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MAR 28 1994

CDR-50-390/91-34
CDR-50-391/91-34

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 No. 50-390
50-391

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - WAREHOUSE MATERIAL TRACEABILITY,
IDENTIFICATION AND STORAGE - SIGNIFICANT CORRECTIVE ACTION REPORT (SCAR)
WBP880474SCA - CDR 50-390/91-34 AND CDR 50-391/91-34 - REVISED FINAL REPORT
FOR UNIT 1 AND 2

The subject deficiency was initially reported to NRC Operations Center on
June 28, 1991, in accordance with 10 CFR 50.55(e) as Significant Corrective
Action Report WBP880474SCA. An interim report was submitted on July 29,
1991, and a final report for Unit 1 on September 27, 1991. Enclosure 1
contains TVA's revised final report.

A separate report for Unit 2 under CDR 50-391/91-34 is no longer needed
because the Nuclear Stores Unit 1, Unit 2, and Construction warehouse
inventories are no longer separate entities. Available inventories have been
consolidated under one Nuclear Stores warehouse and completed corrective
actions apply to both units.

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

Very truly yours,

William J. Museler

Enclosure

cc: See page 2

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cc (Enclosure):

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ENCLOSURE 1
WATTS BAR NUCLEAR PLANT (WBN) UNIT 1 & 2 -
WBP880474SCA
CDR-50-390,391/91-34
REVISED FINAL REPORT

DESCRIPTION OF CONDITION

TVA's Nuclear Quality Assurance Plan (TVA-NQA-PLN89) requires traceability of materials, parts, or components to specific manufacturing records as required by codes, standards, or specifications. This traceability is to be accomplished through the recording of heat, batch, lot, part, or serial numbers, or other appropriate identification either on the item or on records traceable to the item. Contrary to these requirements, Unit 2 warehouse conditions were discovered which indicate less than adequate materials traceability, identification and storage, segregation, and control over nonconforming materials. Items in the Unit 2 Construction warehouse inventories which were procured by Construction as plant equipment (inclusive of safety-related equipment) were found to be lacking various procurement procedural requirements. There were approximately 11,000 line items in the Unit 2 warehouse inventory. Details of these deficiencies are summarized as follows:

1. Traceability, Identification, and Storage

There was inadequate traceability and identification of portions of hanger material in Warehouse 28 and steel in Yard 2.

The manufacturer's identification for large quantities of pipe located in Yard 1, Sections A, B, and C had deteriorated markings.

There was inadequate segregation in storage areas for material returned to the warehouse after being previously issued.

Material had been issued with inadequate traceability to the purchase contract.

2. Segregation

Quality Assurance (QA) materials were not segregated from non-QA materials. ASME Section III materials were not traceable to purchase contracts. Some tags were deteriorated or had fallen off in instances where like items were ordered on various contracts. In some instances, material identified by contract number exceeded the original quantities received.

3. Control of Nonconforming Material

Contrary to requirements, control of the nonconforming material receipt area has not been sufficient to prevent the issuing of nonconforming material. Lack of the nonconforming material receipt area has not been sufficient to prevent the issuing of nonconforming material. Lack of surveillance for possible detachment of tags and flagging has resulted in inadequate segregation of materials. Attempts to segregate material through the use of tags and flagging have been inadequate.

The subject deficiency was caused by a lack of materials and procurement system management controls such that a clear and consistent operating policy was not being communicated to the employees. As a result, responsible personnel were not working to consistent procedural methods for handling and storing material.

SAFETY IMPLICATIONS

Some materials may have been released from Nuclear Stores and installed in the plant that do not meet all of the engineering and quality requirements for the intended applications. Engineering and quality-related documentation are required to provide reasonable assurance that safety-related equipment will be available to perform as required for safe operation of the plant throughout the life of the plant. Therefore, if left uncorrected, TVA would not have adequate documentation available to ensure that these deficiencies would not have adversely affected the safety of operation of the plant at any time throughout the expected lifetime of the plant.

CORRECTIVE ACTION

The Materials Improvement Project (MIP) was established July 31, 1991, to address the subject deficiency. MIP evaluated inventories of quality-related material procured and received prior to June 5, 1991. This included inventories from the Nuclear Stores Unit 1, Unit 2, and Construction warehouses. The MIP process, also referred to as "sanitization", provided a systematic process for reevaluating the safety classification, storage, tagging, file maintenance, documentation and re-inspection of applicable inventories. Replacement items were placed in inventory in a consolidated Nuclear Stores warehouse only after engineering evaluation and acceptance via the MIP sanitization process. MIP sanitized approximately 11,000 line items. The remaining unsanitized inventory was segregated and located in storage facilities which are clearly marked "material not available for issue." This material is only made available on an as-needed basis after evaluation by the Procurement Engineering Group in accordance with applicable procedures.

Material procedures have been revised to ensure warehouse inventories are properly controlled in a manner to prevent future issuances of indeterminate material and to sanitize remaining MIP inventory on an as-needed basis. Personnel have been trained to the new procedures.

Corrective actions associated with the Materials Improvement Project discussed above and the Replacement Items Project (RIP) Corrective Action Program (CAP) will provide a high level of assurance that replacement parts issued and installed in plant equipment are consistent with engineering requirements (both seismic and environmental) and other plant safety features.