrumentation calibration, or associated with radioactive apparatus or components;

- (6) Southern Nuclear, 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 the facility.
- (C) This renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I; Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Section 50.54 of Part 50, and Section 70.32 of Part 70; all applicable provisions of the Act and the rules, regulations, and orders of the Commission now or hereafter in effect; and the additional conditions specified or incorporated below:

(1) Maximum Power Level

Southern Nuclear is authorized to operate the facility at steady state reactor core power levels not in excess of 2804 megawatts thermal.

(2) Technical Specifications

The Technical Specifications (Appendix A) and the Environmental Plan (Appendix B), as revised through Amendment No. 295 are hereby incorporated in the renewed license. Southern Nuclear shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

The Surveillance Requirement (SR) contained in the Technical Specifications and listed below, is not required to be performed immediately upon implementation of Amendment No. 195. The SR listed below shall be successfully demonstrated before the time and condition specified:

SR 3.8.1.18 shall be successfully demonstrated at its next regularly scheduled performance.

(3) Fire Protection

Southern Nuclear shall implement and maintain in effect all provisions of the fire protection program, which is referenced in the Updated Final Safety Analysis Report for the facility, as contained in the updated Fire Hazards Analysis and Fire Protection Program for the Edwin I. Hatch Nuclear Plant, Units 1 and 2, which was originally submitted by letter dated July 22, 1986. Southern Nuclear may make changes to the fire protection program without prior Commission approval only if the changes

## 5.2 Organization

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### 5.2.2 Unit Staff (continued)

- f. The operations manager or at least one assistant operations manager shall hold an SRO license.
  - g. An individual shall provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. This individual shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift. This individual shall be available for duty when an operating unit is in MODE 1, 2 or 3. This same individual may provide advisory technical support for both units.
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WASHINGTON, D.C. 20555-0001

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

GEORGIA POWER COMPANY

OGLETHORPE POWER CORPORATION

MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA

CITY OF DALTON, GEORGIA

DOCKET NO. 50-366

EDWIN I. HATCH NUCLEAR PLANT, UNIT NO. 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 240  
Renewed License No. NPF-5

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment to the Edwin I. Hatch Nuclear Plant, Unit No. 2 (the facility) Renewed Facility Operating License No. NPF-5 filed by Southern Nuclear Operating Company, Inc. (the licensee), acting for itself, Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the owners), dated August 9, 2019, as supplemented by letter dated by January 31, 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 as 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 set forth in 10 CFR Chapter I;
  - 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.



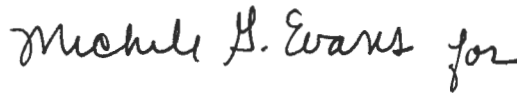
2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-5 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications (Appendix A) and the Environmental Protection Plan (Appendix B), as revised through Amendment No. 240 are hereby incorporated in the renewed license. Southern Nuclear 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 from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Ho K. Nieh, Director  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to Renewed Facility  
Operating License No. NPF-5  
and Technical Specifications

Date of Issuance: April 26, 2019

ATTACHMENT TO LICENSE AMENDMENT NO. 240

EDWIN I. HATCH NUCLEAR PLANT, UNIT NO. 2

RENEWED FACILITY OPERATING LICENSE NO. NPF-5

DOCKET NO. 50-366

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

Remove Pages

Insert Pages

License

License No. NPF-5, page 4

License

License No. NPF-5, page 4

TSs

5.0-4

TSs

5.0-4

- (6) Southern Nuclear, 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 the facility.
- (C) This renewed license shall be deemed to contain, and is subject to, the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Section 50.54 of Part 50, and Section 70.32 of Part 70; all applicable provisions of the Act and the rules, regulations, and orders of the Commission now or hereafter in effect; and the additional conditions<sup>2</sup> specified or incorporated below:

(1) Maximum Power Level

Southern Nuclear is authorized to operate the facility at steady state reactor core power levels not in excess of 2,804 megawatts thermal, in accordance with the conditions specified herein.

(2) Technical Specifications

The Technical Specifications (Appendix A) and the Environmental Protection Plan (Appendix B); as revised through Amendment No. 240 are hereby incorporated in the renewed license. Southern Nuclear shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) Additional Conditions

The matters specified in the following conditions shall be completed to the satisfaction of the Commission within the stated time periods following the issuance of the renewed license or within the operational restrictions indicated. The removal of these conditions shall be made by an amendment to the license supported by a favorable evaluation by the Commission.

