From: Ed Miller
To: ALLEN FULMER

**Subject:** RAI for VC Summer Containment Leakage Testing LAR (L-2025-LLA-0054)

**Date:** Wednesday, July 30, 2025 10:38:00 AM

**Attachments:** VC Summer \_ Containment Leak Testing LAR\_ RAIs.docx

#### Mr. Fulmer,

By letter dated March 20, 2025 (Agencywide Documents Access and Management System Accession No. ML25079A198), Dominion Energy South Carolina submitted an amendment request for the VC Summer Nuclear Station. The amendment would revise Technical Specification (TS) 6.8.4.g, "Containment Leakage Rate Testing Program," to adopt NEI 94-01, Revision 3-A and the NRC conditions in Revision 2-A.

The NRC staff has reviewed the information submitted, including the supplement, and needs additional information to complete its review and approval of the licensee's submittal. These requests for additional (RAIs) are attached to this email and are released formally and a response by September 5, 2025, is requested.

Ed Miller (301) 415-2481

By letter dated March 20, 2025, the licensee for VC Summer submitted a license amendment request (LAR 25-045) to revise Technical Specification (TS) 6.8.4.g, "Containment Leakage Rate Testing Program," to adopt NEI 94-01, Revision 3-A and the NRC conditions in Revision 2-A. The LAR requests approval to extend the Type C local leak rate test (LLRT) surveillance interval from 60 to 75 months on a performance-based basis in accordance with 10 CFR Part 50, Appendix J, Option B.

The NRC staff has reviewed the LAR and identified four areas requiring additional information to complete the staff's technical evaluation (3 Requests for Additional Information (RAIs) and 1 Request for Confirmation of Information (RCI)). The draft questions are provided to determine 1) If the questions clearly convey the NRC information needs, 2) Whether the regulatory basis for the questions are clear, 3) If the information has already been provided in existing docketed correspondence, and 4) to determine what response time you can support.

### **RAI 1: Justification for Adjustment Factor**

The LAR applies a 1.25 multiplier to as-left Type C LLRT results when evaluating valves tested beyond 60 months. NEI 94-01 does not direct or endorse the use of this multiplier. Please provide a technical basis or bounding analysis demonstrating the conservatism and applicability of the 1.25 factor across degradation mechanisms and valve types. Alternatively, clarify whether the interval extension can be justified solely based on historical performance trends.

# **RAI 2: LLRT Performance Trend Analysis**

The LAR includes as-found and as-left Type C LLRT data but does not provide a performance trend analysis. Please provide a graphical or tabular trend evaluation of the LLRT data over the past 10 years. Include identification of any recurring valve failures, corrective actions, and justification for continued eligibility for extended intervals.

## **RAI 3: Aging and Structural Integrity Evaluation**

The LAR describes containment penetration types but does not address aging mechanisms for components on 75-month test intervals. Please describe how aging effects such as material degradation, seal embrittlement, or mechanical fatigue are evaluated and monitored for extended-interval components. Include references to any aging management or surveillance programs, if applicable.

### RCI 1: NEI 94-01 Condition 2, Visual Inspection Frequency

NEI 94-01, Rev. 2-A, Condition 2 requires that at least three visual inspections of the containment be performed during each 15-year Type A test interval. Please confirm that the containment inspection program ensures this frequency and that the inspections are consistent in scope with ASME Section XI, Subsections IWE and IWL.