

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401  
400 Chestnut Street Tower II

May 11, 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

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Docket Nos. 50-327  
50-328

Enclosed is our response to your April 15, 1982 letter to H. G. Parris regarding the request for additional information on main steam line break. As requested in your letter, by carbon copy of this letter one copy of our response is being forwarded to:

Franklin Research Center  
Attention: R. C. Herrick  
20th and Race Street  
Philadelphia, Pennsylvania 19103

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, Manager  
Nuclear Licensing

Sworn to and subscribed before me  
this 11<sup>th</sup> day of May 1982

Notary Public  
My Commission Expires 4/8/86

Enclosure

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

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## ENCLOSURE

### RESPONSE TO E. ADENSAM'S APRIL 15, 1982 LETTER TO H. G. PARRIS REGARDING MAIN STEAM LINE BREAK (MSLB) SEQUOYAH NUCLEAR PLANT

#### NRC Request

In the Sequoyah Final Safety Analysis Report (2), the response to question 6.56B states that the auxiliary feedwater (AFW) system is manually realigned by the operator after 10 minutes. In order to aid in the completion of our review, please provide the following information concerning your analysis of containment pressure response to an MSLB with continued feedwater addition:

1. Provide the actions required to be performed by the operator to prevent exceeding containment design pressure and provide justification for the time at which credit is taken for operator action.
2. Provide the time after the start of an MSLB when containment design pressure will be exceeded if no operator action is taken to terminate the accident. Provide the magnitude of the peak pressure and the time at which the peak occurs.

#### TVA Response

##### Item 1

The only action required of the operator to prevent exceeding containment design pressure following an MSLB is isolation of AFW to the affected steam generator. The time at which credit is taken for this action is 10 minutes.

As stated in the response to question 6.56B part 2(e), information is available to the operator immediately upon initiation of the accident. It is also stated that this information is given in EOI-2 and that operator action to terminate AFW flow to the affected steam generator will occur in approximately three minutes. Please note that the postulated accident involves completely blowing down one steam generator. The pressure in this steam generator will drop to about zero psig while the pressure in the other three will be over 200 psig. We believe the operator will be able to identify the faulted loop with relative ease and quickness given such information. Therefore, the assumption that operator action occurs at 10 minutes, which is consistent with the licensing basis of the plant, is justified and is in fact conservative.

Following an MSLB, both trains of RHR spray will be available to relieve containment pressure since no RHR flow through the reactor is needed. However, no credit is taken for RHR spray in the analysis and the operator is not required to use it.

##### Item 2

A new analysis would be necessary to predict containment pressure as a function of time following an MSLB without operator action to isolate AFW within 10 minutes. We do not believe such an analysis is justified.