

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

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October 30, 1984
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 - NRC-OIE REGION II INSPECTION REPORT
50-390/84-05, 50-391/84-05 - SUPPLEMENTAL RESPONSE TO VIOLATION
390,391/84-05-04

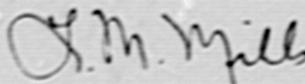
The subject inspection report cited TVA with two Severity Level IV
Violations (390,391/84-05-03 and 390,391/84-05-04) in accordance with
10 CFR 2.201. Our response to the subject report was submitted on
April 2, 1984. Enclosed is a supplemental response to violation
390,391/84-05-04.

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

To the best of my knowledge, I declare the statements contained herein are
complete and true.

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

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ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
NRC-OIE REGION II INSPECTION REPORT
50-390/84-05 AND 50-391/84-05
SUPPLEMENTAL RESPONSE TO VIOLATION 390,391/84-05-04

Severity Level IV Violation - 390, 391/84-05-04

During an inspection on May 4, 1984, the inspector identified two additional support calculations and one alternate analysis calculation which contained the same deficiencies identified in the original violation. The calculations identified are:

1. Pipe Support 47A450-17-1, Revision 3
2. Pipe Support 1-63-70, Revision 908
3. Alternate Analysis N3-67-A 01A, Revision 0

The inspection report also mentions for this violation the shear distribution method in TVA Civil Design Standard DS-C1.7.1. However, unresolved item 390/84-34-01 was opened during the same inspection. This opened unresolved item covers the shear distribution method in the design standard. Therefore, this response will cover only the deviations in the calculations.

Response

1. Admission or Denial of the Alleged Violation

TVA admits that the deviation in the three additional calculations occurred as stated in the inspection report.

2. Reasons for Violation

- a. Failure to follow TVA's Office of Engineering (OE) Engineering Procedure (EP) 3.03, "Design Calculations."

For item 1, the checker initialled the calculation cover sheet but forgot to initial the two calculation pages added for revision 3. Also, supervisory personnel failed to identify the deficiency during the approval process.

For item 3, the designer and checker misinterpreted the initialling requirements for computer output which is included in the calculation package.

- b. Baseplate Steel Stress Calculation

For item 2, the deviation did not result in an erroneous result. The calculation in question was performed using a value derived from a previous calculation. Therefore, the checker may have assumed that the designer was using the equation as a mathematics check.

3. Corrective Steps Taken and Results Achieved

a. Failure to follow OE-EP 3.03.

The procedural deficiencies relating to initialing of calculations did not result in any unacceptable supports. The calculations have been rechecked and revised.

A detailed evaluation will not be performed since safety of the supports is not involved and action to prevent recurrence has been implemented.

b. Baseplate Steel Stress Calculation

The apparent misuse of this standard formula for calculating baseplate thickness may indicate a lack of understanding of the formula. However, the formula is comprised of a "closed-loop" calculation and this type of misuse would not result in erroneous plate thickness for any support designs. Therefore, corrective action is not required.

4. Corrective Steps Taken to Avoid Further Noncompliance

a. Failure to follow OE-EP 3.03.

The designers and checkers for support 47A450-17-1 and the alternate analysis have been reminded of the requirements for initialing computation pages and computer output. Also, documented training sessions are held on a continuing basis to ensure that all personnel are aware of the engineering procedures which affect their work.

b. Baseplate Steel Stress Calculations

The designer and checker have been instructed in the correct use of the formula. The calculations were revised for other reasons and no longer contain the misused formula.

5. Date When Full Compliance Will Be Achieved

TVA is now in full compliance.