From:	Dawnmathews Kalathiveettil
Sent:	Friday, July 26, 2024 5:22 PM
То:	Bates, Ernest F.
Cc:	Joyce, Ryan M.; Michael Markley; John Lamb; Zach Turner; Robert Beaton; Phillip Sahd (He/Him)
Subject:	Request for Additional Information - Hatch, Units 1 and 2, 'Revise TS SRs (3.4.3.1 & 3.1.7.7) to Increase S/RV Setpoints' LAR (EPID: L-2024-LLA-0054)
Attachments:	Hatch 1 & 2 - RAI for Increase SRV Setpoints LAR.docx

Importance: High

Ernest,

By letter dated April 19, 2024 (Agencywide Documents and Access Management System (ADAMS) Accession No. ML24110A098), Southern Nuclear Operating Company (SNC, the licensee) submitted a license amendment request (LAR) for Edwin I. Hatch Nuclear Plant (HNP), Units 1 and 2. The proposed LAR revises Technical Specification (TS) Surveillance Requirement (SR) 3.4.3.1 to increase the nominal mechanical relief setpoints for all safety/relief valves (S/RVs) of the reactor coolant system (RCS) nuclear pressure relief system (NPRS). The proposed changes will reduce the potential for S/RV pilot leakage. As a result of the increased S/RV setpoints, the LAR also proposes to change SR 3.1. 7. 7 to increase the minimum Standby Liquid Control pump discharge pressure accordingly.

To complete its review of the application, the U.S. Nuclear Regulatory Commission (NRC) staff requests additional information (RAI) as discussed in the attachment to this e-mail. On July 25, 2024, NRC staff provided SNC the draft RAI questions to ensure that it is understandable, the regulatory basis is clear, to ensure there is no proprietary information, and to determine if the information was docketed previously. SNC confirmed that a clarification call would not be needed.

This request is now released formally with a 30-day calendar response period from the date of this e-mail. If you have any questions, you may contact me at 301-415-5905.

Best Regards,

Dawnmathews T. Kalathiveettil Hatch Project Manager Plant Licensing Branch (LPL 2-1) DORL - 09 E07 Office of Nuclear Reactor Regulation U.S. Nuclear Regulatory Commission

Office Phone: 301-415-5905 Email: <u>Dawnmathews.Kalathiveettil@nrc.gov</u> Hearing Identifier:NRR_DRMAEmail Number:2565

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Options	
Priority:	High
Return Notification:	No
Reply Requested:	No
Sensitivity:	Normal
Expiration Date:	

REQUEST FOR ADDITIONAL INFORMATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION HATCH 1 AND 2 - REVISE TS SR (3.4.3.1 & 3.1.7.7) TO INCREASE S/RV SETPOINTS SOUTHERN NUCLEAR OPERATING COMPANY HATCH, UNITS 1, 2 DOCKET NO. 05000321, 05000366 ISSUE DATE: 07/26/2024

Background

By letter dated April 19, 2024 (Agencywide Documents and Access Management System (ADAMS) Accession No. ML24110A098), Southern Nuclear Operating Company (SNC, the licensee) submitted a license amendment request (LAR) for Edwin I. Hatch Nuclear Plant (Hatch), Units 1 and 2. The proposed LAR revises Technical Specification (TS) Surveillance Requirement (SR) 3.4.3.1 to increase the nominal mechanical relief setpoints for all safety/relief valves (S/RVs) of the reactor coolant system (RCS) nuclear pressure relief system (NPRS). The proposed changes will reduce the potential for S/RV pilot leakage. As a result of the increased S/RV setpoints, the LAR also proposes to change SR 3.1.7.7 to increase the minimum Standby Liquid Control pump discharge pressure accordingly.

To complete its review of the application, U.S. Nuclear Regulatory Commission (NRC) staff determined that additional information is needed as described below.

Regulatory Basis

Title 10 of the Code of Federal Regulations (10 CFR) Part 50.36, "Technical Specifications," specifies the content required to be included in technical specifications.

Request For Additional Information

Question 1

10 CFR 50.36(c)(3), "Surveillance requirements," states that surveillance requirements 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 limiting conditions for operation will be met.

Section 3.0 of Enclosure 1 to the LAR discusses GE Nuclear Energy technical report NEDC-32041P, "Safety Review for Edwin I. Hatch Nuclear Power Plant, Units 1 and 2, Updated Safety/Relief Valve Performance Requirements," Rev. 2, April 1996, which provided a detailed justification for an upper value mechanical S/RV relief setpoint as high as 1,195 psig, with one S/RV inoperable and at least 50 psi margin to the ASME BPV Code upset limit (1,375 psig). Section 2.2 of NEDC-32041P states that this margin allows for variations in the peak vessel pressure which were calculated for past cycles and may be predicted for future fuel cycles. This implies that some of the 50 psi margin may be used, and therefore, peak pressure could potentially be larger than 1,325 psig. However, the Hatch TS Safety Limit in TS 2.1.2 states that reactor steam dome pressure shall be \leq 1,325 psig.

Please confirm that the steam dome pressure safety limit is not exceeded in a) the analysis performed for the subject LAR and b) as part of the cycle-specific reload licensing analyses for future cycles.

Question 2

The NRC issued Generic Letter (GL) 89-10, "Safety-Related Motor-Operated Valve Testing and Surveillance," (June 28, 1989) to extend the scope of the motor-operated valve (MOV) testing program in Bulletin 85-03 and its Supplement 1 to all safety-related MOVs in nuclear power plants. The NRC issued seven supplements to GL 89-10 as MOV issues were identified during its implementation by nuclear power plant licensees. As a follow-up to the GL 89-10 programs, the NRC issued GL 96-05, "Periodic Verification of Design-Basis Capability of Safety-Related Motor-Operated Valves," (September 18, 1996) to request that licensees verify on a periodic basis that safety-related MOVs continue to be capable of performing their safety functions within the current licensing bases of the facility.

Historically, MOV inservice testing was performed under American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BPV) Code, Section XI, until the preparation of the ASME Code for Operation and Maintenance of Nuclear Power Plants (OM Code), usually without fluid pressure or flow in the lines (referred to as static testing). Based on operating and research experience, and the results of the GL 89-10 and 96-05 programs, the NRC conducted rulemaking to require in 10 CFR 50.55a(b)(3)(ii) as a compliance backfit that licensees must establish a program to ensure that MOVs continue to be capable of performing their design basis safety functions in addition to the ASME OM Code testing requirements. The purpose of the rulemaking is to periodically confirm that MOVs will perform their safety functions under design-basis conditions (i.e., under pressure and flow conditions) and, if possible, to identify the causes of MOV failures.

Section 3.0 of Enclosure 1 to the LAR states "The impacts on MOVs due to the potential for increased reactor vessel and system pressure as a result of the increase in the S/RV nominal opening setpoint are evaluated in accordance with the Generic Letter 89-10 requirements as part of the SNC design process." However, there are no results provided of any evaluation.

Please provide a summary of SNC's evaluation of MOVs in the high-pressure systems (HPCI and RCIC) to confirm they will remain operable given the increased S/RV setpoint pressure.