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**APR 21 1994**

U.S. Nuclear Regulatory Commission  
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Gentlemen:

In the Matter of the Application of )  
Tennessee Valley Authority ) Docket Nos. 50-390  
50-391

WATTS BAR NUCLEAR PLANT (WBN) - STEAM GENERATOR TUBE RUPTURE ANALYSIS AND  
POSTULATED OPERATOR ACTION TIMES - PROPOSED LICENSE CONDITION 41 (TAC M77569)

This letter submits a minor revision to WBN's SGTR analysis and responds to the NRC staff's request for additional information (RAI) dated September 9, 1993. The RAI requested justification of operator action times that are assumed in the SGTR analysis.

Enclosure 1 is WCAP-13575 Revision 1, "LOFTTR2 Analysis for a Steam Generator Tube Rupture for Watts Bar Nuclear Plant Units 1 and 2," dated October 1993. This document is an updated version of the topical report that describes the portion of WBN's SGTR analysis which was performed by Westinghouse Electric Corporation. The original version of the report was included as an enclosure in TVA's letter dated April 13, 1993, which described the entire SGTR analysis program and results for WBN.

Please note that Enclosure 1 contains information that is proprietary to Westinghouse and should be withheld from public disclosure as described at the end of this letter. Enclosure 2 is WCAP-13576 Revision 1, which is a non-proprietary version of Enclosure 1 and has the same title and date.

The SGTR analysis methodology that is described in Revision 1 of WCAP-13575 (Enclosure 1) is unchanged from the original version of WCAP-13575. The only change is an allowance for 10% blowdown below the setpoints of the main steam safety valves when they open during the SGTR accident transient. This 10% blowdown was inadvertently omitted from the original analysis. The results of the revised SGTR analysis continue to satisfy all applicable design bases.

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Excerpts from the results that are presented in WCAP-13575 Revision 1 have already been incorporated into the discussion of a SGTR event in Section 15.4.3 of WBN's Final Safety Analysis Report (FSAR). They were included as part of FSAR Amendment 80.

With respect to the operator action times that were questioned in the RAI dated September 9, 1993, TVA has confirmed that the assumed times are valid. The RAI asked TVA to demonstrate that actual operator action times for a SGTR event would be bounded by the operator action times that were assumed in WBN's SGTR analysis. These assumed times were essentially the maximum times that could be tolerated to avoid steam generator overfill in a worst-case scenario. The RAI further asked that demonstration runs used to justify the assumed operator action times include participation by no less than 80% of WBN's operators.

Enclosure 3 describes additional simulator trials that TVA has recently performed to confirm that the operator action times which were assumed in WBN's SGTR analysis are bounding. The results of these trials demonstrate that the assumed operator action times are conservative.

Note that the operator action times that were obtained in the recent trials are substantially shorter than the times reported in TVA's letter dated April 13, 1993. Some of the earlier times had exceeded the assumed operator action times. However, as noted in the letter dated April 13, 1993, WBN's emergency procedures had been extensively revised just before the earlier simulator trials were performed. The recent trials show improved operator responses due to continued training and greater familiarity with the revised procedures.

Also note that the recent simulator trials involved 40 operators, which is approximately 60% of the operators that TVA expects to be qualified by the time of fuel load for WBN Unit 1. This is slightly below the participation percentage stipulated in the RAI, but it is clearly sufficient to validate the statistical significance of the results. In addition, all of the measured operator action times were well below the times that were assumed in the SGTR analysis. This provides considerable margin to compensate for any possible "slowdown" in operator responsiveness that may occur during periods between refresher training.

Enclosure 4 consists of a Westinghouse authorization letter (CAW-93-536, dated October 20, 1993), accompanying affidavit, proprietary information notice, and copyright notice. Since WCAP-13575 Revision 1 (Enclosure 1) contains information that is proprietary to Westinghouse Electric Corporation, it is supported by an affidavit signed by Westinghouse, the owner of the information. The affidavit sets forth the basis on which the information may be withheld from public disclosure by the Commission and addresses with specificity the considerations listed in paragraph (b)(4) of Section 2.790 of the Commission's regulations.

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Accordingly, it is respectfully requested that the information which is proprietary to Westinghouse be withheld from public disclosure in accordance with 10 CFR Section 2.790 of the Commission's regulations.

Correspondence with respect to the copyright or proprietary aspects of WCAP-13575 Revision 1 (Enclosure 1) and WCAP-13576 Revision 1 (Enclosure 2) or the supporting Westinghouse affidavit should reference CAW-93-536 and should be addressed to N. J. Liparulo, Manager of Nuclear Safety & Regulatory Activities, Westinghouse Electric Corporation, P. O. Box 355, Pittsburgh, Pennsylvania 15230-0355.

If you have any questions about the information provided in this letter, please telephone John Vorees at (615) 365-8819.

Very truly yours,



William J. Museler

Enclosures

cc (Enclosures):

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ENCLOSURE 4

WESTINGHOUSE DOCUMENTS RELATED TO PROPRIETARY CONTROL  
OF WCAP-13575 REVISION 1