



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

April 1, 2020

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; AND VOGTLE  
ELECTRIC GENERATING PLANT, UNITS 1 AND 2 - ISSUANCE OF  
AMENDMENTS REGARDING APPLICATION FOR TECHNICAL  
SPECIFICATION CHANGE TSTF-491, "REMOVAL OF THE MAIN STEAM AND  
MAIN FEEDWATER VALVE ISOLATION TIMES FROM TECHNICAL  
SPECIFICATIONS," USING CONSOLIDATED LINE ITEM IMPROVEMENT  
PROCESS (EPID L-2019-LLA-0277)**

Dear Ms. Gayheart:

The U. S. Nuclear Regulatory Commission has issued the enclosed Amendment No. 228 to Renewed Facility Operating License No. NPF-2 and Amendment No. 225 to Renewed Facility Operating License No. NPF-8 for the Joseph M. Farley Nuclear Plant (Farley), Units 1 and 2, respectively, and Amendment No. 204 to Renewed Facility Operating License NPF-68 and Amendment No. 187 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 Technical Specifications (TS) in response to your application dated December 11, 2019.

The amendments modify the Farley and Vogtle TS by removing the specific isolation time for the main steam and main feedwater isolation valves from the associated standard TSs surveillance requirements.

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,

**/RA/**

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

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

Enclosures:

1. Amendment No. 228 to NPF-2
2. Amendment No. 225 to NPF-8
3. Amendment No. 204 to NPF-68
4. Amendment No. 187 to NPF-81
5. Safety Evaluation

cc w/encls: 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. 228  
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 December 11, 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. 228, 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

*/RA/*

Michael T. Markley, Chief  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: April 1, 2020



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.225  
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 December 11, 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. 225, 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

*/RA/*

Michael T. Markley, Chief  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: April 1, 2020

ATTACHMENT

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2

TO LICENSE AMENDMENT NO. 228

TO RENEWED FACILITY OPERATING LICENSE NO. NPF-2

DOCKET NO. 50-348

AND

TO LICENSE AMENDMENT NO. 225

TO RENEWED FACILITY OPERATING LICENSE NO. NPF-8

DOCKET NO. 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

3.7.2-2  
3.7.3-2

Insert Pages

License

License No. NPF-2, page 4  
License No. NPF-8, page 3

TSs

3.7.2-2  
3.7.3-2

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 228, 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. 225 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 Amendment 144

## ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Required Action and associated Completion Time of Condition A or B not met.	C.1 Be in MODE 2.	6 hours
D. One or more steam lines with one MSIV inoperable in MODE 2 or 3.	D.1 Verify one MSIV closed in affected steam line.	7 days <u>AND</u> Once per 7 days thereafter
E. One or more steam lines with two MSIVs inoperable in MODE 2 or 3.	E.1 Verify one MSIV closed in affected steam line.	4 hours <u>AND</u> Once per 7 days thereafter
F. Required Action and associated Completion Time of Condition D or E not met.	F.1 Be in MODE 3. <u>AND</u> F.2 Be in MODE 4.	6 hours  12 hours

## SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.7.2.1      -----NOTE----- Only required to be performed in MODES 1 and 2. ----- Verify closure time of each MSIV is within limits.	In accordance with the INSERVICE TESTING PROGRAM

Main FW Stop Valves and MFRVs and Associated Bypass Valves  
3.7.3

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. One or more MFRV bypass valves inoperable.	C.1 Close or isolate bypass valve.	72 hours
	<u>AND</u> C.2 Verify bypass valve is closed or isolated.	Once per 7 days
D. Two valves in the same flow path inoperable.	D.1 Isolate affected flow path.	8 hours
E. Required Action and associated Completion Time not met.	E.1 Be in MODE 3.	6 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.7.3.1      Verify the closure time of each Main FW Stop Valve, MFRV, and associated bypass valve is within limits.	In accordance with the INSERVICE TESTING PROGRAM.

