TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE 37401
5N 157B Lookout Place

FEB 16 1988

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) UNITS 1 AND 2 - REGION II INSPECTION REPORT NOS. 50-390/87-14 AND 50-391/87-14 - FINAL RESPONSE TO VIOLATION 391/87-14-01

Enclosed is our final response to violation 391/87-14-01, which includes additional information as promised in our October 26, 1987 letter.

If there are any questions, please telephone C. J. Riedl at (615) 365-8527.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

R Gridley

R. Gridley, Director
Nuclear Licensing and
Regulatory Affairs

Enclosure
cc: See page 2

8802180067 880216
PDR ADOCK 05000390
Q PDR

U.S. Nuclear Regulatory Commission

FEB 16 1988

cc (Enclosure):
Mr. K. P. Barr, Acting Assistant Director
for Inspection Programs
TVA Projects Division
Office of Special Projects
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

Mr. G. G. Zech, Assistant Director
for Projects
Mail Stop 7E23
Division of TVA Projects
Office of Special Projects
U.S. Nuclear Regulatory Commission
7920 Norfolk Avenue
Bethesda, Maryland 20814

U.S. Nuclear Regulatory Commission
Watts Bar Resident Inspector
P.O. Box 700
Spring City, Tennessee 37381

ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
FINAL RESPONSE COMMITTED TO
BY TVA LETTER TO NRC DATED OCTOBER 26, 1987

REFERENCE: INSPECTION REPORT NOS. 50-390/87-14 AND 50-391/87-14

This report responds to the notice of violation described in enclosure 1 of the NRC Region II inspection report referenced above. This is a final report on this item of noncompliance.

Violation 391/87-14-01

10 CFR 50, Appendix B, Criterion XV, and the accepted Quality Assurance (QA) Program (TVA-TR75-1A, revision 8) collectively require that measures be established to control materials, parts, or components which do not conform to requirements in order to prevent their inadvertent use or installation. Nonconforming items shall be reviewed and accepted, rejected, repaired, or reworked in accordance with documented procedures. TVA Specification Number 9996 (Section 4, pages 11 and 12) to the Division of Purchasing contract 54114-1 (Purchase Order Number 72751) states that contractor nonconforming material records shall be forwarded by the contractor after their review or approval to TVA, Chief Materials Engineer, for review or approval. Additionally, page 17.1-24 of TVA-TR75-1A, revision 8, requires nonconformance reports for purchased material and associated corrective action be reviewed and approved by the technical engineer and the Chief, Procurement Quality Assurance Branch (PQAB).

Contrary to the above, although measures were established to control materials, they are not adequately implemented, in that Purchase Order Number 72751 contained a deviation notice (DN) (number 33671), but this notice was not reviewed by the technical engineer or the Chief, PQAB. The material was TVA source inspected, accepted, shipped, receipt inspected at the site, and approved.

This is a Severity Level V violation (Supplement II).

Admission or Denial of the Alleged Violation

TVA admits the violation occurred as stated.

Reasons For the Violations

The reason for the violation is fourfold:

- TVA implementing procedures for source inspections, handling supplier nonconformances, and reviewing supplier documents were deficient.
- TVA inspectors failed to follow procedures.
- Westinghouse procedures conflicted with the TVA QA Topical Report.
- Westinghouse failed to follow procedures.

The specifics of the above items will be detailed in their respective numbered section.

I. TVA Implementing Procedures Were Deficient

The TVA QA Topical Report, revision 9, paragraph 17.1.7.3.(3), page 17.1-21 stated, "Nonconformance reports and associated corrective action are reviewed and approved by the Technical Engineer and the Chief, PQAB. Nonconformances resulting in changes of contract are coordinated and approved through PURCH."

TVA failed to adequately incorporate all requirements contained in the referenced section of the TVA QA Topical Report into the implementing procedures, as evidenced by the following inadequate and conflicting examples:

1. QMI-440 R0, "Shop Inspection-General Instructions," paragraph 6.7.2 stated, "Deviations from the requirements of the specification which the supplier cannot or will not correct to comply with the specification will be reported on a supplier nonconformance report, in accordance with QMI-444."

   QMI-444 R0, "Supplier Nonconformance Report," paragraph 6.1.4 stated, "The supplier will monitor fabrication and identify nonconformances arising out of one or more of the following: . . .The item does not conform to the original requirement even though the item can be restored so that the capability of the item to function is unimpaired."

   Summary

   QMI-440 allowed the supplier to not identify certain conditions as nonconformances, while these same conditions are required to be identified as nonconformances by QMI-444 and the TVA QA Topical Report.

