

March 10, 2003

Mr. J. A. Scalice  
Chief Nuclear Officer and  
Executive Vice President  
Tennessee Valley Authority  
6A Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

SUBJECT: SEQUOYAH NUCLEAR PLANT, UNIT 1 - NOTICE OF CONSIDERATION OF  
ISSUANCE OF AMENDMENT (TAC NO. MB5387)

Dear Mr. Scalice:

The Commission has forwarded the "Notice of Consideration of Issuance of Amendment to Facility Operating License, Proposed No Significant Hazards Consideration Determination, and Opportunity for Hearing" to the Office of the Federal Register for publication. A copy is enclosed for your information.

The notice relates to your letter dated February 14, 2003, in which you requested a revision to the Sequoyah Nuclear Plant (SQN) Updated Final Safety Analysis Report. The revision provides a change in methodology using a through-bolted connection frame methodology that is different than the original design and construction of the Unit 1 steam generator (SG) roof compartment. This proposed frame methodology is described in Topical Report No. 24370-TR-C-003, Revision 1, and is requested for implementation upon the restoration of the roof compartment as part of the upcoming SG replacement project for SQN, Unit 1.

Sincerely,

*/RA/*

Raj K. Anand, Senior Project Manager, Section 2  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-327

Enclosure: Notice

cc w/encl: See next page

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UNITED STATES NUCLEAR REGULATORY COMMISSION

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-327

NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENT TO  
FACILITY OPERATING LICENSE, PROPOSED NO SIGNIFICANT HAZARDS  
CONSIDERATION DETERMINATION, AND OPPORTUNITY FOR A HEARING

The U.S. Nuclear Regulatory Commission (NRC or the Commission) is considering issuance of an amendment to Facility Operating License DPR-77 issued to the Sequoyah Nuclear Plant (SQN) for operation of Unit 1 located in Hamilton County, Tennessee.

The proposed amendment would revise the SQN, Unit 1, Updated Final Safety Analysis Report (UFSAR). The revision provides a change in methodology using a through-bolted connection frame methodology that is different than the original design and construction of the Unit 1 steam generator (SG) roof compartment. This proposed frame methodology is described in Topical Report No. 24370-TR-C-003, Revision 1, and is requested for implementation upon the restoration of the roof compartment as part of the upcoming SG replacement project for SQN, Unit 1.

Before issuance of the proposed license amendment, the Commission will have made findings required by the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations.

The Commission has made a proposed determination that the amendment request involves no significant hazards consideration. Under the Commission's regulations in Title 10 of the CODE OF FEDERAL REGULATIONS (10 CFR), Section 50.92, this means that operation of the facility in accordance with the proposed amendment would not (1) involve a significant

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increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

No. The probability of occurrence or the consequences of an accident are not increased as presently analyzed in the safety analyses since the objective of the event mitigation is not changed. No changes in event classification as discussed in UFSAR Chapter 15 will occur due to the modification of the Unit 1 steam generator (SG) compartment roof design.

The grout used to fill the gap between the replaced concrete and the surrounding concrete, like the surrounding concrete, could “theoretically” experience the formation of micro-cracks when subjected to the design pressure load. Conservative estimates of the flow path through these micro-cracks yield values that are numerically insignificant when compared to the allowable divider barrier bypass leakage. Micro-cracks resulting from the design pressure load will have a negligible effect on the function of the divider barrier and the analyses that depend on the divider barrier. Therefore, the containment design pressure is not challenged, thereby ensuring that the potential for increasing offsite dose limits above those presently analyzed at the containment design pressure of 12.0 pounds per square inch (psi) is not a concern.

Therefore, the proposed modification to the Unit 1 SG compartment roof design will not significantly increase the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

No. The possibility of a new or different accident situation occurring as a result of this condition is not created. The SG compartment roof forms part of the divider barrier. This barrier is not an initiator of any accident and only serves to force steam that is released from a loss-of-coolant accident/design basis accident (LOCA/DBA) to pass through the ice condenser. The failure of any part of the divider barrier is considered critical since it would allow LOCA/DBA steam to bypass the ice condenser, thereby increasing the pressure within the primary containment.