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. 204  
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 December 11, 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. 204, 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

**/RA/**

Michael T. Markley, Chief  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

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

Date of Issuance: April 1, 2020



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. 187  
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 December 11, 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. 187, 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

**/RA/**

Michael T. Markley, Chief  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

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

Date of Issuance: April 1, 2020

ATTACHMENT

VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2

TO LICENSE AMENDMENT NO. 204

RENEWED FACILITY OPERATING LICENSE NO. NPF-68

DOCKET NO. 50-424

AND

TO LICENSE AMENDMENT NO. 187

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

3.7.2-2  
3.7.3-2

Insert Pages

License

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

TSs

3.7.2-2  
3.7.3-2



(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. 204, 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. 187, 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

## ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Required Action and associated Completion Time of Condition A or B not met.	C.1 Be in MODE 2.	6 hours
D. One or more steam lines with one MSIV system inoperable in MODE 2 or 3.	D.1 Verify one MSIV system closed in affected steam line.	7 days <u>AND</u> Once per 7 days thereafter.
E. One or more steam lines with two MSIV systems inoperable in MODE 2 or 3.	E.1 Verify one MSIV system closed in affected steam line.	4 hours <u>AND</u> Once per 7 days thereafter
F. Required Action and associated Completion Time of Condition D or E not met.	F.1 Be in MODE 3. <u>AND</u> F.2 Be in MODE 4.	6 hours  12 hours

## SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.7.2.1      -----NOTE----- Only required to be performed in MODES 1 and 2. ----- Verify closure time of each MSIV system is within limits on an actual or simulated actuation signal.	In accordance with the INSERVICE TESTING PROGRAM

MFIVs and MFRVs and Associated Bypass Valves  
3.7.3

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. One or more MFRV or MFIV bypass valves inoperable.	C.1 Close or isolate bypass valve.	72 hours
	<u>AND</u> C.2 Verify bypass valve is closed or isolated.	Once per 7 days
D. Both isolation systems inoperable in one or more feedwater lines.	D.1 Isolate affected feedwater line.	8 hours
E. Required Action and associated Completion Time not met.	E.1 Be in MODE 3.	6 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.7.3.1</p> <p style="text-align: center;">-----NOTE----- Only required to be performed in MODE 1. -----</p> <p>Verify the closure time of each MFIV, MFRV, and associated bypass valve is within limits on an actual or simulated actuation signal.</p>	In accordance with the INSERVICE TESTING PROGRAM



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO

AMENDMENT NO. 228 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-2

AMENDMENT NO. 225 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-8

AMENDMENT NO. 204 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-68

AND

AMENDMENT NO. 187 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-81

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2

VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2

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

1.0 INTRODUCTION

By letter dated December 11, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML19345E724), the Southern Nuclear Operating Company, Inc. (SNC, the licensee) submitted a request for changes to the Joseph M. Farley Nuclear Plant, Units 1 and 2 (Farley); and Vogtle Electric Generating Plant (Vogtle), Units 1 and 2, Technical Specifications (TS).

The requested changes are the adoption of TSTF-491, Revision 2, "Removal of Main Steam and Feedwater Valve Isolation Times," which was proposed by the Technical Specification Task Force (TSTF) by letter on May 18, 2006 (ADAMS Accession No. ML061500078). The proposed changes would revise TS 3.7.2 "MSIVs [Main Steam Valves Isolation Valves]," and TS 3.7.3 "Main FW [Feedwater] Stop Valves and MFRVs [Main Feedwater Regulation Valves] and Associated Bypass Valves," for Farley, and Vogtle. Adoption of TSTF-491 would allow relocating the isolation valve closure times to a Licensee Controlled Document that is referenced in the Bases. The TSTF change traveler TSTF-491, Revision 2, was announced for availability in the *Federal Register* on October 5, 2006 (71 FR 58884) as part of the consolidated line item improvement process (CLIP).

