

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
5N 157B Lookout Place

NOV 25 1987

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. 50-390/86-20 AND 50-391/86-20 - REVISED NOTICE OF VIOLATION
RESPONSE

Enclosure 1 provides our response to Stewart D. Ebnetter's letter to S. A. White dated August 21, 1987, which transmitted a revised Notice of Violation previously identified in Inspection Report Nos. 50-390/86-20 and 50-391/86-20 issued January 7, 1987, citing activities at WBN that appeared to be in violation of NRC regulations. Enclosed is our response to the corrected Notice of Violation 390/86-20-01.

As requested, TVA has evaluated the programmatic concerns relating to this violation and the area relating to test control for postmodification and post maintenance testing. It was determined that all facilities have acceptable programs to implement the cited requirements. Based on this review, TVA determined that there was significant variance in the implementing methods and that additional guidance may be needed to establish clarification of the corporate intent and ensure appropriate standardization in methodology for all facilities.

TVA has drafted an action plan to develop the corporate administrative guidance needed to establish consistency in this program area. Once this action plan has been reviewed and approved by all affected organizations, a schedule will be established for preparation, issuance, and implementation of the final corporate procedures. Enclosure 2 provides a summary of the elements in this draft action plan. This plan will be updated in a response to NRC by February 15, 1988.

Enclosure 3 contains a summary of the commitments identified in enclosures 1 and 2.

Delay in submittal of the enclosed response to this violation until November 20, 1987 was discussed with Al Ignatonis on October 28, 1987.

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U.S. Nuclear Regulatory Commission

NOV 25 1987

If there are any questions, please telephone E. G. McKeown at (615) 751-4888.

To the best of my knowledge, I declare the statements contained herein are complete and true.

Very truly yours,

TENNESSEE VALLEY AUTHORITY


R. Gridley, Director
Nuclear Licensing and
Regulatory Affairs

Enclosures

cc (Enclosures):

Mr. Gary G. Zech, Assistant Director
for Inspection Programs
Office of Special Projects
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

Mr. J. A. Zwolinski, Assistant Director
for Projects
Office of Special Projects
U.S. Nuclear Regulatory Commission
4350 East-West Highway
EWW 322
Bethesda, Maryland 20814

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

ENCLOSURE 1

WATTS BAR NUCLEAR PLANT (WBN) UNITS 1 AND 2
RESPONSE TO NRC REGION II LETTER
FROM STEWART D. EBNETER TO S. A. WHITE DATED AUGUST 21, 1987
REPORT NOS. 50-390/86-20 AND 50-391/86-20
CORRECTED NOTICE OF VIOLATION

This report responds to the Notice of Violation described in enclosure 1 of the NRC Region II inspection report referenced above.

Violation 390/86-20-01

10 CFR 50, Appendix B, Criterion V as implemented by TVA's QA Topical Report, TVA-TR-75-1A, Rev. 8 paragraph 17.2.5 requires that activities affecting quality be prescribed by approved procedures of a type appropriate to the circumstance and shall be accomplished in accordance with these procedures. Paragraph 17.2.5 further implements this requirement by requiring preoperational test instructions affecting safety-related functions of CSSC (Critical Structures, Systems and Components) be reviewed by the Plant Operation Review Committee or a special test committee (including the plant Quality Assurance staff and Office of Engineering) for inclusion of appropriate acceptance criteria and technical adequacy. Paragraph 17.2.11 requires that test instructions are --- reviewed by qualified personnel including the plant QA staff and approved by the plant manager. ANCI N18.7, 1976, Section 5.2.15 "Review, Approval and Control of Procedures" requires review and approval prior to initial use and that changes be reviewed and approved by the same organizations that performed the original review. Section 5.2.5 "Temporary Procedures" requires review and approval of temporary procedures in accordance with Section 5.2.15.

Contrary to the above, because the licensee failed to implement the above requirements in Administrative Procedure (A.I.) 6.2, when test addenda were constructed from previously-approved test procedures, the addenda did not receive Plant Operations Review Committee or Preoperational Test Committee approval. The addenda changed the scope, technique or sequential order of the original test.

This is a Severity Level IV violation (Supplement III) and applies to Unit 1.

1. Admission or Denial of Alleged Violation

TVA admits that a violation occurred as stated.

