

From: James Kim
Sent: Tuesday, November 29, 2022 1:46 PM
To: Thomas, Brian J.
Cc: Wiwel, Michael; Montgomery, Richard; Hipo Gonzalez
Subject: Final IOLB RAI for Salem LAR to Revise TS to Extend Allowed Outage Time for Inoperable EDG (EPID L-2022-LLA-0095)
Attachments: Salem EDG AOTextension - IOLB RAI.docx

SUBJECT: Salem 1 and 2 - Final IOLB RAI for Salem LAR to Revise TS to Extend Allowed Outage Time for Inoperable EDG (EPID L-2022-LLA-0095)

Mr. Thomas,

By application dated June 29, 2022 (Agencywide Documents Access and Management System Accession No. ML22180A268), PSEG Nuclear LLC, the licensee, submitted a license amendment request to revise the Salem Unit 1 and Unit 2 Technical Specifications Action 3.8.1.1.b.4 to extend the allowed outage time (AOT) for an inoperable emergency diesel generator (EDG) from 72 hours to 14 days.

The NRC staff has determined that additional information is needed to complete its review of the request. On November 19, 2022, the NRC staff sent PSEG the draft Request for Additional Information (RAI) from the Operator Licensing and Human Factors Branch (DRO/IOLB). On November 29, 2022, the NRC staff and the licensee held a conference call to clarify the draft RAI questions. At the conclusion of teleconference, PSEG agreed to provide the RAI responses within 30 days. A publicly available version of this final RAI (attached) will be placed in the NRC's ADAMS.

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BACKGROUND

By application dated June 29, 2022 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22180A268), PSEG Nuclear (the licensee) requested a change to the Technical Specifications (TSs) for Salem Generating Station, Units 1 and 2 (Salem). The proposed change would modify TS Action 3.8.1.1.b.4 to extend the allowed out of service time for an inoperable emergency diesel generator (EDG) from 72 hours to 14 days.

NRC CONSIDERATION OF RISK INSIGHTS FOR NON RISK-INFORMED SUBMITTAL

The proposed amendment is not a risk-informed amendment submitted in accordance with Regulatory Guide 1.174. Therefore, the NRC staff does not review the licensee's probabilistic risk assessment models to determine their technical acceptability. The NRC staff reviewed the submittal in accordance with NUREG 1764 to determine the necessary level of review (I, II, or III as indicated in NUREG 1764). The HFE staff used input from the licensee submittal and insights from NRC risk analysts. The NRC staff considers the licensee-provided qualitative risk insights and associated compensatory measures in its Qualitative Assessment of Human Action Safety-Significance of the proposed change.

RAI IOLB-1: Risk Insights Identified During the Risk Assessment

The licensee states that the proposed amendment is deterministic and was developed using the guidelines in Branch Technical Position 8-8, "Onsite (Emergency Diesel Generators) and Offsite Power Sources Allowed Outage Time Extensions." The licensee also states that additional risk insights reflecting the change in the allowed outage time (AOT) are provided.

Section 3.10, "Operator Actions," of the enclosure to the LAR, the licensee provides a general overview of the actions required to connect, start and align the AOT diesels. It states that the actions are based on the established procedures in place for use of the same AOT diesel generators at Hope Creek.

Section 3.6, "Supplemental AC Power Source for Extended AOT," of the enclosure to the LAR describes the results how the supplemental AC power source is required to be available throughout the extended TS AOT such that it can provide AC power to the vital bus impacted by the EDG outage. It describes the proposed supplemental AC power source, which consist of two portable, trailer mounted diesel generators that will be synchronized and connected to one of two receptacle panels, one for each Salem unit.

The staff considered the change to human actions (HA) necessary to provide the designated supplemental AC Power Source presented in the submittal. As the proposed amendment is not risk-informed, the staff began the screening process to assess the safety significance of the identified actions by reviewing NUREG-1764. The guidance document designates recovering AC power by either manual transfer of the source of offsite power, or recovery of onsite normal/emergency AC power as PWR Potentially Risk-Important Human Actions. Due to the potential risk, the staff further screened the identified HA and the associated TS changes.

Please address the following:

- a. Does the requested change adversely affect the performance of an action that was previously identified as problematic based on experience/events at that plant or plants of similar design?

- b. Does the requested change introduce new HAs (HAs not previously modeled generically or in a plant-specific PRA)?
- c. Has the requested change given personnel a new functional responsibility that they previously did not have, and which differs from their normal responsibilities?
- d. Has the requested change significantly modified the way in which personnel perform their tasks (e.g., making them more complex, significantly reducing the time available to perform the action, increasing the operator workload, changing the operator role from primarily "verifier" to primarily "actor")?
- e. Has the requested change significantly increased the level of communication needed to perform the task?
- f. Has the requested change significantly changed the team aspects of performing an action?