## 2.0 REGULATORY EVALUATION

Section 182a of the Atomic Energy Act (the “Act”) requires applicants for nuclear power plant operating licenses to include TSs as 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 Commission’s regulatory requirements related to the content of the TSs are contained in 10 CFR Section 50.36. That regulation requires that the TSs include items in the following specific categories: (1) Safety limits, limiting safety systems settings, and limiting control settings (50.36(c)(1)); (2) Limiting Conditions for Operation (50.36(c)(2)); (3) Surveillance Requirements (50.36(c)(3)); (4) design features (50.34(c)(4)); and (5) administrative controls (50.36(c)(5)).

In general, there are two classes of changes to TSs: (1) Changes needed to reflect modifications to the design basis (TSs are derived from the design basis), and (2) voluntary changes to take advantage of the evolution in policy and guidance as to the required content and preferred format of TSs over time. This amendment deals with the second class of changes.

In determining the acceptability of revising STS 3.7.2 and 3.7.3, the staff used the accumulation of generically approved guidance in NUREG–1430, “Standard Technical Specifications, Revision 3, Babcock and Wilcox Plants,” dated June, 2004 (ADAMS Accession Nos. ML041800598 and ML041800598); NUREG–1431, Revision 3, “Standard Technical Specifications, Westinghouse Plants,” dated June, 2004 (ADAMS Accession Nos. ML041830612 and ML041830205); and NUREG–1432, “Standard Technical Specifications, Revision 3, Combustion Engineering Plants,” dated June, 2004 (ADAMS Accession Nos. ML041830597 and ML041830097).

Licensees may revise the TSs to adopt current improved STSs format and content provided that plant-specific review supports a finding of continued adequate safety because: (1) The change is editorial, administrative or provides 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 nonetheless still affords adequate assurance of safety when judged against current regulatory standards. The detailed application of this general framework, and additional specialized guidance, are discussed in Section 3.0 in the context of specific proposed changes. Nomenclature specific to the Westinghouse Plants is used in the following Technical Evaluation.

## 3.0 TECHNICAL EVALUATION

The NRC staff has reviewed the justification for the proposed TSTF as described in the September 13, 2005, submittal. The detailed evaluation below will support the conclusion 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) such activities will be conducted in compliance with the Commission’s regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

### 3.1 Main Steam Isolation Valves (MSIVs)

One MSIV is located in each main steam line outside of the containment. Closing the MSIVs isolates each steam generator from the others and isolates the turbine, steam bypass system and other auxiliary steam supplies from the steam generator.

By isolating the steam flow from the secondary side of the steam generator the MSIVs prevent over cooling the reactor core following a high energy line break (HELB). By preventing core overcooling the MSIVs protect the reactor core from being damaged. TSTF-491 is proposing to relocate the required closure times for the MSIVs to the Licensee Controlled Document (LCD) that is referenced in the Bases. Changes to LCDs are subject to the 10 CFR 50.59 process. The MSIVs are subject to periodic testing and acceptance criteria in accordance with the Inservice Testing (IST) Program.

Compliance with the IST Program is required by Section 5.5.7 of the Standard Technical Specifications (STSS) and 10 CFR 50.55. The IST Program includes specific reference value baseline operating times for valves that are not subject to arbitrary changes. The regulation 10 CFR 50.36 requires the inclusion of the periodic testing of the MSIVs in the Surveillance Requirements not the actual closure time of the valves. The TSTF-491 change maintains the periodic testing requirements for MSIVs in accordance with 10 CFR 50.36.

Based on the requirements of 10 CFR 50.36 and IST Program, the staff concludes that relocating the MSIV closure time to the LCD as referenced in the Bases is acceptable.

### 3.2 Main Feedwater Isolation Valve (MFIV), Main Feedwater Regulation/Control Valve (MFRV) and Associated Bypass Valves (BVs)

The MFIVs and BVs or the MFRVs and BVs isolate the nonsafety related portions from the safety related portions of the system. In the event of a secondary side pipe rupture inside containment, these valves limit the quantity of high energy fluid that enters the containment through the break and provide a pressure boundary for the controlled addition of auxiliary feedwater to the intact loops.