(a) Fire Protection

Southern Nuclear shall implement and maintain in effect all provisions of the fire protection program, which is referenced in the Updated Final Safety Analysis Report for the facility, as contained

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<sup>2</sup> The original licensee authorized to possess, use, and operate the facility with Georgia Power Company (GPC). Consequently, certain historical references to GPC remain in certain license conditions.

5.2 Organization

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5.2.2 Unit Staff (continued)

- f. The operations manager or assistant operations manager shall hold an SRO license.
  
  - g. An individual shall provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. This individual shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift. This individual shall be available for duty when an operating unit is in MODE 1, 2 or 3. This same individual may provide advisory technical support for both units.
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SOUTHERN NUCLEAR OPERATING COMPANY, INC.

GEORGIA POWER COMPANY

OGLETHORPE POWER CORPORATION

MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA

CITY OF DALTON, GEORGIA

DOCKET NO. 50-424

VOGTLE ELECTRIC GENERATING PLANT, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 199  
Renewed License No. NPF-68

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment to the Vogtle Electric Generating Plant, Unit 1 (the facility) Renewed Facility Operating License No. NPF-68 filed by the Southern Nuclear Operating Company, Inc. (the licensee), acting for itself, Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the owners), dated August 9, 2019, as supplemented by letter dated January 31, 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 as 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 set forth in 10 CFR Chapter I;
  - 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.

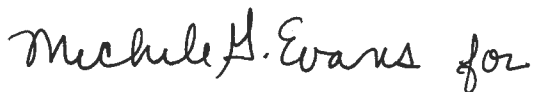
2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-68 is hereby amended to read as follows:

Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 199, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. Southern Nuclear 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



Ho K. Nieh, Director  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to License No. NPF-68  
and the Technical Specifications

Date of Issuance: April 26, 2019



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

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

GEORGIA POWER COMPANY

OGLETHORPE POWER CORPORATION

MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA

CITY OF DALTON, GEORGIA

DOCKET NO. 50-425

VOGTLE ELECTRIC GENERATING PLANT, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 182  
Renewed License No. NPF-81

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment to the Vogtle Electric Generating Plant, Unit 2 (the facility) Renewed Facility Operating License No. NPF-81 filed by the Southern Nuclear Operating Company, Inc. (the licensee), acting for itself, Georgia Power Company Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the owners), dated August 9, 2018, as supplemented by letter dated January 31, 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 as 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 set forth in 10 CFR Chapter I;
  - 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.

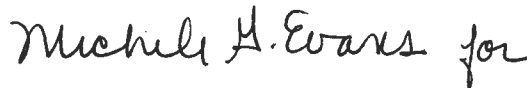
2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-81 is hereby amended to read as follows:

Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 182, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. Southern Nuclear 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



Ho K. Nieh, Director  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to License No. NPF-81  
and the Technical Specifications

Date of Issuance: April 26, 2019



ATTACHMENT

VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2

TO LICENSE AMENDMENT NO. 199

RENEWED FACILITY OPERATING LICENSE NO. NPF-68

DOCKET NO. 50-424

AND

TO LICENSE AMENDMENT NO. 182

RENEWED FACILITY OPERATING LICENSE NO. NPF-81

DOCKET NO. 50-425

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

Remove Pages

License

License No. NPF-68, page 4  
License No. NPF-81, page 3

TSs

5.2-3

Insert Pages

License

License No. NPF-68, page 4  
License No. NPF-81, page 3

TSs

5.2-3

(1) Maximum Power Level

Southern Nuclear is authorized to operate the facility at reactor core power levels not in excess of 3625.6 megawatts thermal (100 percent power) in accordance with the conditions specified herein.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 199, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. Southern Nuclear shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) Southern Nuclear Operating Company shall be capable of establishing containment hydrogen monitoring within 90 minutes of initiating safety injection following a loss of coolant accident.

