

**From:** Lamb, John  
**Sent:** Wednesday, April 21, 2021 2:16 PM  
**To:** Enfinger, Timothy Lee  
**Cc:** Joyce, Ryan M.; Coleman, Jamie Marquess  
**Subject:** RAI - Hatch Unit 2 - One-Time Emergency RHR LAR (L-2020-LRO-0068)

**Importance:** High

Tim,

By letter dated April 19, 2021 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21010A388), as supplemented on April 20, 2021 (two letters) (ADAMS Accession Nos. ML21110A652 and ML21110A722), Southern Nuclear Operating Company (SNC, the licensee) submitted a one-time emergency residual heat removal (RHR) license amendment request (LAR) for Edwin I. Hatch Nuclear Plant, Unit 2. The proposed amendment would make a one-time revision to Condition A of Technical Specification 3.5.1, "ECCS [Emergency Core Cooling System] – Operating," to extend the Completion Time (CT) from 7 days to 15 days.

To complete its review of the inspection, the U.S. Nuclear Regulatory Commission (NRC) staff requests the below additional information.

On April 21, 2021, the NRC staff provided draft request for additional information (RAI) questions to SNC to make sure that the RAIs are understandable, the regulatory basis is clear, to ensure there is no proprietary information, and to determine if the information was previously docketed. The NRC staff is requesting that SNC would provide the RAI response commensurate with the emergency situation.

If you have any questions, you can contact me at 301-415-3100.

Sincerely,

John

#### **REQUEST FOR ADDITIONAL INFORMATION**

By letter dated April 19, 2021 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21010A388), as supplemented on April 20, 2021 (two letters) (ADAMS Accession Nos. ML21110A652 and ML21110A722), Southern Nuclear Operating Company (SNC, the licensee) submitted a one-time emergency residual heat removal (RHR) license amendment request (LAR) for Edwin I. Hatch Nuclear Plant, Unit 2. The proposed amendment would make a one-time revision to Condition A of Technical Specification 3.5.1, "ECCS [Emergency Core Cooling System] – Operating," to extend the Completion Time (CT) from 7 days to 15 days.

To complete its review of the inspection, the U.S. Nuclear Regulatory Commission (NRC) staff requests the following additional information:

#### **APLA-RAI-1**

Revision 1 of RG 1.177, "An Approach for Plant-Specific, Risk-Informed Decisionmaking:

Technical Specifications” (ADAMS Accession No. ML100910008), describes an acceptable risk-informed approach specifically for assessing proposed TS changes. This regulatory guide identifies a three-tiered approach for a licensee’s evaluation of the risk associated with a proposed TS completion time change. Section 2.4, states, “For one-time only changes to TS CTs, the frequency of entry into the CT may be known, and the configuration of the plant SSCs may be established. Further, there is no permanent change to the plant CDF or LERF, and hence the risk guidelines of Regulatory Guide 1.174 (Ref. 11) cannot be applied directly. The following TS acceptance guidelines specific to one-time only CT changes are provided for evaluating the risk associated with the revised CT:

1. The licensee has demonstrated that implementation of the one-time only TS CT change impact on plant risk is acceptable (Tier 1):

- ICCDP of less than  $1.0 \times 10^{-6}$  and an ICLERP of less than  $1.0 \times 10^{-7}$ , or
- ICCDP of less than  $1.0 \times 10^{-5}$  and an ICLERP of less than  $1.0 \times 10^{-6}$  with effective compensatory measures implemented to reduce the sources of increased risk.

2. The licensee has demonstrated that there are appropriate restrictions on dominant risk-significant configurations associated with the change (Tier 2).

3. The licensee has implemented a risk-informed plant configuration control program. The licensee has implemented procedures to utilize, maintain, and control such a program (Tier 3).”

LAR Table 2.2-1 states that the ICCDP for the 15-day configuration of RHR Pump 2D out-of-service was  $1.17 \times 10^{-6}$  which exceeded  $1 \times 10^{-6}$  but, is less than  $1 \times 10^{-5}$ . RG 1.177 guidance allows for effective compensatory measures to be implemented. Furthermore, in the LAR, it was stated that “risk insights from this configuration were examined by comparing the change in Birnbaum values between the base and configuration specific importance rankings. The events and components that become more important are associated with the redundant ECCS pumps and the containment hardened vent system, which is an alternate heat sink if RHR is not available.”

- a. In light of this, provide a discussion of containment venting as a potential compensatory measure for this configuration since it has increased in dominance on failure of suppression pool cooling scenarios which rely on the hardened containment vent system.
- b. Provide what compensatory measures will be taken including procedural guidance to Operations personnel during the RHR Pump 2D outage.
- c. Provide descriptions for components which have become dominant on Attachment 4, p.11 and any compensatory measures which need to be taken regarding them. If there aren’t any necessary, please state the reasons why.
- d. For any fire scenarios significantly impacted by the RHR Pump 2D outage, provide any compensatory actions which may be credited such as existing or new fire watches.

#### RAI APLA-2

In LAR Attachment 4, Section 2.1.3, “Calculation Approach”, the description of the calculation for  $CDF_{2D}$  is “the annual average CDF calculated with RHR Pump 2D OOS and other currently OOS equipment assuming the configuration listed in Table 2.1-2 (all quantified hazards)”. It is not clear if this was

calculated for only RHR pump 2D and other currently OOS equipment which implies that remainder of modeled SSCs are set at zero maintenance. However, the CDF<sub>BASE</sub> case is described to be computed by the average test and maintenance unavailability for all modeled SSCs. An inconsistently applied testing and maintenance unavailability has the potential of making the computed ICCDP less conservative.

Confirm how testing and maintenance were consistently applied to both the base and RHR Pump 2D cases.

If they were not consistently applied, revise the calculations with actual testing and maintenance configurations reflecting operation over the requested 15-day period.

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