By isolating the feedwater flow from the affected steam generator the MFIVs, MFRVs and BVs prevent overcooling the reactor core and over pressurizing of the containment from feedwater pump runoff.

As with the MSIVs, TSTF-491 is also proposing to relocate the required closure times for the MFIVs, MFRVs and BVs to the LCD that is referenced in the Bases. Changes to the Bases or LCD are subject to the 10 CFR 50.59 process.

Furthermore, the MFIVs, MFRVs and BVs are subject to periodic testing and acceptance criteria in accordance with the Inservice Testing (IST) Program. Compliance with the IST Program is required by Section 5.5.7 of the Standard Technical Specifications (STSS) and 10 CFR 50.55. The IST Program includes specific reference value baseline operating times for valves that are not subject to arbitrary changes. 10 CFR 50.36 requires the inclusion of the periodic testing of the MFIVs, MFRVs and BVs in the Surveillance Requirements not the actual closure time of the valves. TSTF-491 maintains the periodic testing requirements for MFIVs, MFRVs and BVs in accordance with 10 CFR 50.36.

Based on the requirements of 10 CFR 50.36 and the IST Program, the staff concludes that relocating the MFIVs, MFRVs and BVs closure times to the LCD as referenced in the Bases is acceptable.

### 3.3 Optional Changes and Variations

SNC is proposing the following variations from the TS changes described in the TSTF-491, Revision 2, or the applicable parts of the NRC staff's model SE referenced in the *Federal Register* on October 5, 2006.

SNC has adopted TSTF traveler TSTF-545 in the Farley and Vogtle TS that is not shown in the STS markups of TSTF-491. The TS 5.5.8, "Inservice Testing Program," was deleted in the Farley and Vogtle TS and a new defined term, "INSERVICE TESTING PROGRAM," was added to Section 1.1 of the TS. References to the "Inservice Testing Program," in the TS SRs and associated Bases, are replaced with "INSERVICE TESTING PROGRAM," so that the SRs refer to the new definition in lieu of the deleted program. The Farley and Vogtle adoption of TSTF-545 was approved on June 30, 2017 (ADAMS Accession No. ML17152A218).

Other editorial differences between the plant-specific TS SRs and the SRs in the STS markups of TSTF-491 are as follows:

- The applicable SRs in both Farley and Vogtle TS refer to verifying "closure" time instead of "isolation" time. The words isolation and closure are used interchangeably in the STS bases for SRs 3.7.2.1 and 3.7.3.1 and, therefore, this minor difference does not alter the SR intent.
- In the Farley TS 3.7.3, the main feedwater isolation valve is referred to as the main feedwater (FW) stop valve. This is a nomenclature difference.

The differences in the SRs and associated bases as a result of adopting TSTF-545 and other plant-specific editorial differences do not modify the intent or application of the proposed change, are considered not significant, and the model SE continues to be applicable.

These differences are considered acceptable to the NRC staff as not significant variations in TSTF-491 and the NRC staff's model SE.

### 4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the State of Alabama official was notified of the proposed issuance of the amendments. The State official had no comments.

### 5.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and change the 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 85 FR 5050, dated January 28, 2020. 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.

Principal Contributor: John G. Lamb, NRR

Date: April 1, 2020

SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2; AND VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2 - ISSUANCE OF AMENDMENTS REGARDING APPLICATION FOR TECHNICAL SPECIFICATION CHANGE TSTF-491, "REMOVAL OF THE MAIN STEAM AND MAIN FEEDWATER VALVE ISOLATION TIMES FROM TECHNICAL SPECIFICATIONS," USING CONSOLIDATED LINE ITEM IMPROVEMENT PROCESS (EPID L-2019-LLA-0277) DATED APRIL 1, 2020

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**ADAMS Accession No.: ML20007D063****\*via email****NRR-058**

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