



Tennessee Valley Authority, Post Office Box 2000, Soddy-Daisy, Tennessee 37384-2000

September 6, 2002

TVA-SQN-TS-00-14

10 CFR 50.90  
10 CFR 50.12

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D. C. 20555

Gentlemen:

In the Matter of	)	Docket Nos. 50-327
Tennessee Valley Authority	)	50-328

**SEQUOYAH NUCLEAR PLANT (SQN) - UNITS 1 AND 2 - TECHNICAL  
SPECIFICATION (TS) CHANGE NO. 00-14, "PRESSURE TEMPERATURE  
LIMITS REPORT (PTLR) AND REQUEST FOR EXEMPTION FROM THE  
REQUIREMENTS OF 10 CFR 50, APPENDIX G"**

- References:
1. NRC letter to TVA dated October 6, 1999,  
"Closeout of Generic Letter 92-01,  
Revision 1, Supplement 1, 'Reactor Vessel  
Integrity,' for Sequoyah Nuclear Plant Units  
1 and 2 (TAC Nos. M92730 and M92731)"
  2. TVA letter to NRC dated March 8, 2000,  
"Sequoyah Nuclear Plant (SQN) Unit 2 Reactor  
Vessel Surveillance Capsule Y Analysis  
Summary Report"
  3. TVA letter to NRC dated September 13, 1999,  
"Sequoyah Nuclear Plant (SQN) Unit 1 Reactor  
Vessel Surveillance Capsule Y Analysis  
Summary Report"

In accordance with the provisions of 10 CFR 50.4 and 50.90,  
TVA is submitting a request for an amendment to SQN's  
Licenses DPR-77 and 79 to change the TSs for Units 1 and 2.

A028  
A008

The proposed amendment revises two SQN TSs (i.e., TS 3/4.4.9.1, "Pressure/Temperature Limits, Reactor Coolant System" and TS 3/4.4.12, "Low Temperature Over Pressure Protection Systems"). This submittal also includes two requests for exemption from the requirements of 10 CFR 50, Appendix G. TVA's proposed amendment for these TSs is divided into two general areas of revision:

- 1) Relocation of requirements from these TSs into a PTLR format in accordance with NRC Generic Letter (GL) 96-03, "Relocation of the Pressure Temperature Limit Curves, and Low Temperature Overpressure," and,
- 2) In conjunction with adopting a PTLR format, TVA is taking opportunity to amend these TSs and upgrade to standard TS requirements for Westinghouse plants (NUREG-1431, Revision 2). As part of the TS upgrade, TVA is proposing to relocate the requirements from SQN TS 3/4.4.9.2, "Pressurizer," to the SQN Technical Requirements Manual.

In accordance with the guidance of GL 96-03, TVA is submitting a formal PTLR for NRC approval. The PTLR for each unit contains pressure-temperature (P-T) limits and low temperature overpressure protection (LTOP) setpoints that are being updated to reflect the results of the latest reactor vessel surveillance program capsule "Y" analyses. The update to these limits and setpoints is based on Westinghouse topical reports that are provided in Enclosure 5 of this submittal. The SQN surveillance capsule "Y" analyses for Units 1 and 2 were previously submitted to you by reference letters 2 and 3. It may be noted that the capsule "Y" analysis extends the applicability of SQN's P-T/LTOP limits to 32 Effective Full Power Years (EFPYs) of plant operation.

The enclosed Westinghouse Topical Reports [i.e., WCAP-15293, Revision 1 (Unit 1) and WCAP-15321, Revision 1 (Unit 2)] utilize alternatives to the requirements of 10 CFR 50, Appendix G as referenced by 10 CFR 50.60(a). In accordance with 10 CFR 50.12, "Specific Exemptions," TVA is requesting two exemptions. The first exemption requests use of American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI Code Case N-640, "Alternative

U.S. Nuclear Regulatory Commission  
Page 3  
September 6, 2002

Requirement Fracture Toughness for Development of P-T limit Curves for ASME Section XI, Division 1," in lieu of 10 CFR 50, Appendix G, paragraph IV.A.2.b. The second exemption requests the use of WCAP-15315, "Reactor Vessel Closure Head/Vessel Flange Requirements Evaluation for Operating PWR and BWR Plants" in lieu of 10 CFR 50, Appendix G, footnote 2 to Table 1. TVA recognizes the pending rule change associated with 10 CFR 50, Appendix G and the exclusion of the reactor head flange. Accordingly, TVA has included this second exemption based on schedule needs associated with updating SQN's P-T limits. As discussed with NRC staff, TVA understands that the NRC will be providing guidance information needed for a plant specific exemption and we will respond as necessary.

