

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

March 17, 1983

WBRD-50-390/81-100
WBRD-50-391/81-94

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 - INCORRECT PIPE SUPPORT DESIGN BY
EDS - WBRD-50-390/81-100, WBRD-50-391/81-94 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector R. Butcher on November 19, 1981 in accordance with 10 CFR 50.55(e) as NCR CEB 8117. Interim reports were submitted on December 21, 1981 and March 25 and October 6, 1982. Enclosed is our final report. We consider 10 CFR 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
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

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NRC REGION II
ATLANTA, GEORGIA

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ENCLOSURE
WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
INCORRECT PIPE SUPPORT DESIGN BY EDS
NCR WBN CEB 8117
WBRD-50-390/81-100, WBRD-50-391/81-34
10 CFR 50.55(e)
FINAL REPORT

Description of Deficiency

Support 1-63-121 was designed incorrectly by EDS Nuclear, Incorporated (EDS). This pipe support was analyzed as a lateral snubber in accordance with EDS analysis problem 0600200-09-04 R2 instead of as a rigid lateral support as designed. Thirteen other support design deficiencies were identified by EDS letter 0060-300-11S dated December 2, 1981. These support design deficiencies are of similar nature to the above.

The apparent assignable cause is that the designer (EDS) failed to review the isometric model and computer output thoroughly.

Safety Implications

Had this condition remained uncorrected, the installation of incorrect design pipe supports could have resulted in possible failure of the SIS piping under design basis accident conditions, thereby adversely affecting the ability to safely shutdown the plant.

Corrective Action

The subject incorrectly designed EDS supports, on both units 1 and 2, have been redesigned. The design work was performed under Engineering Change Notice 3267. Field modifications for the unit 1 supports have been completed and the required hardware modifications for the unit 2 supports are scheduled to be completed by November 1, 1984.

To prevent recurrence, EDS has been instructed to be more thorough in their review of the isometric model and computer output prior to initiating the corresponding support design.