



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

April 24, 2025

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

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNITS 3 AND 4 - REGULATORY  
AUDIT PLAN IN SUPPORT OF THE REVIEW OF THE LICENSE AMENDMENT  
REQUEST TO ADD A NEW REACTOR COOLANT SYSTEM T<sub>cold</sub> - HIGH  
FUNCTION TO ENGINEERED SAFETY FEATURE ACTUATION SYSTEM  
INSTRUMENTATION (EPID L-2025-LLA-0035)

Dear Ms. Coleman:

By letter dated February 14, 2025 (Agencywide Documents and Access Management System (ADAMS) Accession No. ML25045A166), as supplemented by letter dated March 31, 2025 (ML25090A283), Southern Nuclear Operating Company (SNC, the licensee) submitted a license amendment request (LAR) for Vogtle Electric Generating Plant (Vogtle), Units 3 and 4. The proposed LAR would change the Technical Specifications (TS) 3.3.8, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," Table 3.3.8-1, to add a new Function 11.b, Reactor Coolant System (RCS) Cold Leg Temperature (T<sub>cold</sub>) – High. SNC requested that the U. S. Nuclear Regulatory Commission (NRC) complete its safety review by August 29, 2025, to support planned implementation during the Vogtle, Unit 4 refueling outage.

The NRC staff has identified the need for a regulatory audit to examine SNC's non-docketed information with the intent of understanding, verify information, or identify information that will require docketing to support the basis of the licensing or regulatory decision.

The NRC staff will conduct the audit in-person and/or virtually via Teams using a licensee-established electronic portal available to NRC staff from approximately May 1 through July 15, 2025, with formal audit meetings to be scheduled during this period as needed. The NRC staff reserves the right to extend the audit, if necessary. The detailed audit plan is enclosed with this letter.

If you have any questions, please contact me at (301) 415-3100 or by email at [John.Lamb@nrc.gov](mailto:John.Lamb@nrc.gov).

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. 52-025 and 52-026

Enclosure:  
Audit Plan

cc: Listserv

REGULATORY AUDIT PLAN  
BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
TO SUPPORT THE REVIEW OF THE LICENSE AMENDMENT REQUEST  
TO ADD A NEW T<sub>COLD</sub> – HIGH FUNCTION  
SOUTHERN NUCLEAR OPERATING COMPANY  
VOGTLE ELECTRIC GENERATING PLANT, UNITS 3 AND 4  
DOCKET NOS. 52-025, AND 52-026

1.0 BACKGROUND

By letter dated February 14, 2025 (Agencywide Documents and Access Management System (ADAMS) Accession No. ML25045A166), as supplemented by letter dated March 31, 2025 (ML25090A283), Southern Nuclear Operating Company (SNC, the licensee) submitted a license amendment request (LAR) for Vogtle Electric Generating Plant (Vogtle), Units 3 and 4. The proposed LAR would change the Technical Specifications (TS) 3.3.8, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," Table 3.3.8-1, to add a new Function 11.b, Reactor Coolant System (RCS) Cold Leg Temperature (T<sub>cold</sub>) – High. SNC requested that the U. S. Nuclear Regulatory Commission (NRC) complete its safety review by August 29, 2025, to support planned implementation during the Vogtle, Unit 4, refueling outage (RFO).

The NRC staff has identified the need for a regulatory audit to examine the SNC's non-docketed information with the intent to gain understanding, to verify information, or to identify information that will require docketing to support the basis of the licensing or regulatory decision.

The NRC staff from the Office of Nuclear Reactor Regulation (NRR) has initiated its review of the LAR in accordance with NRR Office Instruction LIC101, "License Amendment Review Procedures" (ML19248C539).

2.0 REGULATORY AUDIT BASIS

A regulatory audit is a planned license- or regulation-related activity that includes the examination and evaluation of primarily non-docketed information associated with the LAR. An audit is conducted to gain understanding, to verify information, and to identify information that will require docketing to support the basis of a licensing or regulatory decision. An audit will assist the NRC staff in efficiently conducting its review and gaining insights to the licensee's processes and procedures. Information that the NRC staff relies upon to make the safety determination must be submitted on the docket. This audit will be conducted in accordance with NRR Office Instruction LIC-111, "Regulatory Audits," Revision 1, dated October 2019 (ML19226A274), with exceptions noted within this audit plan.

