

TENNESSEE VALLEY AUTHORITY

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Chattanooga, Tennessee 37402-2801

DEC 03 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) - NRC INSPECTION REPORT NOS. 50-327, 328/90-32,  
RESPONSE TO NOTICE OF VIOLATION (NOV) 50-327, 328/90-32-03

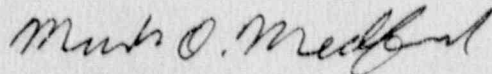
Enclosed is TVA's response to B. A. Wilson's letter to O. D. Kingsley, Jr.,  
dated November 1, 1990, which transmitted the subject NOV regarding a failure  
to follow procedures.

Enclosure 1 provides TVA's response to the NOV. A summary statement of the  
commitment contained in this submittal is provided in Enclosure 2.

If you have any questions concerning this submittal, please telephone  
M. A. Cooper at (615) 843-6422.

Very truly yours,

TENNESSEE VALLEY AUTHORITY



Mark O. Medford, Vice President  
Nuclear Assurance, Licensing  
& Fuels

Enclosures  
cc: See page 2

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U.S. Nuclear Regulatory Commission

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ENCLOSURE 1

RESPONSE TO NRC INSPECTION REPORT  
NOS. 50-327/90-32 AND 50-328/90-32  
B. A. WILSON'S LETTER TO O. D. KINGSLEY, JR.,  
DATED NOVEMBER 1, 1990

Violation 50-327, 328/90-32-03

Technical Specification 6.8.1 requires that procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, be established, implemented and maintained. This includes maintenance, operating, surveillance, administrative, and fuel handling procedures. Administrative Instruction AI-18.78, Post-trip Review, requires a root cause determination to be complete and the Post-Trip Review to be approved by the Plant Operations Review Committee prior to restart.

Contrary to the above, the requirements of AI-18.78 were not implemented in that a root cause of a reactor trip was not identified in the Post-trip Review Report and approved by the Plant Operations Review Committee prior to restart of Unit 1 on September 19, 1990.

This is a Severity Level IV violation (Supplement I)

Admission or Denial of the Alleged Violation

TVA admits the violation.

Reasons for the Violation

During the investigation of the turbine trip and reactor trip on September 19, 1990, it was determined that the reactor and the reactor protection systems performed as expected and that the root cause of the reactor trip was not related to the reactor side of the plant, but was associated with the cause of the turbine trip. It was determined that the turbine trip was a result of a transformer sudden pressure relay operation, indicating that the problem was with the main transformers. Key parameters were reviewed to verify that no other anomalies existed. These included parameters, such as feedwater flow, steam flow, pressurizer level and pressure, reactor coolant system (RCS) temperature, and auxiliary feedwater performance. The reactor trip was reported in accordance with 10 CFR 50.73 in Licensee Event Report 50-327/90022.

The posttrip review report (PTRR), Revision 0, included the above information and concluded that it was safe to restart the reactor. Further, the PTRR required that the cause for the transformer sudden pressure relay operation be determined before the generator was to be synchronized. A revision to the PTRR would be made at that time and reviewed by Plant Operations Review Committee (PORC) before synchronizing the generator. Discussions in the PORC meeting indicated that moisture and corrosion of the terminals in the gas relay had been identified as the possible cause of the gas relay actuation, resulting in the turbine trip. It was concluded that because the cause for the reactor trip was known not to involve the reactor side of the plant (i.e., turbine trip), and that there were no anomalies noted during or following the trip from the reactor protection systems, the reactor could be taken critical while work on the transformer proceeded.



Administrative Instruction (AI) 18.78, "Post Trip Review Report," Section 5.0, "Responsibilities," states that PORC shall review the PTRR for, "root causes of all plant anomalies that have been identified or all possible troubleshooting avenues have been exhausted." It is also stated in Section 5.0 that the Plant Manager shall be responsible for overall unit operation. The approval of the PTRR by the Plant Manager shall serve as his authorization that (1) all of the actions identified to be accomplished before restart are complete or a justification has been provided for each incomplete item, and (2) the unit may restart. Approval of the PTRR by the Plant Manager shall be documented on the cover sheet of the PTRR.

Section 6.0, "Instructions," states that plant restart shall be authorized only upon completion of the posttrip review by PORC and the Plant Manager. Restart shall be authorized by the Plant Manager only after assurance that associated plant anomalies have been resolved or justification has been provided for satisfactory mode progression with each open item.

It was the interpretation of PORC and the Plant Manager that because the cause of the reactor trip was limited to the turbine side of the plant and there were no anomalies on the reactor side, AI-18.78 did not prohibit restart of the reactor while repairs were being made to the transformer.

Also, on September 19, 1990, PTRR, Revision 1, was presented to PORC. The results of the investigation revealed that the relay operation had resulted from moisture and corrosion of the terminals in the gas relay on the spare transformer, which was being used as the "A" phase transformer. This information was not included in Revision 0 to the PTRR, but had been discussed in the previous PORC meeting.

#### Corrective Steps That Have Been Taken and Results Achieved

PORC reviewed Revision 1 to the PTRR on September 19, 1990, which included the results of the investigation on the transformer sudden pressure relay operation.

#### Corrective Steps That Will be Taken to Avoid Further Violations

The present procedure governing the posttrip review (AI-18.78) is being cancelled and superseded by Site Standard Practice (SSP) 12.7, "Incident Investigations and Root Cause Analysis." SSP 12.7 describes the processes used to investigate abnormal events, including reactor trips, and the procedure delineates the methodology for root cause analysis. Additionally, the procedure stipulates the process for ensuring that any plant anomalies have been identified and resolved and justification has been provided to safely proceed through mode progression in restarting the unit. SSP 12.7 will clarify the requirements by December 7, 1990, to allow startup of the reactor if the cause of the reactor trip can be confirmed not to involve the reactor side of the plant and startup of the reactor does not adversely affect nuclear safety.

#### Date When Full Compliance Will be Achieved

SQN is in full compliance.

ENCLOSURE 2  
NOTICE OF VIOLATION (NOV) 90-32-03  
COMMITMENT

Site Standard Practice (SSP) 12.7, "Incident Investigations and Root Cause Analysis," will clarify the requirements by December 7, 1990, to allow startup of the reactor if the cause of a reactor trip can be confirmed not to involve the reactor side of the plant, and startup of the reactor does not adversely affect nuclear safety.