

POOR ORIGINAL

400 Chestnut Street Tower II

October 16, 1980

Mr. James P. O'Reilly, Director  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Region II - Suite 3100  
101 Marietta Street  
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

SEQUOYAH NUCLEAR PLANT UNIT 2 - EVALUATION OF SENSING LINE CONNECTIONS TO  
PROCESS PIPING - NCR SQN SWP 8010 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector  
C. R. McFarland on July 9, 1980, in accordance with 10 CFR 50.55(e).  
An interim report was submitted on August 7, 1980. Enclosed is our  
final report.

If you have any questions, please get in touch with D. L. Lambert at  
FTS 357-2581.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. H. Mills, Manager  
Nuclear Regulation and Safety

Enclosure

cc: Mr. Victor Stello, Director (Enclosure) ✓  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

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## ENCLOSURE

SEQUOYAH NUCLEAR PLANT UNIT 2  
EVALUATION OF SENSING LINE CONNECTIONS TO PROCESS PIPE  
NCR SQN SWP 8010  
10 CFR 50.55(e)  
FINAL REPORT

### Description of Deficiency

During a review of the seismic analyses of several safety-related piping systems, it was found that all the instrument sensing lines taken off 2-1/2 inch diameter or under process lines were not included in the process line analysis. The sensing lines were assumed to be flexible, light weight tubing lines but were actually rigid, relatively heavy piping lines. The stress imposed on the process piping due to less flexible sensing lines and the inertial effects of the increased weight of the sensing line pipes and connections were not included in the seismic analysis; therefore, supporting hardware may prove to be inadequate to carry the design loads.

### Safety Implications

This nonconformance pertains to the main system piping of several safety-related systems which are two inches in diameter or smaller. Some of these systems, such as the component cooling system, are required to operate during all phases of plant operation and shutdown. Loads on the process piping system caused by heavier, more rigid sending lines could cause such systems as the component cooling system to fail. This could adversely affect the plant's ability to go to cold shutdown and, therefore, could result in degradation in the safety or operation of the plant.

### Corrective Action

TVA has reanalyzed the affected process piping and has found that no hardware changes will have to be made to carry the additional loads. The component cooling system and the chemical volume control system were the only two systems involved. TVA has notified the appropriate design groups to ensure that there are no recurrences. TVA has found no generic implications at other plants at this time.