



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

OCT 18 1994

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 - NRC INSPECTION REPORT NO.
390, 391/94-37 - REPLY TO NOTICE OF VIOLATION (NOV)

The purpose of this letter is to provide a reply to Notice of Violation
390, 391/94-37-01. NOV 390/94-37-01 identified several examples of
failure to follow corrective action procedures which are addressed in
Enclosure 1.

TVA management has taken extensive action to address the conditions
identified in the corrective action program. We believe that the actions
discussed in the response to violation 94-13-02 dated July 25, 1994,
combined with the actions described in this response will, when fully
implemented, address the NRC's concerns with the corrective action
program.

To address that implementation, the Nuclear Assurance audit of the
corrective action program previously committed to in the July 25, 1994,
violation response began on September 12, 1994, and was completed this
week. Following TVA management's review of the audit findings, a
supplemental submittal regarding any further enhancements to the
corrective action program and to address examples 2 and 7 of this
violation will be made by November 4, 1994. Included in the management
review will be an overall assessment of the inspection report issues
combined with the audit findings.

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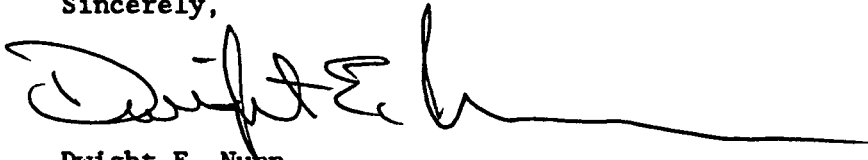
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Enclosure 2 contains a list of commitments made in this letter. The delay in submitting this response has been coordinated with the NRC Region II Staff.

If you should have any questions, contact P. L. Pace at (615)-365-1824.

Sincerely,



Dwight E. Nunn
Vice President
New Plant Completion
Watts Bar Nuclear Plant

Enclosures

cc (Enclosures):

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ENCLOSURE 1

WATTS BAR NUCLEAR PLANT UNIT 1
REPLY TO NOTICE OF VIOLATION
NRC SEPTEMBER 12, 1994 LETTER TO TVA
NRC VIOLATION 390/94-37-01

"10 CFR 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, requires that activities affecting quality be prescribed by documented instructions or procedures and be accomplished in accordance with these instructions or procedures.

TVA Nuclear Quality Assurance (QA) Plan TVA-NQA-PLN89-A, Revision 4, Section 6.1, requires that quality-related activities be prescribed by documented procedures and instructions appropriate to the circumstances. Activities shall be accomplished in accordance with these procedures and instructions.

Contrary to the above, the following examples of failure to follow procedures were identified:"

EXAMPLE 1

"Administrative Instruction AI-2.8.15, Corrective Action, Revision 0, paragraph 3.8.6, required the site QA manager to ensure that a copy of the applicable nonconformance document was included in the records transfer package for transferring or selling nonconforming items.

The QA manager failed to include a copy of Condition Adverse to Quality Report (CAR) WBP880336 in the transfer package for a Unit 2 valve (1-067-083) that was transferred. This resulted in installation of the nonconforming valve in Unit 1 prior to clearing the nonconforming condition."

TVA RESPONSE - Example 1

TVA agrees that this violation example occurred.

REASON FOR THE VIOLATION - Example 1

This violation example occurred because there was no procedural requirement to determine if any open corrective action documents existed beyond what would be identified by a nonconformance tag attached to valve 2-FCV-67-83 prior to its transfer to Unit 1.

Administrative Instruction (AI)-2.8.15, revision 0, "Corrective Action Program," in effect at the time of transfer of the subject valve, required that nonconformance tag(s) be placed on the nonconforming item(s) until the condition has been dispositioned. This procedure also required the Site Quality Manager or his designee to ensure that a copy of the applicable nonconformance document was included in the records transfer package and to ensure that the receiving organization was aware of the item's nonconforming

condition. Therefore, once the equipment was tagged, one could readily identify the outstanding nonconformance document.

Review of the Problem Evaluation Report (PER) WBP880336PER revealed a "0" in the "number of tags placed" blank of the form. Since no tag was present and there was no procedure requirement to investigate further, there was no reason for the personnel transferring the valve to believe that the valve had an outstanding nonconformance. TVA could not identify specifically why a tag had not been placed on the valve.

CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED - Example 1

TVA conducted a review of the documentation for the subject valve and determined that the condition identified by PER WBP880336PER was subsequently corrected. Specifically, the valve would not respond to manual operation. When this valve was moved to unit 1, the motor operator was replaced with another one to comply with environmental requirements. Therefore, the condition identified by the PER has been corrected.

