Tennessee Valley Authority, Post Office Box 2000, Spring City, Tennessee 37381

William J. Museler
Site Vice President, Watts Bar Nuclear Plant

JUN 14 1993

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

Gentlemen:

In the Matter of the Application of	)	Docket Nos. 50-390
Tennessee Valley Authority	)	50-391

WATTS BAR NUCLEAR PLANT (WBN) - NRC INSPECTION REPORT NO. 390, 391/93-27 - REPLY TO NOTICE OF VIOLATION 390/93-27-01

The purpose of this letter is to provide a reply to Notice of Violation 390/93-27-01 cited in the subject inspection report dated May 14, 1993. The violation concerned authorizing work to be performed in accordance with a technical bulletin prior to engineering approval, and performance of an equivalency evaluation when ordering a replacement part.

Enclosure 1 addresses the specific conditions described in the inspection report and the corrective actions taken by TVA.

Enclosure 2 contains a summary of TVA's commitments.

Should there be any questions regarding this information, please telephone P. L. Pace at (615) 365-1824.

Very truly yours,

J E Moody for
William J. Museler

Enclosures
cc: See page 2

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JUN 14 1993

cc (Enclosures):
NRC Resident Inspector
Watts Bar Nuclear Plant
P.O. Box 700
Spring City, Tennessee 37381

Mr. P. S. Tam, Senior Project Manager
U.S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Rockville, Maryland 20852

U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

ENCLOSURE 1

WATTS BAR NUCLEAR PLANT UNIT 1
REPLY TO NRC'S MAY 14, 1993 LETTER TO TVA
VIOLATION 390/93-27-01

DESCRIPTION OF VIOLATION 390/93-27-01

10 CFR 50, Appendix B, Criterion V, and the licensee's accepted Nuclear Quality Assurance Plan, TVA-NQA-PLN89-A, Revision 3, Section 6.2.2.B, require, in part, that quality-related activities shall be performed in accordance with approved and controlled instructions, procedures, and drawings. The following examples describe instances where licensee personnel failed to follow approved procedures:

EXAMPLE 1

Paragraph 2.2.2.C of Site Standard Practice 6.02, Maintenance Management System, Revision 9, specifies that planners for safety-related work orders are to use information from approved vendor manuals, and if needed information is not in the manual, use Nuclear Engineering (NE) approved vendor drawings or other approved design documents. Paragraph 2.3.E of SSP- 2.10, Vendor Manual/Information control, Revision 3, specifies that if vendor documentation is needed to support safety-related activities before it can be issued in a vendor technical manual, it shall be processed as a Class 3 manual (conditional use). Contrary to the above, procedures were not followed when Work Request C154491 was written on January 27, 1993, and Work Order 93-01709-00 was approved on February 5, 1993, authorizing work to be performed in accordance with Westinghouse Technical Bulletin (WTB) 92-09 prior to NE approval and incorporation of WTB into the applicable approved vendor manual and without conditional use controls.

REASON FOR THE VIOLATION

The work order writer did not adhere to the requirements of SSP-2.10 and SSP-6.02. Also, the writer was not trained to SSP-2.10, which describes how to process vendor information.

CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED

A request had been submitted to incorporate Technical Bulletin NSD-TB-9209 R0 into Vendor Technical Manual, Westinghouse - Pressurizer Spray Valves, VTM-W120-0780 prior to the cited violation. The VTM has since been issued to incorporate the bulletin.

Work Order 93-01709-00 has been replanned utilizing the revised vendor manual and is now available for work.

Since the original violation, additional conditions of vendor information utilized prior to engineering approval have been identified and documented in Significant Corrective Action Report (SCAR) WBSCA930068. TVA is currently researching these additional findings, the cause, and the extent of condition and will provide a supplemental response by July 15, 1993 to address these further examples.