The NRC staff will perform the audit to support its evaluation of whether SNC's LAR can be approved per Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.90, "Application for amendment of license, construction permit, or early site permit." The NRC staff's review will

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be informed by NUREG-0800, Standard Review Plan. The audit will assist the NRC staff with understanding the licensee's proposed LAR.

### 3.0 REGULATORY AUDIT SCOPE AND METHODOLOGY

NRC's objectives of the audit are the following:

- Gain a better understanding of the detailed software changes and bases underlying the LAR and confirm the NRC staff's understanding of the LAR.
- Confirm that the Vendor Oversight Plan and referenced procedures provide sufficient details on the oversight activities performed by SNC to ensure that the vendor (Westinghouse) uses an adequate software quality program to modify the PMS for the implementation of the LAR changes.
- Gain a better understanding of plant design features and their implications for the LAR.
- Identify any information needed to enable the NRC staff's evaluation of the technical basis used for this application.
- Identify any information needed to enable the NRC staff's evaluation of whether the proposed changes challenge design-basis functions or adversely affect the capability or capacity of plant equipment to perform design-basis functions.
- Identify questions and requests that may become formal requests for additional information (RAIs) per NRR Office Instruction LIC-115, "Processing Requests for Additional Information" (ML21141A238).

The NRC staff will audit the technical information and methods that the licensee used to determine the impact on the plant, and the licensee's evaluation of defense-in-depth.

### 4.0 INFORMATION AND OTHER MATERIAL NECESSARY FOR THE AUDIT

The NRC staff will request information and audit meetings throughout the audit period. The NRC staff will use an "audit items list" to identify the information (e.g., methodology, process information, and calculations) to be audited. The NRC staff will provide the final audit items list as an enclosure to the audit summary report, which will be publicly available. The attachment to this audit plan includes the initial audit items list. Throughout the audit period, the NRC staff will provide SNC with audit questions and audit-related requests so that the licensee can better prepare for audit discussions with NRC staff. Any information accessed through the licensee's portal will not be held or retained in any way by NRC staff. The NRC staff requests the licensee to have the requested audit information listed in the audit items list to be readily available and accessible for the NRC staff's review via a Web-based portal.

### 5.0 TEAM ASSIGNMENTS

The audit team will consist of the following NRC staff from NRR:

- John G. Lamb, Division of Operating Reactor Licensing (DORL)/Plant Licensing Branch 2-1 (LPL2-1)
- Zach Turner, DORL/LPL2-1
- Norbert Carte, Division of Engineering and External Hazards (DEX)/Instrumentation and Controls Branch (EICB)
- Samir Darbali, DEX/EICB

- Angelo Stubbs, Division of Safety Systems (DSS)/Containment and Plant Systems (SCPB)
- Nicholas Soliz, DSS/SCPB
- Jo Ambrosini, DSS/Nuclear Systems Performance (SNSB)
- Khadijah West, DSS/Technical Specifications Branch (STSB)
- Deanna Zhang, Division of Reactor Oversight (DRO)/Quality Assurance Vendor Inspection Branch (IQVB)
- Aaron Armstrong, DRO/IQVB

## 6.0 LOGISTICS

To support the review schedule communicated to SNC when the NRC staff accepted the LAR for technical review, audit activities will be performed remotely and virtually using Microsoft Teams, teleconference, and a Web-based portal or other virtual meeting space created by the licensee. The NRC staff information requests and communications with licensee staff will be coordinated through the NRC's licensing project manager.

An in-person and/or a virtual audit will take place between May 1 and July 15, 2025. The NRC's licensing project manager will inform the licensee of the entrance and exit meeting dates when they are established. The NRC intends to establish approximately five days in-person and/or virtual audit meetings via Microsoft Teams on mutually agreeable dates and times, to discuss information needs and questions arising from the NRC's review of the audited items. The NRC staff may change and/or add audit dates and times, or extend the audit, if necessary. Audit meeting agenda and questions, if needed, will be sent in advance of the audit meeting.