TVA issued a memorandum to key managers on August 4, 1994, to both inform personnel of this violation example and to ensure that personnel who are currently involved in the process are aware of the present procedural requirements. A bulletin was also shown on the site TV communication network.

A review of the corrective action documents listed in the Tracking and Reporting of Open Items (TROI) database status will be performed to ensure that no "Unit 2 hold" status equipment has been transferred from the original installation. In the event that the equipment has been transferred, a verification will be performed to ensure that the corrective action document was identified in the transfer package documentation. In addition, nonconforming items identified during this review that remain in Unit 2 will be tagged where practical.

TVA has conducted a review of the current procedural requirements and determined them to be adequate to prevent future occurrence of this condition. Specifically, the governing procedures for Unit 2, Construction Administration Instruction (CAI)-1.01, "Work Control for Non-Transferred Features (Unit 2)," and Business Practice (BP)-380, "Requests for Installed Unit 2 Nontransferred Components," both require research to identify outstanding problems or work requiring resolution prior to release of the component or part.

CORRECTIVE STEPS TAKEN TO AVOID FURTHER VIOLATIONS - Example 1

Based upon the above procedural review, no further action is required.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

TVA will be in full compliance by December 6, 1994.

EXAMPLE 2

"Appendix G of Startup Manual Procedure SMP-14.0, Test Deficiencies, Revision 2, states in part that initiating a Problem Evaluation Report (PER) to evaluate conditions identified in a Test Deficiency Notice (TDN).

- PERs were not written as a result of deficiencies identified DN-01 for CSI 108212104E02000, TDN 93-0061, TDN 94-0086, TDN 94-0947, and TDN 94-1038 in as required by Procedure SMP-14.0. These test deficiencies were all written to resolve wiring installation errors."

TVA RESPONSE - Example 2

The response to this violation example will be included as part of the November 4, 1994, supplemental response discussed in the cover letter of this submittal.

EXAMPLE 3

"Site Standard Practice SSP-6.02, Maintenance Management System, Revision 13, Appendix EE, provided guidance and examples for the initiation of a PER and/or a Significant Corrective Action Report (SCAR) for problems identified during work order (WO) implementation. Examples included, but were not limited to: installation errors, design deficiencies, human errors, or vendor related conditions adverse to quality.

Installation errors were identified during implementation of WOs 94-10183-00 and 93-03667-03 and a PER was not initiated."

TVA RESPONSE - Example 3

TVA agrees with this violation response example concerning work order 94-10183-03 and submits additional information for work order 94-03667-03.

REASON FOR THE VIOLATION - Example 3

SSP-6.02 requires both a front end and back end review of the identified condition to determine whether PER initiation criteria are met. The initial review of work request C259013 did not identify a PER condition because the work request required only troubleshooting to determine why valve 1-FCV-067-0143-A could not be throttled as indicated by drawing 1-45W760-67-17. Work order 94-10183-00 was issued to accomplish this task. Although an installation error which met PER initiation criteria was identified after the work order was field complete, final reviews for closure of the work order were still in progress at the time the NRC review occurred. However, it is important to note that because this closure process includes an evaluation of the found condition against PER initiation criteria, the condition would have been evaluated against these criteria during these final reviews.

CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED - Example 3

Problem Evaluation Report WBP870035 was issued to document the technical condition in work order 94-10183-00.

CORRECTIVE STEPS TAKEN TO AVOID FURTHER VIOLATIONS - Example 3

The Nuclear Assurance (NA) organization has reviewed 77 closed maintenance work orders on a sample basis during the past two months. One of the review objectives was to determine if the identified conditions should have been documented as a PER instead of a work order. Results of this NA review indicate that these 77 work orders were properly classified. However, a subsequent sample review of approximately 150 in process and closed Modifications, Plant Completion and Maintenance work requests/work orders from the time frame of 1992 through the present by the Independent Safety Engineering Group (ISEG) identified five work requests/work orders which in its view meet the PER criteria. These findings, along with other work request/work order issues, have been documented in WBP870035 for resolution. The resolution of PERs WBP870035 and WBP870035 will be coordinated to ensure proper correction of the PER initiation issue.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

TVA will be in full compliance upon the disposition of PERs WBP870035 and WBP870035.

ADDITIONAL INFORMATION

TVA has identified the following additional information concerning work order 94-03667-03 and regrets that it was not available at the time of the inspection. Investigation of this work order showed that corrective action document WBP870035 addressed the issue of model GEMAC555 transmitters installed upside down with vents on the bottom. This issue was identified because with the vents on the bottom made it impossible to remove all air from the transmitter which was thought to cause nonlinear output error. However, this corrective action document was subsequently invalidated when no data was found which would support that air trapped in the transmitter caused nonlinear outputs of enough magnitude to be outside loop accuracy requirements for safety related systems.

