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DEC 06 1991

WBRD-50-390/91-19
WBRD-50-391/91-19

10 CFR 50.55(e)

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

Gentlemen:

In the Matter of the Application of)
Tennessee Valley Authority)

Docket Nos. 50-390
50-391

WATTS BAR NUCLEAR PLANT (WBN) UNIT 1- VENDOR QUALITY ASSURANCE PROGRAM
FOR CLASS 1E CABLE - SIGNIFICANT CORRECTIVE ACTION REPORT WBSCA910247,
REVISION 0 - WBRD-50-390/91-19 AND WBRD-50-391/91-19 - FINAL REPORT

The subject vendor documentation deficiency was initially reported to NRC Region II on April 17, 1991, in accordance with 10 CFR 50.55(e) as Problem Evaluation Report (PER) WBP910187. This deficiency was determined "potentially reportable" and interim reports were submitted on May 16 and July 10, 1991. The deficiency was upgraded to Significant Corrective Action Report (SCAR) WBSCA910247 after a follow-up audit did not reveal any new auditable records to resolve the deficiency. However, at a later date, the vendor provided original production records, previously unavailable, which verified the cable was manufactured to the quality requirements of the original contract specification. Material testing was also performed by the cable manufacturer with positive results. Based upon this new vendor information, the subject Class 1E cable has been approved for use at WBN.

The enclosure to this letter provides a detailed description of the documentation deficiency and corrective actions taken to resolve it.

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U. S. Nuclear Regulatory Commission

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

Sincerely,



John H. Garrity

Enclosure

cc (Enclosure):

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ENCLOSURE

WATTS BAR NUCLEAR PLANT (WBN)
VENDOR QUALITY ASSURANCE PROGRAM FOR CLASS 1E CABLE
SIGNIFICANT CORRECTIVE ACTION REPORT WBSA910427 RO
WBRD-50-390/91-19, WBRD-50-391/91-19
FINAL REPORT

DESCRIPTION OF CONDITION

Class 1E electrical cables purchased from a TVA-approved supplier did not comply with contract requirements pertaining to material traceability, quality assurance records, and procurement.

While performing an audit at a TVA supplier's manufacturing facility concerning production records for safety-related electrical cables, TVA's audit team discovered that all required quality assurance records were not available for review. More specifically, the manufacturer's production records were not provided with sufficient documentation to ensure cables supplied under two TVA contracts for Class 1E equipment were manufactured in accordance with the vendor's TVA-approved American National Standards Institute (ANSI) N45.2-1971 quality assurance program. In some instances, items were supplied from stock and no dedication records were submitted. One production file did not include production records. Also, the submitted documentation was insufficient to allow the audit team to verify cable production footage against footage supplied under the contracts.

These deficiencies were discovered for Class 1E cables from Teledyne Thermatics purchased for use in WBN's Unit 1 control room under TVA Contract Nos. 89NLB-75267A and 90NLC-75670A-03. The deficiency was confined to these two contracts because they were the only contracts between WBN and Teledyne Thermatics since the previous TVA audit. TVA determined the root cause for this deficiency was deficiencies in the vendor's procedures, and a need for additional training.

SAFETY IMPLICATIONS

The cables were purchased for use in Class 1E mild environmental applications. In the absence of quality documentation, these cables were considered inadequate for use in Class 1E applications. However, later the manufacturer presented additional documentation which verified the cable was acceptable.

CORRECTIVE ACTION

A second audit was conducted by TVA in an attempt to establish acceptability of the wire and cable supplied by Teledyne Thermatics. However, results of this audit revealed insufficient documentation to verify the adequacy of the cables previously found deficient. In response to this finding, Teledyne Thermatics agreed to perform additional testing to show that the material complied with the original contract specifications. Hold tags were placed on warehoused cable supplied under the above contracts and a hold was placed on future shipments from the vendor.

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CORRECTIVE ACTION (continued)

Teledyne Thermatics obtained cable samples from their remaining stock of production run, from SQN stock, and from WBN stock. Then, tests were performed and witnessed by TVA's Materials and Procurement Quality (MPQ) representative. The tests were performed for verification to the original test requirements. The test results were compared to test results documented on test reports submitted to TVA at shipment. These results were compatible.

In addition to the above actions taken by the vendor, TVA's Materials and Procurement Quality auditors later reviewed production documentation which was not previously made available by the vendor during the previous two vendor audits and determined it was acceptable. Therefore, the original documentation deficiency reported under Problem Evaluation Report WBP910187 was resolved and the cable was approved for use at WBN for its intended application.

To prevent future recurrence, Teledyne Thermatics wrote two Engineering Change Notices to change specifications requiring information to appear on the Process Inspection Cards to require raw materials to be supplied by qualified nuclear suppliers and to prohibit the use of stock material for nuclear power products. They are also conducting training classes for production personnel on the importance of completing records accurately. Also, final inspection personnel have been instructed to collect all Process Inspection Cards that represent the completed product before submitting the Process Inspection Cards to the Quality Control Lab.