

**TENNESSEE VALLEY AUTHORITY**

CHATTANOOGA, TENNESSEE 37401  
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January 31, 1986 2:30

WBRD-50-390/85-46  
WBRD-50-391/85-46

U.S. Nuclear Regulatory Commission  
Region II  
Attention: 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 - TUBE BENDING PROCESS DEFICIENCIES -  
WBRD-50-390/85-46, WBRD-50-391/85-46 - SECOND INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector  
Al Ignatonis on September 18, 1985 in accordance with 10 CFR 50.55(e) as NCR  
WBN 6276. Our first interim report was submitted on October 30, 1985.  
Enclosed is our second interim report. We expect to submit our next report on  
or about April 30, 1986.

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

Very truly yours,

TENNESSEE VALLEY AUTHORITY

*R. Gridley*  
R. L. Gridley  
Manager of Licensing

Enclosure

cc: Mr. James Taylor, Director (Enclosure)  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Records Center (Enclosure)  
Institute of Nuclear Power Operations  
1100 Circle 75 Parkway, Suite 1500  
Atlanta, Georgia 30339

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## ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2  
TUBE BENDING PROCESS DEFICIENCIES  
WBRD-50-390/85-46, WBRD-50-391/85-46  
NCR WBN 6276  
10 CFR 50.55(e)  
SECOND INTERIM REPORT

### Description of Deficiency

Instrument line pipe and tube bending operations at Watts Bar Nuclear Plant (WBN) did not meet all of TVA General Construction Specification G-29, Process Specification 4.M.2.1 requirements. This deficiency was identified as an employee concern, No. IW-85-021-001, during an independent audit by Quality Technology Corporation.

### Safety Implications

The failure to perform instrument line bending operations in accordance with qualified procedures could possibly result in excessive pipe or tube ovality or wall thinning in the bend area. This could possibly result in a leak of process fluid from an affected line under system design pressure. Subsequently, this could adversely affect the indication/operation of an affected instrument or control device. While no failures of this type as a result of the subject deficiency have been identified at WBN, the potential for this deficiency to adversely affect safety-related instrument/sense lines must be considered. As such, the subject condition could adversely affect the safe operation of the plant.

### Interim Progress

TVA is still in the process of evaluating the subject deficiency. A sampling program consisting of 200 bend samples has been completed and is being evaluated. TVA's Office of Engineering (OE) has approved 21 bend processes for future use that were previously identified as invalid. All other invalid bend processes will be removed from the WBN quality assurance record storage vault.

TVA is in the process of identifying and revising procedures that require revision. WBN quality control inspection personnel are currently being retrained in the proper technique of measuring ovality and bend radii. Affected personnel will be retrained to the requirements of the procedure revisions.

Due to numerous problems with instrumentation at WBN which have been identified through the generation of nonconformance reports and the employee concern program, TVA has established an instrumentation project which is evaluating past and present instrumentation problems, identifying any necessary corrective actions and actions to prevent recurrence of instrumentation problems, and is ensuring that these actions are properly implemented.

Further information will be provided to NRC in our next report on this item which will be submitted on or about April 30, 1986.