However, in order to provide the maintenance organization with alternate methods for bleeding air from transmitters during calibration, engineering approval was issued by Design Change Authorization (DCA) 001159-01-0 to allow vents to be installed in an upward position. As the subject work order performed work in accordance with this DCA, TVA considers no adverse condition exists. Excerpts from WBP870035 and the DCA are available for review. Copies of these documents have been provided to the resident inspector for his review.

Although no specific resolution is needed for work order, 94-03667-03, the above additional information concerning this work order does not detract from TVA's commitment to resolve the overall issue identified in example 3.

EXAMPLE 4

"Section 10 of Procedure SSP-3.06, Problem Evaluation Reports, Revisions 9 through 15, required that a formal revision be processed for changes to a PER that were more than minor editorial problems or clarifications which did not change the intent or scope of the original information. Procedure SSP-3.06 required that the revision be concurred with by organizations affected by the changes, approved by the responsible organization, and documented and processed with a revision number. Procedure SSP-3.06 further required that the revised portions be "indicated, " preferably by a vertical bar in the right margin.

Substantive changes including the deletion of the requirement to perform a generic review and changes in the cause analysis, were made in PER WBP930419 without processing a revision or obtaining the required concurrences and supervisory approvals. In addition, formal revision to PERs WBP940009, WBP940053, WBP940034, and WBP940059, were not clearly identified with vertical bars or other visual or descriptive means to indicate what portions had been revised."

EXAMPLE 5

"Procedure SSP-3.04, Corrective Action Program, Revision 8, and Procedure AI-2.8.15, Corrective Action, Revision 1, describe the process for invalidating SCARs. In this process, the senior management reviewer's signature was required in accordance with step 2.4 of Procedure SSP-3.04 and step 3.9.G of Procedure AI-2.8.15.

Invalidated SCARs WBSA930066, governed by Procedure SSP-3.04, and WBSA910150, governed by Procedure AI-2.8.15, failed to receive the senior management reviewer's signature."

EXAMPLE 6

"Procedure SSP-3.04, Revision 6, step 2.9, describes the "closeout" process for invalidated SCARs. Procedure QMP-116.1, Quality Methods Procedure, Corrective Action, Revision 5, step 6.1.6.3, requires that the signature of the SCAR coordinator be the final verification in the closeout process.

Invalidated SCAR WBSA930010 failed to receive the SCAR coordinator final verification closeout signature."

TVA RESPONSE - Examples 4 through 6

TVA agrees that these violation examples occurred.

REASON FOR THE VIOLATION - Examples 4 through 6

These violation examples occurred due to administrative oversight by the personnel involved in the process. In each example, the individuals involved

indicated a general lack of awareness necessary to meet procedural requirements when making revisions to the corrective action documents or when processing an invalidation.

CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED - Examples 4 through 6

The individuals associated with these errors will be retrained on the corrective action document revision process.

As described in TVA's response to Violation 94-13-02 dated July 25, 1994, several initiatives to improve implementation of the corrective action program have been put in place. For example, numerous site managers have been trained to better document decisions for disposition of adverse conditions. Better guidance for cause analysis/extent of condition has been issued. Further, as a result of these recent issues, significant management attention has been applied to the program which will continue until implementation significantly improves.

These examples are tracked by Problem Evaluation Report WBP940408.

CORRECTIVE STEPS TAKEN TO AVOID FURTHER VIOLATIONS - Examples 4 through 6

TVA will issue a site memorandum to the corrective action document preparers, reviewers, and managers to emphasize procedural compliance when processing revisions or invalidations to these documents.

TVA will issue a revision to Business Practice, (BP)-383, "Corrective Action Program Guidebook," to include instructions on the revision and invalidations of corrective action documents.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

The actions described above will be complete by November 15, 1994.

EXAMPLE 7

"Appendix EE of Procedure SSP-6.02, Maintenance Management Systems, Revision 13, states that a PER or SCAR is to be initiated if an identified safety-related deficiency involves a procedure adherence problem, an installation error, design deficiency, or human error, or if an extent of condition is needed.

Appendix G of Procedure SMP-14.0, Test Deficiencies, Revision 2, states that a PER must be generated in addition to a TDN when there is an engineering or construction error of a substantial nature.

On June 6, 1994, PER WBP940303, which documented that flow transmitter 1-FT-62-93C had been installed with the high- and low-pressure sensing lines reversed, was invalidated and another PER was not reissued for this installation/construction error. The PER was invalidated by the Senior Management Review Group (SMRG) citing that the condition would be more

appropriately resolved by previously issued TDN-94-0943 and Work Request (WR) C232843."

