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

July 16, 2025

Jamie M. Coleman
Regulatory Affairs Director
Southern Nuclear Operating Company
3535 Colonnade Parkway
Birmingham, AL 35243

SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2 - ISSUANCE OF AMENDMENT NOS. 256 AND 253 TO REVISE TECHNICAL SPECIFICATION 3.4.14, "[REACTOR COOLANT SYSTEM (RCS)] PRESSURE ISOLATION VALVE (PIV) LEAKAGE," SURVEILLANCE REQUIREMENT 3.4.14.3 ACCEPTANCE CRITERIA AND REMOVE OTHER MISCELLANEOUS OBSOLETE CHANGES (EPID L-2024-LLA-0119)

Dear Jamie Coleman:

The U.S. Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment No. 256 to Renewed Facility Operating License No. NPF-2 and Amendment No. 253 to Renewed Facility Operating License No. NPF-8 for the Joseph M. Farley Nuclear Plant, Units 1 and 2, respectively. The amendments are in response to your application dated September 4, 2024.

The amendments revise the Technical Specifications (TS) 3.4.14, "[Reactor Coolant System (RCS)] Pressure Isolation Valve (PIV) Leakage," Surveillance Requirement 3.4.14.3 Acceptance Criteria and remove other miscellaneous obsolete changes found in TS 3.3.5, "Loss of Power (LOP) Diesel Generator (DG) Start Instrumentation."

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

Sincerely,

/RA/

Zachary M. Turner, Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-348 and 50-364

Enclosures:
1. Amendment No. 256 to NPF-2
2. Amendment No. 253 to NPF-8
3. Safety Evaluation

cc: Listserv

SOUTHERN NUCLEAR OPERATING COMPANY

ALABAMA POWER COMPANY

DOCKET NO. 50-348

JOSEPH M. FARLEY NUCLEAR PLANT, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 256
Renewed License No. NPF-2

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

   A. The application for amendment to the Joseph M. Farley Nuclear Plant, Unit 1 (the facility), Renewed Facility Operating License No. NPF-2 (the license) filed by Southern Nuclear Operating Company (the licensee), dated September 4, 2024, 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 Title 10 of the *Code of Federal Regulations* (10 CFR) Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications, as indicated in the attachment to this license amendment. Paragraph 2.C.(2) of the license is hereby amended to read as follows:

 2.C.(2) Technical Specifications

 The Technical Specifications contained in Appendix A, as revised through Amendment No. 256, are hereby incorporated in the renewed license. Southern Nuclear shall operate the facility in accordance with the Technical Specifications.

3. This amendment is effective as of its date of issuance and shall be implemented within 120 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

JOHN LAMB Digitally signed by JOHN LAMB Date: 2025.07.16 09:27:14 -04'00'

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

Attachment:
Changes to Renewed Facility Operating License and Technical Specifications

Date of Issuance: July 16, 2025

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

SOUTHERN NUCLEAR OPERATING COMPANY

ALABAMA POWER COMPANY

DOCKET NO. 50-364

JOSEPH M. FARLEY NUCLEAR PLANT, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 253
Renewed License No. NPF-8

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

   A. The application for amendment to the Joseph M. Farley Nuclear Plant, Unit 2 (the facility), Renewed Facility Operating License No. NPF-8 (the license) filed by Southern Nuclear Operating Company (the licensee), dated September 4, 2024, 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 Title 10 of the *Code of Federal Regulations* (10 CFR) Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment. Paragraph 2.C.(2) of the license are hereby amended to read as follows:

   2.C.(2) Technical Specifications

   The Technical Specifications contained in Appendix A, as revised through Amendment No. 253, are hereby incorporated in the renewed license. Southern Nuclear shall operate the facility in accordance with the Technical Specifications.

