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**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, 391/93-29  
REPLY TO NOTICE OF VIOLATION

The purpose of this letter is to provide a reply to Notices of Violation 390/93-29-01 and 390/93-29-02 cited in the subject inspection report dated May 14, 1993. The violations identified the failure to use an adequate and controlled procedure to do hardness testing and the failure by TVA to correct identified adverse conditions related to the controlled document assessment program. This also includes an example from Inspection Report 390/93-27 for control of vendor manuals.

The enclosure to this letter addresses the specific conditions described in the inspection report and the corrective actions taken by TVA. NRC concerns involving Quality Assurance personnel identified in the cover letter of the subject inspection report and subsequent NRC letter dated April 16, 1993 will be addressed in a separate submittal.

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

Sincerely yours,

*WJ Museler*  
William J. Museler

Enclosure  
cc: See page 2

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**JUN 14 1993**

cc (Enclosure):

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ENCLOSURE

WATTS BAR NUCLEAR PLANT UNIT 1  
RESPONSE TO NRC'S MAY 14, 1993 LETTER TO TVA  
NRC VIOLATIONS 390/93-29-01 AND 390/93-29-02

DESCRIPTION OF VIOLATION 390/93-29-01

10 CFR 50, Appendix B, Criterion VI, Document Control, requires that measures be established to control the issuance of documents, such as instructions, and procedures. These measure should assure that documents are reviewed for adequacy and approved for release by authorized personnel and are distributed to and used at the location where the prescribed activity is performed.

Tennessee Valley Authority Nuclear Quality Assurance Plan, TVA-NQA-PLN89-A, Revision 3, paragraph 6.2.2, implements this requirement by requiring that quality related activities be performed in accordance with approved and controlled instructions and procedures.

Site Standard Procedure (SSP) 2.07, Document Control, requires and provides that documents be controlled through Document Control Management for processing, distribution and assuring the correct revisions are used in the field for fabrication and testing safety related equipment.

Contrary to the above, on March 31, 1993, Quality Control inspectors used an uncontrolled test procedure, Test Plan for Material Hardness on In-Place Structural and Miscellaneous Steel, to perform hardness testing of structural steel members. This procedure was also inadequate in that it failed to prescribe all of the technical test requirements.

REASON FOR THE VIOLATION

The subject violation occurred as the result of a failure by TVA to establish adequate administrative controls for performance of this task. Insufficient attention was provided to the need for having regular administrative controls in light of the fact that the purpose of the subject material testing was confirmatory; to provide confidence that the processes for material control in the past were adequately implemented. TVA did not intend to use the data collected as a primary qualification record, replacement record, or to disposition a nonconformance. However, TVA did use the data collected as part of a submittal to NRC. In this regard, TVA should have employed its standard practice for control of acceptance testing of safety related components/equipment. A contributing factor to this violation was that the TVA Process Specification 5.M.3.1 for hardness testing of bolts, studs, and other support components was not referenced in the test plan developed for performing this task.

Because of the nature of the task performed, i.e., to gather specific data for use in a submittal, TVA exercised considerable caution in providing a high level of technical expertise to plan, direct, and perform the testing. The test plan, prepared specifically for this testing, was reviewed and approved by engineering. The testing performed was for a single, one time application. There was no intent to use this test plan as a continuing process for verifying material during on-going work.

#### CORRECTIVE ACTIONS TAKEN AND RESULTS ACHIEVED

TVA performed a review comparing the TVA Process Specification 5.M.3.1 against the test plan actually used by TVA to perform the testing. This review confirmed that the testing completed utilizing the test plan in conjunction with the equipment manual was in conformance with the requirements of the specification. After confirming that the testing was in conformance with the specification, a reference to the specification was placed in the test plan. In addition, the Process Specification 5.M.3.1 has been added to TVA non-destructive examination manual as Procedure No. N-GP-24, "Hardness Testing." This will make the procedure more visible and available to the inspection personnel who perform this type of testing.

To further emphasize the importance of following procedures a memorandum has been issued by the engineering manager to the various engineering disciplines to inform personnel that existing approved procedures should be used when performing special tests and walkdowns. Exceptions, as required by the conditions of the test or walkdown, should be reviewed by the responsible manager of the procedure being considered for use.

#### CORRECTIVE STEPS WHICH WILL BE TAKEN TO AVOID FURTHER VIOLATION

No further steps beyond those discussed above are considered necessary.

#### DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

TVA is currently in full compliance.

## DESCRIPTION OF VIOLATION 390/93-29-02

10 CFR 50, Appendix B, Criterion XVI, Corrective Action, requires that measures be established to assure that conditions adverse to quality and nonconformances be promptly identified and resolve adverse conditions and correct them with documented plans.

Contrary to the above, on April 16, 1993, TVA failed to correct identified adverse conditions related to the controlled document assessment program as described in example one of NRC Violation 390/91-03-06, Inadequate Procedures. The corrective actions associated with Revision 4, did not detail what or how assessment activities were to be performed to ensure the original adverse conditions were corrected and also the performed corrective actions were not in accordance with SAI-18.01.

## REASON FOR THE VIOLATION

Document control and records management internal instructions did not provide sufficient audit guidelines on:

1. Performing accurate and consistent audits,
2. The proper documentation of audits, and
3. Reporting deficiencies identified.

The procedure only required that an audit be performed. No specifics were included as to how to perform the audit and how to document the results. These details were left entirely to the individual/organization performing the audit and resulted in inconsistent and improper documentation.

In addition, the scope of the assessment did not include the controlled copies of the vendor manuals on distribution.

1. Vendor manuals were maintained and distributed by a process in Document Control separate from procedures and drawings. Watts Bar DCRM had never performed assessment on vendor manuals because the manuals were never considered part of the scope for annual assessments.
2. Site Support Administrative Instruction (SAI)-18.01, Revision 4, Assessment Program, did not give specific details on how assessments should be performed. Self-assessments were not addressed as a requirement for individual holders.

## CORRECTIVE ACTION

DCRM has revised the instructions to clarify the specific requirements needed for conducting assessments of the control of procedures, drawings, and vendor manuals. This major revision was made by reviewing the assessment instructions used at other TVA sites and coordinating the new instructions with assessment activities to ensure the instructions are simple, user friendly, and clear to follow.

In addition, training was conducted to ensure employees responsible for assessments are familiar with the requirements of SAI-18.01.

The inspection identified several discrepancies and weaknesses in SAI-18.01. The specific examples cited and TVA's responses are as follows:

#### VIOLATION EXAMPLE 1

The instruction did not clearly describe what controlled documents or holders were to be audited (e.g., only established Technical Information Centers, Control Document Stations, or individual holders). The implication in paragraph 1.0 and Note 2 of Paragraph 2.1.D.2 was that individual holders (and even Control Document Stations) were not audited by Document Control and Records Management (DCRM). In fact, individual holders were not routinely assessed by WBN DCRM although some holders performed self-assessments or were assessed by the corporate DCRM organization.

#### CORRECTIVE ACTION

SAI-18.01 now states that "An assessment schedule (be) prepared to cover all documents and drawings on controlled distribution. The schedule ensures that all distribution points are assessed at least annually. This schedule is developed by the Assessment Coordinator and approved by the Document Control and Records Management Manager."

In addition, when self-assessments are performed on controlled documents, SAI-18.01 now requires DCRM to "Semiannually perform a DCRM followup assessment of 20% of individual holders to verify they have accurately documented and performed the self-assessment."

#### VIOLATION EXAMPLE 2

The instruction did not address methods for identifying, performing, documenting, and reviewing self-assessments permitted by SSP-2.07 and actually performed at WBN. A review of self-assessment documentation indicated that different methods of documentation were being used and were not always formal.

#### CORRECTIVE ACTION

The DCRM Assessment Program, as defined by SSP-18.01, now requires that all documents and drawings on controlled distribution be assessed at least annually. Self-assessments will have no selection or identification of specific documents/drawings made for assessment purposes - the entire population of controlled documents are required to be assessed. All discrepancies shall be reviewed and evaluated by the Assessment Coordinator.

### VIOLATION EXAMPLE 3

The instruction did not specify whether 100 percent of drawings are to be verified or if a sample program is acceptable. No criteria is specified for selecting samples (e.g., sample sizes, sample types, actions to be taken when discrepancies are found in a sample).

### CORRECTIVE ACTION

SAI-18.01 now explains that both 100-percent and random assessments will be performed at least annually. Assessments performed by DCRM will be performed on a random basis utilizing Military Standard MIL-STD-105. Individual holders performing self-assessments are required to assess all controlled documents/drawings assigned to them.

