

February 14, 2002

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

SUBJECT: SEQUOYAH NUCLEAR PLANT, UNIT 2 - REQUEST FOR ADDITIONAL
INFORMATION ON TECHNICAL SPECIFICATION CHANGE NO. 01-10,
"ONE-TIME FREQUENCY EXTENSION FOR TYPE A TEST (CONTAINMENT
INTEGRATED LEAK RATE TEST (CILRT))" (TAC NO. MB3275)

Dear Mr. Scalice:

The subject Technical Specification (TS) Amendment Request was submitted to the U.S. Nuclear Regulatory Commission (NRC) for review and approval on October 9, 2001, by the Tennessee Valley Authority (TVA). The proposed license amendment would revise TS 6.8.4.h to allow a one-time 5-year extension to the current 10-year test interval for the Sequoyah Nuclear Plant (SQN), Unit 2, containment integrated leak rate test. The NRC staff is in the process of reviewing TVA's submittal.

As discussed during a conference call on February 11, 2002, the NRC staff requires responses to the enclosed Request for Additional Information to proceed with its review. Following the call, Mr. Donald V. Goodin of the SQN Licensing Staff stated that TVA would respond to this request by March 13, 2002.

Please have your staff contact me at (301) 415-2010 if there are any questions regarding the enclosed request.

Sincerely,

/RA/

Ronald W. Hernan, Senior Project Manager, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-328

Enclosure: Request for Additional Information

cc w/enclosure: See next page

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REQUEST FOR ADDITIONAL INFORMATION

ONE-TIME FREQUENCY EXTENSION FOR TYPE A CONTAINMENT

INTEGRATED LEAK RATE TEST

SEQUOYAH NUCLEAR PLANT, UNIT 2

DOCKET NO. 50-328

Reference: Letter from the Tennessee Valley Authority (TVA) to the U.S. Nuclear Regulatory Commission (NRC), "Sequoyah Nuclear Plant (SQN) - Unit 2 - Technical Specification (TS) Change No. 01-10, "One-Time Frequency Extension for Type A Test (Containment Integrated Leak Rate Test (CILRT))," October 9, 2001

The containment inservice inspection (ISI) requirements mandated by Title 10 of the *Code of Federal Regulations*, Section 50.55a (10 CFR 50.55a), and the leak rate testing requirements of Option B of 10 CFR Part 50 Appendix J, complement each other in ensuring the leak-tight and structural integrity of the containment. The NRC staff needs additional information to complete its review of the TS change request submitted by the referenced letter.

1. On page 8 of Enclosure 4 to your October 9, 2001, letter, you make reference to "containment liner" in several places. However, in the background description in your Enclosure 1, you describe the containment as a "freestanding steel vessel." Please clarify this discrepancy and discuss whether this difference in containment configuration would make any difference in the calculations related to a preexisting leak.
2. In describing test history information in your Enclosure 1, you state, "[P]revious Unit 2 Type A test results have shown leakage to be below the 1.0 L_a leakage limit." Per the guidelines in Nuclear Energy Institute (NEI) Report NEI 94-01, an acceptable performance history (for extending Type A test interval) is defined as completion of two consecutive periodic Type A tests where the calculated performance leakage rate is less than 1.0 L_a. The method of determining the performance leakage rate is provided in Section 9.2.3 of the NEI report. Please provide the values of performance leakage rates for the last two consecutive Type A CILRT tests performed at SQN Unit 2.
3. Please provide a description of the ISI that provides assurance that in the absence of a CILRT for 15 years, the containment structural and leak-tight integrity will be maintained, beyond the partial description provided on page E1-6 of your letter. Please identify the Edition and Addenda of the American Society of Mechanical Engineers (ASME) Code, Section XI, used for containment ISI together with the start dates of the first and second SQN Unit 2 containment ISI intervals, and the future inspection periods.
4. IWE-1240 of Subsection IWE of Section XI of the ASME Boiler and Pressure Vessel Code requires you to identify the surface areas requiring augmented examinations. Please provide the locations of the containment surfaces which you have identified as requiring augmented examination and a summary of findings of the augmented examinations you performed for SQN Unit 2 in these areas.

Enclosure

5. For the examination of seals and gaskets, and testing of bolts associated with the primary containment pressure boundary (Examination Categories E-D and E-G), you had requested relief from the requirements of the Code. As an alternative, you plan to examine them during the leak rate testing of the primary containment. With the flexibility provided in Option B of Appendix J for Type B and Type C testing (as per NEI 94-01 and RG 1.163), and the extension requested in this amendment for Type A testing, please provide the examination schedule for examining and testing seals, gaskets, and bolts related to the integrity of the containment pressure boundary.

6. Inspections of some reinforced and steel containments have indicated degradation from the uninspectable (embedded) side of the steel shell and liner of primary containments. In case of SQN-2, the major uninspectable areas would be those behind the ice baskets and part of the shell embedded in the basemat. Please discuss how potential leakages due to age-related degradation mechanisms described above are factored into the risk-informed assessment related to the CILRT interval extension. Please note that, as discussed in NUREG-1493, it takes only 3.5 sq. in. of leak area for the entire containment (100%) air to leak in 24 hrs.

Mr. J. A. Scalice
Tennessee Valley Authority

cc:

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SEQUOYAH NUCLEAR PLANT

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