3. This amendment is effective as of its date of issuance and shall be implemented within 120 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

JOHN LAMB
Digitally signed by JOHN LAMB
Date: 2025.07.16 09:27:46 -04'00'

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

Attachment:
Changes to Renewed Facility Operating License and Technical Specifications

Date of Issuance: July 16, 2025

ATTACHMENT TO JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2

LICENSE AMENDMENT NO. 256

TO RENEWED FACILITY OPERATING LICENSE NO. NPF-2

DOCKET NO. 50-348

AND LICENSE AMENDMENT NO. 253

TO RENEWED FACILITY OPERATING LICENSE NO. NPF-8

DOCKET NO. 50-364

Replace the following pages of the Renewed Facility Operating Licenses and 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	Insert
License	License
NPF-2, page 4	NPF-2, page 4
NPF-8, page 3	NPF-8, page 3
TSs	TSs
3.3.5-1	3.3.5-1
3.3.5-2	3.3.5-2
3.3.5-3	3.3.5-3
3.3.5-4	---------
3.3.5-5	---------
3.4.14-2	3.4.14-2
3.4.14-3	3.4.14-3
3.4.14-4	3.4.14-4

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 256, 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 byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and

(6) 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 incorporated below:

(1) <u>Maximum Power Level</u>

Southern Nuclear is authorized to operate the facility at reactor core power levels not in excess of 2821 megawatts thermal.

(2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 253, are hereby incorporated in the renewed license. Southern Nuclear shall operate the facility in accordance with the Technical Specifications.

(3) Deleted per Amendment 144
(4) Deleted per Amendment 149
(5) Deleted per Amendment 144

3.3 INSTRUMENTATION

3.3.5 Loss of Power (LOP) Diesel Generator (DG) Start Instrumentation

LCO 3.3.5 The LOP instrumentation for each Function in Table 3.3.5-1 shall be OPERABLE.

APPLICABILITY: According to Table 3.3.5-1.

ACTIONS

---NOTE---
Separate Condition entry is allowed for each Function.

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. One or more functions with one channel per train inoperable.	A.1	-------------NOTE------------ The inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels. --------------------------------- Place channel in trip.	6 hours
B. One or more Functions with two or more channels per train inoperable.	B.1	Restore all but one channel per train to OPERABLE status.	1 hour
C. Required Action and associated Completion Time of Condition A or B not met.	C.1	Enter applicable Condition(s) and Required Action(s) for the associated DG made inoperable by LOP DG start instrumentation.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.3.5.1	---------------------------NOTES-------------------------------- 1. TADOT shall exclude actuation of the final trip actuation relay for LOP Functions 1 and 2. 2. Setpoint verification not required. --- Perform TADOT.	In accordance with the Surveillance Frequency Control Program
SR 3.3.5.2	-------------------------------NOTE----------------------------- CHANNEL CALIBRATION shall exclude actuation of the final trip actuation relay for Functions 1 and 2. --- Perform CHANNEL CALIBRATION.	In accordance with the Surveillance Frequency Control Program
SR 3.3.5.3	-------------------------------Note------------------------------ Response time testing shall include actuation of the final trip actuation relay. --- Verify ESF RESPONSE TIME within limit.	In accordance with the Surveillance Frequency Control Program

Table 3.3.5-1 (page 1 of 1)
Loss of Power Diesel Generator Start Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRAIN	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	DELAY TIME
1. 4.16 kV Emergency Bus Loss of Voltage DG Start	1,2,3,4	3	SR 3.3.5.1 SR 3.3.5.2 SR 3.3.5.3	≥ 3222 V and ≤ 3418 V	NA
2. 4.16 kV Emergency Bus Degraded Grid Voltage Actuation	1,2,3,4	3	SR 3.3.5.1 SR 3.3.5.2 SR 3.3.5.3	Bus 1F: ≥ 3761 V Bus 1G: ≥ 3752 V Bus 2F: ≥ 3757 V Bus 2G: ≥ 3778 V	≤ 11.4 sec ≤ 11.4 sec ≤ 9.9 sec ≤ 9.9 sec

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. (continued)	A.1	Isolate the high pressure portion of the affected system from the low pressure portion by use of one closed manual, deactivated automatic, or check valve.	4 hours
	AND		
	A.2	Isolate the high pressure portion of the affected system from the low pressure portion by use of a second closed manual, deactivated automatic, or check valve.	72 hours
B. Required Action and associated Completion Time for Condition A not met.	B.1	Be in MODE 3.	6 hours
	AND		
	B.2	------------NOTE----------- LCO 3.0.4.a is not applicable when entering MODE 4. -------------------------------- Be in MODE 4.	12 hours
C. RHR System open permissive interlock function inoperable.	C.1	Place the affected valve(s) in the closed position and maintain closed under administrative control.	4 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.14.1	-----------------------------NOTES----------------------------- 1. Not required to be performed in MODES 3 and 4. 2. Not required to be performed on the RCS PIVs located in the RHR flow path when in the shutdown cooling mode of operation. 3. RCS PIVs actuated during the performance of this Surveillance are not required to be tested more than once if a repetitive testing loop cannot be avoided. --- Verify leakage from each RCS PIV is equivalent to ≤ 0.5 gpm per nominal inch of valve size up to a maximum of 5 gpm at an RCS pressure ≥ 2215 psig and ≤ 2255 psig.	18 months, prior to entering MODE 2 <u>AND</u> Following valve actuation due to automatic or manual action or flow through the valve (except for RCS PIVs located in the RHR flow path)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.14.2	-------------------------- NOTE ---------------------------------- Not required to be met when the RHR System valves are required open in accordance with SR 3.4.12.4. --- Verify RHR System open permissive interlock prevents the valves from being opened with a simulated or actual RCS pressure signal $\geq$ 415 psig.	In accordance with the Surveillance Frequency Control Program

