

TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

USNRC REGION II
ATLANTA, GEORGIA

October 22, 1981
OCT 26 AIO: 10

WBRD-50-390/81-82
WBRD-50-391/81-76

Mr. James P. O'Reilly, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Region II - Suite 3100
101 Marietta Street
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - DESIGN OF AXIAL SUPPORTS FOR PIPING USING LUGS WELDED TO THE PIPE - WBRD-50-390/81-82, WBRD-50-391/81-76 - FIRST INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector R. V. Crienjak on September 22, 1981 in accordance with 10 CFR 50.55(e) as NCR WBN SWP 8155. Enclosed is our first interim report. We expect to submit our next report by March 18, 1982.

If you have any questions, please get in touch with R. H. Shell at FTS 857-2581.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills
L. M. Mills, Manager
Nuclear Regulation and Safety

Enclosure

cc: Mr. Victor Stello, Director (Enclosure)
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, DC 20555



IE27
3
1/1

8110290204 811022
PDR ADOCK 05000390
S PDR

ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
DESIGN OF AXIAL SUPPORTS FOR PIPING USING LUGS WELDED TO THE PIPE
WBRD-50-390/81-82, WBRD-50-391/81-76
10 CFR 50.55(e)
FIRST INTERIM REPORT

Description of Deficiency

The two deficiencies identified by this NCR are:

1. Lugs, designed to keep pipes from moving axially, butt up against the rounded corner of square tubing on pipe supports allowing greater movement than designed for. This results in a longer moment arm, creating a bending moment on the pipe wall that could result in overstressing of the pipe.
2. The criteria for determining the moment arm to the centroid of the bearing areas was misinterpreted. This resulted in smaller moment arms, producing nonconservative pipe stresses induced by the lug.

Interim Progress

TVA is currently investigating this concern and is attempting to show, on a generic basis, that the increased length of the moment arm does not cause an overstressing of the pipe walls. Both typical and engineering supports are under review. In addition, TVA is reviewing the lug criteria for conservatism.