ENCLOSURE 1

WATTS BAR NUCLEAR PLANT UNIT 1
REPLY TO NRC'S MAY 14, 1993 LETTER TO TVA
VIOLATION 390/93-27-01

CORRECTIVE STEPS TAKEN TO AVOID FURTHER VIOLATIONS

As an interium corrective action, personnel involved in writing work orders have been trained to SSP-2.10., and SSP-2.10 has been placed on the training matrix for these personnel. The resolution of SCAR WBSCA930068, above, will determine any additional corrective action.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

With respect to the identified discrepancies, TVA will provide an additional response by July 15, 1993.

EXAMPLE 2

Paragraph 2.3.3 of procedure SSP-10.05, Technical Evaluation for Procurement of Materials and Services, Revision 8, requires the Procurement Engineering Group (PEG) to perform and document an equivalency evaluation to ensure that spare and replacement items are purchased to the requirements equivalent to those specified for the original equipment. SSP-10.05 further requires that if differences are identified, an engineering evaluation is to be performed to determine the effects of the differences and ensure no design documents are impacted.

Contrary to the above, procedure SSP 10.05 was not followed when PEG failed to properly perform and document an adequate equivalency evaluation when ordering a replacement printed circuit board for the Unit 1 120V AC vital inverter 1-III, even though PEG received notification from the vendor on March 11, 1993, prior to ordering the new circuit board, that the replacement circuit board had a different part number. Also, the replacement circuit board was of a different design in that an internal fuse had been replaced with a resistor. The discrepancy was not discovered until after the replacement circuit board had been installed and the vital inverter was undergoing preoperational testing on April 8, 1993.

REASON FOR VIOLATION, EXAMPLE 2

A procurement request specifying the current part number obtained from the onsite vendor's representative was initiated for the subject circuit boards on March 10, 1993. A Procurement Engineering Group (PEG) electrical engineer failed to determine that the internal design of the circuit board had changed and did not document an equivalency evaluation. The equivalency evaluation is normally performed during the bid evaluation when an alternate item is bid. TVA had communicated with the vendor regarding the required part numbers and expected the vendor to identify any changes in the design of the printed circuit board as required in the purchase specification, however, the vendor considered the board to be a "like-for-like" replacement and failed to identify to TVA that the new circuit boards contained a minor configuration change (a resistor replaced a fuse). The lack of notification by the vendor misled the PEG engineer to

conclude that the circuit board was totally equivalent to the original, but with new part numbers. The vendor certified that the circuit boards shipped are applicable to the inverters originally supplied to TVA.

CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED, EXAMPLE 2

Engineering Procurement Package 9300012623 for the subject circuit boards was revised to include an equivalency evaluation, and vendor manual documents and drawings for the new circuit boards were revised.

To determine the extent of condition, thirteen engineering procurement packages performed by the involved individual were evaluated. Three of the packages were determined to involve part number changes. Seventeen packages by other PEG engineers were evaluated and four were determined to involve part number changes. The seven packages involving part number changes contained the acceptable equivalency evaluations as required by SSP-10.05.

CORRECTIVE STEPS TAKEN TO AVOID FURTHER VIOLATIONS, EXAMPLE 2

PEG personnel including PEG management and appropriate QA Reviewers received SSP 10.05 enhancement training which emphasized that changes in part numbers require an equivalency evaluation to provide reasonable assurance that fit, form, and function are not affected, that safety function is not adversely impacted, and that design documentation is not impacted.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED, EXAMPLE 2

With respect to the identified discrepancies, TVA is in compliance.

ENCLOSURE 2

WATTS BAR NUCLEAR PLANT UNIT 1
REPLY TO NRC'S MAY 14, 1993 LETTER TO TVA
VIOLATION 390/93-27-01

VIOLATION 390/93-27-01, EXAMPLE 1

Since Violation 390/93-27-01, additional conditions of vendor information utilized prior to engineering approval have been identified and documented in Significant Corrective Action Report (SCAR) WBSCA930068. TVA is currently researching these additional findings, the cause, and the extent of condition and will provide a supplemental response by July 15, 1993 to address these further examples.