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO

AMENDMENT NO. 256 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-2

AND

AMENDMENT NO. 253 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-8

SOUTHERN NUCLEAR OPERATING COMPANY

JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2

DOCKET NOS. 50-348 AND 50-364

1.0 INTRODUCTION

By letter dated September 4, 2024 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML24248A273), Southern Nuclear Operating Company (SNC, the licensee) submitted a license amendment request (LAR) that contained proposed amendments to the Technical Specifications (TSs) for the Joseph M. Farley Nuclear Plant (Farley), Units 1 and 2.

Specifically, the proposed changes would revise TS 3.4.14, "[Reactor Coolant System (RCS)] Pressure Isolation Valve (PIV) Leakage" and Surveillance Requirement (SR) 3.4.14.3 Acceptance Criteria and remove miscellaneous obsolete changes in TS 3.3.5, "Loss of Power (LOP) Deisel Generator (DG) Start Instrumentation" and TS 3.4.14.

2.0 REGULATORY EVALUATION

2.1 System Description and Operation

In Section 2.1 of the Enclosure to its LAR, the licensee stated, in part, that:

> During normal and emergency conditions, the low pressure [Residual Heat Removal (RHR)] System (design pressure of 600 [pounds per square inch gauge (psig)] is isolated from the high pressure Reactor Coolant System (RCS) (normal operating pressure of 2235 psig). Isolation is necessary to: 1) avoid RHR System over pressurization, and 2) minimize the potential for loss of integrity of the low pressure system and possible radioactive releases to the environment.
>
> Two suction/isolation valves are provided on each inlet line from the RCS to the RHR System inside containment. These motor-operated gate valves are

normally-closed to keep the low pressure RHR System isolated from the high pressure RCS, and are opened only when the RHR System is in operation or when required open to support low temperature overpressure protection (LTOP). The RHR suction isolation valves are interlocked with RCS pressure signals to prevent opening when the RCS pressure is greater than the Open Permissive Interlock (OPI) interlock setpoint. The setpoint (i.e., ≤ 415 psig) takes into account instrument uncertainty and calibration tolerances. This value also provides assurance that the RHR System suction relief valves setpoint will not be exceeded. Thus, the OPI prevents inadvertent opening of the RHR System isolation valves when the RCS pressure is above the valve opening interlock.

TS 3.4.12, "Low Temperature Overpressure Protection (LTOP) System," SR 3.4.12.4 requires these RHR suction valves to be open when the RHR suction relief valves are required to be operable for overpressure mitigation (i.e., when the reactor coolant system is not vented with a ≥ 2.85 [square inch] opening)

2.2 Description of Proposed Changes

2.2.1 TS 3.4.14 Changes

TS 3.4.14 is proposed to include the following changes:

- Deletion of Condition C Note,
- Deletion of the text "autoclosure or," in Condition C, and
- Deletion of SR 3.4.14.2.

The U.S. Nuclear Regulatory Commission (NRC) staff's evaluation of these changes can be found in Section 3.2.1 of this evaluation.

2.2.2 SR 3.4.14.3 Changes

SR 3.4.14.3 is proposed to include the following changes:

- Renumbering of SR 3.4.14.3 to SR 3.4.14.2.
- Revising existing SR 3.4.14.3 (renumbered as SR 3.4.14.2) to state:

> Verify RHR System open permissive interlock prevents the valves from being opened with a simulated or actual RCS pressure signal ≥ 415 psig

- Reference to "SR 3.4.12.3" is replaced with a reference to "SR 3.4.12.4" within the Note, and
- Deletion of the repetitive "valves" within the Note.

