Tennessee Valley Authority, Post Office Box 2000, Spring City, Tennessee 37381

DEC 05 1991

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

Gentlemen:

In the Matter of the Application of) Docket Nos. 50-390
Tennessee Valley Authority) 50-391

WATTS BAR NUCLEAR PLANT (WBN) - NRC INSPECTION REPORT NO. 390, 391/91-23
REPLY TO NOTICE OF VIOLATION

This letter responds to Inspection Report 390, 391/91-23 dated November 21, 1991, which identified one Severity Level IV violation, 390/91-23-04, involving failure to radiograph an ASME Class II piping weld. The enclosure to this letter addresses the specific example described in the subject inspection report and the corrective actions taken by TVA.

If you have any questions, please telephone P. L. Pace at (615) 365-1824.

Sincerely,

John H Garrity

John H. Garrity

Enclosure
cc: See page 2

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U.S. Nuclear Regulatory Commission DEC 05 1991

cc (Enclosure):
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ENCLOSURE

WATTS BAR NUCLEAR PLANT UNIT 1
RESPONSE TO NRC'S NOVEMBER 21, 1991 LETTER TO TVA
NRC VIOLATION 390/91-23-04

DESCRIPTION OF VIOLATION

10 CFR 50.55(a) requires, in part, that structures, systems, and components shall be designed, fabricated, erected, constructed, tested, and inspected to quality standards commensurate with the importance of the safety function to be performed. The applicable code designated for fabrication and inspection of class II pipe welds is the ASME Boiler and Pressure Vessel, Section III, Subsection NC, 1971 Edition with Addenda through the Summer 1973. Paragraph NC-5200 of Subsection NC requires that circumferential butt welded joints in piping be radiographed.

Contrary to the above, the radiograph class II Chemical Volume and Control system weld 1-062A-T087-18 was a duplicate of the radiograph for weld 1-062A-T087-17 resulting in weld 1-062A-T087-18 not being radiographed. This is Severity Level IV Violation (Supplement II).

ADMISSION OR DENIAL OF THE VIOLATION

TVA admits the violation occurred as stated.

REASON FOR THE VIOLATION

The subject violation occurred as the result of lack of attention by the radiographer. The radiographic procedure required the radiographer to utilize a drawing that identified weld locations to locate the actual weld to be radiographed. The inadvertent radiography of weld 1-062A-T087-17 as 1-062A-T087-18 was a result of the two welds being located adjacent to a flange assembly. The radiographer failed to adequately establish the weld location in relation to the orientation of the flange assembly. This failure to establish the actual location of weld 1-062A-T087-18 resulted in weld 1-062A-T087-17 being reradiographed as 1-062A-T087-18.

CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED

TVA has taken the following corrective actions to resolve the condition identified in the subject violation.

Weld number 1-062A-T087-18 has been radiographed and documented in accordance with site procedures. The subject weld was found to be acceptable. Disciplinary action was not initiated since the individual is no longer employed by TVA.

The extent of condition is limited to the identified deficiency. TVA has reviewed the results of past inspections and corrective actions to determine if additional actions are necessary to address the subject violation. TVA conducted a comparison of radiographs and welds before the subject inspection, by utilizing radiographic overlays from 30 original welds, depicting unique outside diameter features, to verify that the radiographs matched the actual

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CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED (continued)

weld. No weld identification discrepancies were identified. The NRC has now completed a 100 percent review of Unit 1 Class 1 and 2 TVA-fabricated butt weld radiographs. During this review, repair radiographs and several requested reshots were compared to original radiographs. No further examples of misidentified radiographs were found. For each weld repaired and those welds reshot, TVA is confident that the correct weld was radiographed and that the radiographs match the weld in the plant.

In addition, during the resolution of Significant Condition Report (SCR) NEB8651, TVA performed a review of the Unit 1 radiographs by Level II inspectors and a rereview by independent Level III inspectors. This review represented approximately 2,700 welds, of which 405 welds had been repaired during construction. The Level III rereview matched the repair radiograph to the original film to insure the correct weld was repaired. The comparison of these radiographs combined with the approximately 270 welds reradiographed to clear various discrepancies identified during the rereview provides additional confidence that the radiographs are correctly matched to each weld.

Procedures are currently in place to prevent recurrence. The welding, brazing and soldering procedure, Site Standard Practice (SSP)-7.50, and nondestructive examination procedure N-RT-1 require that ASME piping welds be permanently marked with the weld number adjacent to the weld. This identification is required to be visible on the part before radiography is performed. Nuclear Quality Assurance (NQA) procedure QMP-109 also requires that specific information necessary to properly define the radiography work scope be furnished to the radiographer. This information includes weld number/cut and repair levels, pipe size and thickness, material type, applicable drawing/weld maps, location (column line, azimuth, etc.), and codes. This information is used by the radiographer to locate the weld to be radiographed. In addition, before the weld is radiographed, a walkdown is performed by quality control personnel to locate and flag the correct weld joint.

The procedures describing these requirements are included in the training matrix established for applicable Quality Control and Inspection Service Organization personnel.

CORRECTIVE STEPS WHICH WILL BE TAKEN TO AVOID FURTHER VIOLATION

The steps to prevent further violation have been completed.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

TVA is currently in full compliance.