2. Reasons for the Violation

Administrative Instruction AI-6.2, "Preoperational Test Program," and the Nuclear Quality Assurance Manual (NQAM), Part II, Section 4.1, "Preoperational Test Program," allowed procedure changes under section 5.2.2 of American National Standards Institute (ANSI) N18.7-1976 as nonintent changes. The definition and guidance provided for determining if the change was/was not an intent change was insufficient to ensure that all intent changes were properly identified and reviewed in accordance with the procedurally required process.

Additionally, a transition in terminology occurred such that the preoperational test program interchangeably used "safety-related change" and "intent change" as well as "nonsafety-related change" and "nonintent change." This reduced the implementation of the cited requirements.

3. Corrective Actions Taken and Results Achieved

On April 9, 1987, TVA and NRC met at WBN to discuss Preoperational Test Program enhancement. Revision 11 of Administrative Instruction (AI) 6.2 was issued on July 31, 1987, and incorporates the enhancements discussed in the meeting. Specifically, all Plant Operations Review Committee (PORC) functions related to AI-6.2 are to be performed by the Joint Test Group (JTG). The members of the JTG are the Site Director's Preoperational Test Program Coordinator, a representative of the Division of Nuclear Engineering (DNE), Nuclear Site Director Operations and Engineering Superintendent, and the Site Quality Manager or their designees. The functions to be performed by the JTG include review of draft test instructions, review of intent changes before performance, review of nonintent changes within 14 calendar days of issue, review of the "approved for use" test instruction approximately 30 days before conduct, review of change sheets which administer Addendum Test Data Packages (ATDP), and recommendation of ATDPs approval to the Plant Manager. AI-6.2, Revision 11, Section 5.6.4 requires that each addendum test data package which requires a test or retest must be documented on a change sheet which is reviewed by the JTG before conduct. The JTG will review all preoperational test instructions as a standing subcommittee for the PORC. PORC has been designated in the punchlist of AI-6.2 to perform all JTG functions until detailed JTG procedures are approved.

Several enhancements were made in the handling of change sheets. The terms "safety-related change" and "nonsafety-related change" have been deleted in favor of "intent change" and "nonintent change," respectively. All nonintent changes will be reviewed by preoperational test section management and a Senior Reactor Operator before implementation and by the JTG within 14 calendar days of issue. AI-6.2 R11 states, "Instruction intent is realized by:

- Establishment of the acceptance criteria for system or component performance.
- Specification of the action which must be completed to accomplish a test task.
- Specification of the proper sequence of steps or activities that affect the satisfactory completion of a test task.

Intent changes generally are in one of the following categories:

- Changes to the test acceptance criteria.
- Changes which affect the establishment, control, or temporary removal of unit interface points.
- Changes to the scope, technique, or sequential order of steps that would affect test results or nuclear safety.
- Changes which implement or affect a temporary alteration to operable CSSC equipment where a Temporary Alteration Control Form is not issued."

4. Corrective Action Which Will Be Taken to Avoid Further Violations

AI-3.1, "Site Procedures and Instructions - Preparation, Review, and Approval," and AI-6.2, "Preoperational Test Program," will be revised to reflect the following definition for nonintent changes.

"Nonintent changes generally are in one of the following categories:

- Corrects typographical errors (other than acceptance criteria and numbers).
- Corrects valve lineups or setpoints for nonsafety systems.
- The partial use of the test to gather additional runs of data provided that there is no affect on other equipment."

Note: This last statement is not to be interpreted to mean an addendum test data package. This statement means that during the performance of a preoperational test, before test data acceptance, a motor run, pump run or similar equipment tests, as defined by the approved procedure, can be performed to ensure equipment operates as required, i.e., additional vibration checks or bearing temperature checks.

When the determination of intent versus nonintent is not readily discernible using the above criteria, the change will be processed as an intent change. Change sheets will be used to resolve test deficiencies, exceptions, and open items which involve actual test or retest activities after the test data package has been submitted to DNE for review. Additional enhancements to provide standard corporate level controls are discussed in enclosure 2.

5. Date When Full Compliance Will Be Achieved

WBN will be in full compliance with the issuance of AI-3.1 by January 15, 1988, and AI-6.2 by April 15, 1988. As an interim measure an instruction change will be issued for AI-3.1 and AI-6.2 to incorporate the nonintent definition described above by December 11, 1987.

ENCLOSURE 2

DRAFT ACTION PLAN TO DEVELOP TVA CORPORATE GUIDANCE FOR IMPLEMENTATION OF QUALITY ASSURANCE (QA) PROGRAM REQUIREMENTS

The following action plans are submitted for those issues identified in the NRC letter dated August 21, 1987, "Revised Notice of Violation (NRC Inspection Report Nos. 50-390/86-20 and 50-391/86-20)." The first action plan deals with the adequacy of our control of testing. It also relates to the programmatic aspects involving implementation of TVA's QA Topical Report and similar areas of concern such as control of postmodification and postmaintenance testing.

