

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

May 22, 1984

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WBRD-50-390/84-03

WBRD-50-391/84-03

U.S. Nuclear Regulatory Commission
Region II

Attn: Mr. James P. O'Reilly, Regional Administrator
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

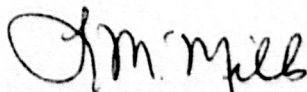
WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - PEAK CONTAINMENT TEMPERATURE -
WBRD-50-390/84-03, WBRD-50-391/84-03, - THIRD INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector Caudle Julian on December 29, 1983 in accordance with 10 CFR 50.55(e) as NCR WBN NEB 8335. Interim reports were submitted on January 27 and April 3, 1984. On May 14, 1984, NRC-OIE Inspector P. Fredrickson was notified that the subject report would be several days late. Enclosed is our third interim report. We expect to submit our next report on or about October 15, 1984. We consider 10 CFR Part 21 applicable to this deficiency.

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

Very truly yours,

TENNESSEE VALLEY AUTHORITY



L. M. Mills, Manager
Nuclear Licensing

Enclosure

cc: Mr. Richard C. DeYoung, Director (Enclosure)
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Records Center (Enclosure)
Institute of Nuclear Power Operations
1100 Circle 75 Parkway, Suite 1500
Atlanta, Georgia 30339

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ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
PEAK CONTAINMENT TEMPERATURE
NCR WBN NEB 8335
WBRD-50-390/84-03, WBRD-50-391/84-03
10 CFR 50.55(e)
THIRD INTERIM REPORT

Description of Deficiency

In response to an NRC question on Duke's Catawba FSAR, Westinghouse analyzed the effects of superheated steam, when the steam generator tubes uncover, subsequent to a main steam line break (MSLB). Previously, the highest calculated containment temperature for Catawba was 327°F; the new analysis, which Westinghouse has independently verified, results in a peak of 383°F in the lower compartment and 345°F in the dead-ended compartment. The present peak containment temperature for Watts Bar (WBN) is also 327°F. The results of the new analysis are believed to apply to WBN and must be evaluated with regard to qualification of IE electrical equipment, safety-related mechanical equipment, thermal growth of containment, protective coatings and possibly others.

Interim Progress

Westinghouse has informed TVA that proposed analytical techniques being used for Duke's Catawba plant yield containment temperatures that are less than those currently used in the design basis of the plant. Since Watts Bar is essentially the same as Catawba, TVA intends to apply the same analytical techniques used at Catawba at Watts Bar and expects the same results. TVA, in conjunction with Westinghouse, does, however, plan to complete a plant-specific analysis for Watts Bar approximately two weeks after the NRC-NRR Containment Systems Branch approves the Catawba analysis.

Based on the analyses performed to date, TVA does not expect this condition to require any modifications to the existing plant design. As such, it is our position that initial fuel loading and power ascension (up to full power) of Watts Bar unit 1 can proceed without any unnecessary or undue risks to the health and safety of the public.

TVA is continuing to monitor the progress of the Duke/Westinghouse efforts to obtain a solution to the problem based upon analytical techniques acceptable to the NRC.