### VIOLATION EXAMPLE 4

The instruction did not clearly specify the minimum attributes to be addressed in an audit, or for each type of audit (drawings, manuals, and procedures). For example, paragraph 2.1.B indicates that "proper revision levels" are the only attribute. The procedure does not specify whether the auditors verify that a holder does not have more drawings/documents than are on the distribution list or just verify the accuracy of documents already on the distribution list.

### CORRECTIVE ACTION

The current SAI-18.01, Section 2, addresses the scheduling and performance of annual assessments but no longer lists specific attributes within the procedures. The procedure has been upgraded for attributes by listing the details and parameters in Appendix B, "Random Assessment" form and Appendix C, "Discrepancy Form."

### VIOLATION EXAMPLE 5

The instruction did not describe the process for correcting and documenting identified discrepancies that were actually occurring (e.g., assessors primarily are making corrections, not the coordinator as specified in the procedure). It did not describe what action was to be taken when drawings/procedures were found at a location that was not on the distribution list (e.g., add to list or remove from the premises).

### CORRECTIVE ACTION

SAI-18.01 has been revised to require the assessment clerk (DCRM or individual holder) to immediately remove incorrect revision level documents or drawings and destroy. It also requires the assessment clerk to correct discrepancies identified within two working days if possible, and document individual corrections as they are completed by signing and dating a Discrepancy Form.

The Discrepancy Form contains categories for "Controlled documents not listed on assessment" and "printout corrections." The program requires the Assessment Coordinator and DCRM Manager to evaluate any discrepancies listed in these categories and determine if further resolution is required.

#### VIOLATION EXAMPLE 6

The instruction did not adequately describe how discrepancies were to be evaluated to determine whether further audit or corrective action was required, or evaluated for adverse trends (e.g., by discrepancy type; by document type or group within a type; by organization such as DCRM; individual holders; or generically). It did not provide for routine documentation of discrepancy reviews or trend analyses. The reference to MIL-STD-105D is unclear as to Acceptance Quality Level and to applicability (e.g., the implication in paragraph 2.2.A.1.g is that it only applies to revision level errors). In addition to the lack of detail in the procedure, the DCRM staff did not have training in how to use MIL-STD-105.

#### CORRECTIVE ACTION

Outdated revisions are processed as follows:

- Outdated revisions are evaluated based on MIL-STD-105E. The evaluation is based on the number of documents audited and the number of wrong revisions identified.
- If the number of outdated revisions exceed the specified (MIL-STD-105E) rejection value, a Problem Evaluation Report (PER) is initiated to identify the cause and develop a corrective action plan. In addition, the procedure requires that a further audit of 100% of the controlled documents maintained in the (failed assessment) distribution point be conducted and documented.

The procedure has strengthened the requirements for assessment documentation, review, and approval process. Assessment of each controlled distribution point requires DCRM Manager's review.

The revised procedure has added the applicable portions of MIL-STD-105E as part of the procedure. Step-by-step instructions are provided for use of this standard to evaluate discrepancies. This procedure specifies an Acceptable Quality Level of 2.5 from the normal inspection table of MIL-STD-105E.

Other discrepancies such as missing pages, misfiled pages, etc. are also documented, trended and evaluated on their own merit. The DCRM Manager is responsible for initiating the appropriate action to promptly correct any adverse trends.

Training has been conducted to ensure employees who use SAI-18.01 are familiar with the assessment process and the requirements of the procedure as well as the applicable sections of MIL-STD-105E.



#### VIOLATION EXAMPLE 7

There was no documentation of indication that DCRM critically reviewed the results of the document control assessments to determine if further corrective action was warranted or adverse trends existed. For example, the 1992 audit of the Control Room Technical Instructions identified approximately 56 discrepancies (illegible, missing pages, wrong revision level, and obsolete pages not removed), but there was no reference to any evaluation regarding the acceptability of the error rate.

#### CORRECTIVE ACTION

As stated in the Corrective Action for Violation Example 6, when the results of the assessment indicate outdated revision levels, the evaluation is performed based on the applicable sections of MIL-STD-105E, which has been incorporated into SAI-18.01. The Assessment Coordinator is required to document the evaluation results and submit to the DCRM manager for review and signature. If the number of outdated revisions exceed the acceptable value specified in the procedure, a PER is initiated for cause analysis and corrective action plan. Specific attributes defined in the procedure (SAI-18.01) are evaluated and included in a quarterly trending summary report which is reviewed by the DCRM manager. The discrepancies identified in each assessment are required to be included in this report.

