

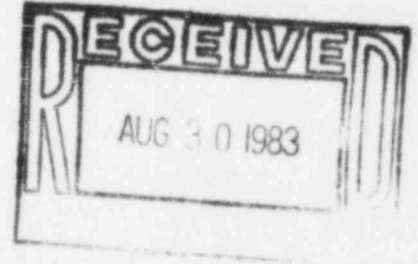


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August 29, 1983

W3I83-0288  
Q-3-A35.07.35

Mr. John T. Collins  
Regional Administrator, Region IV  
U. S. Nuclear Regulatory Commission  
611 Ryan Plaza Drive, Suite 1000  
Arlington, Texas 76012



SUBJECT: Waterford SES Unit No. 3  
Docket No. 50-382  
Significant Construction Deficiency No. 35  
"Material Properties of Tube Track and Welding Fittings"  
Final Report

REFERENCE: LP&L Letter W3I83-0243 dated July 19, 1983

Dear Mr. Collins:

In accordance with the requirements of 10 CFR 50.55(e), we are hereby providing two copies of the Final Report of Signification Construction Deficiency No. 35, "Material Properties of Tube Track and Welding Fittings".

If you have any questions, please advise.

Very truly yours,

F. J. Drummond  
Manager, Engineering & Technical Support

Attachments

- cc: 1) Director  
Office of Inspection & Enforcement  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555  
(with 15 copies of report)
- 2) Director  
Office of Management  
Information and Program Control  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555  
(with 1 copy of report)
- 3) Mr. E. L. Blake
- 4) Mr. W. M. Stevenson

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FINAL REPORT OF  
SIGNIFICANT CONSTRUCTION DEFICIENCY NO. 35  
"MATERIAL PROPERTIES OF TUBE TRACK AND WELDING FITTINGS"

INTRODUCTION

This report is submitted pursuant to 10 CFR 50.55(e). It describes a deficiency in the certification and fabrication of safety related instrumentation tube track material supplied by the J. C. White Company.

To the best of our knowledge, this deficiency has not been reported to the USNRC pursuant to 10 CFR 21.

DESCRIPTION

The J. C. White Company supplied all the instrumentation tube track material to Waterford 3 that was used in the support of safety related instrumentation lines. This tube track material was considered unacceptable by Ebasco Engineering because discrepancies were found in the certified material test reports (CMTRs) and the subvendor who had furnished the CMTRs had gone out of business. An annual audit performed by Ebasco on the vendor's program also indicated that the tube track fittings were not being manufactured to the requirements of 10 CFR 50, Appendix B as required per Ebasco Purchase Order #WP3-1608. At the time the P.O. was placed, the J. C. White Company was conditionally qualified and was on the approved vendors list.

SAFETY IMPLICATIONS

The tube track in question supports the tubing for instrumentation in safety related systems. The subject tubing leads to instruments that are required for plant parameter monitoring and safe shutdown. If the subject deficiencies were left uncorrected, degradation could occur resulting in failure of the instruments to provide reliable information required by the reactor operators.

CORRECTIVE ACTION TAKEN

The vendor implemented corrective action per previous audit findings. A re-audit of the vendor's program indicated that it was acceptable as there were no new findings and all previous audit findings had been corrected. A review of the documentation revealed that the J. C. White Company could furnish the required CMTRs for all the straight tube track material therefore confining the discrepancy to the fabrication of the J. C. White Company tube track fittings.

Initially, evaluations were performed to determine the maximum allowable cantilever span between tube tracks, thus eliminating the need for the tube track fittings. However, it was later determined that the most practical solution would be to test and qualify the J. C. White fitting to the original purchase order specifications. Samples of vendor furnished welded tube track fittings of the types utilized at Waterford 3 were assembled and shipped to Pipkins Laboratories, Inc., for testing.

CORRECTIVE ACTION TAKEN: (Continued)

These tests of the chemical and physical properties of the tube track fittings were evaluated by Ebasco Engineering. The ASTM A 569 composition requirements were reviewed along with the anticipated service loads on the tube track fittings, and it was determined that the material would be acceptable for its intended service conditions. The J. C. White Company fittings were therefore determined to be acceptable in past and future installations.

This report is being submitted as the Final Report.

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