The NRC staff's evaluation of these changes can be found in Section 3.2.2 of this evaluation.

2.2.3 TS 3.3.5 Limiting Condition of Operation (LCO) Notes

The licensee proposed to delete the following Notes in the Applicability section of TS 3.3.5:

- 1. For Unit 1, use Table 3.3.5-1 until Mode 4 entry following the spring 2018 outage (1R28); thereafter use Table 3.3.5-2.
- 2. For Unit 2, use Table 3.3.5-1 until Mode 4 entry following the fall 2017 outage (2R25);

thereafter use Table 3.3.5-2.

The NRC staff's evaluation of these changes can be found in Section 3.2.3 of this evaluation.

2.2.4 TS 3.3.5 Condition A and B Notes

The licensee proposed the following changes to TS 3.3.5

- To delete the Note in Conditions A and B which reads: "Only applicable to Functions 1 and 2."
- To delete Table 3.3.5-1 in its entirety and all references to it
- To delete Actions D, E, and F from the Required Actions tables in their entirety, and
- Renumber existing Table 3.3.5-2 as Table 3.3.5-1 and adjust all references to it accordingly.

The NRC staff's evaluation of these changes can be found in Section 3.2.4 of this evaluation.

2.3 Reason for the Proposed Change

In Section 2.3 of the Enclosure to its LAR, the licensee stated, in part, that:

> For the three proposed changes to TS 3.4.14 […]:
>
> (a) Condition C Note, Condition C text "autoclosure or," and SR 3.4.14.2 are proposed for deletion, due to no longer being applicable after restart from Unit 1 Refueling Outage 1R27 and restart from Unit 2 Refueling Outage 2R25. [Farley] Unit 1 has completed Refueling Outage 1R31 and Unit 2 has completed Refueling Outage 2R29. Therefore, the Action and surveillance associated with the [autoclosure interlock] function are no longer applicable. Their deletion reflects an administrative change to eliminate extraneous verbiage.
>
> (b) The RHR OPI interlock acceptance criterion for SR 3.4.14.3 (which is proposed to be numbered 3.4.14.2) should reflect the value that prevents opening valves which could lead to RHR System over pressurization. The pressure interlock functions at a single setpoint and not between a range as suggested by the current acceptance criterion of "≥ 295 psig and ≤ 415 psig." The safety basis is to prevent opening the valves when above a specified pressure.
>
> (c) [Farley] Amendment Nos. 193 and 189 (Units 1 and 2, respectively) revised TS 3.4.12, "Low Temperature Overpressure Protection (LTOP) System," and in part split SR 3.4.12.1 into SR 3.4.12.1 and 3.4.12.2, thereby renumbering the remaining SRs. Prior to this Amendment SR 3.4.12.3 was "Verify RHR suction isolation valves are open for each required RHR suction relief valve," which was referenced by SR 3.4.14.3. The Amendment renumbered this SR to SR 3.4.12.4, however, SR 3.4.12.3 was not updated to reflect the renumbering. As such, the current reference to SR 3.4.12.3 in the Note to SR 3.4.14.3 is proposed to be revised to SR 3.4.12.4. Additionally, the Note includes a repetitive "valves" requiring an editorial deletion.

> The proposed changes to TS 3.3.5 […] are proposed due to no longer being applicable after restart form Unit 1 outage 1R28 and restart from Unit 2 outage 2R25. […] Therefore, the provisions associated with the temporary TS 3.3.5 changes reflect an administrative change to eliminate extraneous verbiage.

2.4 Regulatory Requirements and Guidance

The NRC staff considered the following NRC regulations and guidance in its review of the proposed LAR:

Under Title 10 of the *Code of Federal Regulations* (10 CFR) 50.90, whenever a holder of a license wishes to amend the license, including technical specifications in the license, an application for amendment must be filed, fully describing the changes desired and following as far as applicable, the form prescribed for original applications. Under 10 CFR 50.92(a), determinations on whether to grant an applied-for license amendment are to be guided by the considerations that govern the issuance of initial licenses or construction permits to the extent applicable and appropriate. Both the common standards in 10 CFR 50.40(a), and those specifically for issuance of operating licenses in 10 CFR 50.57(a)(3), provide that there must be ‘reasonable assurance’ that the activities at issue will not endanger the health and safety of the public.