The second action plan relates to the programmatic aspects involving implementation of intent/nonintent processing of procedure changes involved in the test program and all site procedures and instructions in general.

TVA has evaluated the present process for ensuring the proper implementation of the Topical Report QA requirements in site and division level instructions. TVA has concluded that the present corporate process needs to be enhanced. DNQA will develop by February 15, 1988, requirements ensuring that future alterations of the QA program are coordinated in a thorough manner. This coordination will ensure the affected organizations' needs for additional training and understanding of the intended changes are accomplished and the site and division level instructions are effectively revised before considering the QA program change complete.

1.0 TEST PROGRAM ACTION PLAN

NEAR-TERM ACTION PLAN

TVA's DNQA has begun an evaluation of the adequacy of the current Office of Nuclear Power (ONP) procedures system and its implementation in the onsite instructions related to test control. This evaluation will take into consideration the need for ONP to have a corporate level document which sets uniform and detailed guidance or instructions to ensure consistent implementation of test control requirements at each site. The evaluation will include determining the need to develop and issue an ONP corporate level document for each area of testing (e.g., preoperational startup testing, surveillance testing, postmaintenance testing, and postmodification testing). Additionally, a determination will be made as to the need for onsite instructions to be revised to conform to the corporate level guidance. Based on the results of this evaluation, if necessary, a corrective action plan will be developed to upgrade the current ONP procedures system documents to better meet test control requirements while achieving an acceptable degree of uniformity and standardization. An updated response addressing evaluation results and planned actions will be submitted to NRC by February 15, 1988.

LONG-TERM ACTION PLAN

In meeting TVA's commitments in the "Nuclear Performance Plan - Corporate," Volume 1, ONP is developing a new Nuclear Procedures System. This new system will divide ONP's functional activities into approximately 42 different programs. Each of the programs is to have a central corporate organization sponsor responsible for each function's programmatic and technical aspects. Among these programs are ones for construction and modifications, maintenance, and operations. Each of these programs will provide corporate level requirements and standardization relative to the testing involved in each of the programs. The requirements of these documents will then be implemented in onsite procedures and instructions. ONP directives and ONP standards will constitute the corporate level requirements and guidance for standardization. These documents are scheduled to be developed and made effective by January 1, 1989. Each of the documents will receive review and concurrence by all affected corporate and site organizations including DNQA. The requirements of these documents will be passed down to affected organizations and tracked to ensure incorporation and maintenance in onsite procedures and instruction through the requirements of ONP Standard 4.4.10. This ONP standard provides the administrative requirements and controls to ensure identification and implementation of applicable requirements into appropriate levels of documents in the new Nuclear Procedures System hierarchy of documents.

2.0 INTENT/NONINTENT ACTION PLAN

NEAR-TERM ACTION PLAN

TVA's DNQA has begun an evaluation of the adequacy of the current ONP procedures system and its implementation in onsite instructions relating to the procedure change control issue. This evaluation will take into consideration the need for ONP to have a corporate level document which sets uniform definitions and standardized detailed guidance or instructions to ensure consistent implementation of the ANSI N18.7-1976 requirements at each site. This will include determining if there is a need to develop and issue an ONP corporate level document under the existing procedures system to set uniform and standardized definitions and guidance to ensure adequate and consistent implementation at each of the sites. Additionally, the evaluation will determine the need for onsite instructions to be revised to conform to corporate level guidance. Based on the results of this evaluation, if necessary, a corrective action plan will be developed to upgrade the current ONP procedures system documents to better meet intent/nonintent requirements while achieving an acceptable degree of uniformity and standardization. An updated response of the completed evaluation and any final planned near-term actions needed will be submitted to NRC by February 15, 1988.

LONG-TERM ACTION PLAN

In meeting TVA's commitments in the "Nuclear Performance Plan - Corporate," Volume 1, ONP is developing a new Nuclear Procedures System. This new system currently contains instructions on meeting and implementing ANSI N18.7-1976 requirements on procedure change control. The documents that will cover this subject are ONP Directive 4.4, ONP Standard 4.4.4, ONP Standard 4.4.6, and ONP Standard 4.4.7. These documents will have the following scopes:

- A. ONP-DIR-4.4 - the new Nuclear Procedures System program description.
- B. ONP-STD-4.4.4 - will control the development and administration of ONP standards that provide standardized methods as well as primary interface controls among ONP divisions, staffs, sites, and nuclear projects.
- C. ONP-STD-4.4.6 - will control the standardized development and administration of Site Director procedures for ONP's operating nuclear plant sites.
- D. ONP-STD-4.4.7 - will control the standardized development and administration of site instructions for ONP's operating nuclear plants.

