TENNESSEE VALLEY AUTHORITY
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MAR 23 1987

WBRD-50-390/87-08
WBRD-50-391/87-08

10 CFR 50.55(e)

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Office of Nuclear Reactor Regulation
Washington, D.C. 20555

Attention: Mr. Stewart Ebneter

WATTS BAR NUCLEAR PLANT (WBN) - UNITS 1 AND 2 IMPROPER FABRICATION, INSPECTION, AND DOCUMENTATION OF WALL-MOUNTED INSTRUMENT PANELS - WBRD-50-390/87-08, WBRD-50-391/87-08 - INTERIM REPORT

The subject deficiency was initially reported to NRC-Region II Inspector Ken Barr on February 19, 1987, as a potentially reportable item in accordance with 10 CFR 50.55(e) as SCRs WBN 6738-S and WBN 6713-S for units 1 and 2, respectively. Since our initial notification to NRC, SCR WBN 6738-S has been replaced by NCR W-559-P. Enclosed is our interim report. We expect to submit our final report on or about July 15, 1987.

If there are any questions, please call R. D. Schulz at (615) 365-8527.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

R. Gridley, Director
Nuclear Safety and Licensing

Enclosure
cc: See page 2

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U.S. Nuclear Regulatory Commission

MAR 23 1987

cc (Enclosure):
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ENCLOSURE
WATTS BAR NUCLEAR PLANT
UNITS 1 AND 2
IMPROPER FABRICATION INSPECTION AND DOCUMENTATION OF
WALL-MOUNTED INSTRUMENT PANELS
WBRD-50-390/87-08 AND 50-391/87-08
SCRs W-559-P AND WBN 6713-S
INTERIM REPORT

DESCRIPTION OF DEFICIENCY

The seismic adequacy of approximately 175 site-fabricated local instrument panels in several safety-related plant systems cannot be verified for lack of documentation of the fabricated configurations. Weld joints on the panels were shown on the design drawings to require full penetration welds. However, these welds were recently found to generically lack complete penetration. In addition, TVA did not perform adequate structural inspections of the instrument panels and, in conjunction with the identified weld deficiency, this renders the overall adequacy of the panels questionable.

While the root cause of this deficiency has not yet been identified, it appears that this item is a deficiency in the QA program in that 10 CFR 50, Appendix B, Criteria V, X, and XVII were not fully implemented. The extent of implications to fabrication, installation, inspection, and documentation is still being evaluated, and the results will be used to determine root cause and potential generic applicability.

SAFETY IMPLICATIONS

Because of a lack of documentation, the seismic qualification of these panels is indeterminate. Inability of the panels to withstand a safe shutdown earthquake could result in random instrument failures, including misleading indication and protection channel failures, as well as possible damage to adjacent safety-related components.

INTERIM PROGRESS

Revision 2 of Engineering Requirement ER-WBN-EEB-001, "Instrument Line Installation and Inspection," is being developed to establish the minimum engineering and design requirements for the installation, modification, maintenance, and inspection of instrument systems. On issuance of ER-WBN-EEB-001, working procedures for fabrication, installation, and inspection of the panels will be revised or generated as required. Appropriate personnel will then be trained as needed. Rework, inspection, and documentation for deficient wall-mounted instrument panels will be performed in accordance with the appropriate procedures.

TVA will provide the final report on this deficiency to NRC on or about July 15, 1987.