2. QMI-444 R0, paragraph 5.3 stated, "The cognizant Source Surveillance Group (SSG) section supervisor is responsible for the review of the supplier [Nonconformance Report] NCR, obtaining disposition (from the technical engineer when applicable), and for making the appropriate distribution."

   QMI-444 R0, paragraph 6.11 stated, "When design disposition is required, the cognizant SSG section supervisor shall send the original NCR and one copy to the technical engineer by a transmittal memorandum (attachment 2) for disposition in accordance with NEP-9.1. Copies of the memorandum and NCR shall be sent to PQAB (Supplier Evaluation Group), engineering project manager, PQAB TROI clerk, purchasing agent, and RIMS.

   NOTE: Any supplier NCR determined not to require TVA technical engineer action is processed by the cognizant SSG section supervisor as follows:

   A. The reason the NCR does not require TVA technical engineer entered on the NCR, signed, and dated."

   Summary

   QMI-444, paragraph 5.3 and 6.11, allowed nonconformance reports to be dispositioned, reviewed, and approved by personnel other than the technical engineer. This conflicts with the TVA QA Topical Report.

3. QMI-446 R0, "Supplier Document Review," paragraph 6.2 stated, in part, "While performing a detailed review of the supplier's documents for completeness and accuracy, the contract is the controlling document setting forth the requirements."

   Summary

   The Westinghouse Nuclear Steam Supply System (NSSS) contract states that the contractor will forward nonconforming material records to TVA, Chief Materials Engineer (Chief, PQAB), for review or approval, which conflicts with the requirement for review and approval by the technical engineer and the Chief, PQAB as defined in the TVA QA Topical Report.

As a result of these procedural inadequacies, instructions consistent with the TVA QA Topical Report were not provided to the TVA source inspectors.

II. TVA Inspectors Failed to Follow Procedures

Procedure QMI-445 R0, "Shipping Release," paragraph 6.1 stated, "When the supplier presents equipment/material for final inspection prior to shipping, the TVA inspector shall: Ensure all applicable contract requirements have been met and review all required documentation furnished by the supplier for compliance with the contract for completeness and accuracy.

NOTE: If the results are unsatisfactory, the deficiencies shall be reported to the supplier, and the equipment/material held until the required documentation is acceptable."

Contrary to the requirements defined by QMI-445, TVA inspectors allowed the release of the Barton transmitters identified in DN 33671 and other shipments without obtaining review and approval of DNs.

In addition, the TVA inspector should have invoked QMI-444, "Supplier Nonconformance Report," paragraph 6.2.5 which stated, "If the recommended disposition is "repair to other than original specifications" or "use-as-is" (Level II), the supplier must report the nonconformance on a form TVA 10548 (Attachment 1), as described in the remainder of section 6." Form TVA 10548 requires review and approval by TVA.

This paragraph is applicable to the deviation notice cited in the violation because the deviation notice disposition was "use-as-is." The proper implementation of procedures would have resulted in TVA review and approval of the DN.

III. Westinghouse Procedures Conflicted with the TVA QA Topical Report

Westinghouse procedures did not agree with the requirements of TVA's QA Topical Report in that the Westinghouse procedure (Product Assurance Procedure 5.5) only required notification to TVA when deviations affect installation/test, in-service inspection, performance/function, maintenance/repair, and specification revision. TVA failed to identify the difference between the Westinghouse procedure and the TVA QA Topical Report.

Summary

As a result of Westinghouse limiting TVA's review and approval of DNs, not all DNs were forwarded to TVA for approval.

IV. Westinghouse Failed to Follow Procedures

Westinghouse failed to follow its procedure, Product Assurance Procedure 5.5, in that no notification of DN 33671 was made to TVA even though the "performance function" block was marked "yes." In addition, two more examples were found where Westinghouse failed to provide customer notification as required by Product Assurance Procedure 5.5. This failure to follow procedure resulted in TVA not receiving required DNs for review and approval.

Summary

If Westinghouse had followed its procedures, even though its procedure did not fully conform with TVA's QA Topical Report, DN 33671 cited in the violation would have been reviewed and approved by TVA.

In summation, TVA's procedures did not adequately reflect the TVA QA Topical Report requirements; TVA's source inspectors did not follow the implementing procedures; Westinghouse procedures were not compatible with the TVA QA Topical Report requirements; and Westinghouse failed to follow their implementing procedures. It is apparent that additional effort and attention to detail is required to assure that the TVA QA Topical Report is reflected through the implementing procedures and that appropriate training of source inspectors is accomplished and documented. Nevertheless, the comprehensive corrective actions described below are indicative of our determination to ensure that corrective action is thorough and effective.