The NRC’s regulatory requirements related to the content of the TS are set forth in 10 CFR Section 50.36, “Technical specifications.” This regulation requires that the TSs include items in, among other things, the following five specific categories: (1) safety limits, limiting safety system settings, and limiting control settings; (2) limiting conditions for operation (LCO); (3) SRs; (4) design features; and (5) administrative controls.

As stated in 10 CFR 50.36(a)(1), each applicant for an operating license includes in its application proposed technical specifications, and a “summary statement of the bases or reasons for such specifications, other than those covering administrative controls, shall also be included in the application, but shall not become part of the technical specifications.”

As stated in 10 CFR 50.36(c)(2), LCO are the lowest functional capability or performance levels of equipment required for safe operation of the facility, and when an LCO is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the TSs until the condition can be met.

As stated in 10 CFR 50.36(c)(3), SRs are requirements relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the LCO will be met.

The NRC’s guidance for the format and content of the Farley TS can be found in U.S. Nuclear Regulatory Commission, NUREG-1431, “Standard Technical Specifications, Westinghouse Plants,” Volume 1, “Specifications,” and Volume 2, “Bases,” Revision 5, September 2021 (ML21259A155 and ML21259A159, respectively).

Appendix A to 10 CFR Part 50 provides General Design Criteria (GDC) for nuclear power plants. Plant-specific design criteria are described in the plant’s Updated Final Safety Analysis

Report (UFSAR). Specifically, Section 3.1 of Farley's UFSAR (ML23319A065) discusses conformance with the following GDC:

GDC 14, "Reactor Coolant Pressure Boundary," states:

> The reactor coolant pressure boundary is designed, fabricated, erected, and tested so as to have an extremely low probability of abnormal leakage, or rapidly propagating failure, and of gross rupture.

GDC 20, "Protection System Functions," states:

> The protection system is designed to initiate automatically the operation of appropriate systems, including the reactivity control systems, to assure that specified acceptable fuel design limits are not exceeded as a result of anticipated operational occurrences, and to sense accident conditions and initiate the operation of systems and components important to safety.

GDC 30, "Quality of Reactor Coolant Pressure Boundary," states:

> Components which are part of the reactor coolant pressure boundary are designed, fabricated, erected, and tested to the highest quality standards practical. Means are provided for detecting and, to the extent practicable, identifying the location of the source of reactor coolant leakage.

GDC 34, "Residual Heat Removal," states:

> A system to remove residual heat is provided. The system safety function is to transfer fission product decay heat and other residual heat from the reactor core at the rate such that specified acceptable fuel design limits and the design conditions of the reactor coolant pressure boundary are not exceeded.
>
> Suitable redundancy in components and features, and suitable interconnections, leak detection, and isolation capabilities are provided to assure that for onsite electrical power system operation (assuming offsite power is not available) and for offsite electric power system operation (assuming onsite power is not available) the system safety function can be accomplished, assuming a single failure.

3.0 TECHNICAL EVALUATION

3.1 Review of Previously Approved Amendments and Reason for Changes

The NRC staff reviewed several previously approved amendments for Farley, Units 1 and 2, which shaped the current TS within TS 3.3.5, 3.4.12, and 3.4.14.

Amendment Nos. 201 and 197, Units 1 and 2 respectively, (ML16083A265) provided for elimination of the TS and SR requirements for the RHR system suction valve autoclosure interlock (ACI) function by including TS Notes that state when the current TS requirement would no longer be applicable for each unit with the following changes, which remain in the current TS:

- TS 3.4.14 Condition C Note states: "Not applicable to the autoclosure interlock for Unit 1 after restart from 1R27 and for Unit 2 after restart from 2R25," and Condition C applies to inoperabilities of the ACI, as well as the OPI by stating: “RHR System autoclosure or open permissive interlock function inoperable.”

- SR 3.4.14.2 provides the surveillance for verifying the RHR System ACI, while Note 2 states: “[n]ot applicable to Unit 1 after restart from 1 R27 and not applicable to Unit 2 after restart from 2R25.”

Amendment Nos. 206 and 202, for Units 1 and 2, respectively (ML16196A161), revised the setpoint requirements in TS 3.3.5, “Loss of Power Diesel Generator Start Instrumentation,” with delayed implementation provisions that are currently expired.

