

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

September 29, 1981 5 48:41

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 - NRC-OIE INSPECTION REPORT
50-390/81-15, 50-391/81-15 - RESPONSE TO VIOLATIONS

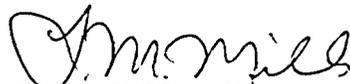
The subject inspection report dated August 28, 1981 cited TVA with two Severity Level V Violations in accordance with 10 CFR 2.201. Enclosed is our response. The submittal date of this report was discussed with Inspector D. Quick on September 29, 1981.

If you have any questions, please get in touch with D. L. Lambert at FTS 857-2581.

To the best of my knowledge, I declare the statements contained herein are complete and true.

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 UNITS 1 AND 2
RESPONSE TO VIOLATIONSViolation 390/81-15-01,391/81-15-01

10CFR50, Appendix B, Criterion IX, as implemented by FSAR paragraph 17.1A.9 requires measures be established to assure that special processes including welding are controlled. TVA General Construction Specification G-29M implements the welding program. G-29M, Process Specification 1.M.1.2.(b) paragraph 14.9.1(a) requires bead width, for 1/8-inch diameter type E-7018 electrodes, not to exceed 3/4-inch maximum. G-29M, Process Specification 3.M.5.1.(d), paragraph B.5, requires that undercut shall not exceed 1/32-inch. G-29M Process Specification 5.M.2.1.(a) of 6/10/74, 'Specification for the Measurement of Delta Ferrite Content of Austenitic Stainless Steel Welds,' paragraph 3.2, requires ferrite numbers to be 3 minimum. TVA procedure WBNP-QCI-4.1 Revision 0, 'Procurement, Storage, Issue, and Control of Welding Materials,' paragraph 6.3.3.8, requires all unused coated electrodes to be deposited in locked collection boxes.

Contrary to the above, on August 3-4, 1981, measures were inadequate to control welding in that:

1. The single bead cover pass on completed and accepted auxiliary feedwater system weld No. FW09 of IC-6 deposited with an 1/8-inch diameter type E-7018, electrode was 1-1/4 inches wide.
2. The base material adjacent to completed and accepted auxiliary feedwater system weld Nos. FW-09 of IC-6 and F-08 of IC-8 was undercut to a depth of approximately 3/32-inch.
3. The delta ferrite examiners of record for weld joint Nos. FW-6 of ISO 40 and FW-7 of ISO 42 reported and accepted ferrite numbers of 1.0 and 2.5, respectively.
4. Unused coated electrodes (type E-7108) had been deposited, with electrode stubs in open bins at four welding filler material return locations.

This is a Severity Level V Violation (Supplement II.E).

Admission or Denial of the Alleged Violation

TVA admits the violation occurred as stated.

Reason for the Violation

The reason for the violations identified as item A.1 and A.2 was the appropriate employees failed to follow procedures outlined in TVA's General Construction Specification G-29M.

The reason for the violation identified as item A.3 is insufficient document review by the appropriate employees.

Item A.4 was due to the failure of the appropriate employees to follow procedures.

Corrective Steps Taken and the Results Achieved

To document the subject violation identified as A.1 and A.2, NCR 3534 was written. A sample of the welds inspected by the inspector who accepted the deficient welds will be performed to determine the adequacy of his inspections. The disposition of the deficient welds and any welds which might be identified during the sampling program is to grind, reweld, and inspect the welds as applicable.

Review of finalized documents in the vault revealed that of 148 stainless steel welds whose material thickness is greater than one inch, 33 welds were missing delta ferrite value and/or signature, four welds were lacking the required preassignment of a delta ferrite hold point, and three welds had delta ferrite values less than 3FN. These were rechecked and all were above 3FN. Ten welds were not checked after being repaired or being cut out. These are being checked now.

Review of finalized documentation revealed that of approximately 3,701 welds whose material thickness is 1/4-inch through 1-inch, delta ferrite hold points were assigned to 535 welds. Of these, 469 welds were documented correctly, 54 have missing information, and 12 had a delta ferrite value of less than 3FN.

