

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

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MAY 01 1990

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555

Gentlemen:

In the Matter of )  
Tennessee Valley Authority )

Docket Nos. 50-259  
50-260  
50-296

BROWNS FERRY NUCLEAR PLANT (BFN) - PROBABILISTIC RISK ASSESSMENT (PRA) AND EMERGENCY OPERATING PROCEDURE (EOP)

This submittal is to document the resolution of the staff's PRA and EOP concern as documented by letter from NRC to TVA dated July 10, 1989, and included in Supplement 1 to the Safety Evaluation Report (SER) on the Browns Ferry Nuclear Performance Plan (NPP) - NUREG-1232, which was sent by letter from NRC to TVA dated October 24, 1989.

A teleconference was held on April 11, 1990 to clarify the staff's concern. In that teleconference, the staff stated that it had two concerns regarding the adequacy of the PRA sequence which pertains to the residual heat removal (RHR) system (PRA Sequence 4). This PRA sequence involves a transient which is followed by 1 to 3 stuck open relief valves. The NRC concerns and TVA responses are provided below:

NRC Concern: TVA may have overestimated the probability of an operator failing to take proper corrective actions. The staff suggested BFN review the applicable EOPs and reevaluate the probability of operator errors to determine a more realistic estimate of operator failures.

TVA Response: TVA will revise the human factors considerations, which includes an estimation of the probability of operator errors, for the next PRA update. TVA is committed to provide a summary report of the updated PRA by September 1, 1992. TVA made this commitment in response to Generic Letter (GL) 88-20, Individual Plant Examination for Severe Accident Vulnerabilities, by letter from TVA to NRC, dated October 30, 1989. NRC requested, in GL 88-20 and by letter from NRC to TVA dated January 17, 1990, that TVA submit this report sooner if the updated PRA is completed prior to this commitment date. It is TVA's intent to support this request.

NRC Concern: The staff would like to see venting, using the hardened vent discussed by Generic Letter 89-16, incorporated into the PRA for this sequence.

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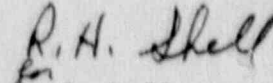
U.S. Nuclear Regulatory Commission

TVA Response: As requested by GL 88-20, TVA's intentions are for the BFN PRA to be a living document which reflects the current design of BFN. When BFN installs the hardened vent, the BFN PRA will be updated to reflect this change in plant design. If this modification is incorporated prior to completion of the next update of the PRA, it will be incorporated in the update. If the hardened vent is installed after the current update of the BFN PRA, the hardened vent will be incorporated into the next update of the BFN PRA. It is TVA's intent to install the hardened vent on Unit 2 during the first scheduled refueling outage after restart. This commitment was provided in response to GL 88-16, Installation of Hardened Wetwell Vent, by TVA letter to NRC dated October 30, 1989.

A summary list of commitments contained in this letter is provided in the enclosure. If you have any questions, please telephone Patrick P. Carrier, Manager of Site Licensing, at (205) 729-3570.

Very truly yours,

TENNESSEE VALLEY AUTHORITY



E. G. Wallace, Manager  
Nuclear Licensing and  
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Enclosure

cc (Enclosures):

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## ENCLOSURE

### SUMMARY OF COMMITMENTS

1. TVA will revise the human factors considerations, which includes an estimation of the probability of operator errors, for the next Probabilistic Risk Assessment (PRA) update.
2. When Browns Ferry Nuclear Plant (BFN) installs the hardened vent, the BFN PRA will be updated to reflect this change in plant design. If this modification is incorporated prior to completion of the next update of the PRA, it will be incorporated in the update. If the hardened vent is installed after the current update of the BFN PRA, the hardened vent will be incorporated into the next update of the BFN PRA.