TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

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May 20, 1982

WBRD-50-390/81-23
WBRD-50-391/81-22

U.S. Nuclear Regulatory Commission
Region II
Attn: Mr. James P. O'Reilly, Regional Administrator
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - DISCREPANCY IN AS-BUILT VERSUS AS-ANALYZED PIPING SYSTEMS - WBRD-50-390/81-23, WBRD-50-391/81-22 - THIRD INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector R. V. Crlenjak on February 26, 1981 in accordance with 10 CFR 50.55(e) as NCR WBN SWP 8108. Our first interim report was submitted on March 30, 1981. NCR WBN SWP 8148 was reported to NRC-OIE Inspector Crlenjak on April 29, 1981. Mr. Crlenjak was informed that NCR WBN SWP 8148 would be reported with NCR WBN SWP 8108 as WBRD-50-390/81-23 and WBRD-50-391/81-22. Our second interim report, covering both of these NCRs, was submitted on August 26, 1981. Enclosed is our third interim report. We expect to provide additional information by February 3, 1983.

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, DC 20555

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ENCLOSURE
WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
DISCREPANCIES IN AS-BUILT VERSUS AS-ANALYZED PIPING SYSTEMS
10CFR50.55(e)
NCRs WBNSWP8108, WBNSWP8148, AND 3730R R1
WBRD-50-390/81-23, WBRD-50-391/81-22
THIRD INTERIM REPORT

Description of Deficiency

During the evolution of the pipe support design effort, inconsistencies have developed between the support locations as specified on the support drawings and the analysis isometrics. The support drawings are used for installation and during the field inspection process the isometrics are referred to for the support node locations. Construction specification G-43 allows an acceptable relocation tolerance from the analyzed point; however, some support drawings specify locations outside this tolerance. These discrepancies were caused by a failure to revise the isometric drawings when field changes were made.

Additionally, during the support design phase, the designer may have used part of the G-43 relocation tolerance. TVA's Division of Engineering Design (EN DES) employees have erroneously told TVA's Division of Construction (CONST) they could apply the full G-43 tolerance to the location shown on the support drawing, thus the support could also be installed outside of the relocation tolerance because of this error.

Interim Progress

Specific discrepancies (support locations outside of the relocation tolerance) between as-built and as-analyzed support locations have been discovered. These discrepancies will be evaluated for impact on the seismic analysis. The method of resolving these discrepancies will be to determine the location of "installed" supports for all analysis isometrics with a significant number of supports installed. These installed locations will be qualified by evaluation or reanalysis by the EN DES seismic analysis personnel or the support will be relocated within tolerance of the analysis point. This effort is described by Report CEB-81-30, "Program Plan - Field Inspection for Determination of As-Constructed Pipe Configuration and Location of Pipe Supports on Rigorously Analyzed Piping Systems." Analysis isometrics will be revised to depict the installed support locations for identified discrepancies.

All rigorously analyzed piping support locations at Watts Bar Nuclear Plant not covered by the Report CEB 81-30 effort will be installed within the acceptable tolerances of the analysis point.