(4) Deleted

(5) Deleted

(6) Deleted

(7) Deleted

(8) Deleted

(9) Deleted

(10) Mitigation Strategy License Condition

The licensee shall develop and maintain strategies for addressing large fires and explosions and that include the following key areas:

- (a) Fire fighting response strategy with the following elements:
  - 1. Pre-defined coordinated fire response strategy and guidance
  - 2. Assessment of mutual aid fire fighting assets
  - 3. Designated staging areas for equipment and materials
  - 4. Command and control
  - 5. Training and response personnel
  
- (b) Operations to mitigate fuel damage considering the following:
  - 1. Protection and use of personnel assets
  - 2. Communications
  - 3. Minimizing fire spread
  - 4. Procedures for implementing integrated fire response strategy
  - 5. Identification of readily-available pre-staged equipment
  - 6. Training on integrated fire response strategy

- (2) Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia, pursuant to the Act and 10 CFR Part 50, to possess but not operate the facility at the designated location in Burke County, Georgia, in accordance with the procedures and limitations set forth in this license;
- (3) Southern Nuclear, 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) Southern Nuclear, 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) Southern Nuclear, 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;
- (6) Southern Nuclear, 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.

C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter 1 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

Southern Nuclear is authorized to operate the facility at reactor core power levels not in excess of 3625.6 megawatts thermal (100 percent power) in accordance with the conditions specified herein.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 182, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. Southern Nuclear shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

The Surveillance requirements (SRs) contained in the Appendix A Technical Specifications and listed below are not required to be performed immediately upon implementation of Amendment No. 74. The SRs listed below shall be

5.2 Organization

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5.2.2 Unit Staff (continued)

- f. The operations manager or at least one assistant operations manager shall hold an SRO license.
  
  - g. An individual shall provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. This individual shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift. This individual shall be available for duty when an operating unit is in MODE 1, 2, 3, or 4. This same individual may provide advisory technical support for both units.
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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO

AMENDMENT NO. 222 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-2

AMENDMENT NO. 219 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-8

AMENDMENT NO. 295 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-57

AMENDMENT NO. 240 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-5

AMENDMENT NO. 199 TO RENEWED FACILITY OPERATING LICENSE NPF-68

AND

AMENDMENT NO. 182 TO RENEWED FACILITY OPERATING LICENSE NPF-81

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2

EDWIN I. HATCH NUCLEAR PLANT, UNITS 1 AND 2

VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2

DOCKET NOS. 50-348, 50-364, 50-321, 50-366, 50-424 AND 50-425

1.0 INTRODUCTION

By application dated August 9, 2018 (Reference 1), as supplemented by letter dated January 31, 2019 (Reference 2), Southern Nuclear Operating Company, Inc. (SNC, the licensee), requested changes to the technical specifications (TSs) for the Joseph M. Farley Nuclear Plant, Units 1 and 2 (Farley); Edwin I. Hatch Nuclear Power Plant, Units 1 and 2 (Hatch); and Vogtle Electric Generating Plant (Vogtle), Units 1 and 2.

The amendments revise TS 5.2.2.g. of each plant's TS with equivalent wording, comparable to TS 5.2.2.e in the Standard Technical Specifications (STS). The amendments are based, in part, on Technical Specification Task Force (TSTF) Traveler TSTF-258, "Changes to Section 5.0,

Administrative Controls,” Revision 4 (Reference 3). The amendments eliminate a dedicated shift technical advisor (STA) position by allowing the STA functions to be combined with one or more of the required senior licensed operator positions. The amendments also incorporate wording related to the modes of operation but allows the same individual to provide advisory technical support for both units.

Additionally, the amendments approve the revision to the minimum on-shift staffing tables in the Hatch and Farley annexes associated with the SNC standard emergency plan (SEP) and an accompanying editorial change in the SEP. This change reduces the total number of required on-shift personnel, which is considered a reduction in the effectiveness of the Hatch and Farley emergency plans (EPs) requiring U.S. Nuclear Regulatory Commission (NRC) approval pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Section 50.54(q)(4).

By letter dated June 28, 2004 (Reference 4), the NRC issued Amendments Nos. 132 and 111 for Vogtle, Units 1 and 2, respectively, to revise the requirements for the STA.

The supplement dated January 31, 2019, 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 as published the *Federal Register* on October 23, 2018 (83 FR 53515).

## 2.0 REGULATORY EVALUATION

Section 182a of the Atomic Energy Act of 1954, as amended (the “Act”) (Reference 5) requires applicants for nuclear power plant operating licenses to include TSs as a part of the license. The TSs ensure the operational capability of structures, systems, and components that are required to protect the health and safety of the public. The NRC’s regulatory requirements that are related to the content of the TSs are contained in 10 CFR 50.36(c). The regulation 10 CFR 50.36, “Technical specifications,” requires that the TSs include items in the following specific categories: (1) safety limits, limiting safety system settings, and limiting control settings; (2) limiting conditions for operation; (3) surveillance requirements; (4) design features; and (5) administrative controls.