As discussed in the UFSAR, there is a maximum calculated leakage of 250 cubic feet per minute (cfm) between the upper and lower containment through the

divider barrier. The amount of leakage between the two sections of the containment will not be significantly affected by the restoration of the SG compartment roofs. The use of non-shrink grout to seal the joint created between the concrete sections and the remaining structure will maintain the boundaries between upper and lower containment. It is noted that any leakage due to possible cracks in the grout, particularly under DBA loading, will be extremely small and therefore insignificant.

Therefore, the potential for creating a new or unanalyzed condition is not created.

3. Does the proposed change involve a significant reduction in a margin of safety?

No. A design DBA differential pressure assumed in the original design of the SG compartment roof is 23 percent higher than the maximum calculated differential pressure of 19.52 psi. Since the same design differential pressure was also used in the modified SG compartment roof stress evaluation, the margin of safety was not reduced.

As discussed previously, the amount of leakage that bypasses the divider barrier will not be affected by the restoration of the SG compartment roofs. The use of non-shrink grout to seal the joint created between the concrete sections and the remaining structure will maintain the boundaries between upper and lower containment. Hence, the worse-case accident conditions for the containment will not be affected by the proposed modifications.

Therefore, a significant reduction in the margin to safety is not created by this modification.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

The Commission is seeking public comments on this proposed determination. Any comments received within 30 days after the date of publication of this notice will be considered in making any final determination.

Normally, the Commission will not issue the amendment until the expiration of the 30-day notice period. However, should circumstances change during the notice period such that failure to act in a timely way would result, for example, in derating or shutdown of the

facility, the Commission may issue the license amendment before the expiration of the 30-day notice period, provided that its final determination is that the amendment involves no significant hazards consideration. The final determination will consider all public and State comments received. Should the Commission take this action, it will publish in the FEDERAL REGISTER a notice of issuance and provide for opportunity for a hearing after issuance. The Commission expects that the need to take this action will occur very infrequently.

Written comments may be submitted by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and should cite the publication date and page number of this FEDERAL REGISTER notice. Written comments may also be delivered to Room 6D59, Two White Flint North, 11545 Rockville Pike, Rockville, Maryland, from 7:30 a.m. to 4:15 p.m. Federal workdays. Documents may be examined, and/or copied for a fee, at the NRC's Public Document Room, located at One White Flint North, Public File Area O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland.

The filing of requests for hearing and petitions for leave to intervene is discussed below.

By April 14, 2003, the licensee may file a request for a hearing with respect to issuance of the amendment to the subject facility operating license and any person whose interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a written request for a hearing and a petition for leave to intervene. Requests for a hearing and a petition for leave to intervene shall be filed in accordance with the Commission's "Rules of Practice for Domestic Licensing Proceedings" in 10 CFR Part 2. Interested persons should consult a current copy of 10 CFR 2.714,<sup>1</sup> which is available at the Commission's Public

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<sup>1</sup> The most recent version of Title 10 of the *Code of Federal Regulations*, published January 1, 2002, inadvertently omitted the last sentence of 10 CFR 2.714(d) and subparagraphs (d)(1) and (2), regarding petitions to intervene and contentions. For the complete, corrected text of 10 CFR 2.714(d), please see 67 FR 20884; April 29, 2002."

Document Room, located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland, or electronically on the Internet at the NRC Web site <http://www.nrc.gov/reading-rm/doc-collections/cfr/>. If there are problems in accessing the document, contact the Public Document Room Reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to [pdr@nrc.gov](mailto:pdr@nrc.gov). If a request for a hearing or petition for leave to intervene is filed by the above date, the Commission or an Atomic Safety and Licensing Board, designated by the Commission or by the Chairman of the Atomic Safety and Licensing Board Panel, will rule on the request and/or petition; and the Secretary or the designated Atomic Safety and Licensing Board will issue a notice of hearing or an appropriate order.

