

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

March 5, 1981

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11:45:01

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:

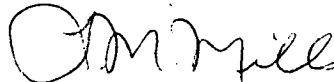
WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - NRC-OIE LETTER RII:NE  
50-390/80-32, 50-391/80-25 - FINAL RESPONSES TO INFRACTIONS

The subject inspection report dated November 25, 1980, cited TVA with two infractions. An interim report in response to this inspection report was submitted on December 18, 1980, and additional information was provided on January 26, 1981. Enclosed is our final report.

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

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&2  
ACCEPTANCE OF UNDERSIZED SOCKET FILLET WELDS ON REINSPECTION  
FINAL RESPONSE TO INFRACTIONS  
50-390/80-32-02; 50-391/80-25-02

INFRACTION 50-390/80-32-02; 50-391/80-25-02

As required by Criterion V of Appendix B to 10CFR50, and implemented by FSAR, Paragraph 17.1A.5, "Activities affecting quality shall be accomplished in accordance with instructions, procedures, or drawings." Watts Bar condition adverse to Quality Report M-41 (December 27, 1979) and subsequent NCR's 2086, 2101, and 2111 provide for the inspection, repair, and documentation of previously accepted safety-related socket fillet welds which did not meet specified size requirements.

Contrary to the above, on October 22, 1980, certain socket fillet welds 3/4" by 0.218" in the chemical volume control system shown on sketch No. 406-1, sheets 22 R/2 and 38 R/2, had been inspected and signed off as acceptable when the fillet size did not meet minimum specification/code requirements.

CORRECTIVE ACTION TAKEN AND RESULTS ACHIEVED

We have completed the reinspection of 100 sketches involving schedule 40, 80, and 160 pipe. All schedule 40 and 80 fillet welds met size acceptance criteria. Some schedule 160 fillet welds previously inspected did not meet size acceptance criteria, so approximately 35 additional sketches involving schedule 160 fillet welds were reinspected, making a total of approximately 75 sketches reinspected which involved schedule 160. The reinspection revealed the following:

1. All fillet welds shown on the two sketches cited in this infraction did not meet schedule 160 size acceptance criteria. None of the other sketches reinspected exhibited this condition.
2. The welds on these two sketches were all inspected by the same welding inspector on the same day. We found no other examples of improper acceptance of welds by this inspector in the sketches reinspected, from which we conclude that this is an isolated instance of an inspector utilizing improper size acceptance criteria on a particular day.
3. Some of the schedule 160 sketches reinspected had individual examples of fillet welds not meeting size acceptance criteria. These examples comprised approximately 12 percent of the total schedule 160 welds reinspected.
4. Our investigation revealed no generic pattern in the failure of reinspected fillet welds to meet size acceptance criteria, except that they all involved schedule 160. We did not find any pattern showing that training given to welding inspectors on fillet weld size for NCR 2111R was inadequate since the schedule 40 and 80 welds all checked out acceptable. The schedule 160 welds found not meeting size acceptance criteria were shown on sketches which also had schedule 160 welds which were originally rejected on reinspection for fillet weld size. Both kinds of welds were originally

reinspected by the same welding inspector at the same time. We plan to reinspect all sketches involving schedule 160 fillet welds and repair those not meeting schedule 160 acceptance criteria.

ACTION TO PREVENT RECURRENCE

We have established a group in the Welding Engineering Unit to handle the weld reinspection program. This will allow inspectors assigned to this group to concentrate on reinspection and should result in more consistency in fillet weld size reinspection. We do not believe additional training is needed for inspection of fillet weld size. Additional training programs for complete visual welding inspection are now under development and should be implemented at Watts Bar within the next four months.

DATE OF FULL COMPLIANCE

We expect to be in full compliance on reinspection and repair of fillet socket welds before hot functional testing.