These documents, although approved, have not yet been made effective. Each will be made effective according to the implementation plan for putting the new Nuclear Procedures System in place as controlled by ONP Directive 4.4.A. ONP Directive 4.4 and ONP Standard 4.4.4 are scheduled to be effective by November 30, 1987. ONP Standards 4.4.6 and 4.4.7 are scheduled to be effective by the end of the second quarter of 1988.

TVA currently intends to include in ONP-DIR-4.4, Revision 0, that "minor changes" to the new Nuclear Procedures System documents may be made, reviewed, and approved in a process that does not include the review and approval of the same organizations that reviewed and approved the original document. This will only be allowed if the process is controlled by an appropriate ONP standard and the site instruction requirements of the applicable plant's technical specifications are also complied with.

TVA currently intends to include in ONP-STD-4.4.4, Revision 0, which will control ONP standards that can contain standardized ONP site instructions, a requirement that does not allow a separate method for approval of nonintent changes (even though ANSI N18.7-1976 allows methods of approvals for "nonintent changes"). Therefore, only fully reviewed and approved changes will be allowed to be made to ONP standards. However, a mechanism will be included to provide for an expedited way of obtaining these full reviews and approvals for urgently needed changes, but no latitude will be made for "nonintent changes" receiving any other review and approval other than that performed for the original. All changes will be handled the same way, whether they are intent or nonintent.

TVA intends to include in ONP-STD-4.4.6, Revision 0, that Site Director procedures will be written in the same manner as ONP-STD-4.4.4 and does not allow an alternate review and approval cycle for "nonintent changes." All changes will be handled the same way, whether they are intent or nonintent.

TVA intends to include in ONP-STD-4.4.7, Revision 0, that site instructions will state the following:

Changes to PORC-reviewed site instructions shall be classified as intent/nonintent changes.

1. An intent change is one that does any of the following:
 - a. Changes the scope, technique, or sequential order of the instruction steps and affects either the results obtained by the Site Instruction or nuclear safety.
 - b. Changes acceptance criteria.
 - c. Potentially affects technical specification or other licensing requirements.
 - d. Deletes or alters technical or programmatic requirements.
 - e. Changes the authority or responsibility for review and approval of the site instruction or changes the review and approval process.
 - f. Implements a temporary alteration to operable critical structures, systems, or components (CSSC).
 - g. Deletes or alters QC or ANII/ANI holdpoints.

NOTE

Deletions or alterations of QC holdpoints may be processed as nonintent changes if the concurrence of the Manager, Site Quality, is obtained before implementation of the change.

2. A nonintent change is one that does any of the following:
 - a. Corrects typographical errors (other than acceptance criteria).
 - b. Corrects valve lineups or setpoints for nonsafety systems.
 - c. Adds administrative requirements that do not require processing of an intent change as in 1.0 above.

- d. Adds new QC or ANII/ANI holdpoints.

All long-term implementation requirements for the procedural change control issue will be currently incorporated into these documents. Their implementation will preclude recurrence of this deficiency, once these documents become effective according to the implementation plan.

ENCLOSURE 3

SUMMARY OF COMMITMENTS

TVA's Division of Nuclear Quality Assurance will develop interim requirements ensuring that future alterations of the Quality Assurance program are coordinated in a thorough manner by February 15, 1988.

Provide an updated response on the completed evaluation of the adequacy of the current Office of Nuclear Power (ONP) Procedures system and implementation in onsite instructions related to test control and provide final near-term corrective actions needed by February 15, 1988.

Provide an updated response on the completed evaluation of the adequacy of the current ONP procedure system and its implementation in onsite instructions relating to the procedure change control issue and provide final planned near-term actions by February 15, 1988.

Instruction changes to Watts Bar Nuclear Plant (WBN) AI's 3.1 and 6.2 will be issued by December 11, 1987, as an interim measure to incorporate the nonintent definition described in enclosure 1.

WBN AI 3.1, will be revised by January 15, 1988.

WBN AI 6.2 will be revised by April 15, 1988.