TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

81-435-000

May 26, 1981

SQRD-50-328/81-34

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 - STEAM GENERATOR BLOWDOWN LINE - LOOP NO. 2 PIPING ANALYSIS ERROR - SQRD-50-328/81-34 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector R. V. Crlenjak on May 6, 1981 in accordance with 10 CFR 50.55(e) as NCR SQN CEB 8112. Enclosed is our final report. We consider 10 CFR 21 applicable to this deficiency.

If you have any questions, please get in touch with D. L. Lambert at FTS 857-2581.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. 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
STEAM GENERATOR BLOWDOWN LINE - LOOP NO. 2
PIPING ANALYSIS ERROR
SQRD-50-328/81-34
10 CFR 50.55(e)
FINAL REPORT

Description of Deficiency

Piping movements of the steam generator blowdown line, loop No. 2, were greater during hot functional testing than anticipated in the design; consequently, certain snubbers would have bottomed out. TVA discovered that a lateral support that had been installed before hot functional testing had been inadvertently omitted from the thermal load case analysis. Omitting the lateral support from the analysis resulted in smaller movements of the piping in the analysis than actually occurred.

Safety Implications

Snubbers bottoming out due to pipe movements greater than anticipated in the design would greatly increase the stresses in the pipe. Inordinate increases in these stresses could cause the pipe to break, resulting in a LOCA.

Corrective Action

TVA performed a reanalysis of the steam generator blowdown line and found that by omitting the support the analysis would result in acceptable design stress levels for all postulated load cases. Therefore, the lateral support will be removed before fuel loading.

TVA has instructed the contractor to ensure that existing check procedures, which are presently designed to catch deficiencies of this nature, are more closely adhered to. In addition, TVA has developed an independent checklist to be completed by TVA which reviews the contractor's analyses. This checklist will be attached to the analysis reports, documenting TVA's review.

PART 21 IDENTIFICATION NO. 81-435-000 COMPANY NAME TVA

DATE OF LETTER 5/26/81 DOCKET NO. 50-328

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ACTION:

PRELIMINARY EVALUATION OF THE ATTACHED REPORT INDICATES LEAD RESPONSIBILITY FOR FOLLOWUP AS SHOWN BELOW:

IE ☐ NRR ☐ NMSS ☐ OTHER ☐

EES

REV. 8/1/80