Pursuant to 10 CFR 50.90, “Application for amendment of license, construction permit, or early site permit,” a licensee may apply for an amendment to its license, including the TSs incorporated into the license. In determining the acceptability of the proposed changes, the NRC staff applies the requirements of 10 CFR 50.36. Within this general framework, licensees may revise their current TSs provided that a plant-specific review supports a finding of continued adequate safety because: (1) the change is editorial, administrative, or produces clarification (i.e., no requirements are materially altered); (2) the change is more restrictive than the licensee’s current requirement; or (3) the change is less restrictive than the licensee’s current requirement, but continues to afford adequate assurance of safety when judged against current regulatory standards.

Following the accident at Three Mile Island Unit 2 in March 1979, the NRC identified the need for power reactor licensees to assign an on-shift technical advisor who could provide engineering and accident assessment expertise to the shift supervisor in the event of abnormal or accident conditions. This position was designated as the STA. The qualifications for the person occupying the STA position are contained in the “Commission Policy Statement on Engineering Expertise on Shift,” published in the *Federal Register* on October 28, 1985 (50 FR 43621), Regulatory Guide (RG) 1.8, Revision 3 (May 2000) (Reference 6), and

NUREG-0737, "Clarification of TMI Action Plan Requirements," Item I.A.1.1, dated November 1980 (Reference 7). The STA qualifications include a bachelor's degree in engineering or equivalent, plus specific training in plant design, layout, and controls. The Commission's Policy Statement on Engineering Expertise on Shift provided two options for meeting the staffing requirements in 10 CFR 50.54(m)(2) and NUREG-0737, Item I.A.1.1. It allows either an on-shift dedicated STA, who meets the STA criteria of NUREG-0737, Item I.A.1.1, or an individual assigned to each operating shift crew who is a licensed Senior Reactor Operator (SRO) on the nuclear power unit(s) to which he or she is assigned who meets the STA requirements of NUREG-0737, Item I.A.1.1.

The planning standards in 10 CFR 50.47(b) establish the requirements that the onsite and offsite emergency response plans must meet for the NRC staff to make a finding that there is reasonable assurance that the licensee can, and will, take adequate protective measures in the event of a radiological emergency. Specifically, on-shift and augmented Emergency Response Organization (ERO) staffing is addressed under 10 CFR 50.47(b)(2), which states:

On-shift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available, and the interfaces among various onsite response activities and offsite support and response activities are specified.

Section IV, Part A, "Organization," of Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," to 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," states, in part, that "The organization for coping with radiological emergencies shall be described, including definition of authorities, responsibilities, and duties of individuals assigned to the licensee's emergency organization."

The regulation 10 CFR 50.54, "Conditions of licenses," contains 10 CFR 50.54(m)(2)(i), which describes minimum licensed operator staffing requirements, and also contains 10 CFR 50.54(q)(4), which requires prior NRC approval for changes to a licensee's emergency plan that reduces the effectiveness of the plan.

Regulatory Guide 1.101, Revision 2, "Emergency Planning and Preparedness for Nuclear Power Reactors," issued October 1981 (Reference 8), provides guidance on methods acceptable to the NRC staff for implementing specific parts of the NRC's regulations in this case, 10 CFR 50.47(b)(2) and Appendix E to 10 CFR Part 50, Section IV, Part A. Regulatory Guide 1.101 endorses Revision 1 to NUREG-0654/FEMA-REP-1 (hereafter referred to as NUREG-0654), "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," issued November 1980 (Reference 9), which provides evaluation criteria, which serve as an acceptable means of complying with the planning standards set forth in 10 CFR 50.47(b). These evaluation criteria also provide a basis for NRC licensees, and State and local governments to develop acceptable radiological emergency preparedness plans.

NUREG-0654, Section II, "Planning Standards and Evaluation Criteria," Evaluation Criteria II.B.1 and II.B.5, specifically address planning standard 10 CFR 50.47(b)(2).

Evaluation Criterion II.B.1 states:

Each licensee shall specify the onsite emergency organization of plant staff personnel for all shifts and its relation to the responsibilities and duties of the normal shift complement.

