Tennessee Valley Authority, Post Office Box 2000, Soddy-Daisy, Tennessee 37379

November 14, 1994

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) - AUTHORIZATION TO USE AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME) BOILER AND PRESSURE VESSEL (B&PV) CODE CASE N-522

Pursuant to 10 CFR 50.55a(g)(5), TVA has determined that conformance with a pressure test requirement from Section XI of the ASME Code (1977 Edition, Summer 1978 Addenda) is impractical for SQN Units 1 and 2.

TVA requests relief from the ASME code requirement for performing periodic pressure tests for piping that penetrates the containment vessel when the piping and isolation valves that are part of the containment system are Class 2, but the balance of the piping system is outside the scope of Section XI. TVA proposes to utilize the alternative requirements of Code Case N-522 "Pressure Testing of Containment Penetration Piping."

TVA is aware that the staff has not completed their review of this code case and accordingly, have not determined whether to include Code Case N-522 into Regulatory Guide 1.147. Consequently, TVA is requesting relief for specific applications of Code Case N-522 for components and systems where a code-required test has been determined to be impractical.

The alternative testing in Code Case N-522 is supported by the recent approval by the ASME as published on December 9, 1993. TVA considers the alternative requirements in ASME Code Case N-522 to provide an acceptable level of quality and safety in lieu of the periodic pressure testing. In addition, TVA estimates a reduction in man-hours and radiation exposure that provide a one-time cost savings of $162,000 per unit.

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Enclosure 1 contains TVA's Request for Relief (ISPT-4). Enclosure 2 contains TVA's commitment for incorporating Relief Request ISPT-4 into SQN's ASME, Section XI, Pressure Test Program.

NRC review and approval is requested before October 1, 1995, in order to support completion of SQN's first 10-year in-service inspection interval for both units. The first 10-year interval is scheduled to end in December 1995 for both units.

For further information concerning this issue, please contact D. V. Goodin at (615) 843-7734.

Sincerely,

R. H. Shell

R. H. Shell
Manager
SQN Site Licensing

Enclosures
cc (Enclosures):
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ENCLOSURE 1

IN-SERVICE PRESSURE TEST PROGRAM

(ISPT-4)

Units:	1 & 2
Components:	All Class 2 pressure retaining components subject to hydrostatic testing in accordance with Table IWC-2500-1, which penetrate the containment vessel when the piping and isolation valves are part of the containment vessel and the balance of the piping system is outside the scope of Section XI. The attached table provides the specific Class 2 containment penetrations that are applicable to this relief request.
Systems:	Primary water, waste disposal, fire protection, floor and equipment drains, fuel pool cooling and cleaning, demineralized water and cask decon, air conditioning chill water, and sampling.
Class:	2
Code References:	Table IWC-2500-1, Categories C-H and IWC-5000
Code Requirements:	Table IWC-2500-1 provides the requirements for periodic pressure testing of pressure retaining components. IWC-5000 provides the system test requirements.
Proposed Alternative:	Class 2 piping and isolation valves that are part of the containment system, but the balance of the piping system is outside the scope of Section XI, shall be tested under the rules of 10CFR 50, Appendix J.
Basis for the Proposed Alternative:	American Society of Mechanical Engineers Code Case N-522 allows the use of testing in accordance with 10 CFR 50, Appendix J in lieu of the required system periodic pressure test required by Table IWC-2500-1 for Class 2 piping and isolation valves that are part of the containment system and the balance of the piping system is outside the scope of Section XI. The penetration piping is required to be classified as Class 2 because of its function as part of the containment pressure boundary. The remaining portion of the system is nonnuclear related and the integrity of the system in relation to its primary function of containment integrity is not within the scope of Section XI. Because containment integrity is the only safety-related function performed, it is appropriate to test the safety-related portion of the system to the Appendix J criteria.

10 CFR 50, Appendix J testing is required to be performed by SQN Technical Specification 4.6.1.1.c. Code hydrostatic testing and Appendix J testing provide duplicate testing, which imposes an unnecessary burden. Performance of hydrostatic pressure testing, in addition to the Appendix J testing, results in additional costs in personnel safety and radiological exposure without a compensating increase in the level of quality and safety. The subject penetrations are, and will continue to be, tested more frequently under the requirements of Appendix J than with Section XI. The Appendix J testing is considered to be appropriate for assessing the integrity of the subject containment penetrations.

Applicable Time Period: Relief is requested for the first 10-year interval of the In-Service Inspection Program for SQN Units 1 and 2. The first 10-year interval is scheduled to end in December 1995.

ATTACHMENT TO ENCLOSURE 1

IN-SERVICE PRESSURE TEST PROGRAM

(ISPT-4)

PENETRATION NUMBER	FLOW DIAGRAM	PIPE SIZE	DESIGN PRESSURE	SYSTEM
X-42	FSAR Table 6.2.4-1 Sheet 64	3"	100 PSI	Primary Water
X-46	FSAR Table 6.2.4-1 Sheet 71	3"	150 PSI	Waste Disposal
X-51, X-78	FSAR Table 6.2.4-1 Sheets 80 AND 107	4"	150 PSI	Fire Protection
X-41	FSAR Table 6.2.4-1 Sheet 63	2"	14.7 PSI	Floor & Equipment Drains
X-82, X-83	FSAR Table 6.2.4-1 Sheets 111 and 112	4"	150 PSI	Fuel Pool Cooling & Cleaning
X-77	FSAR Table 6.2.4-1 Sheet 106	2"	100 PSI	Demineralized Water & Cask Decon
X64, X--65, X-66, X-67	FSAR Table 6.2.4-1 Sheets 92 through 95	2"	65 PSI	Air Conditioning Chill Water
X-93	FSAR Table 6.2.4-1 Sheet 127	3/8"	875 PSI	Sampling - Cold Leg Accumulators
X-103	FSAR Table 6.2.4-1 Sheet 141	3/8"	15 PSI	Sampling - PASF

ENCLOSURE 2

TVA COMMITMENT

TVA will revise SQN's American Society of Mechanical Engineers (ASME), Section XI, Pressure Test Program (Site Standard Practice [SSP] 8.5, "ASME Section XI Pressure Test Program") to allow the use of ASME Code Case N-522 within three months following NRC approval of Relief Request ISPT-4.