

official

JUN 29 1987

Tennessee Valley Authority  
ATTN: Mr. S. A. White  
Manager of Nuclear Power  
6N 38A Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

Gentlemen:

SUBJECT: NRC INSPECTION REPORT NOS. 50-390/86-24 AND 50-391/86-24

Thank you for your response of April 6, 1987, as supplemented by your response of May 6, 1987, to our Notice of Violation issued February 12, 1987, concerning activities conducted at your Watts Bar facility.

We have evaluated your responses to Violation 390, 391/86-24-01 Parts 1 and 2 and Violation 390, 391/86-24-02, and found that they meet the requirements of 10 CFR 2.201. We will examine the implementation of your corrective actions during future inspections.

After careful consideration of the basis for your denial of Violation 390, 391/86-24-01, Part 3, we have concluded, for the reasons presented in the enclosure to this letter, that the violation occurred as stated in the Notice of Violation. Therefore, in accordance with 10 CFR 2.201(a), please submit to this office, within 30 days of the date of this letter, a written statement describing steps which have been taken to correct Violation 390, 391/86-24-01, Part 3, and the results achieved, corrective steps which will be taken to avoid further violations, and the date when full compliance will be achieved.

We appreciate your cooperation in this matter.

Sincerely,

Original signed by

Stewart D. Ebnetter, Director  
Division of TVA Projects  
Office of Special Projects

Enclosure: (See page 2)

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JUN 29 1987

Enclosure:  
Staff Assessment of Licensee Response

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## STAFF ASSESSMENT OF LICENSEE RESPONSE

### Restatement of Violation A

10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings", as implemented by TVA's Quality Assurance (QA) Topical Report, TVA-TR75-1A, Rev. 8, Section 17.1.5 requires that activities affecting quality shall be accomplished in accordance with instructions, procedures and drawings.

TVA's QA Topical Report, paragraph 17-1.16.2 as implemented by Quality Control Instruction (QCI) 1.02, Rev. 15, "Control of Nonconforming Items" requires Conditions Adverse to Quality (CAQs) be documented as Nonconforming Condition Reports (NCRs).

Contrary to the above, during a routine inspection on October 10, 1986, the inspector determined that Conditions Adverse to Quality, a broken torque switch in valve operator 2-FCV-2-179B-B and a broken terminal block in valve operator 2-FCV-3-116B-A, were found while performing activities in accordance with work package FA003R2 (replacement of wire in Class 1E Limitorque valve operators). These CAQ's were identified and replaced by revisions to the work plan instead of documenting the deficiencies as NCR's.

### Summary of Licensee's Response

The licensee stated that paragraph 4.5 of QCI-1.02 defines a nonconformance as follows: "A deficiency in characteristic, documentation, or procedure which renders the quality of an item or activity unacceptable or indeterminate. Failed inspections of work in progress before inspector acceptance and documentation... are not considered nonconformances."

The licensee argues since work plan FA003R2 was "in-progress" and since the work activities were subject to final inspector (Quality Control) acceptance that the deficiencies found did not meet the definition of nonconformances.

The licensee indicated that during their evaluation of the validity of this violation procedural enhancements are appropriate such as:

- a) making construction work plans life-of-plant (LOP) records.
- b) establishing criteria to identify and evaluate repetitive "in-process" problems.

### NRC Evaluation

The NRC staff has carefully reviewed the licensee's response and the referenced material and has concluded that licensee subter implementing procedures introduced two errors into the system for processing conditions adverse to quality:

- First, the definition (not NRC approved) limiting the scope of the system to problems found after final quality control acceptance at the site is clearly less restrictive than the statements made to the NRC in QA Topical Report paragraph 17-1.16.2. Since the NRC approves Topical Reports - not subtier documents, the fact that the licensee lists some subtier procedures in an appendix to the Topical Report does not make them NRC-approved procedures. If the licensee intended to reduce the scope of the quality program, a change to the QA Topical Report should have been submitted.
- Second, given that subtier procedure QCI-1.02 did reduce the scope of the program, as implemented, by its definition of a nonconformance, the licensee accepts some manufacturers' QA programs but did not include product acceptance and documentation by these manufacturers' Quality Control as meeting the QCI-1.02 criteria for invoking the NCR process upon subsequent discovery of a problem.

10 CFR Part 50, Appendix B, Criterion 16, as implemented by the QA Topical Report, paragraph 17.1.16.2, "Corrective Action - Office of Construction", requires measures to be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected. The NRC staff position is that deficiencies (such as broken parts) found or caused within equipment previously accepted or qualified to specified standards (e.g., Class 1E) at the installation site or equipment manufacturer, must be documented, corrected, and evaluated for both trending and continued acceptance or qualification to original design standards. The staff position concerning the licensee enhancement of establishing criteria to identify and evaluate repetitive "in-process" problems and making construction work plans "life-of-plant" records is that, while these enhancements certainly are better than the previous conditions, the licensee should develop a clear and reasoned program and describe it in the QA Topical Report.

The completed work package for FA003R2 and others were reviewed. The only documented final inspector acceptances dealt with wire termination. There were no inspector acceptances to criteria appropriate to the replacement of the torque switch or the terminal block. Therefore, the only portion of the work activity which can be considered "in-progress" involves the items scheduled for re-inspection after the work activities are complete. In this case, the in-progress activity was replacing unqualified wire. Other items within the Limitorque operator, such as terminal blocks or switches, were not scheduled for later inspections, with appropriate acceptance standards, since the licensee planned to rely on the original factory inspection which was previously performed and accepted. These items could not qualify for "in-progress" under the reduced program scope unless further routine inspections were planned. Accordingly, in the issue of broken terminal blocks and cracked switches, the licensee needs to establish a program to determine if the item falls under the requirements of 10 CFR Part 21. (i.e., nonconforming vendor supplied item) or if the deficiencies were caused as a result of the wire replacement. If the latter is the case, the licensee needs to establish a program which identifies, evaluates, trends, corrects, and documents the

deficiencies. The only program indicated for controlling corrective action during construction, in the QA Topical Report, paragraph 17.1.16.2, is the NCR.

NRC Conclusion

For the above reasons, the NRC staff concludes that the violation occurred as stated.