Evaluation Criterion II.B.5 states, in part:

Each licensee shall specify the positions or title and major tasks to be performed by the persons to be assigned to the functional areas of emergency activity. For emergency situations, specific assignments shall be made for all shifts and for plant staff members, both onsite and away from the site. These assignments shall cover the emergency functions in Table B-1 entitled, "Minimum Staffing Requirements for Nuclear Power Plant Emergencies." The minimum on-shift staffing levels shall be as indicated in Table B-1. The licensee must be able to augment on-shift capabilities within a short period after declaration of an emergency. This capability shall be as indicated in Table B-1.

The Regulatory Guide, NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition," Chapter 13, Section 13.1.2-13.1.3, "Operating Organization," Revision 7, issued August 2016 (Reference 10), provides guidance for the review of the operating organization of applicants, including the structure, functions, and responsibilities of the onsite organization established to safely operate and maintain the facility.

Generic Letter (GL) 86-04, "Policy Statement on Engineering Expertise on Shift," dated February 13, 1986 (Reference 11), describes the Commission's Policy Statement on Engineering Expertise on Shift and explains that the Policy Statement offers two options for meeting the current requirements for providing engineering expertise on shift and meeting licensed operator staffing requirements.

Regulatory Issue Summary 2016-10, "License Amendment Requests for Changes to Emergency Response Organization Staffing and Augmentation," dated August 5, 2016 (Reference 12), provides examples of the scope and detail of information that should be provided in a license amendment request (LAR) for ERO staffing changes to facilitate NRC review.

By letter dated June 12, 2018 (Reference 13), the NRC staff provided alternative guidance to Evaluation Criterion II.B.5 in NUREG 0654 for minimum ERO on-shift and augmentation staffing. The letter stated, in part:

The NRC has revised Section II.B, Table B-1 of NUREG-0654, based in part on comments received from the public on the draft Revision 2 of NUREG-0654, located at [www.regulations.gov](http://www.regulations.gov) under Docket ID FEMA-2012-0026. The revised ERO staffing guidance has been finalized, and the NRC will include it when the entire NUREG-0654, Revision 2, is ready for issuance. Until then, the NRC staff is making available on an interim basis the ERO on-shift and augmentation staffing plan (attached). Regardless of whether a licensee chooses to use the guidance contained in Revision 1 of NUREG-0654, the attached, or an alternative approach, licensees are still required to adhere to 10 CFR 50.54(q) when revising their ERO staffing plans.



Henceforth, this guidance will be referred to as the "revised NUREG-0654 Table B-1," in this safety evaluation.

### 3.0 TECHNICAL EVALUATION

#### 3.1 Proposed Change

SNC proposes to revise TS 5.2.2.g. to eliminate a dedicated STA position by allowing the STA functions to be combined with one or more of the required SRO positions. The proposed TS revision would also add Mode-specific requirements for the STA function (Modes 1, 2, 3, and 4 for Farley and Vogtle, Units 1 and 2; Modes 1, 2 and 3 for Hatch) and specify that the same individual may provide advisory technical support for both units at the facility site.

The licensee also proposes to revise the minimum on-shift staffing Table 2.2.A in the annexes associated with the SNC SEP and to make an accompanying editorial change in the SEP for Hatch and Farley. The proposed changes would revise the position "Shift Support Supervisor/Shift Technical Advisor (SRO/STA)" to "Shift Support Supervisor or other trained individual." The designation of a separate individual to perform the task of "Technical Support," associated with the revised position would be eliminated and replaced with a Note 2 in the table stating, "May be provided by shift personnel assigned other functions."

#### 3.2 NRC Staff Evaluation of TS Changes

The Commission's Policy Statement on Engineering Expertise on Shift provides licensees with two options for meeting the current requirements for providing engineering expertise on shift (NUREG-0737, Item I.A.1.1).

Option 1: Combined SRO/STA Position, is satisfied by assigning one of the required SRO positions to be combined with the STA position into a dual-role SRO/STA position. Option 2: Continued use of STA Position, is satisfied by placing on each shift a dedicated STA who meets the STA criteria in NUREG-0737, Item I.A.1.1. In addition, GL 86-04 notes that the Commission encourages licensees to use Option 1, the dual-role SRO/STA. Under SNC's proposed change, the STA function to provide technical expertise on shift may be fulfilled by either an STA-qualified individual in the shift command structure or a separate individual. The licensee proposed to implement Option 1 of the Commission Policy Statement on Engineering Expertise on Shift with the revision to TS 5.2.2.g.

