

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

October 12, 1982

WBRD-50-390/82-66

WBRD-50-391/82-63

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 - PIPE SUPPORT LUG CRITERIA NOT MET -
WBRD-50-390/82-66, WBRD-50-391/82-63 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector R. V. Crlenjak on June 7, 1982 in accordance with 10 CFR 50.55(e) as NCR WBN SWP 8221. Interim reports were submitted on July 8 and August 12, 1982. Enclosed is our final report. TVA has determined that this item is not a condition adverse to the safe operation of the plant.

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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ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
PIPE SUPPORT LUG CRITERIA NOT MET
NCR WBN SWP 8221
WBRD-50-390/82-66, WBRD-50-391/82-63
10 CFR 50.55(e)
FINAL REPORT

Description of Deficiency

Support No. 47A464-11-1 of the Component Cooling System does not meet the requirements of document CEB 76-20, Revision 2, Paragraph 4.1.2, "Design Data for Rectangular Support Lug Attachments to Classes 2 and 3 Piping Systems." The support drawing specified a lug length of two inches, whereas CEB 76-20, revision 2, listed a maximum length of one inch for the pipe size in question.

At the time the support drawing was issued, it had met the requirements of CEB 76-20, revision 1, which was the governing lug criteria document. However, TVA upgraded the lug design criteria as reflected in CEB 76-20, revision 2, and thus created the discrepancy.

Safety Implications

TVA has determined that oversized lugs designed in accordance with design criteria reflected in CEB 79-20 R1 are completely adequate to perform their intended function. Therefore, there is no condition adverse to the safe operation of the plant.

Corrective Action

The lug parameter limit discrepancy has been corrected in CEB report 76-20 R2. An analysis has shown lugs designed to CEB report 76-20 R1 are conservative and beyond the requirements of CEB 76-20 R2; therefore, no stress analysis problems would result from the designer's use of CEB 76-20 R1.

CEB report 76-20 R2 was issued to delete large lugs on small diameter pipe. Several lug sizes on small diameter pipe were deleted to reduce welding problems, since it is often difficult and inefficient to weld oversize lugs.

Using the lugs specified in CEB report 76-20 R1 does not reduce the functional effect of the pipe support attachment, provided all welding inspection requirements of the lug pipe interface are met.

The discrepancy in paragraph 4.1.2 was a result of human error and was not detected during the review of CEB 76-20 R1.

CEB report 76-20 R2 was issued showing the corrected version of paragraph 4.1.2, which provides the actual lug parameter limits used in generating the lug data. Revisions later than CEB 76-20 R1 require a thorough checking process, as described in EN DES-EP 3.06. EN DES-EP 3.06 was not in effect at the time CEB 76.20 R1 was issued.