

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

May 27, 1982

Director of Nuclear Reactor Regulation  
Attention: Ms. E. Adensam, Chief  
Licensing Branch No. 4  
Division of Licensing  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Dear Ms. Adensam:

In the Matter of  
Tennessee Valley Authority

) Docket Nos. 50-327  
) 50-328

In accordance with 10 CFR Part 50, enclosed is our request for relief and the justification for relief from the hydrostatic test requirements for unit 2 of our Sequoyah Nuclear Plant, for a main steam isolation valve warming line, specified in Article IWC-5000 of ASME Section XI, 1975 Edition through Summer of 1975 Addenda. This request was discussed with Carl Stahle of your staff and representatives of NRC-OIE Region II in telephone conversations on May 25 and 26, 1982.

In accordance with the requirements of 10 CFR Part 170.22, we have determined the proposed request for approval to be Class III for unit 2. This classification is based on the fact that a single safety issue is involved and the request applies only for one unit. The remittance fee of \$4,000 is being wired to the Nuclear Regulatory Commission, Attention: Licensing Fee Management Branch.

If you have any questions concerning this matter, please get in touch with J. E. Wills at FTS 858-2683.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

*L. M. Mills*  
L. M. Mills, Manager  
Nuclear Licensing

Sworn to and subscribed before me  
this 27<sup>th</sup> day of May 1982

*Paulette H. White*  
Notary Public  
My Commission Expires 9-5-84

Enclosure  
cc: See page 2

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Director of Nuclear Reactor Regulation

May 27, 1982

cc: U.S. Nuclear Regulatory Commission  
Region II  
Attn: Mr. James P. O'Reilly, Regional Administrator  
101 Marietta Street, Suite 3100  
Atlanta, Georgia 30303

## ENCLOSURE

### SEQUOYAH NUCLEAR PLANT - UNIT 2 MAIN STEAM ISOLATION VALVE WARMING LINE REQUEST FOR RELIEF

#### 1.0 Background

During the present unit 2 ice-weighing outage (May 14-29), it became necessary to remove a portion of the loop 1 main steam isolation valve warming line to provide physical access to perform machining operations on a feedwater check valve. The line in question is a 2-inch schedule 80, ASTM A-106 Gr B carbon steel socket welded line that was installed to class 2 requirements of ANSI B31.7, 1969 Edition and 1970 Addenda. The line begins just upstream of main steam isolation valve FCV 1-4 and ties in to main steam check valve 1-623 (see attached sketch). The line was cut at welds 1173 and 1176, also shown on the attached sketch.

Once the machining of the feedwater check valve was completed, the portion of the line that was removed was socket welded back into its original configuration and liquid penetrant examined in accordance with the original construction code requirements. The timeframe in which this work was performed was May 19-22.

#### 2.0 Request for Relief

Article IWC-5000 of ASME Section XI, 1975 Edition through S'75 Addenda, which is the Inservice Inspection Code of Record for unit 2, requires that the two welds in question be hydrostatically tested at 1.25 times the system design pressure. To accomplish this will necessitate flooding the steam generator and the 32-inch diameter main steam line out to main steam check valve 1-623. In addition, the loop 1 main steam safety and power-operated relief valves will have to be gagged to accomplish this test. We propose to perform a system leak test of the subject welds at operating pressure and temperature during the startup from the present outage. Therefore, we request the hydrostatic test requirement for these welds be waived.

#### 3.0 Justification

It is TVA's policy to minimize to the maximum extent practicable hydrostatic tests involving the secondary side of the steam generator and the main steam safety and relief valves. There is a very real danger of damaging support structures and safety-related valves whenever the steam generator and the main steam lines are flooded and pressurized.

Our justification for waiving the hydrostatic test requirements of the subject welds is as follows: (1) the consequences of failure of the warming line in question are conservatively bounded by the major secondary system pipe break analysis, (2) the welds were liquid penetrant examined and met the construction code acceptance criteria, (3) the allowable working pressure at operating temperature for a 2-inch schedule 80 carbon steel pipe was calculated to be approximately 3,000 psi whereas the system operating pressure is approximately 1,000 psi. Therefore, the corresponding socket weld

size for this line has at least a factor of safety of 3 in addition to the conservatism already established by the construction code, and (4) the subject welds will be leak tested at operating pressure and temperature to demonstrate their integrity prior to the unit returning to service.

Based on the above justification, TVA concludes that the subject request for relief does not affect safe operation of the unit.