These 12 welds were rechecked and delta ferrite values were 3FN or greater. The documentation for these welds has been corrected. The 54 hold points with missing information will be marked not applicable because process specification 5.M.2.1(a) requires that only 250 welds be checked for this thickness range. We have checked 231 welds above this requirement.

TVA is constructing new locked collection boxes which will be used for welding stubs and will be identified as such. These boxes will be located adjacent to each drop box.

Corrective Steps Taken to Avoid Future Violation

All welding inspectors are now being certified to the Hartsville Training Center, Level II Welding Inspector Program. All welders have received numerous QA training sessions since this occurred.

The welding engineering unit will be trained to the upcoming revision of QCI 1.8, 'Quality Assurance Records,' which will be revised to ensure recording of QA records. This revision provides for the development of a document review checklist by which all future and past submissions to the Quality Control and Records Unit will be given a detailed screening for accuracy and completeness.

Welders are continuously being trained to the requirements of QCI 4.1 by means of formal QA training sessions.

Date of Full Compliance

TVA will be in full compliance by November 10, 1981.

Violation 390/81-15-02,391/81-15-02

10CFR50, Appendix B, Criterion V as implemented by FSAR paragraph 17.1A.5 requires activities affecting quality to be accomplished in accordance with documented procedures. TVA Procedure WBNP-QCP 1.78, Revision 11, 'Release for Drilling, Chipping, Cutting of Welding to, or Rigging from Permanent Plant Structures and/or Components,' Appendix I, 'Temporary Rigging from Permanent Plant Equipment,' paragraphs 5.2, 6.1, 6.1.1, and 6.3.6 requires rigging releases to be requested and approved for all temporary construction loads exceeding 150 pounds supported by permanent plant equipment.

Contrary to the above, on August 3 and 4, 1981, activities affecting quality were not accomplished in accordance with documented procedures in that the following was noted.

12 examples of scaffolding supported by installed safety-related and balance of plant piping. The scaffolding with personnel tools and materials would exert a temporary construction load to permanent plant equipment in excess of 150 pounds. No rigging releases had been requested or approved for the scaffolding above.

This is a Severity Level V Violation (Supplement II.E).

Admission or Denial of the Alleged Violation

TVA admits the violation occurred as stated.

Reasons for the Violation

This condition was previously recognized by TVA and recorded on NCR 3176R, dated April 16, 1981. The terminology 'rigging' as used in the procedure was misleading in that employees did not relate loads imposed by scaffolding on permanent components to the subject procedure. Additionally, the procedure did not address the effects of live loads, materials, etc., that might be imposed due to scaffolding.

Corrective Steps Taken and Results Achieved

The procedure was revised and retitled 'Temporary Construction Loads Supported from Permanent Plant Equipment' and the release form was retitled 'Construction Load Release.' The revision contains specific guidelines for consideration of the effects of live loading. Loading criteria was liberalized as well as expanded to apply to component types not previously identified. Training to the revised procedure was given to 148 craft foremen and engineering section group leaders during the period June 15-19, 1981, before the formal issuance of the revision on August 4, 1981. TVA is performing a field inspection of existing scaffolding and rigging and is securing Construction Loading Releases from engineering where

required. An initial inspection was made by TVA of the control building, auxiliary building, and reactor buildings on August 24, 1981. No cases of noncompliance were identified, although, due to complex loading situation, some situations were identified that are subject to further review.

Corrective Steps Taken to Avoid Further Noncompliance

A field audit will be conducted and documented by appropriate employees. Additional corrective measures will be applied if dictated by the results of the audit.

WBN QCI 1.36, 'Housekeeping,' will be revised to include random inspection of temporary construction loads and documentation in the monthly housekeeping inspection.

Date When Full Compliance Will be Achieved

TVA will be in full compliance November 10, 1981.