Guidance in NUREG-0737, Item I.A.1.1, References, and includes as Appendix C, the Institute of Nuclear Power Operations (INPO) document, "Nuclear Power Plant Shift Technical Advisor: Recommendations for Position Description, Qualifications, Education and Training," Revision 0. Section 4, "Position Description," of the INPO document describes STA general duties and typical responsibilities that include the following:

- Maintain independence from normal plant operations as necessary to make objective evaluations of plant operations and to advise or assist plant supervision in correcting conditions that may compromise the safety of operations.
- During transients and accidents, compare existing critical parameters, (i.e., neutron power level; reactor coolant system level, pressure and temperature; containment pressure, temperature, humidity and radiation level; and plant radiation levels) with those predicted in the Plant Transient and Accident Analysis, to ascertain whether the plant is

responding to the incident as predicted. Report any abnormalities to the Shift Supervisor immediately and provide assistance in formulating a plan for appropriate corrective action.

In addition, the INPO document states the following:

The STA is accountable for the following end results:

- (1) Contributes to maximizing safety of operations by independently observing plant status and advising shift supervision of conditions that could compromise plant safety.
- (2) Contributes to maximizing plant safety during transient or accident situations by independently assessing plant conditions and by providing the technical assistance necessary to mitigate the incident and minimize the effect on personnel, the environment, and plant equipment.

The proposed revisions to the minimum on-shift staffing Table 2.2.A in the SNC SEP annexes for Hatch and Farley remove the STA position as an individual distinct from the Shift Support Supervisor to fulfill the "Major Task" of technical support associated with the "Major Functional Area" of plant system engineering, repair and corrective actions. The licensee noted in the LAR dated August 9, 2018, that detailed staffing studies performed in 2012 for Hatch and Farley were re-evaluated and updated to ensure the revised minimum staffing eliminating the STA position did not result in emergency response staff responsibility conflicts. The licensee's supplement dated January 31, 2019, also noted that the staffing study to support the proposed LAR was performed in accordance with Nuclear Energy Institute (NEI) 10-05, "Assessment of On-Shift Emergency Response Organization Staffing and Capabilities," Revision 0, (Reference 14), which is endorsed by the NRC per Interim Staff Guidance (ISG) NSIR/DPR-ISG-01, "Emergency Planning for Nuclear Power Plants," (Reference 15). NEI 10-05 Table 2.1, "Staffing Analysis Methodology for DBAs [design basis accidents] and DBT [design basis transient]," assigns the major functional area of "Emergency Direction and Control," to position titles that include STA as well as Shift Supervisor or designated facility manager. The endorsed methodology contained in NEI 10-05 also incorporates the assignment of the STA function to the Shift Manager.

Under SNC's proposed change, the STA function to provide technical expertise on shift may be fulfilled by either an STA-qualified individual in the shift command structure or a separate individual. The proposed TS 5.2.2.g. revision implements Option 1 of the Commission Policy Statement on Engineering Expertise on Shift. The proposed TS 5.2.2.g. satisfies Option 1 by assigning an individual with the specified technical qualifications to provide expertise regarding thermal hydraulics, reactor engineering and plant analysis to each operating crew. The Mode restrictions for the STA function included in the TS 5.2.2.g. revision are consistent with NUREG-0737, Enclosure 3, item I.A.1.1 regarding Modes 1-4 for Pressurized Water Reactors (Farley and Vogtle 1 and 2) and Modes 1-3 for Boiling Water Reactors (Hatch).

The TS 5.2.2.g. revisions for Hatch and Vogtle, Units 1 and 2, respectively, also include changes that implement the same individual providing the STA function for both units on site. Section 3.0 of the licensee's LAR dated August 9, 2018, states the following:

The STA training programs at HNP [Hatch], FNP [Farley], and VEGP [Vogtle] Units 1 and 2 provide for dual unit STA qualification and include dissimilarity training between the units. Therefore, an individual providing advisory technical support is qualified to perform the advisor function for both units.

The TS 5.2.2.g. revisions for Hatch and Vogtle, Units 1 and 2, respectively, implementing the same individual providing the STA function for both units on site is in accordance with NUREG-0737, Enclosure 3, item I.A.1.1 position statement. TS 5.2.2.g. for Farley currently includes this provision.

