TENNESSEE VALLEY AUTHORITY

5B Lookout Place

December 10, 1990

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) - REQUEST FOR AN EXTENSION TO TEMPORARY DEVIATIONS FROM REGULATORY GUIDE (RG) 1.97 - SHIELD BUILDING STACK INSTRUMENTATION

Reference: TVA letter to NRC dated November 11, 1990, "Temporary Deviation from Regulatory Guide (RG) 1.97 - Shield Building Stack Radiation Monitoring"

By the reference letter, TVA submitted two temporary deviations from the requirements of RG 1.97 for SQN's shield building stack radiation and flow monitoring instrumentation. The nature of TVA's temporary deviations from RG 1.97 was based on the unexpected calibration and reliability problems that were experienced on SQN's newly installed RG 1.97 equipment. By the referenced letter, TVA requested a four-week time period for resolving these instrumentation problems, i.e., the deviations would expire December 10, 1990.

TVA has worked closely with the equipment vendor in making modifications to the microprocessor to correct reliability problems. TVA has also conducted additional flow tests and functional tests of the equipment to address calibration problems. The software reliability problems and the hardware calibration problems have now been resolved. A new problem however has been recently identified by TVA involving demonstrated accuracy at low flow rates. While conducting flow tests on the shield building stack, TVA engineers noted that the accuracy requirements of RG 1.97 (RG 1.97 requires overall system accuracy to be within a factor of two over the entire range) were not met for low flow rates. TVA is currently assessing the minimum shield building stack flow that is necessary to comply with the accuracy requirements of RG 1.97. TVA anticipates that additional time will be needed for gathering additional data and evaluating existing tolerance margins within the system and equipment. Accordingly, as agreed upon during a December 10, 1990, phone call between NRC and TVA staffs, the two existing temporary deviations from RG 1.97 for SQN will be extended until January 31, 1991. During this timeframe, TVA will clearly establish the required range for which RG 1.97 accuracy requirements are applicable and the overall system accuracy of SQN's shield building stack instrumentation. Based on this information, TVA will be able to determine if the existing system fully meets RG 1.97 requirements or whether a permanent deviation from the accuracy requirements of RG 1.97 will be necessary for SQN's shield building stack instrumentation.

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U.S. Nuclear Regulatory Commission

The enclosure contains the TVA commitment for resolving these temporary deviations on SQN's shield building stack instrumentation by January 31, 1991.

Please direct questions concerning this issue to D. V. Goodin at (615) 843-7734.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

for E. G. Wallace, Manager
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ENCLOSURE
TVA COMMITMENT

TVA will resolve the temporary deviations on SQN's shield building stack instrumentation by January 31, 1991.