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

March 13, 1995

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) - NRC INSPECTION REPORT NOS. 50-327, 328/95-02 - REPLY TO NOTICE OF VIOLATION (NOV) 50-327, 328/95-02-01

Enclosed is TVA's reply to Ellis W. Merschoff's letter to O.D. Kingsley, Jr., dated February 9, 1995, which transmitted the subject NOV. This NOV pertains to an inadequate procedure for control (installation and removal) of temporary test equipment.

TVA acknowledges that old plant configuration problems have contributed to plant events. As a result, plant personnel are performing system evaluations to identify and resolve other potential conditions. Lessons learned from previous events have been incorporated into the system evaluation criteria. Actions being taken as part of the system evaluation are to review areas not normally walked down, review drawings to identify and resolve unclear drawings or drawings that contain special conditions such as flow straighteners, identify and evaluate conditions where test equipment has been installed for a prolonged time, identify and correct unauthorized modifications, and evaluate unusual or special configurations. These actions are being acomplished by walkdowns and document reviews as approporiate. Additionally, the Nuclear Assurance organization will perform an independent assessment of the system evaluation. This effort will sensitize site personnel to any potential configuration issues and promote resolution to ensure that these conditions do not result in plant events. The above actions will be completed by June 9, 1995. Subsequent to the completion of these actions, TVA will arrange a meeting with the NRC staff to discuss the results of the above actions.

The enclosure to this letter is TVA's reply to the NOV, including any applicable commitments relative to the violation.

JE01

If you have any questions concerning this submittal, please telephone R. H. Shell at (615) 843-7170.

Sincerely,

R. J. Adney
Site Vice President

Enclosure
cc (Enclosure):

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ENCLOSURE

REPLY TO NOTICE OF VIOLATION
NRC INSPECTION REPORT NOS. 50-327, 328/95-02
ELLIS W. MERSCHOFF'S LETTER TO OLIVER D. KINGSLEY
DATED FEBRUARY 9, 1995

Violation 327, 328/95-02-01

"10CFR Part 50, Appendix B, Criterion V requires, in part, that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings of a type appropriate to the circumstances, and shall be accomplished in accordance with these instructions, procedures, or drawings.

"Contrary to the above,

On or after June 1, 1979, an activity affecting quality provided as a part of Preoperational Test Procedure TVA-28 was either not adequately prescribed by documented instructions, procedures, and/or drawings, or was not accomplished in accordance with documented instructions, procedures, and/or drawings. The test activity required installation of temporary test lines and did not remove these test lines in the reactor coolant sample system to reestablish system configuration in accordance with the established design. This configuration resulted in a leak of reactor coolant on December 28, 1994, due to a failure of one of these test lines.

"This is a Severity Level IV violation (Supplement 1)."

Reason For The Violation

The cause of the violation was an inadequate preoperational test procedure. The test procedure did not contain guidance for control (installation or removal) of temporary test equipment. Because of the old age of the test procedure, it could not be determined why the procedure did not contain adequate controls.

A preoperational test was performed on the boronometer flow element between 1978 and 1980. The test instruction addressed measuring flow across the boronometer flow element by the use of a differential pressure gauge. Through a review of the procedure, it was determined that no guidance was provided for the installation of the gauge or restoration of the permanent plant equipment. A review of the condition determined that a test instrument was connected to outlets on either side of the flow element by the use of plastic (Poly-Flow) tubing on Unit 1 and copper tubing on Unit 2. It was also determined that the equipment was tested several times without meeting the test acceptance requirements. It is

speculated that upon completion of Unit 1 test activities, the test instrument was removed, and the Poly-Flow tubing was inadvertently left in place. This condition was contrary to design drawing requirements, which required caps to be installed at the flow element outlets. An inspection of the Unit 2 flow element revealed that caps were installed; however, the material of the installed caps was not as specified on the design drawings.

The fact that the boronometer had not operated correctly from the time of installation and was therefore nonfunctional contributed to the duration of the condition. Because the equipment was nonfunctional, walkdowns of the boronometer and its associated equipment were not performed.

Corrective Steps That Have Been Taken And The Results Achieved

The immediate action associated with the leaking Poly-Flow tubing was to isolate the Unit 1 boronometer and its flow element from the process system flow. Additionally, the Unit 2 boronometer equipment was examined to determine if a similar condition existed. As a result, the Unit 2 boronometer flow element was also isolated from the process system flow. Further, the walkdown of the Unit 2 boronometer determined a material inconsistency for the caps installed on the flow element. Work documents were initiated to remove the Ploy-Flow tubing on the Unit 1 flow element and to correct the cap material on the Unit 2 flow element.

Corrective Steps That Will Be Taken To Avoid Further Violations

To address the more generic condition of unauthorized or unanalyzed alterations to the plant, the following actions are being taken.

1. Lessons learned from previous events that resulted form old plant configuration problems have been incorporated into a system evaluation criteria. The system evaluation is being used to identify and resolve other potential conditions. The system evaluations are being performed by Technical Support personnel.

2. Areas not normally walked down are being reviewed by the use of existing documents or walkdowns as appropriate.

3. Drawings are being reviewed to resolve unclear drawings or drawings containing special conditions such as flow straighteners.

4. Conditions where test equipment has been installed for a prolonged time are being identified and evaluated.

5. Unauthorized modifications and unusual or special configurations are being identified and corrected.

6. The Nuclear Assurance organization will perform an independent assessment of the system evaluation effort.

These actions will sensitize site personnel to any potential configuration issues and promote resolution to ensure that these conditions do not result in plant events. The system evaluations have been completed, and TVA is presently documenting the evaluations, the basis for any exceptions identified, and the work document references for the restoration of abnormal configurations. The Nuclear Assurance independent assessment will be completed by June 9, 1995.

Separate from the above effort, a listing of known nonfunctional plant equipment will be developed by March 24, 1995. An evaluation of the listing of nonfunctional plant equipment will be performed by May 12, 1995, to determine the appropriate disposition for each item.

Date When Full Compliance Will Be Achieved

TVA will be in full compliance by June 9, 1995, after the completion of the corrective actions.

Commitments

1. A listing of known nonfunctional plant equipment will be developed by March 24, 1995.

2. An evaluation of the listing of nonfunctional plant equipment will be performed by May 12, 1995, to determine the appropriate disposition for each item.

3. The site Nuclear Assurance organization will perform an independent assessment of the system evaluation effort by June 9, 1995.