

50-327/328



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SEP 15 1996

Mr. Oliver D. Kingsley, Jr.
President, TVA Nuclear and
Chief Nuclear Officer
Tennessee Valley Authority
6A Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

SUBJECT: TECHNICAL EVALUATION REPORT FOR THE SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2, OFFSITE DOSE CALCULATION MANUAL, REVISION 28 (TAC NOS. M82764 AND M82765)

Dear Mr. Kingsley:

Enclosed is the Technical Evaluation Report (TER) for Revision 28 of the Sequoyah Nuclear Plant, Units 1 and 2, Offsite Dose Calculation Manual (ODCM). The TER was prepared for the NRC by the Idaho National Engineering Laboratory (INEL) in partial fulfillment of the "Review of Radiological Issues" project for the staff. The objective of the TER is to evaluate how well the Sequoyah ODCM conforms with the methodology and guidance of the following NRC documents:

- NUREG-1302, "Offsite Dose Calculation Manual Guidance: Standard Radiological Effluent Controls for Pressurized Water Reactors."
- NUREG-0133, "Preparation of RETS for Nuclear Power Plants."
- Regulatory Guide 1.109, Revision 1, "Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR 50, Appendix I."

The overall evaluation is that Revision 28 of the Sequoyah ODCM generally uses methods that are consistent with the methodology and guidance of these documents. However, as explained in the Summary section of the TER, 4 primary and 23 secondary deficiencies in 4 categories have been identified. They are listed in order of decreasing importance. These findings range in seriousness from errors or omissions that could result in erroneous calculated doses and dose rates to a lack of example calculations.

The ODCM should be a stand-alone document. It should contain all the information needed (equations, definitions, sample calculations) so that an NRC inspector can duplicate calculations that were used by your staff to demonstrate conformance to the radioactive effluent regulations. Many of the findings suggest that the ODCM should be revised to explain the reasons for utilizing some of the methodologies used, include example calculations, and definitions of variables used in several of the equations.

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As stated above, the enclosed TER is based on Revision 28 of Sequoyah's ODCM. Since you have issued subsequent revisions to the ODCM, some of the comments and suggestions contained in the attached TER may no longer be applicable.

The staff requests that you review the TER comments against the most recent version of the Sequoyah ODCM and incorporate all appropriate changes into the next revision of the ODCM. No additional response to this letter is requested.

Sincerely,

Original signed by

David E. LaBarge, Sr. Project Manager
Project Directorate II-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-327 and 50-328

Enclosure: Technical Evaluation Report

cc w/enclosure: See next page

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