

**From:** John Lamb  
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**Cc:** Joyce, Ryan M.  
**Subject:** For Your Action - RAIs - Vogtle 3 and 4 Tcold LAR (L-2025-LLA-0035)

Ken,

By letter dated February 14, 2025 (Agencywide Documents Access and Management System Accession No. ML25045A166), as supplemented by letter dated March 31, 2025 (ML25090A283), Southern Nuclear Operating Company (SNC, the licensee) requested that the U.S. Nuclear Regulatory Commission (NRC) amend Vogtle Electric Generating Plant (Vogtle), Units 3 and 4, Combined License (COL) Numbers NPF-91 and NPF-92, respectively. The requested license amendment request (LAR) proposed to revise Technical Specifications (TS) 3.3.8, "Engineered Safeguards Actuation System Instrumentation."

The proposed amendments would add to TS Table 3.3.8-1, "Engineered Safeguards Actuation System Instrumentation," a new Function 11.b, "Reactor Coolant System (RCS) Cold Leg Temperature ( $T_{cold}$ ) – High." The new Function 11.b would impact the Protection and Safety Monitoring System (PMS) actuation logic for the Passive Residual Heat Removal (PRHR) Heat Exchanger (HX). The logic for one of the PRHR HX actuation signals that currently requires Low-2 steam generator (SG) narrow range (NR) water level coincident with Low-2 startup feedwater (SFW) flow in any SG is being modified to require Low-2 SG NR water level coincident with Low-2 SFW flow in both SGs coincident with the new  $T_{cold}$  – High in either RCS loop.

The U.S. Nuclear Regulatory Commission (NRC) staff has determined that additional information is required for the staff to complete its review of the Vendor Oversight Plan (VOP) Summary. The NRC staff's request for additional information (RAI) is included. Draft RAIs were sent to SNC on June 25, 2025. On June 25, 2025, SNC said that it would respond to this RAI by July 11, 2025.

If you have any questions, please contact me.

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Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

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#### **REQUEST FOR ADDITIONAL INFORMATION (RAI)**

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Exchanger (HX). The logic for one of the PRHR HX actuation signals that currently requires Low-2 steam generator (SG) narrow range (NR) water level coincident with Low-2 startup feedwater (SFW) flow in any SG is being modified to require Low-2 SG NR water level coincident with Low-2 SFW flow in both SGs coincident with the new  $T_{cold}$  – High in either RCS loop.

To complete its review, the Nuclear Regulatory Commission (NRC) staff requests for additional information as shown below.

### **Regulatory Basis**

The regulatory basis for these draft RAIs include Criterion III, “Design Control,” Criterion VII, “Control of Purchased Material, Equipment, and Services,” and Criterion XVI, “Corrective Action” of Appendix B, “Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants,” to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, “Domestic Licensing of Production and Utilization Facilities.”

### **RAI Questions**

1. Provide the VOP title and revision number in the VOP summary.
2. Section 6 of the VOP Summary states that “SNC is crediting the software development process defined in NRC approved WCAP-16096, “Software Program Manual for Common Q™ Systems,” as modified by WCAP-15927,” Design Process for AP1000 Common Q™ Safety under Westinghouse’s QA program.”

The NRC staff is questioning if there is missing information in the above sentence. If so, the NRC staff requests that SNC revise the VOP Summary to accurately reflect the intent of this sentence.

3. The NRC staff reviewed the VOP Summary and found the following documents were identified for owner’s acceptance:

- Software Hazards Analysis
- Failure Modes and Effects Analysis
- Requirements Traceability Matrix
- Software Test Plan

The NRC staff requests that SNC verify that the above list of documents are the only ones that will undergo owner’s acceptance review for this project. If there is a more expansive list, the NRC staff requests that SNC revise the VOP Summary to reflect the complete set of documents that will undergo owner’s acceptance review.

4. The NRC staff reviewed the conditions identified in Section 8 of the VOP Summary that would trigger a condition report (CR) and needs clarification on the follow two conditions:
  - Westinghouse noncompliance with the Westinghouse quality program, software processes, or hardware processes,
  - Digital item quality is not assured, and identical or similar digital items are already installed in the facility, in other applications, and are considered operable or available.

The PRHR actuation logic change modification, as described in the LAR, only requires modifications to the Protection and Monitoring System (PMS) software. However, the NRC staff finds that the above two conditions imply that there are hardware changes. As such, the NRC staff requests SNC to address this discrepancy, and if necessary revise the VOP Summary.

5. Questions regarding Plant Specific Action Items (PSAIs):

Section D.5 (see page E-19) in the table regarding ISG-06 Enclosure B Identified Alternate Review Process Applicable Sections in Enclosure NL-25-0072, "Supplemental Information," states that "The application of the NRC-approved Common Q Topical Reports (WCAP-16096 and WCAP-16097) to PMS, referenced in the VEGP 3&4 UFSAR, and the associated NRC Safety Evaluation Plant Specific Action Items were demonstrated satisfied during completion of ITAAC 2.5.02.12 [Index Number 551] as documented in NRC Integrated Inspection Reports 05200025/2019002, 05200026/2019002 [ML19220B678], are not affected by this LAR. SNC will provide oversight of the performance of the modification activities, in accordance with the VEGP 3&4 QA program and Vendor Oversight Plan per section C.2.2."

In addition, Section 6 of the VOP Summary identifies PSAI No. 23 (presumably it is PSAI 6.23 in WCAP-16096, "Common Q Software Program Manual" (SPM)) and PSAI No. 6 in the WCAP-16097, "Common Q Platform Topical Report." Both of these PSAIs are regarding records of change for each topical report. The NRC staff reviewed the list of PSAIs in the Common Q SPM and Common Q Platform Topical Report and finds that it is not clear why the VOP Summary only addresses these two PSAIs. The NRC staff requests that SNC either

- justify why only these two PSAIs are applicable to implement the PRHR actuation logic change modification, or
- revise the VOP Summary to provide criteria for how SNC will determine which PSAIs in the safety evaluation for WCAP-16096 and WCAP-16097 are applicable to the PRHR actuation logic change modification

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