The NRC staff requests the licensee to have the information referenced in Section 7.0 of this audit plan available and accessible for the NRC staff's review via an internet-based portal within five days of this audit plan. The NRC staff requests that any supplemental information requested be available and accessible for the NRC staff's review within 5 days of the date of the NRC's notification to the licensee of the new requests. The NRC's licensing project manager will inform the licensee via routine communications when the NRC staff no longer need access to the portal. The NRC staff requests the licensee to notify the NRC's licensing project manager when an audit item is added to its portal by sending an e-mail to the NRC licensing project manager.

## 7.0 SPECIAL REQUESTS

The NRC requests access to requested documents and information through a Web-based portal that allows the NRC staff and contractors to access documents over the Internet. The following conditions associated with the online portal must be maintained while the NRC staff and contractors have access to the online portal:

- The online portal will be password-protected. A separate password will be assigned to each member of the NRC staff and NRC contractors participating in the audit.
- The online portal will prevent the NRC participants from printing, saving, downloading, or collecting any information directly from the online portal.
- Conditions of use of the online portal will be displayed on the login screen and will require acknowledgment by each user.

Username and password and/or other Web-based portal access information should be provided directly to members of the NRC staff and contractors as needed. The NRC licensing project manager will provide the licensee with names and contact information of the NRC staff and contractors participating in the audit. All other communications should be coordinated through the NRC project manager.

Item #	Audit Questions/Discussions
1	Has the vendor oversight plan been developed and approved/issued?
2	Is NMP-ES-045-001 the procedure that governs owner acceptance of design output documents? If not, which procedure governs that process?
3	<p>UFSAR Table 15.2-1 includes an annotation update indicating “coincident with <math>T_{cold} - High</math>” for PRHR actuation, but the timing in the table remains unchanged. Is there any change on the event sequence timing or does the PRHR heat exchanger still actuate at 637 seconds for accident “II.A. Loss of ac power to the plant auxiliaries”)?</p> <p>This appears to be addressed in the LAR, which states: “The results of the limiting case showed that the <math>T_{cold} - High</math> setpoint was reached 16.4 seconds after the SG narrow range water level signal was generated. Due to the existing proprietary preset time delay (which is significantly longer than 16.4 seconds) applied after the SG narrow range level is generated, the 16.4 second delay in reaching RCS <math>T_{cold}</math> signal has no impact on the most limiting case.” However, it is unclear whether this applies to all evaluated scenarios.</p>

Item #	Audit Documents
1	WCAP-16675-P (Proprietary) and WCAP-16675-NP (Non-Proprietary), “AP1000 Protection and Safety Monitoring System Architecture Technical Report,” Revision 10, September 2020.
2	WCAP-16097-P-A (Proprietary) and WCAP-16097-NP-A (Non-Proprietary), Revision 3, “Common Qualified Platform Topical Report,” February 2013.
3	WCAP-15927-P (Proprietary) and WCAP-15927-NP (Non-Proprietary), Revision 8, “Design Process for AP1000 Common Q Safety Systems,” September 2020.
4	Vendor Oversight Plan
5	NOS-204, “Supplier Audit/Survey report Review”
6	ND-QA-005, “Quality Assurance Reviews”
7	NOS-202, “Supplier Safety-Related Program Audits”
8	NOS-401, “Supplier Quality Surveillance”
9	NMP-ES-042, “Design Input and Verification Process”
10	NMP-GM-045-001, “Technical Oversight reviews, of Engineering Products”

## 8.0 DELIVERABLES

The NRC staff will develop any RAIs, as needed, via NRR Office Instruction LIC-115 and issue such RAIs separately from audit-related correspondence. The NRC staff will issue an audit summary report prior to completing its review of the LAR.

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INSTRUMENTATION (EPID L-2025-LLA-0035) DATED APRIL 24, 2025

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KTetter, NRR

MPohida, NRR

ANeuhausen, NRR

JAmbrosini, NRR

**ADAMS Accession No.: ML25100A053****NRR-106**

OFFICE	NRR/DORL/LPLII-1/PM	NRR/DORL/LPLII-1/LA	NRR/DEX/EICB/BC	NRR/DORL/LPLII-1/BC
NAME	JLamb	KZelenock	FSacko	MMarkley (SWilliams for)
DATE	04/07/2025	04/14/2025	04/22/2025	04/23/2025
OFFICE	NRR/DORL/LPLII-1/PM			
NAME	JLamb			
DATE	04/23/2025			

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