The NRC staff finds that the licensee's proposed revision to TS 5.2.2.g. for Hatch, Farley, and Vogtle, Units 1 and 2, respectively, appropriately implement Option 1 of the Commission Policy Statement on Engineering Expertise on Shift as described in GL 86-04 consistent with NUREG-0737, Enclosure 3, item I.A.1.1, and is, therefore, acceptable. In addition, the NRC staff finds that the licensee's proposed changes to the SNC SEP annexes for Hatch and Farley assigning the STA function to the Shift Manager or Shift Supervisor position are consistent with the NRC endorsed methodology contained in NEI 10-05.

### 3.3 NRC Staff Evaluation of SEP Changes

In the application dated August 9, 2018, as supplemented by letter dated January 31, 2019, SNC provided a justification for the proposed changes to the SNC SEP, and the Hatch and Farley SEP Annexes changes that included a technical evaluation of the STA tasks in support of the Plant System Engineering, Repair and Corrective Actions Major Functional Area described in revised NUREG-0654, Table B-1. SNC proposed to change the current Hatch and Farley SEP Annexes such that the STA tasks could be assigned to an individual filling one of the required SRO positions and no longer performed by a dedicated individual.

The alternative guidance provided in the revised NUREG-0654 Table B-1 includes one on-shift Core/Thermal Hydraulics Engineer, whose responsibility is to "[e]valuate reactor conditions." The revised NUREG-0654 Table B-1 also provides that other personnel may perform this function provided that no collateral duties are assigned that are beyond the capability of the individual to perform at any given time.

SNC provided that an on-shift individual will continue to be available to provide advisory technical support to the Operations shift crews and that this individual will meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift, as published in the *Federal Register* on October 28, 1985 (50 FR 43621). SNC further provides in its letter dated January 31, 2019, that Hatch and Farley will be prohibited from concurrently being assigned STA and fire brigade duties.

The description of the technical service center Reactor Engineer position in the SNC SEP was changed to reflect that the Reactor Engineer would be relieving the Shift Manager or Shift Supervisor, vice the STA position, of the core thermal analysis responsibilities. Table 2.2.A, "Hatch/Farley Nuclear Plant On-Shift Staffing," in the Farley and Hatch Annexes was also changed to remove Reference to the STA position.

With the continued use of an on-shift individual, who meets the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift, to provide technical support to the Operations shift crew, the NRC staff concludes that the proposed changes will not result in a loss of function or impact the timing for the Plant System Engineering, Repair and Corrective Actions Major Functional Area and is, therefore, acceptable.

#### 3.4 Technical Summary

Based on the above, the NRC staff finds that the proposed changes to the SNC SEP, and the Hatch and Farley SEP Annexes, continue to meet planning standard 10 CFR 50.47(b)(2) and the requirements in Sections IV.A Appendix E of 10 CFR Part 50, and as such, provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. Therefore, the NRC staff concludes that the proposed changes to the SNC SEP, and the Hatch and Farley SEP Annexes, as described in the application dated August 9, 2018, as supplemented by letter dated January 31, 2019, are acceptable.

In addition, the NRC staff finds that the licensee's proposed revision to TS 5.2.2.g for Hatch, Farley, and Vogtle, Units 1 and 2, respectively, appropriately implements Option 1 of the Commission Policy Statement on Engineering Expertise on Shift as described in GL 86-04 consistent with NUREG-0737, Enclosure 3, item I.A.1.1, and is, therefore, acceptable.

#### 4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the State of Alabama official, and the State of Georgia official was notified on March 19, 2019, of the proposed issuance of the amendments. The State officials had no comments.

#### 5.0 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 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 on October 23, 2018 (83 FR 53515). 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.