In a related issue, the Reference 1 letter provides an NRC closeout letter for SQN regarding issues associated with Generic Letter 92-01, Revision 1, Supplement 1, "Reactor U.S. Vessel Structural Integrity." Reference 1 noted two NRC concerns regarding information in SQN's two most recent capsule surveillance reports and the NRC Reactor Vessel Integrity Database, Revision 2. It was noted that TVA would resolve these concerns as part of SQN's PTLR submittal. The enclosed PTLR provides the requested information that resolves the concerns described in the Reference 1 letter.

TVA has determined that there are no significant hazards considerations associated with the proposed change and that the change is exempt from environmental review pursuant to the provisions of 10 CFR 51.22(c)(9). The SQN Plant Operations Review Committee and the SQN Nuclear Safety Review Board have reviewed this proposed change and determined that operation of SQN Units 1 and 2, in accordance with the proposed change, will not endanger the health and safety of the public. Additionally, in accordance with 10 CFR 50.91(b)(1), TVA is sending a copy of this letter to the Tennessee State Department of Public Health.

Enclosure 1 to this letter provides the description and evaluation of the proposed change. This includes TVA's determination that the proposed change does not involve a significant hazards consideration, and is exempt from

environmental review. Enclosure 2 provides marked-up copies of the appropriate SQN TS pages from Units 1 and 2. Enclosure 3 forwards the revised TS pages for Units 1 and 2 that incorporate the proposed change. Enclosure 4 provides the PTLRs for each unit.

Enclosure 5 contains the associated Westinghouse topical reports that contain calculations and PTLR support documentation. Enclosures 6 and 7 provide the exemptions to 10 CFR 50, Appendix G.

SQN TS Change 01-08 was recently approved by NRC to increase core thermal power from 3411 megawatts thermal (MWt) to 3455 MWt. As a result of the increased power (neutron fluence), the SQN Unit 2 EFPYs decreases to 14.5 EFPYs. Based on projected operation schedules for Unit 2, TVA anticipates the end of 14.5 EFPYs to occur in the summer of 2003. Accordingly, TVA requests NRC review and approval by May 2003 to accommodate the needed updates to SQN's P-T limits for continued operation of Unit 2. Note that SQN's current P-T limits for Unit 1 are less limiting than Unit 2 (i.e., Unit 1 curves are based on 16 EFPYs of operation and are projected to be valid through 2005).

The regulatory precedents that are similar to TVA's proposed TS amendment are Calvert Cliffs Nuclear Plant and Watts Bar Nuclear Plant as approved by NRC letters dated March 15, 2001 and September 22, 1995 respectively.

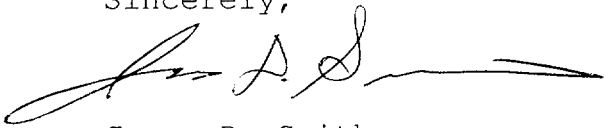
TVA's proposed TS revisions are based on NUREG-1431, Revision 2, and include the TS improvements from the following NRC approved Industry Standard Technical Specification Task Force (TSTFs) Travelers: TSTF-233, Revision 0 (partial), TSTF-243, Revision 0, TSTF-271, Revision 1, TSTF-280, Revision 1, TSTF-285, Revision 1, TSTF-352, Revision 1, (partial), and TSTF-419, Revision 0.

TVA requests that the revised TS be made effective within 60 days of NRC approval.

U.S. Nuclear Regulatory Commission  
Page 5  
September 6, 2002

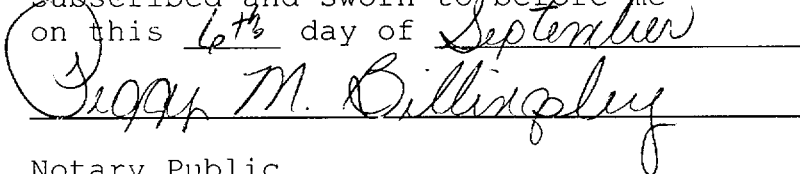
There are no regulatory commitments being made by this submittal. This letter is being sent in accordance with NRC RIS 2001-05. If you have any questions about this change, please telephone me at (423) 843-6672 or D. V. Goodin at (423) 843-7734.

Sincerely,



James D. Smith  
Acting Licensing and Industry Affairs Manager

Subscribed and sworn to before me  
on this 6<sup>th</sup> day of September



Notary Public  
My Commission Expires August 12, 2006

Enclosures

cc (Enclosures):

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