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



October 19, 1981

WBRD-50-390/81-79

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 UNIT 1 - SOCKET WELD DEFECTS IN MAIN STEAM LINE BOSSES - WBRD-50-390/81-79 - FIRST INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector R. V. Crlenjak on September 17, 1981 in accordance with 10 CFR 50.55(e) as NCR 3301R. Enclosed is our first interim report. We expect to submit our next report by December 22, 1981.

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, 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

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ENCLOSURE
WATTS BAR NUCLEAR PLANT UNIT 1
SOCKET WELD DEFECTS IN MAIN STEAM LINE BOSSES
WBRD-390/81-79
10 CFR 50.55(e)
FIRST INTERIM REPORT

## Description of Deficiency

This deficiency occurred because linear indications were discovered on one-inch socket weld bosses during routine liquid penetrant examination of the socket welds. The indications could not be categorized during the liquid penetrant examination, that is, it could not be determined if the indications resulted from machine tool marks made during original manufacture, from cracks due to defective bosses or from scars created during handling. The liquid penetrant examination also did not reveal the depth of the indications. Light grinding was then performed on the bosses to determine if the indications were surface defects or if they penetrated through the boss. The grinding successfully eliminated the original linear indications; however, after grinding was completed, the remaining wall thickness was measured and found to be below the required minimum thickness. D-meter examination revealed that the grinding had reduced the wall thickness at the ground area by approximately 0.001 inch to 0.036 inch below the manufacturer's minimum wall of 0.196 inch as given in ANSI specifications.

## Interim Progress

There are 24 one-inch socket weld bosses on the TVA class B main steam piping. Eight are inside containment and 16 are outside containment in the main steam valve rooms. TVA is presently inspecting all bosses for linear indications; inspection is complete on 14 of the 24 bosses. Of these, three have linear indications. Bosses ground below minimum wall will be replaced or repaired. TVA will supply additional information in our next report.