

DUB

TENNESSEE VALLEY AUTHORITY

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86 FEB 27 A 9: 21 February 21, 1986

U.S. Nuclear Regulatory Commission
Region II
ATTN: Dr. J. Nelson Grace, Regional Administrator
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

Dear Dr. Grace:

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - RESPONSE TO VIOLATIONS 390/85-63-03,
391/85-52-01 - FAILURE TO ESTABLISH AN ADEQUATE WELDING INSPECTION PROCEDURE

This is in response to R. D. Walker's letter dated January 17, 1986, report
Nos. 50-390/85-63 and 50-391/85-52, citing activities at the Watts Bar Nuclear
Plant which appeared to be in violation of NRC regulations. Enclosed is our
response to the citations.

Delay in submittal of this response was discussed with Bob Carroll on
February 18, 1986.

If there are any questions, please get in touch with R. H. Shell at
FTS 858-2688.

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

Very truly yours,

TENNESSEE VALLEY AUTHORITY

J. A. Domer
J. A. Domer, Chief
Nuclear Licensing Branch

Enclosure

cc (Enclosure):

Mr. James E. Taylor, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

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ENCLOSURE
WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
RESPONSE TO NRC LETTER FROM R. D. WALKER TO S. A. WHITE
DATED JANUARY 17, 1986
REPORT NOS. 50-390/85-63 and 50-391/85-52

This report responds to the Notice of Violation described in enclosure 1 of the OIE inspection report referenced above. This is our final report on this item of noncompliance for violation 390/85-63-03 and 391/85-52-01.

Violation 390/85-63-03 and 391/85-52-01

10CFR50, Appendix B, Criterion V as implemented by TVA's Quality Assurance Topical Report TVA-TR-75-1A, revision 8, paragraph 17.1.5 requires that activities affecting quality shall be prescribed by procedures of a type appropriate to the circumstances.

Contrary to the above, weld inspection activities were not adequately prescribed in that welding inspection procedure Quality Control Procedure (QCP) 4.13 did not require that welding quality control inspectors verify a welder's qualifications meet ASME Section III requirements.

This is a Severity Level IV violation (Supplement II).

Admission or Denial of Violation

TVA acknowledges that an apparent violation does exist in that Watts Bar Nuclear Plant (WBN) process control procedure WBN-QCI-4.03, "Process Control Welding Surveillance, and Weld Procedure Assignment," does not adequately define the review and approval criteria used to ensure that welder qualification is in fact verified before final acceptance. However, TVA is unable to concur that a violation exists related to WBN welding inspection procedure WBN-QCP-4.13, "Non-Destructive Examination."

Reason for the Violation

Checklists and guidelines (that include verifying welder qualifications) which TVA has used and continues to use have not been adequately defined in the procedure WBN-QCI-4.03.

Background Information

WBN inspection procedure WBN-QCP-4.13 is not intended to require the welding quality control inspector to verify that a welder's qualifications meet ASME Section III requirements at the time of fit-up inspection. However, it does require the inspector to record the welder's identification (ID) on the welding operation sheet. Before recording the welder's ID on the welding operation sheet, the inspector verifies the welder identification from the welder's identification card. This card states the qualification tests which are valid and that the tests are in fact in accordance with ASME Section III/IX requirements.

The ASME Code requires that all welders be qualified. It does not state at what point during the fabrication/erection process that verification of welder qualification is accomplished.

The welder qualification program at WBN has been planned and implemented so that only a limited number of different qualification tests have been administered. Each welding foreman, welder, and inspector receives extensive training in recognizing these qualification test descriptions and the limits of each qualification. Each welding foreman reviews the work assignment, the welder's qualification, and weld procedure assignment prior to requisitioning welding filler material for the welder. This program has proven successful in preventing assignment of welders to tasks outside their qualification limits.

Although the welding inspector does, in fact, verify welder qualification at fit-up inspection, it is indeterminate at that time as to the identity of all welders who may perform welding to complete the weld joint. For this reason, WBN procedures addressing "Process Control" provide after the fact assurance that all welders were in fact qualified. The upper-tier document, TVA Quality Assurance Manual for ASME Section III Nuclear Power Plant Components (NCM), Section 4.1 (Process Control), paragraph 2.2.2(c).5, states that the Welding Engineering Unit (WEU) "reviews and approves all completed welding operation sheets and transmits these documents to the authorized nuclear inspector (ANI) for final review and acceptance, and after final acceptance by the ANI, transmits the accepted documents to the Document Control Unit." This responsibility is further delineated in WBN site implementing procedure WBN-QCI-4.03. The review and approval of welding operation sheets (NCM section 4.1 and WBN-QCI-4.03) has been accomplished via checklist and guidelines which are used by the WEU, the N-5 Unit, and the Document Control Unit. Review of all completed welding operation sheets ensures that each welder was in fact qualified for each activity performed. During the review process any discrepancy identified in welder qualification is documented with a nonconforming condition report (NCR). TVA acknowledges that these checklists and guidelines have not been procedurally defined in WBN-QCI-4.03.

Corrective Steps Taken and Results Achieved

An ongoing review of all NCRs involving welder qualification at WBN has identified that only 16 NCRs have been initiated to date involving 115 welds which have all been confirmed to be of acceptable quality. As of January 31, 1986, a total of 105,265 welding operation sheets had been reviewed and accepted indicating an identified problem with 0.1 percent of the total welds.

As stated above, review of all weld operation sheets has ensured that all welders were qualified for the activities performed or that the resultant welds were acceptable. Since this program has proven successful in preventing assignment of welders to tasks outside their qualification limits, TVA believes that no actions are required to correct past performance and requests that NRC reduce the severity level of this violation.

Corrective Steps to Avoid Further Violations

TVA will revise WBN site implementing procedure WBN-QCI-4.03 to include the review and acceptance criteria currently identified on checklists and guidelines used by the WEU.

The revision and subsequent training to that revision should prevent further violations in this area of noncompliance.

Date of Full Compliance

TVA will be in full compliance by April 1, 1986.