TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

31 AM 10:30

January 27, 1984

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, - FIRST 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. Enclosed is our first interim report. We expect to submit our next report on or about March 30, 1984.

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

Very truly yours,

TENNESSEE VALLEY AUTHORITY

D S Kammer

for 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 AND BELLEFONTE NUCLEAR PLANTS 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)
FIRST 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. 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 is also 327°F. The results of the new analysis are believed to apply to Watts Bar 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

TVA is working with Westinghouse to determine if higher temperatures from the Catawba analysis are applicable to Watts Bar. If the higher temperatures are found to be applicable, then TVA will work with Westinghouse on ways to reduce the peak containment temperatures.

TVA will provide more information on this matter in our next report.