Amendment Nos. 193 and 189, Units 1 and 2, respectively (ML13249A386), revised TS 3.4.12, “Low Temperature Overpressure Protection (LTOP) System,” and in part split SR 3.4.12.1 into SR 3.4.12.1 and SR 3.4.12.2, thereby renumbering the remaining SRs. Prior to this Amendment SR 3.4.12.3 was “Verify RHR suction isolation valves are open for each required RHR suction relief valve,” which was referenced by SR 3.4.14.3. The Amendment renumbered this SR to SR 3.4.12.4, however, references located in SR 3.4.14.3 were not updated to reflect the renumbering.

3.2 Evaluation of Proposed Changes

3.2.1 TS 3.4.14, “RCS Pressure Isolation Valve (PIV) Leakage,” Changes to Condition C and Deletion of SR 3.4.14.2.

The licensee proposed editorial changes to Condition C – Delete the Condition C Note and delete “autoclosure or” from Condition C, as follows:

CONDITION:

~~-----------NOTE----------~~
~~Not applicable to the autoclosure interlock for Unit 1 after restart from 1R27 and For Unit 2 after restart from 2R25~~
~~---------------------------~~

C. RHR System ~~autoclosure or~~ open permissive interlock function inoperable

Evaluation of TS 3.4.14 Change and Deletion of SR 3.4.14.2

The NRC staff evaluated the two changes proposed by the licensee within TS 3.4.14 Condition C (deletion of Condition C Note and deletion of the text “autoclosure or,” in Condition C) as well as the proposed deletion of SR 3.4.14.2.

During the review of these proposed changes, the NRC staff identified that the TS 3.4.14 Condition C Note, which was previously approved by the NRC staff via the issuance of Farley Amendment Nos. 201 and 197, for Units 1 and 2, respectively, was inadvertently removed during the issuance of Farley Amendment Nos. 202 and 198 via the replacement of page 3.4.14-2 of Farley’s TS. The NRC staff has confirmed that the removal of the TS 3.4.14 Condition C Note from Farley’s TS, as approved by Amendment Nos. 201 and 197, respectively, was an administrative error made when the NRC issued Amendment Nos. 202 and 198 to RFOL NPF-2 (Farley, Unit 1) and RFOL-8 (Farley, Unit 2), respectively.

Furthermore, the facility recently completed startups following Refueling Outage 1R31 for Unit 1 and Refueling Outage 2R29 for Unit 2. The Note for Condition C and the SR 3.4.14.2 Note 2 states that Condition C, as it relates to the ACI, is not applicable to Unit 1 after restart from Refueling Outage 1R27 and not applicable to Unit 2 after restart from Refueling Outage 2R25. Therefore, the requirements for the RHR system suction valve ACI function no longer apply and the NRC staff concludes that the deletion of the Condition C Note, the reference to "autoclosure or," in Condition C, and the deletion of SR 3.4.14.2, are acceptable.

The NRC staff concurs with the licensee's assessment that the obsolete requirements are an unnecessary distraction in the TS and finds that the changes described in Section 2.2.1 of this evaluation is a human-factors improvement and are therefore acceptable.

3.2.2 Existing SR 3.4.14.3 Changes (Revised and Renumbered as SR 3.4.14.2)

The licensee's proposed changes to SR 3.4.14 – Modify and renumber SR 3.4.14.3, as follows:

SR 3.4.14.~~3~~2:

----------------------------NOTE------------------------------
Not required to be met when the RHR System valves ~~valves~~ are required open in accordance with SR 3.4.12.~~3~~4.

Verify RHR System open permissive interlock Prevents the valves from being opened with a simulated or actual RCS pressure signal ~~≥ 295 psig and ≤~~ ≥ 415 psig.

FREQUENCY: In accordance with the Surveillance Frequency Control Program

Evaluation of Existing SR 3.4.14.3 (Revised and Renumbered as SR 3.4.14.2) Changes

3.2.2.1 Renumbering Existing SR 3.4.14.3 as SR 3.4.14.2

The licensee proposed to renumber existing SR 3.4.14.3 as SR 3.4.14.2 due to deleting existing SR 3.4.14.2 (as described in Section 3.2.2.1, above). Renumbering SR 3.4.14.3 as SR 3.4.14.2 is an editorial change and does not impact the functionality of the SR itself. Therefore, the NRC staff concludes that the editorial renumbering of SR 3.4.14.3 as SR 3.4.14.2 is acceptable.

3.2.2.2 Revise Existing SR 3.4.14.3 (Renumbered as SR 3.4.14.2)

The proposed change to the SR presents the pressure at which the PIV will be prevented from opening as a minimum (≥ 415 psig) vice a range (≥ 295 psig and ≤ 415 psig).

