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

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May 13, 1985

WBRD-50-391/82-41

U.S. Nuclear Regulatory Commission
Region II
Attn: Dr. J. Nelson Grace, Regional Administrator
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

Dear Dr. Grace:

WATTS BAR NUCLEAR PLANT UNIT 2 - USE OF INCORRECT RESPONSE SPECTRA IN GILBERT/COMMONWEALTH PIPING ANALYSIS - WBRD-50-391/82-41 - SIXTH INTERIM REPORT FOR UNIT 2

The subject deficiency was initially reported to NRC-OIE Inspector F. J. Long on April 26, 1982 in accordance with 10 CFR 50.55(e) as NCR WBN CEB 8207. Interim reports were submitted on May 27 and October 15, 1982 and April 22, 1983. Our final report for unit 1 and fourth interim report for unit 2 was submitted on August 31, 1983. The fifth interim report for unit 2 was submitted on May 22, 1984. We expect to submit our next report for unit 2 on or about July 1, 1985. TVA considers 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

J. A. Domer

for 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

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

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ENCLOSURE

WATTS BAR NUCLEAR PLANT UNIT 2
USE OF INCORRECT RESPONSE SPECTRA IN GILBERT/COMMONWEALTH PIPING ANALYSIS
NCR WBN CEB 8207
WBRD-50-391/82-41
10 CFR 50.55(e)
SIXTH INTERIM REPORT FOR UNIT 2

Description of Deficiency

Incorrect response spectra was used for the X-Y operating basis earthquake dynamic level case for piping analysis 060200-09-05 by Gilbert/Commonwealth, Oak Ridge, Tennessee. Spectra for elevation 725.0 feet (No.202) in the east-west direction should have been used instead of spectra for elevation 715.0 feet (No. 201). The application of spectra 201 may result in unconservative pipe stresses and support loads. Also, the anchor movements at points 123 and 148 were input incorrectly based on data supplied by Westinghouse letters WAT-D-1778 and WAT-D-2948. Points 123 and 148 are boron injection piping connections to the reactor coolant loops inside containment.

The discrepancy mentioned above was discovered during an analysis review. It has been determined that the analyst did not properly choose the applicable response spectra and dynamic movement data. Westinghouse supplied dynamic movement data which contained a diagram pertaining to the stated coordinate system. The designer omitted incorporating this Westinghouse-supplied coordinate information into the Westinghouse data tables.

Interim Progress for Unit 2

The rigorous piping analysis problem 0600250-09-05 (which is the unit 2 counterpart of unit 1 problem 0600200-09-05) has been reanalyzed and issued to incorporate the correct response spectra and anchor movements. The pipe support drawings will be modified as required. This work will be performed under engineering change notice (ECN) 3483. Further information will be provided in our next report.