

NRR-PMDAPEm Resource

From: Lingam, Siva
Sent: Monday, August 26, 2013 8:15 AM
To: Mackaman, Clyde Douglas (cdmackaman@tva.gov)
Cc: Broaddus, Doug; McMurtray, Anthony; Uribe, Juan; Hoang, Dan; Schrull, Edward D (edschrull@tva.gov)
Subject: Sequoyah 1 and 2 - Requests for Additional Information (RAIs) for License Amendment Request to Revise Updated Final Safety Analysis Report for Hydrologic Analyses Changes (TAC Nos. ME9238 and ME9239)

Please note the following additional official RAIs for the subject LAR. Please provide your responses by September 30, 2013.

REQUEST FOR ADDITIONAL INFORMATION (RAIs)
TENNESSEE VALLEY AUTHORITY (TVA)
SEQUOYAH NUCLEAR (SQN) UNITS 1 AND 2,
LICENSE AMENDMENT REQUEST (LAR) TO REVISE
THE SQN UNITS 1 AND 2 UPDATED FINAL SAFETY ANALYSIS REPORT
REGARDING CHANGES TO THE HYDROLOGIC ANALYSIS.
DOCKET NO. 50-327 AND 50-328
(TAC NO. ME9238 AND ME9239)

REFERENCES

1. Letter from J.W. Shea, Tennessee Valley Authority to NRC Documents Control Desk, "Application to Revise Sequoyah Nuclear Plant Units 1 and 2 Updated Final Safety Analysis Report Regarding Changes to Hydrologic Analysis," August 10, 2012.
(ADAMS Accession No.: ML122260684)

MECHANICAL AND CIVIL ENGINEERING BRANCH (EMCB) RAIs

Section 2.4.2, Floods

EMCB RAI 2.4.2-1

As stated in Reference 1, the probable maximum flood at the plant site has increased due to the revised update of the hydrologic analysis for SQN Units 1 and 2. However, the coincident wind wave activity that was predicted to be 4.2 feet (ft) (through to crest) for the original analysis has remained the same under the revised conditions.

Please confirm and provide a technical justification that documents that the coincident wind wave values predicted to be 4.2 ft are still applicable for the revised hydrologic analysis, or provide revised coincident wind wave values.

EMCB RAI 2.4.2-2

Reference 1 proposes to change the inputs for defining the antecedent precipitation index (API) using 11 years of historical rainfall records (1997-2007). The SQN Units 1 and 2 Updated Safety Analysis Report (UFSAR) Subsection 2.4.3.1 describes the current analysis for precipitation losses.

- a) What is the range, in terms of years, of the historical data analyzed to determine the median API described in the current UFSAR analysis? If the proposed range of the historical data for the LAR is less than the data in the UFSAR, please provide a justification for using this new proposed range that demonstrates that the range selected for the proposed LAR is representative and relates precipitation excess to the rainfall, week of the year, geographic location and API.

- b) Please explain and justify the selection of the year 2007 as the upper range of the revised historical rainfall records, otherwise, justify why the latest rainfall records were not used.

Section 2.4.3, Probable Maximum Floods (PMF) on Streams and Rivers

EMCB RAI 2.4.3-1

Please provide additional information that clarifies the differences between the runoff model used in the previous analysis to determine the Tennessee River flood hydrograph (45 unit areas) to the proposed analysis (40 units), as described in Reference 1. The response should also include an expanded justification for the acceptability of the differences between the models.

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Subject: Sequoyah 1 and 2 - Requests for Additional Information (RAIs) for License Amendment Request to Revise Updated Final Safety Analysis Report for Hydrologic Analyses Changes (TAC Nos. ME9238 and ME9239)

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Received Date: 8/26/2013 8:15:00 AM

From: Lingam, Siva

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Tracking Status: None

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