TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE 37401

6N 38A Lookout Place

JUL 31 1990

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

In the Matter of the Application of) Docket No. 50-390
Tennessee Valley Authority)

WATTS BAR NUCLEAR PLANT (WBN) - NRC INSPECTION REPORT NO. 50-390/89-200 - NOTICE OF VIOLATION, PART B - SUPPLEMENTAL REPORT

As committed in TVA's letter to NRC dated April 27, 1990, enclosed is the supplemental report for Part B of the subject violation.

Enclosure 1 provides the results of the evaluation of the nozzle-to-shell fillet weld deficiency and the corrective action required to resolve the issue. Enclosure 1 also provides TVA's collective evaluation of the four examples of Violation Part B with respect to the adequacy of the quality assurance source surveillance and receipt inspection programs.

Enclosure 2 provides the commitments contained in this letter.

If there are any questions, please telephone P. L. Pace at (615) 365-8527.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

M. O. Medford

M. O. Medford, Vice President
Nuclear Technology and Licensing

Subscribed and sworn to before me
on this 31st day of July 1990.

Paulette H. White
Notary Public

My Commission Expires 11-4-92

Enclosure
cc: See page 2

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U.S. Nuclear Regulatory Commission

JUL 31 1990

cc (Enclosures):
Ms. S. C. Black, Deputy Director
Project Directorate II-4
U.S. Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852

NRC Resident Inspector
Watts Bar Nuclear Plant
P.O. Box 700
Spring City, Tennessee 37381

Mr. P. S. Tam, Senior Project Manager
U. S. Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852

Mr. B. A. Wilson, Project Chief
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

ENCLOSURE 1

WATTS BAR NUCLEAR PLANT (WBN) UNIT 1
NRC INSPECTION REPORT NO. 50-390/89-200
NOTICE OF VIOLATION, PART B

SUPPLEMENTAL REPORT

Condition Adverse to Quality Report (CAQR) WBP 890514 was generated to document and track resolution of the identified deficiency with nozzle-to-shell fillet welds on tanks, filters, and heat exchangers. The corrective action to resolve this deficiency is based on an industry survey of other utilities and TVA's inspections of components at WBN. The following corrective action is being implemented for WBN Unit 1:

- Inspection of accessible nozzle-to-shell fillet welds for those components within the scope of the subject deficiency that are most susceptible to failure from undersized welds or have the greatest safety significance resulting from weld failure. This inspection effort is approximately 80 percent complete. The components within the scope of the nozzle-to-shell fillet weld deficiency include American Society of Mechanical Engineers (ASME) Sections III and VIII tanks, filters, and heat exchangers used in TVA Class B, C, or D applications (i.e., American Nuclear Society (ANS) Safety Class 2a, 2b, or 3, respectively).

  The criteria of WBN's Final Safety Analysis Report Section 3.6A for high energy piping (i.e., where the maximum operating condition is greater than 275 psig and 200°F) was applied to identify those components most susceptible to failure from undersized welds. Those components performing a TVA Class B function (i.e., ANS Safety Class 2a) are considered to have the greatest safety significance.

- Inspection of accessible nozzle-to-shell fillet welds of one component from each vendor within the scope of the subject deficiency that does not meet the criteria defined above for most susceptible to failure or greatest safety significance. This inspection effort is approximately 85 percent complete.

- Evaluation of welds found to be undersized (i.e., less than specified on the vendor drawing) for adequacy to fulfill the intended function.

- Repair and testing of inadequate welds in accordance with WBN's ASME Section XI repair and replacement program.

- Repair in accordance with ASME Section XI or submittal of a proposed alternative to NRC in accordance with 10 CFR 50.55a(a)(3) for those welds that do not meet the requirements of ASME Section III or Section VIII, as appropriate, but are determined to be adequate by the above evaluation.

- Inspection and dispositioning as described above for nozzle-to-shell fillet welds of the other components supplied by the associated vendor if a component requires weld repair.

- Evaluation of inaccessible welds for a component based on the results of the accessible welds of the other components supplied by the associated vendor.

The corrective action described above will be complete by April 1991.

TVA has completed the collective evaluation of the four examples of the subject Violation Part B. The evaluation was based on a collective root cause analysis of the individual root causes of the six deficiencies associated with the examples of Violation Part B.

Based on the results of the collective evaluation, TVA concludes that there is no indication of a common technical problem associated with the examples of the subject Violation Part B, and the corrective actions in place for the identified examples of Violation Part B are adequate to resolve this issue.

In addition, TVA considers that the implementation of the corrective action program (CAP) plans and special projects in combination with other site recovery and startup activities provide reasonable assurance that any remaining problems will be identified and that the condition adverse to quality process will assure resolution.

ENCLOSURE 2

LIST OF COMMITMENTS

1. TVA will inspect accessible nozzle-to-shell fillet welds for those components within the scope of the subject deficiency that are most susceptible to failure from undersized welds or have the greatest safety significance resulting from weld failure.

2. TVA will inspect the accessible nozzle-to-shell fillet welds of one component from each vendor within the scope of the subject deficiency that does not meet the criteria defined above for most susceptible to failure or greatest safety significance.

3. Accessible welds found to be undersized (i.e., less than specified on the vendor drawing) will be evaluated for adequacy to fulfill the intended function.

4. Inadequate welds will be repaired and tested in accordance with WBN's ASME Section XI repair and replacement program.

5. Those welds that do not meet the requirements of ASME Section III or Section VIII, as appropriate, but are determined to be adequate by the above evaluation will either be repaired in accordance with ASME Section XI or a proposed alternative will be submitted to NRC in accordance with 10 CFR 50.55a(a)(3).

6. If a component requires weld repair, the nozzle-to-shell fillet welds of the other components supplied by the associated vendor will be inspected and dispositioned as described above.

7. Inaccessible welds for a component will be evaluated for adequacy based on the results of the accessible welds of the other components supplied by the associated vendor.

8. The corrective action described above will be complete by April 1991.