Corrective Steps Which Have Been Taken and Results Achieved

1. Site quality control (QC) inspectors performed a review of 28 Westinghouse Purchase Orders that had been placed on QC "hold" for various reasons. This review identified five Westinghouse Purchase Orders which had DNs that had not been approved by the technical engineer and PQAB Chief (including the cited Barton transmitters). As a result, two Condition Adverse to Quality Reports (CAQRs) were written. The CAQRs are KXN 870173 for unit 1 and KXN 870174 for unit 2. From this preliminary review it was concluded that the cited lack of TVA review and approval of Westinghouse DNs was not an isolated case.

2. In the interim, TVA directed Westinghouse in a letter dated August 24, 1987, that DNs be submitted to TVA for review and approval before material shipment. In addition, TVA notified Westinghouse that the TVA source inspectors have been instructed not to release materials until TVA approves the DNs. These interim measures have precluded material from being released without TVA approval as stipulated in the TVA QA Topical Report.

3. TVA had previously taken steps to ensure that vendor compliance data (including DNs) had been reviewed before the shipment of material. TVA inspectors are now required to stamp all vendor documentation reviewed at the supplier's plant in accordance with operating instruction QMI-446 (Supplier Document Review) issued on February 27, 1987.

4. An interim requirement was issued to all TVA Regional Inspection Offices by our PQAB on November 12, 1987. This requirement stated that:

   "If during an inspection visit, an inspector identifies that a Westinghouse DN [deviation notice] has been issued on the material, the inspector will prepare a TVA 10548 (supplier NCR form), attach the Westinghouse DN, and telecopy immediately to TVA-Knoxville at 615-632-6869, Attention: R. D. Habbe or J. W. Coffey. The inspector also will notify R. D. Habbe or J. W. Coffey that the NCR/DN is being telecopied to TVA for handling and approval."

   The regional offices were required to train each inspector on this requirement by November 30, 1987. The training has been completed and documented in confirmation memorandums from each of our regional inspection offices. These memorandums are available for review at Watts Bar.

Corrective Steps Which Will be Taken to Avoid Further Violations

1. TVA has determined that it was never the intent of the TVA QA Topical Report to require TVA to review and approve all nonconformance reports (i.e., DNs). Revisions to the TVA QA Topical Report TVA-TR75-1A have been proposed for incorporation into revision 10 of the TVA QA Topical Report. These revisions change sections 17.1.7.3 and 17.1.15.2 to clarify the reporting and handling of supplier nonconformances. Revision 10 is to be submitted to NRC on March 31, 1988.

   NSSS supplier nonconformances (DNs) will be handled in accordance with contract specifications which require that DNs be available for review by the Chief, PQAB. Additionally, DNs affecting installation/test, in-service inspection, performance/function, maintenance/repair, and specification revision will be submitted to TVA for approval when the disposition is "use as is" or "repair" in accordance with NSSS supplier's QA program.

2. A review of all PQAB implementing procedures will be performed to verify that the procedures comply with the TVA QA Topical Report and that training of PQAB personnel in procedure implementation has been accomplished and documented. This review will include revising operating procedures QMI-440, "Shop Inspection-General Instruction"; QMI-444, "Supplier Nonconformance Report"; QMI-445, "Shipping Release"; and QMI-446, "Supplier Document Review," to be consistent with the revised requirements of the TVA QA Topical Report. PQAB presently is reviewing and revising these implementing procedures to comply with the TVA QA Topical Report. The schedule to complete all revisions is April 30, 1988. Training of affected personnel will be completed by May 31, 1988.

3. TVA will continue to require that all DNs be reviewed and approved prior to material release until the revised TVA QA Topical Report and the referenced procedure revisions stipulated in point 2 are complete and implemented. There has been no further violation of this requirement since the identification of violation 87-14-01.

4. Past and future NSSS nonconformance and/or deviation reports will be handled according to the revised TVA QA Topical Report and referenced procedure revisions stipulated in point 2. The review of past DNs and any necessary hardware changes will be accomplished before Watts Bar fuel loading.

5. In response to Westinghouse failing to follow their procedures, PQAB will perform a random review of additional Westinghouse DNs to determine if the failure to notify TVA of DN 33671 was an isolated case. If the random review shows that Westinghouse failed to follow its program, PQAB will perform an audit of Westinghouse's program for handling DNs on TVA contract 71C62-54114-1. PQAB will accomplish this review by May 31, 1988.

   If after the review, it is determined that it was not an isolated case, then we will notify you of the schedule for the Westinghouse audit and the corrective actions required.

Date When Full Compliance will be Achieved

TVA will be in full compliance by fuel load.