

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

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April 10, 1985 32

WBRD-50-391/81-83

U.S. Nuclear Regulatory Commission
Region II
ATTN: Dr. J. Nelson Grace, Regional Administrator
101 Marietta Street, NW
Suite 2900
Atlanta, Georgia 30303

Dear Dr. Grace:

WATTS BAR NUCLEAR PLANT UNIT 2 - INCORRECT MODELING OF FEEDWATER
PIPING VALVES - WBRD-50-391/81-83 - SEVENTH INTERIM FOR UNIT 2

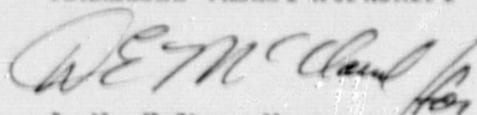
The subject deficiency was initially reported to NRC-OIE Inspector R. V. Crlenjak on October 9, 1981 in accordance with 10 CFR 50.55(e) as NCR WBN OEB 8112. Interim reports were submitted on November 9, 1981 and February 2, March 17, August 12, and November 18, 1982. Our final report for unit 1 and sixth interim report for unit 2 was submitted on July 13, 1983. Enclosed is our seventh interim report for unit 2. We expect to submit our next report for unit 2 on or about July 8, 1985.

NRC-OIE Inspector A. Ignatonis was notified on April 9, 1985 of the inadvertent delay in submitting this report.

If you have any questions, please get in touch with R. H. Shell at FTS 858-2688.

Very truly yours,

TENNESSEE VALLEY AUTHORITY



J. W. Hufham, Manager
Licensing and Regulations

Enclosure

cc (Enclosure):

Mr. James Taylor, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

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ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
INCORRECT MODELING OF FEEDWATER PIPING VALVES
WBRD-50-391/81-83
NCR WBN CEB 8112
10 CFR 50.55(e)
SEVENTH INTERIM FOR UNIT 2

Description of Deficiency

The analytical models and weights of four valves (FCV 3-236, -239, -242, and -245) on feedwater piping analysis 0600200-02-05, -06, -07, and -08 were incorrect. These valves appear on the Watts Bar Nuclear Plant (WBN) Active Valve List. The previous model may have produced unconservative analysis results.

TVA provided an assumed valve weight and center of gravity for the subject valves to EDS Nuclear, Incorporated, to be incorporated in the analysis of 0600200-02-05, -06, -07, and -08. It does not appear that the subject valve drawing (contract 77K3-822950, drawing 717543030D) was issued until December 1977 after the subject analyses were completed (approximately November 1977). A verification on the valve weight and center of gravity data should have been performed in a more timely manner.

The vendor's valve drawing giving the valve weight and center of gravity data was not available to TVA at the time the analysis was being performed. An assumed valve length, weight, and center of gravity was used and documented in the analysis. However, when the valve data was transmitted to TVA the valve data was not sent to the piping analysis personnel for comparison to the assumed valves. The failure to verify the conservatism of the assumed values was due to a lack of procedures controlling the design process.

Interim Progress

TVA has reanalyzed piping problems 0600200-02-05, -06, -07, and -08 using the correct valve data. As noted in our sixth report, evaluation and rework of pipe supports is being performed under engineering change notice (ECN) 3748. However, since our previous report on this deficiency, TVA has retained two consultants, Gilbert-Commonwealth and Impell, to perform support design work. These vendors will perform any required support redesign in accordance with the revised problem results. In addition a 100-percent valve review on all unit 2 rigorous analysis problems is now in progress. This will ensure that the design parameters such as valve weights and centers of gravity are verified.