

From: Green, Kimberly
Sent: Thursday, May 12, 2022 11:44 AM
To: Taylor, Andrew Charles
Cc: Eckermann, J Beau
Subject: Request for Additional Information Related to TVA's Request to Revised the TVA Plants' Radiological Emergency Plans (EPID L-2022-LLA-0021)
Attachments: RAI for EAL HU2 LAR.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Mr. Taylor,

By letter dated January 27, 2022 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22027A835), the Tennessee Valley Authority (TVA) requested changes to the radiological emergency plans for Browns Ferry Nuclear Plant, Units 1, 2, and 3, Sequoyah Nuclear Plant, Units 1, and 2, and Watts Bar Nuclear Plant, Units 1 and 2. Specifically, TVA proposed an exception in Initiating Condition HU2, Emergency Action Level to provide an additional method to declare an event if the operating basis earthquake seismic alarm is out of service.

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing your submittal and has identified an area where additional information is needed to complete its review. Attached, please find a draft request for additional information (RAI).

A draft request for additional information (RAI) was previously transmitted to TVA by email dated May 2, 2022. At your request, a clarification call was held on May 11, 2022, to clarify the NRC staff's draft RAI. As a result of the clarification call, no changes were made to the request. However, the word "radiological" was added to the title and introduction paragraph to be consistent with the January 27, request.

As agreed during the call, a response to the attached RAI is requested within 30 days from the date of this email.

The NRC staff considers that timely responses to RAIs help ensure sufficient time is available for staff review and contribute toward the NRC's goal of efficient and effective use of staff resources. If circumstances result in the need to revise the requested response date, please contact me at (301) 415-1627 or via email at Kimberly.Green@nrc.gov.

Sincerely,
Kimberly J. Green, Senior Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Hearing Identifier: NRR_DRMA
Email Number: 1647

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Subject: Request for Additional Information Related to TVA's Request to Revised the TVA Plants' Radiological Emergency Plans (EPID L-2022-LLA-0021)
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Created By: Kimberly.Green@nrc.gov

Recipients:
"Eckermann, J Beau" <jbeckermann@tva.gov>
Tracking Status: None
"Taylor, Andrew Charles" <actaylor@tva.gov>
Tracking Status: None

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REQUEST FOR ADDITIONAL INFORMATION

TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT, UNITS 1, 2, AND 3

SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2

WATTS BAR NUCLEAR PLANT, UNITS 1 AND 2

DOCKET NUMBERS 50-259, 50-260, 50-296, 50-327, 50-328, 50-390, 50-391

LICENSE AMENDMENT REQUEST TO REVISE THE RADIOLOGICAL EMERGENCY PLANS

By application dated January 27, 2022 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22027A835), the Tennessee Valley Authority (TVA) requested U.S. Nuclear Regulatory Commission (NRC) approval of changes to the Browns Ferry Nuclear Plant, Units 1, 2, and 3; the Sequoyah Nuclear Plant, Units 1, and 2; and the Watts Bar Nuclear Plant, Units 1 and 2, Radiological Emergency Plans pursuant to Section 50.54(q) of Title 10 of the *Code of Federal Regulations* (10 CFR).

The following request for additional information (RAI) is needed to facilitate the NRC staff's technical review.

RAI 1

Regulatory Basis:

- Section 50.47(b) establishes the planning standards that the onsite and offsite emergency response plans must meet for NRC staff to make a finding that there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. Planning Standard (4) of this section requires that onsite and offsite emergency response plans meet the following standard:

A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.
- Associated guidance in NUREG-0654/FEMP-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants: Final Report," Revision 2 (ADAMS Accession No. ML19347D139), Section II.D, Evaluation Criterion D.1 states that a standard emergency classification and action level scheme is established and maintained.
- Nuclear Energy Institute (NEI) document NEI 99-01, Revision 6, "Development of Emergency Action Levels for Non-Passive Reactors" (ADAMS Accession No. ML12326A805), provides NRC-endorsed guidance that can be used to develop a standard emergency classification and action level scheme. NEI 99-01, Revision 6

states:

Initiating conditions, emergency action levels, operating mode applicability and note statements and formatting consider human factors and are user-friendly.

Issue:

As stated in Section 2.1, "Reason for the Proposed Change," of the license amendment request (LAR), "revising the HU2 EAL [emergency action level] would ensure that the SM [shift manager]/SED [site emergency director] will make a timely determination by placing a 15-minute clock on the ability to gain additional information through the addition of a Note. Furthermore, having an additional method of event declaration may prevent avoidable notifications of unusual events by giving operators more flexibility in determination."

However, based on a review of the LAR, it appears that TVA is providing an additional HU2 threshold value, which would require an unusual event declaration if EAL 2.b is not able to be confirmed within 15 minutes, that the shift manager must confirm the occurrence of a seismic event in a manner that may require information provided in the proposed EAL #2 Basis discussion. Although TVA appears to be providing similar information as that provided by NEI 99-01, Revision 6, the proposed HU2 does not appear to consider human factors, nor does it appear to be user-friendly.

Request:

Provide a justification that supports a deviation from the guidance provided by NEI 99-01, Revision 6. This justification should specifically explain why the HU2.b threshold value, a note related to that threshold value, and the HU2.b basis discussion may all need to be referenced to support an accurate assessment for a seismic event.