The discrepancies identified in this violation example relative to the Control Room Technical Instructions have all been corrected.

#### VIOLATION EXAMPLE 8

DCRM monthly assessment reports did not specify the number of discrepancies identified as required by paragraph 2.3.A of SAI-18.01.

#### CORRECTIVE ACTION

DCRM monthly assessment reports have been replaced by the trending process. SAI-18.01 now requires that the trends of assessment results be evaluated for individual discrepancy categories as well as the total percentage of errors identified.

#### VIOLATION EXAMPLE 9

There were numerous miscellaneous minor discrepancies on the assessment documentation including blanks not filled in for report closure, assessor not listed, no indications that a correction was made, and dates were omitted indicating that corrections were made that proceeded the date of the assessment.

#### CORRECTIVE ACTION

Step-by-step instructions have been added to SAI-18.01 for completing assessment documentation.

#### VIOLATION EXAMPLE 10

Corrective actions for the Control Room Technical Instructions audit were not timely. The assessment report, dated April 16, 1992, indicated most corrections were made on June 29 (two and one-half months later) and two were made in September (more than five months later). Although SAI-18.01 does not provide criteria for timely corrections, the amount of time the licensee took to update control room documents were not considered acceptable.

#### CORRECTIVE ACTION

During an assessment, if a revision that is not current is identified, the Assessment Clerk is required to immediately remove the incorrect drawing or procedure and destroy it to prevent inadvertent use. SAI-18.01 also requires that discrepancies be corrected within two working days by obtaining replacement copies of documents/drawings from the DCRM Master File, Technical Information Center, or Controlled Document Station. If discrepancies cannot be corrected within two working days, the Assessment Clerk is required to notify the Assessment Coordinator who will notify the controlled document holder and monitor the status of the unresolved discrepancies until corrected/completed.

#### VIOLATION EXAMPLE 11

The current assessment schedule did not address the self-assessment process. Schedules were not issued on any specified fixed, periodic basis (e.g., the last two had been issued December 28, 1992, and again on January 13, 1993), and there was no system (formal or informal) to track and document whether and when the scheduled assessments were performed.

#### CORRECTIVE ACTION

SAI-18.01 now contains assessment schedules on an annual basis for both DCRM-maintained and self-assessment controlled document stations. By procedure, overdue self-assessments will be referred to the DCRM manager who will escalate the delinquent assessments to responsible organization managers.

The procedure also requires DCRM to semiannually perform a DCRM followup assessment of 20% of individual holders to verify that they have accurately documented and performed the self-assessments. A detailed assessment schedule has been developed for both DCRM assessments and self-assessments.

#### EXAMPLE FROM NRC INSPECTION REPORT 390, 391/93-27

Procedures SSP-2.07 and SAI-18.01 specify that controlled documents are to be assessed annually by DCRM to verify that the latest revision is available for use. However, controlled vendor manuals had not been assessed by DCRM. Further, SAI-18.1 did not identify vendor manuals as a discrete element of controlled documents requiring assessment and did not provide any specific attributes that should be assessed for VTMs, such as a verification that revised sections of manuals have been properly inserted. The failure to perform annual assessments of the control of VTMs. . . will be included as an additional example of a

similar generic failure of DCRM to perform annual assessments that is being evaluated for enforcement and will be documented in Inspection Report 50-390,391/93-29.

CORRECTIVE ACTION

As a result of Problem Evaluation Report WBP930082, a random assessment was conducted in accordance with MIL-STD-105D on vendor manuals and vendor technical manuals. The discrepancies identified in this assessment were well within the acceptable limits of MIL-STD-105D. Specifics of this assessment can be found in WBP930082. SAI-18.01 has been revised to specifically include the vendor technical manuals as part of the assessment program.

CORRECTIVE ACTIONS TAKEN TO PREVENT RECURRENCE

SAI-18.01 has been revised to include detailed instructions for the performance of assessments on DCRM-maintained areas as well as self-assessments transmitted to the holders. DCRM personnel involved in the audits of documents and/or drawing have received training on any additional revisions thereto.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

TVA is in full compliance.