As required by 10 CFR 2.714, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following factors: (1) the nature of the petitioner's right under the Act to be made party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any order which may be entered in the proceeding on the petitioner's interest. The petition should also identify the specific aspect(s) of the subject matter of the proceeding as to which petitioner wishes to intervene. Any person who has filed a petition for leave to intervene or who has been admitted as a party may amend the petition without requesting leave of the Board up to 15 days prior to the first prehearing conference scheduled in the proceeding, but such an amended petition must satisfy the specificity requirements described above.

Not later than 15 days prior to the first prehearing conference scheduled in the proceeding, a petitioner shall file a supplement to the petition to intervene which must include a list of the contentions which are sought to be litigated in the matter. Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In

addition, the petitioner shall provide a brief explanation of the bases of the contention and a concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing. The petitioner must also provide references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion. Petitioner must provide sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. Contentions shall be limited to matters within the scope of the amendment under consideration. The contention must be one which, if proven, would entitle the petitioner to relief. A petitioner who fails to file such a supplement which satisfies these requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing, including the opportunity to present evidence and cross-examine witnesses.

If a hearing is requested, the Commission will make a final determination on the issue of no significant hazards consideration. The final determination will serve to decide when the hearing is held.

If the final determination is that the amendment request involves no significant hazards consideration, the Commission may issue the amendment and make it immediately effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendment.

If the final determination is that the amendment request involves a significant hazards consideration, any hearing held would take place before the issuance of any amendment.

A request for a hearing or a petition for leave to intervene must be filed with the

Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Attention: Rulemakings and Adjudications Staff, or may be delivered to the Commission's Public Document Room (PDR), located at One White Flint North, Public File Area O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland, by the above date.

Because of the continuing disruptions in delivery of mail to United States Government offices, it is requested that petitions for leave to intervene and requests for hearing be transmitted to the Secretary of the Commission either by means of facsimile transmission to 301-415-1101 or by e-mail to [hearingdocket@nrc.gov](mailto:hearingdocket@nrc.gov). A copy of the petition for leave to intervene and request for hearing should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and because of continuing disruptions in delivery of mail to United States Government offices, it is requested that copies be transmitted either by means of facsimile transmission to 301-415-3725 or by e-mail to [OGCMailCenter@nrc.gov](mailto:OGCMailCenter@nrc.gov). A copy of the request for hearing and petition for leave to intervene should also be sent to General Counsel, Tennessee Valley Authority, 400 West Summit Hill Drive, ET 10H, Knoxville, Tennessee 37902, attorney for the licensee.

Nontimely filings of petitions for leave to intervene, amended petitions, supplemental petitions and/or requests for hearing will not be entertained absent a determination by the Commission, the presiding officer or the presiding Atomic Safety and Licensing Board that the petition and/or request should be granted based upon a balancing of the factors specified in 10 CFR 2.714(a)(1)(i)-(v) and 2.714(d).

For further details with respect to this action, see the application for amendment dated February 14, 2003, which is available for public inspection at the Commission's PDR, located at One White Flint North, File Public Area O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible from the Agencywide Documents Access and Management System's (ADAMS) Public Electronic Reading Room on the Internet

at the NRC Web site, <http://www.nrc.gov/reading-rm/adams.html>. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS, should contact the NRC PDR Reference staff by telephone at 1-800-397-4209, 301-415-4737, or by e-mail to [pdr@nrc.gov](mailto:pdr@nrc.gov).

Dated at Rockville, Maryland, this 10th day of March 2003.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

Raj K. Anand, Senior Project Manager, Section 2  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Mr. J. A Scalice  
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SEQUOYAH NUCLEAR PLANT

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