## 7.0 REFERENCES

1. Southern Nuclear Operating Co., Inc. (SNC) letter to U.S. Nuclear Regulatory Commission, "Joseph M. Farley, Units 1 and 2; Edwin I. Hatch, Units 1 and 2; and Vogtle, Units 1 and 2 - License Amendment Request to Revise Technical Specification 5.2.2.g and Update Emergency Plan Minimum On-shift Staff Tables," dated August 9, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18226A108).
2. Southern Nuclear Operating Co., Inc. (SNC) letter to U.S. Nuclear Regulatory Commission, "Joseph M. Farley, Units 1 and 2; Edwin I. Hatch, Units 1 and 2; and Vogtle, Units 1 and 2 - Response to Request for Information Regarding License Amendment Request to Revise Technical Specification 5.2.2.g. and Update Emergency Plan Minimum On-Shift Staff Tables," dated January 31, 2019 (ADAMS Accession No. ML19031C836).
3. U.S. Nuclear Regulatory Commission, Industry/TSTF Standard Technical Specification Change Traveler, TSTF-258, Revision 4, February 5, 1998 (ADAMS Accession No. ML040620102).
4. U.S. Nuclear Regulatory Commission, Vogtle electric Generating Plant, Units 1 and 2 regarding "Issuance of Amendments to Revise the Requirements of the Shift Technical Advisor in Section 5.2.2.g. of the Technical Specifications," dated June 28, 2004 (ADAMS Accession No. ML041800635).
5. U.S. Nuclear Regulatory Commission, Nuclear Regulatory Legislation, Office of the General Counsel, "Atomic Energy Act of 1954, as Amended," September 2013 (ADAMS Accession No. ML13274A489)
6. U.S. Nuclear Regulatory Commission, Regulatory Guide 1.8, Revision 3, "Qualification and Training of Personnel for Nuclear Power Plants," May 2000 (ADAMS Accession No. ML003706932).
7. U.S. Nuclear Regulatory Commission, NUREG-0737, "Clarification of TMI [Three Mile Island] Action Plan Requirements," November 1980 (ADAMS Accession No. ML051400209).
8. U.S. Nuclear Regulatory Commission, Regulatory Guide 1.101, Revision 2, "Emergency Planning and Preparedness for Nuclear Power Reactors," October 1981 (ADAMS Accession No. ML090440294).
9. U.S. Nuclear Regulatory Commission, NUREG-0654/FEMA-REP-1, Revision 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980 (ADAMS Accession No. ML040420012).
10. U.S. Nuclear Regulatory Commission, NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition" (ADAMS Accession No. ML15007A296).

11. U.S. Nuclear Regulatory Commission, Generic Letter (GL) 86-04, "Policy Statement on Engineering Expertise on Shift," February 13, 1986.
12. U.S. Nuclear Regulatory Commission, Regulatory Issue Summary (RIS) 2016-10, "License Amendment Requests for Changes to Emergency Response Organization Staffing and Augmentation," dated August 5, 2016 (ADAMS Accession No. ML16124A002).
13. Kahler, R., U.S. Nuclear Regulatory Commission, letter to Susan Perkins-Grew, Nuclear Energy Institute, "Alternative Guidance for Licensee Emergency Response Organizations," dated June 12, 2018 (ADAMS Accession No. ML18022A352).
14. U.S. Nuclear Regulatory Commission, Interim Staff Guidance (ISG) NSIR/DPR/ISG-01, "Emergency Planning for Nuclear Power Plants" (ADAMS Accession No. ML113010523).
15. Nuclear Energy Institute (NEI) 10-05, Revision 0, "Assessment of On-Shift Emergency Response Organization Staffing and Capabilities," June 2011 (ADAMS Accession No. ML111751698).

Principal Contributors: R. Hoffman, and J. Hughey.

Date: April 26, 2019

**SUBJECT:** JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2; EDWIN I. HATCH NUCLEAR PLANT, UNIT NOS. 1 AND 2; AND VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2, ISSUANCE OF AMENDMENTS REGARDING LICENSE AMENDMENT REQUEST TO REVISE TECHNICAL SPECIFICATION 5.2.2.g AND UPDATE EMERGENCY PLAN MINIMUM ON-SHIFT STAFF TABLES (EPID L-2018-LLA-0223) DATED APRIL 26, 2019

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MNorris, NSIR	RHoffman, NSIR

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NAME	JLamb	KGoldstein	CFong	JAnderson
DATE	03/04/2019	03/19/2019	02/28/2019	03/04/2019
OFFICE	OGC – NLO**	NRR/DORL/LPL2-1/BC	Tech Editor**	NRR/DORL/D
NAME	AGhosh	MMarkley	JDougherty	CErlanger (GSuber for)
DATE	03/20/2019	04/02/2019	04/03/2019	04/09/2019
OFFICE	NRR/D	NRR/DORL/LPL2-1/PM		
NAME	HNieh (MEvans for)	JLamb		
DATE	04/17/2019	04/26/2019		

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