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## UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

June 28, 2011

Mr. Rodney M. Krich Vice President, Nuclear Licensing Tennessee Valley Authority 3R Lookout Place 1101 Market Street Chattanooga, TN 37402-2801

SUBJECT: SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2 - REQUEST FOR ADDITIONAL

INFORMATION REGARDING 10 CFR 50.46 ANNUAL REPORT

(TAC NOS. ME5168 AND ME5169)

Dear Mr. Krich:

By letter dated November 30, 2011, you submitted the annual report of changes or errors discovered in the emergency core cooling system evaluation model for Sequoyah Nuclear Plant, Units 1 and 2, in accordance with the requirements of paragraph (a)(3)(ii) of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Section 50.46, "Acceptance Criteria for Emergency Core Cooling Systems for Light-Water Nuclear Power Reactors."

The Nuclear Regulatory Commission staff is reviewing the submittal and has determined that additional information is required to complete its evaluation. This request was discussed with Mr. Dan Green of your staff on June 23, 2011, and it was agreed that a response would be provided within 30 days from the date of this letter.

If you have any questions, please contact me at 301-415-1564.

Sincerely,

Siva P. Lingam, Project Manager

Plant Licensing Branch II-2

Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Docket Nos. 50-327 and 50-328

Enclosure: Request for Additional Information

cc: Distribution via ListServ

## REQUEST FOR ADDITIONAL INFORMATION REGARDING 10 CFR 50.46 ANNUAL REPORT SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2

## **DOCKET NOS. 50-327 AND 50-328**

On November 30, 2010 (Agencywide Documents Access and Management System Accession No. ML103370242), Tennessee Valley Authority submitted, for Nuclear Regulatory Commission (NRC) review and evaluation, the annual report of changes or errors discovered in the emergency core cooling system evaluation model for Sequoyah Nuclear Plant, Units 1 and 2, as required under paragraph (a)(3)(ii) of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Section 50.46, "Acceptance Criteria for Emergency Core Cooling Systems for Light-Water Nuclear Power Reactors." In order to complete our evaluation, we need the following additional information:

- 1. With respect to the annual report covering the period until November 30, 2010, a summary of the information provides results from large break loss-of-coolant accident (LBLOCA) evaluation model and small break loss-of-coolant accident (SBLOCA) evaluation model, however, no specific detailed calculation information is given.
  - Please identify: (a) which specific criteria were used to select a reasonable bias on interphase friction at the steam generator tube sheet entrance; (b) the available document for sensitivity study on the S-RELAP5 realistic LBLOCA multiplier "FIJ" to meet the bias criteria; (c) which approved methodologies are used for LBLOCA and SBLOCA evaluation; and (d) the reason why the results due to the errors show there are 12 degrees Fahrenheit (°F) peak cladding temperature (PCT) change for LBLOCA evaluation and 0 °F PCT change for SBLOCA evaluation.
- 2. Please provide the annual report including a detailed analysis.

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### /RA/

Siva P. Lingam, Project Manager Plant Licensing Branch II-2 Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

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\*by memo dated

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