

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA TENNESSEE 37401

400 Chestnut Street Tower II

NENRC REGIONAL  
ATLANTA REGIONAL

November 4, 1981

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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 - IMPROPER WELD ATTACHMENT OF SHEAR LOGS - NCR 2451R - THIRD INTERIM REPORT**

The subject deficiency was initially reported to NRC-OIE Inspector R. W. Wright on October 30, 1980 in accordance with 10 CFR 50.55(e). Our first interim report was submitted on December 1, 1980. TVA submitted a final report on NCR's 2451R and 2882R on January 26, 1981. As discussed with Inspector R. V. Crienjak on October 6, 1981, TVA has determined that further interim reports are necessary to resolve this deficiency. NCR's 3632R and 3674R have been added to the original NCR's due to their similar nature. Enclosed is our third interim report. We expect to submit our next report on January 21, 1982.

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

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  
IMPROPER WELD ATTACHMENT OF SHEAR LUGS  
NCR'S 2451R R3, 2882R, 3632, AND 3674R  
10 CFR 50.55(e)  
THIRD INTERIM REPORT

Description of Deficiency

As a result of the identification of two additional deficiencies (NCR's 3632R and 3674R) in the method of attaching shear lugs, the commitment to modify improper welds on shear lugs made in the final report on NCR's 2451R R3 and 2882R has not been met. TVA has decided to provide further reports on this concern (NCR's 2451R R3 and 2882R) and to add items identified by NCR's 3632R and 3674R with this third report.

This deficiency, as originally reported, reads as follows:

Shear lugs were not installed in accordance with applicable drawings and welding procedures in the HVAC Chilled Water System 3I, including the main control room, control building electrical board rooms, and the auxiliary building shutdown board rooms. The following conditions deviate from TVA design criteria:

- (1) Welds were made at the ends of some lugs, making it impossible to determine whether the welds were full penetration as required by TVA design criteria or butt welded.
- (2) Lugs were installed where they bridge welded joints in the pipe runs.
- (3) Lugs were installed with fillet welds, instead of full penetration welds, as required by TVA design criteria.

As a result, the welds may prove to be inadequate to carry the required design loads.

In the course of implementing corrective action for the above deficiencies, additional deficiencies in the methods of attaching shear lugs were identified and documented by means of nonconforming condition reports 3632R and 3674R. These deficiencies are as follows:

NCR 3632R - Shear lugs installed on hangers after NCR 2451R R3 had been issued were not installed per applicable drawing. Also, the shear lugs were welded to pipe with 1/4" fillet only.

NCR 3674R - Shear lugs not installed in accordance with NCR 2882R. Installed condition appears to be full penetration with 0" to 3/16" buildup.

Interim Progress

TVA is continuing the investigation of these deficiencies. Final corrective action will be reported upon the resolution of NCR's 3632R and 3674R.