

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

May 22, 1984

WBRD-50-390/82-44
WBRD-50-391/82-41

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:

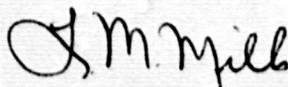
WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - USE OF INCORRECT RESPONSE SPECTRA
IN GILBERT/Commonwealth PIPING ANALYSIS - WBRD-50-390/82-44,
WBRD-50-391/82-41 - FIFTH INTERIM REPORT FOR UNIT 2

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 3207. 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. We expect to submit
our next report for unit 2 on or by May 22, 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



L. M. Mills, Manager
Nuclear Licensing

Enclosure

cc (Enclosure):

Mr. Richard C. DeYoung, 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

8406110331 840522
PDR ADOCK 05000390
PDR
8

ENCLOSURE

WATT3 BAR NUCLEAR PLANT UNITS 1 AND 2
USE OF INCORRECT RESPONSE SPECTRA IN GILBERT/COMMONWEALTH PIPING ANALYSIS
NCP WBN CEB 8207
WBRD-50-390/82-44, WBRD-50-391/82-41
10 CFR 50.55(e)
FIFTH 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

TVA's Civil Engineering Support Branch will reanalyze piping analysis problem 0600250-09-05, which is the unit 2 counterpart of problem 0600200-09-05 identified for unit 1, to incorporate the correct response spectra and anchor movements. Support drawings will be modified as required under engineering change notice (ECN) 3483.