

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

November 24, 1981

USNRC REGION II
ATLANTA, GEORGIA

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WBRD-50-390/81-93

WBRD-50-391/81-87

Mr. James P. O'Reilly, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Region II - Suite 3100
101 Marietta Street
Atlanta, Georgia 30303



Dear Mr. O'Reilly:

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - THERMAL RANGE INCORRECTLY ANALYZED -
WBRD-50-390/81-93, WBRD-50-391/81-87 - FIRST INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector R. V. Crlenjak on October 22, 1981 in accordance with 10 CFR 50.55(e) as NCR WBN CEB 8116. Enclosed is our first interim report. We expect to submit our next report by March 2, 1982.

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

Very truly yours,

TENNESSEE VALLEY AUTHORITY

A handwritten signature in cursive script that reads "L. M. Mills".

L. M. Mills, Manager
Nuclear Regulation and Safety

Enclosure

cc: Mr. Victor Stello, Director (Enclosure)
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, DC 20555

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ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
THERMAL RANGE INCORRECTLY ANALYZED
WBRD-50-390/81-93, WBRD-50-391/81-87
10 CFR 50.55(e) -
FIRST INTERIM REPORT

Description of Deficiency

The Watts Bar FSAR, section 10.4.9.2, defines a thermal range for the Auxiliary Feedwater System of 40° to 120° F. The ASME Code, section NC-3651, for classes 2 and 3 piping systems, requires that the full range of moments be evaluated. A thermal range of 70° to 120° F was used to evaluate the moments for suction and discharge piping for the auxiliary feedwater pumps by the piping stress analyst. This condition may result in unconservative stress levels. Piping analysis problems affected by the above omission are units 1 and 2, 0600-200-02-05, -06, -07, -08, 0600-200-05-01, -02; unit 1, N3-3-10A, -12A and unit 2, N3-3-1A, -2A, -9A, -17A, -19A.

The analysis errors mentioned above were discovered during an analysis review.

Interim Progress

TVA will reanalyze the above piping problems with the correct thermal range model. Support changes will be provided as required. TVA is still investigating actions to prevent recurrence of this type deficiency.