

830 Power Building
TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE 37401

AUG 5 1977



Mr. Norman C. Moseley, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Region II - Suite 1217
230 Peachtree Street, NW.
Atlanta, Georgia 30303

Dear Mr. Moseley:

WATTS BAR NUCLEAR PLANT - REPORTABLE DEFICIENCY - BRISTOL STEEL
AND IRON WORKS - CHANGED OR RELOCATION OF PIECE MARKS AND MATERIAL
ID NUMBERS WITHOUT DOCUMENTATION AND DISCREPANCIES BETWEEN WELDER
ID ON PIECES AND FABRICATION TRAVELERS

The subject deficiency was initially reported to Region II,
Inspector V. L. Brownlee, on September 20, 1976, in accordance
with Section 10 CFR 50.55(e). Interim reports were transmitted on
October 22, 1976, December 22, 1976, and April 18, 1977. Enclosed
is our final report on this deficiency.

Very truly yours,

J. E. Gilleland
Assistant Manager of Power

Enclosure

cc: Dr. Ernst Volgenau, Director (Enclosure) ✓
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, DC 20555

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FINAL REPORT
WATTS BAR NUCLEAR PLANT
REPORTABLE DEFICIENCY
BRISTOL STEEL AND IRON WORKS (BSIW)

CHANGE OR RELOCATION OF PIECE MARKS AND MATERIAL ID NUMBERS WITHOUT DOCUMENTATION AND DISCREPANCIES BETWEEN WELDER ID ON PIECES AND FABRICATION TRAVELER

Description of Deficiency

On September 16, 1976, TVA wrote nonconformance report (NCR) 64 noting that for some of the work on TVA contract 74C54-85879 with BSIW, listed on attachment B to the NCR, piece marks and material ID numbers had been changed or relocated without documentation and welders' ID's stenciled on various pieces did not agree with the ID's recorded on the fabrication travelers. The specific nonconformance description in NCR 64 is as follows:

During routine inprocess inspection on September 11, 1976, through September 16, 1976, it was noted that:

1. Piece marks had been changed on various components with no documentation explaining the change.
2. In some instances, ID numbers of material had been changed or relocated without documentation explaining the change.

Specifically, in items 1 and 2 above, the piece mark or ID number change had been accomplished by peening or grinding out the marks and restenciling with steel stamps. In some cases former marks were evidenced; in others they were completely ground or peened out.

3. Welder ID's stenciled on various piece marks did not agree with welder ID's recorded on the travelers.

The above is in violation of paragraph 8 and 17 to Appendix A to TVA Specification 2274 (for contract 74C54-85879).

Analysis of Safety Implication

It has been determined that adequate quality assurance records exist for all components fabricated under the contract referenced in NCR 64-TVA. Therefore, if the nonconformance had gone undiscovered, it would not have adversely affected the safety of the plant. Therefore, the nonconformance no longer constitutes a reportable condition.

Corrective Action Taken

On October 25, 1976, BSIW wrote NCR 71 to document visual inspection of all assemblies in fabrication to ascertain similar instances of undocumented changes as reported to NCR 64 of September 16, 1976. BSIW proposed that any undocumented cases which may exist and were not covered by these two NCR's would be handled by a discrepancy report, approved by the TVA resident inspector provided: (1) they were of a nature similar to those covered by the two NCR's, and (2) it could be shown that they occurred prior to approval of NCR 71. BSIW also proposed that future changes in piece marks or other stenciled markings would be handled in accordance with written instructions given to all production, QC, and QA personnel working on contract 74C54-85879. These instructions were as follows:

1. If a piece of material was stenciled incorrectly, the correction was to be documented. The documentation could be a notation on the fabrication traveler or route sheet, initialed and dated by both a production supervisor and a QC inspector. Where in the opinion of the QC inspector an explanation was needed because the correction was more than a simple error correction, the correction was to be documented on a discrepancy report.
2. All errors were to be reported to a QC inspector when they were found and were to either be immediately corrected (including documentation of the correction) or the affected piece was to be placed on hold until the error was corrected or otherwise resolved.
3. All transfers of stenciled markings on a piece were to be documented. The documentation was to be a notation on the fabrication traveler or route sheet, initialed, and dated by a QC inspector to verify correct transfer.

This proposed corrective action given on NCR 71 satisfied the corrective actions required of the contractor as a result of NCR 64. Continued monitoring in this area has been conducted by BSIW since September 16, 1976, until the completion of fabrication. As evidence of this continual monitoring it is noted that on May 20, 1977, BSIW documented on a discrepancy report, and subsequently by NCR on June 7, 1977, that material identification (ID) and QC signoffs were not recorded on the route sheets for four pieces. However, the material ID was found to be recorded on the fabrication traveler for these pieces. Thus, the material ID for these four pieces was verified. All fabrication on this contract is complete and no other instances of undocumented changes affecting material ID numbers or welders' ID numbers have been reported by NCR.

Summary

1. It is concluded that the contractor has successfully implemented all corrective action committed to as a result of this reportable deficiency.

2. It is further concluded that BSIW has demonstrated to the satisfaction of the TVA Chief, Quality Engineering Branch, formerly TVA Chief Materials Engineer, that incorrect or defective materials, parts, and components have not been used. This assurance is in the form of records supporting the fabrication.
3. Shipment of all contract items has been completed.

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August 5, 1977

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U.S. Nuclear Regulatory Commission
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Atlanta, Georgia 30303

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