The pressure interlock precludes opening at and above a specified pressure, and not between a range of pressures as suggested by the current acceptance criterion. For the revised SR to be considered met, calibration of the interlock setting is performed ≤ 415 psig with appropriate uncertainty margin, which will ensure that the valves will not open with a simulated or actual RCS pressure signal ≥ 415 psig.

Additionally, NUREG-1431 presents the RHR System ACI setting as a single pressure above which the interlock is required to be in effect ("≥ [425] psig"). During the Farley proposed amendment to convert to the NUREG-1431 STS, Farley added this SR with a Farley-specific RCS pressure range for the OPI in place of the single value in the STS.

The NRC staff conclude the changes made to SR 3.4.14.3 (renumbered as 3.4.14.2 as part of this LAR) are acceptable since the safety basis for preventing the valves from opening is maintained and the SR text will align with NUREG-1431. That is, the SR will continue to provide assurance that the LCO is met, as required by 10 CFR 50.36(c)(3).

3.2.2.3 Revise SR 3.4.14.3 Note

Amendments 193 and 189 revised TS 3.4.12 by splitting SR 3.4.12.1 into SR 3.4.12.1 and SR 3.4.12.2 in addition to renumbering the subsequent SRs. However, existing SR 3.4.14.3 (renumbered as 3.4.14.2), which contains a reference to SR 3.4.12.3, was not updated appropriately as part of those amendments. Additionally, there is a duplicate "valves" within the text of the Note that is redundant and serves no technical purpose. Therefore, these changes are editorial in nature and do not change the functionality of the SR.

The NRC staff conclude the editorial changes of the deletion of the duplicate "valves" and updating the reference to read 3.4.12.4 acceptable.

3.2.3 TS 3.3.5, "Loss of Power (LOP) Diesel Generator (DG) Start Instrumentation Changes

3.2.3.1 TS 3.3.5 LCO Changes; Deletion of Notes and reference to Table 3.3.5-2

The licensee's proposed changes to TS 3.3.5 LCO are described as follow:

LCO 3.3.5	The LOP instrumentation for each Function in Table 3.3.5-1~~ and Table 3.3.5-2~~ shall be OPERABLE
APPLICABILITY:	According to Table 3.3.5-1~~ and Table 3.3.5-2~~.

~~--------------------NOTES--------------------~~
~~1. For Unit 1, use Table 3.3.5-1 until Mode 4 entry following the spring 2018 outage (1R28); thereafter use Table 3.3.5-2.~~
~~2. For Unit 2, use Table 3.3.5-1 until Mode 4 entry following the fall 2017 outage (2R25); thereafter use Table 3.3.5-2.~~

Evaluation of TS 3.3.5 LCO Changes; Deletion of Notes and reference to Table 3.3.5-2:

The Applicability for LCO 3.3.5 contains two Notes that give instructions on determining the Applicability for the LCO utilizing tables contained in the TS. Note 1 directs the use of Table 3.3.5-1 until Mode 4 entry following the Refueling Outage 1R28 and to use Table 3.3.5-2 thereafter for Farley Unit 1. Note 2 to directs using Table 3.3.5-1 until Mode 4 entry following the Refueling Outage 2R25 and to use Table 3.3.5-2 thereafter for Farley, Unit 2.

Since the use of Table 3.3.5-1 was only used until Mode 4 entry following two specific outages and will no longer be utilized, the NRC staff conclude its deletion, and therefore the deletion of the two Applicability Notes are editorial in nature and therefore, acceptable.

Additionally, as described in Section 3.2.3.3 below, Table 3.3.5-1 is being deleted, and existing Table 3.3.5-2 is being renumbered as Table 3.3.5-1. Therefore, deletion of reference to Table 3.3.5-2 in LCO 3.3.5 is no longer necessary, and the change is editorial in nature. Therefore, the NRC staff conclude that this change is acceptable.

3.2.3.2 <u>TS 3.3.5 Condition A and B Notes Changes; Deletion of Condition A and B Notes</u>

The licensee's proposed changes to TS 3.3.5 Condition A and B Notes are described, as follow:

CONDITION:

A.	~~------------NOTE------------~~ ~~Only applicable to Functions 1 and 2.~~ ~~------------------------------~~ One of more functions with one channel per train inoperable.
B.	~~------------NOTE------------~~ ~~Only applicable to Functions 1 and 2~~. ~~------------------------------~~ One of more Functions with two or more channel per train inoperable.