TVA RESPONSE - Example 7

The response to this violation example will be included as part of the November 4, 1994, supplemental response discussed in the cover letter of this submittal.

EXAMPLE 8

"Paragraph 2.11.B.1 of Procedure SSP-3.06, Problem Evaluation Reports, Revision 13, requires the responsible organization to verify that the approved corrective action is completed for a PER. Paragraph 2.11.B.2 of Procedure SSP-3.06 requires the responsible organization to ensure that documentation which provides evidence of corrective/preventive action completion is referenced on the PER closure package.

A corrective action item from closed PER WBP930526 stating that a memorandum would be issued to perform a review of outstanding procurement documents was not completed. Further, the documentation referenced on the closure package for this PER did not address the performance of this review.

Corrective action for closed PER WBP940034 to retrain all personnel involved in the activity covered by this PER was not implemented. Five of nine Modifications personnel involved in the work activity, as indicated by signatures on work documents, had not been retrained."

TVA RESPONSE - Example 8

TVA agrees with this violation example.

REASON FOR THE VIOLATION - Example 8

WBP940526

This violation example occurred due to a failure to self check and verify. Corrective action step number 2 in WBP930526 required Materials and Procurement management to issue a memorandum to all Materials personnel to reinforce the requirement of SSP-10.04, "Material Issue, Control, and Return," Paragraph 2.2.1.D to check the item description on the stores requisition and the material tag to ensure that they were in general agreement. This memorandum was to also include instructions to perform a review of outstanding procurement documents that may be affected by a technical description on an item.

On February 12, 1994, Materials personnel transmitted to Procurement Engineering, the responsible organization for the PER, the closure of a required action, requiring a memorandum to be initiated to Materials personnel reinforcing the requirement of SSP-10.04. The preparer of the closure statement and memorandum did not include the instructions to perform a review

of outstanding procurement documents that might be affected by a technical description change to an item. Subsequent reviews did not identify the discrepancy. WBP930526 was signed as complete on February 26, 1994.

WBP940034

Although TVA could not determine the exact cause for this example, it appears that this example most likely occurred as a result of inadequate review during the closure of this corrective action document.

CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED - Example 8

WBP940526

Materials and Procurement Engineering personnel who signed the corrective action steps and document as being complete were counseled on attention to detail and importance of ensuring that corrective action steps on a document are accurate and complete. In addition, a lessons learned memorandum was distributed to the WBN "Top 100" Managers. This action is documented in WBP940317.

WBP940034

The discussions required by corrective action 1 of the PER have been provided to the personnel who had not been trained. In addition, the closed PER has been supplemented to add the attendance rosters for these individuals.

CORRECTIVE STEPS TAKEN TO AVOID FURTHER VIOLATIONS - Example 8

WBP940526

A review of the Problem Evaluation Reports closed by Materials, Procurement, and the Procurement Engineering organizations was conducted for the time period of June 13, 1993, through June 15, 1994. The review concluded that this condition was isolated to the subject PER.

WBP940034

Part of the guidance provided to the designated reviewer, implemented under the management actions to improve the corrective action program, is the requirement to determine whether the closure criteria of SSP-3.04 and 3.06 were satisfied (i.e., revised procedures source noted to the PER, targeted audiences for training identified and 100 percent trained).

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

With respect to the identified example, TVA is in full compliance.

ENCLOSURE 2
WATTS BAR NUCLEAR PLANT
LIST OF COMMITMENTS

1. Following TVA management's review of the audit findings, a supplemental submittal regarding any further enhancements to the corrective action program and to address examples 2 and 7 of this violation will be made by November 4, 1994. Included in the management review will be an overall assessment of the inspection report issues combined with the audit findings.

Completion Date: November 4, 1994

2. A review of the corrective action documents listed in the Tracking and Reporting of Open Items (TROI) database status will be performed to ensure that no "Unit 2 hold" status equipment has been transferred from the original installation. In the event that the equipment has been transferred, a verification will be performed to ensure that the corrective action document was identified in the transfer package documentation. In addition, nonconforming items identified during this review that remain in Unit 2 will be tagged where practical. (Example 1)

Completion Date: December 6, 1994

3. The individuals associated with these errors will be retrained on the corrective action document revision process. (Examples 4 through 6)

Completion Date: November 15, 1994

4. TVA will issue a site memorandum to the corrective action document preparers, reviewers, and managers to emphasize procedural compliance when processing revisions or invalidations to these documents. (Examples 4 through 6)

Completion Date: October 21, 1994

5. TVA will issue a revision to Business Practice, BP-383, "Corrective Action Program Guidebook," to include instructions on the revision and invalidations of corrective action documents. (Examples 4 through 6)

Completion Date: November 15, 1994