

From: Billy Gleaves
Sent: Wednesday, April 12, 2023 11:40 AM
To: Dorsey, Keith A.
Cc: Henderson, Ryan Donald; Lauren Nist (She); Cayetano Santos; Wendell Morton; Sheila Ray; Edmund Kleeh; Vic Cusumano; Khadijah West; Shivani Mehta (She/Her/Hers); Thinh Dinh; Charles Moulton; Vogtle PEmails
Subject: Draft RAI for SNC Vogtle LAR-22-002, "TS 3.8.3 Inverters - Operating, Completion Time Extension"
Attachments: Vogtle LAR-22-002 Draft RAI TS 3.8.3.pdf

Keith,

Please see the attached .pdf file for the subject draft RAI with 4 questions related to the current NRC review of the Vogtle LAR-22-002, "TS 3.8.3 Inverters - Operating, Completion Time Extension."

By this email, the draft RAI is being entered into public ADAMS capture system and no accession number has yet been assigned. Contact me in a day for the accession number if needed.

The next step is for SNC to identify if it has changes, questions or comments on this draft RAI, or if not, to accept the draft RAI as is. If a clarification call is needed, let me know dates that will work for you.

Once SNC accepts this (or a future revision of this) draft RAI as "final" we typically expect that the RAI response will be within 1 calendar month.

If there is SUNSI information in this draft RAI, please let me know immediately. If there is SUNSI information in the RAI response, please so state in the response letter and mark appropriately.

Respectfully,
Billy

William (Billy) Gleaves
Senior Project Manager
NRR/Vogtle Project Office
US Nuclear Regulatory Commission

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REQUEST FOR ADDITIONAL INFORMATION
LICENSE AMENDMENT REQUEST FOR TECHNICAL SPECIFICATION 3.8.3, INVERTERS –
OPERATING, COMPLETION TIME EXTENSION (LAR-22-002)
DOCKET NOS. 52-025 AND 52-026
VOGTLE ELECTRIC GENERATING PLANT, UNITS 3 AND 4
SOUTHERN NUCLEAR OPERATING COMPANY, INC.

By letter dated January 3, 2023 (Agencywide Documents Access and Management System Accession No. ML23003A797), the Southern Nuclear Operating Company submitted a license amendment request (LAR) in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 50.90, for the Vogtle Electric Generating Plant (VEGP) Combined License (COL).

The LAR proposed changes to revise COL Appendix A, Technical Specifications (TSs) 3.8.3, “Inverters – Operating,” to extend the completion time for Required Action A.1 from 24 hours to 14 days. Additionally, TS 3.3.9, “Engineered Safety Feature Actuation System Manual Initiation,” Condition C proposed change would replace misspelled “Required” with “Required.”

The staff have reviewed the LAR in accordance with the Office of Nuclear Reactor Regulation Office Instruction LIC-101, “License Amendment Review Procedures” and has determined that the following additional information is needed to complete the review of the LAR.

RAI #1

Staff regulatory guidance C.2.2 of Regulatory Guide 1.200, “Acceptability of Probabilistic Risk Assessment Results for Risk-informed Activities,” Revision 3, states in part, that “[*Facts and Observations (F&Os)*] that are not closed using an NRC-endorsed process should be evaluated by the licensee or applicant for their impact on a risk-informed application and addressed with documented justification with necessary changes made to the PRA prior to the use of PRA in the risk-informed application.”

The discussion of F&Os (pg. 17 of the LAR) indicates that “the PRA has been updated to address peer review F&Os, to the extent possible for a pre-operational plant.” Provide detailed information on the open F&Os for all Probabilistic Risk Assessment (PRA) analyses, their impact on the application, and how they will be resolved.

This information is being requested in order to determine that PRA standards have been followed and the reasonable assurance of quality and completeness of the PRA.

RAI #2

Section 1.1.2 of Regulatory Guide 1.177, “Plant-Specific, Risk-Informed Decisionmaking: Technical Specifications,” Revision 0, states in part, “TS may be changed to establish consistently based requirements across the industry or across an industry group.” Precedents referenced in the LAR consistently indicate extensions from 24 hours to 7 days.

From a probabilistic perspective, explain, at a high level, both the relevance of these precedents and the basis for the proposed 14 day extension and the allowed completion times that maintain

acceptable thresholds for Conditional Core Damage Frequency (CCDF) and Conditional Large Early Release Frequency (CLERF) for VEGP Units 3 & 4.

This information is being requested in order to determine, from a risk perspective, the basis for the extension to 14 days and the potential for additional risk that may not have been evaluated.

RAI #3

10 CFR 50.65(a)(4) (Maintenance Rule) requires the assessment and management of the increase in risk that result from proposed maintenance activities. The LAR states that VEGP Units 3&4 Maintenance Rule Program monitors the reliability and availability of the Uninterruptable Power Supply System (IDS) inverters and confirms that appropriate management attention and goal setting are applied based on pre-established performance criteria.

Clarify whether “the planned vital AC inverter on-line maintenance” as stated in the LAR (pages 23 & 27) is limited to monitoring the reliability & availability of the IDS inverters in accordance with the Maintenance Rule Program (i.e., no remote control or operation of the inverters). If otherwise, provide a detailed description of the operations taken during online maintenance activities related to the AC inverter.

This information is being requested in order to assess that the operational risk associated with the remote control of the inverters has been evaluated.

RAI #4

10 CFR 50.36 requires that operating licenses for nuclear reactors must include TS that specify limited conditions for operation (LCOs) for equipment required for safe operation. TS Section 1.3, “Completion Time,” states that “LCOs specify minimum requirements for ensuring safe operation of the unit. The ACTIONS associated with an LCO state Conditions that typically describe the ways in which the requirements of the LCO can fail to be met. Specified with each stated Condition are Required Action(s) and Completion Time(s)...the Completion Time is the amount of time allowed for completing a Required Action. It is referenced to the time of discovery of a situation...that requires entering an ACTIONS Condition unless otherwise specified...Required Actions must be completed prior to the expiration of the specified Completion Time.”

LAR Section 1 states that “the proposed change would revise COL Appendix A, TS 3.8.3, Inverters – Operating, to extend the completion time (CT) for Required Action A.1 from 24 hours to 14 days.” The LAR section titled “Industry Experience Related to Inverter Maintenance” indicates that VEGP Units 3&4 have no direct operating experience for the specific VEGP inverter. The LAR Table 1 and Section 4.2 show that the CTs for inoperable inverters at other nuclear plants have previously been extended beyond 24 hours, in some cases to 7 days. LAR Table 1 lists LARs for other nuclear plants for recovery of an inoperable inverter with the longest postulated timeline for repair and maintenance listed in that table being 5.5 to 7.5 days for Palo Verde. LAR Section 4.2 lists four precedents: Byron and Braidwood, Units 1 and 2; Clinton; North Anna, Units 1 and 2; and Palo Verde, Units 1, 2, and 3 with the CT extensions for each LAR going from 24 hours to 7 days.

A 14-day CT extension is requested, but the LAR does not provide a justification to support that request since it is beyond CTs for the established precedents the licensee notes in the LAR.

Provide a list of the maintenance and plant activities for restoration of an inoperable inverter to OPERABLE status including the time to complete each activity along with the total time for all activities that demonstrates the acceptability of the proposed 14-day CT for TS 3.8.3, Required Action A.1.

DRAFT