<u>Evaluation of TS 3.3.5 Condition A and B Notes Changes; Deletion of Condition A and B Notes</u>

Conditions A and B of TS 3.3.5 contain Notes that read "Only applicable to Functions 1 and 2." These Notes were necessary when utilizing existing Table 3.3.5-1 since that table has three functions listed. With the deletion of Table 3.3.5-1 and Applicability now being determined utilizing only Table 3.3.5-2 (renumbered as 3.3.5-1), these Notes are no longer needed since there is no longer a Function 3 to reference. Therefore, the Condition A and Condition B Notes are no longer required.

Therefore, the NRC staff concludes that the deletion of the Condition A and B Notes are acceptable.

3.2.3.3 <u>TS 3.3.5, Table 3.3.5-1 Changes; Deletion of Table 3.3.5-1</u>

The Applicability for LCO 3.3.5 contains two Notes that give instructions on determining the Applicability for the LCO utilizing tables contained in the TS. Note 1 directs using Table 3.3.5-1 following Refueling Outage 1R28 for Farley Unit 1, and to use Table 3.3.5-2 thereafter. Note 2 directs using Table 3.3.5-1 following 2R25 for Farley, Unit 2, and to use Table 3.3.5-2 thereafter.

Since the use of Table 3.3.5-1 was only used following two specific outages and will no longer be utilized, the NRC staff conclude that the deletion of Table 3.3.5-1 is acceptable.

3.2.3.4 TS 3.3.5 Actions Changes; Deletion of Conditions D, E, and F

Condition D of LCO 3.3.5 has a Note that reads "Only applicable to Function 3." Function 3 is only referenced in existing Table 3.3.5-1 of the TS. Since existing table 3.3.5-1 is being deleted as part of this LAR, thus eliminating Function 3, Condition D no longer serves a technical purpose and is therefore no longer required. Condition E is dependent on Condition D, and is therefore no longer required. Condition F is dependent on Condition E, and is therefore no longer required.

Therefore, the NRC staff conclude the deletion of Conditions D, E, and F acceptable.

3.2.3.5 TS 3.3.5, Table 3.3.5-2 Changes; Renumbering Existing Table 3.3.5-2 as Table 3.3.5-1

With the deletion of Table 3.3.5-1, existing Table 3.3.5-2 is being renumbered to Table 3.3.5-1 and all references to the table are being updated.

Therefore, the NRC staff conclude that this change is editorial in nature, and is therefore, acceptable.

3.3 Technical Conclusion

The NRC staff reviewed all the changes proposed by the licensee. The staff determined the LCOs, as amended by the proposed changes, will continue to provide the lowest functional capability or performance levels of equipment required for safe operation of the facility, and when an LCO is not met, the licensee will be required to shut down the reactor or follow any remedial action permitted by the TSs until the LCO can be met. The staff determined the SRs, as amended by the proposed changes, will continue to provide assurance that the LCO is met. Therefore, the staff finds that the TS, as amended by the proposed changes, will continue to meet the requirements of 10 CFR 50.36. Additionally, regarding the change described in Section 2.2.2 of this evaluation and evaluated in Section 3.2.2 of this evaluation, the staff finds the criteria of GDCs 14, 20, 30, and 34 will continue to be satisfied. Therefore, the staff finds all the proposed changes acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Alabama State official was notified of the proposed issuance of the amendments on July 14, 2025, and the State official confirmed that the State of Alabama had no comments (ML25196A283).

5.0 ENVIRONMENTAL CONSIDERATION

The amendments change requirements with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and change surveillance requirements. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding published in the *Federal Register* on October 29, 2024 (89 FR 85996). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner; (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations; and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

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Date of Issuance: July 16, 2025

SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2 - ISSUANCE OF AMENDMENT NOS. 256 AND 253 TO REVISE TECHNICAL SPECIFICATION 3.4.14, "[REACTOR COOLANT SYSTEM (RCS)] PRESSURE ISOLATION VALVE (PIV) LEAKAGE," SURVEILLANCE REQUIREMENT 3.4.14.3 ACCEPTANCE CRITERIA AND REMOVE OTHER MISCELLANEOUS OBSOLETE CHANGES (EPID L-2024-LLA-0119) DATED JULY 16, 2025

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