TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

October 14, 1981

Mr. James P. O'Reilly, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Region II - Suite 3100
101 Marietta Street
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - NRC-OIE REGION II INSPECTION REPORT 390, 391/81-09 - ADDITIONAL RESPONSE TO VIOLATIONS

The subject inspection report dated July 8, 1981 cited TVA with two Severity Level IV, two Severity Level V, and two Severity Level VI violations in accordance with 10 CFR 2.201. TVA submitted a response to the violations on September 3, 1981. Enclosed is an additional response to four of the subject violations. The last three violations addressed in the enclosure have been discussed extensively with Resident Inspector J. McDonald. The submittal date of this response was discussed with Inspector R. V. Crlenjak on September 25, 1981.

If you have any questions, please get in touch with R. H. Shell at FTS 857-2581.

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

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills, Manager
Nuclear Regulation and Safety

Enclosure
cc: Mr. Victor Stello, Director (Enclosure)
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, DC 20555

ENCLOSURE
WATTS BAR NUCLEAR NUCLEAR PLANT UNITS 1 AND 2
ADDITIONAL RESPONSE TO VIOLATIONS

Violation 50-390/81-09-01

10CFR50, Appendix B, Criterion XVI, requires that measures be established to assure that conditions adverse to quality, such as nonconformances, are corrected. The accepted QA program, FSAR 17.1A.16, states that procedures provide for the correction of adverse conditions.

Contrary to the above, as of April 16, 1981, measures to assure correction of conditions adverse to quality have not been established in that no corrective action was taken or planned as a result of Nonconforming Condition Report (NCR) 2793. This NCR identified that no approval had been obtained to flush safety-related heat exchangers in the Component Cooling Water System and that strainers had not been installed at the heat exchangers to prevent the entrance of foreign objects into the heat exchanger's shell side.

Admission or Denial of the Alleged Violation

TVA admits the violation occurred as stated.

Reason for Violation

TVA agrees with the violation as stated above. However, TVA does not agree with the discussion contained within the inspection report (under item 5, 'Independent Inspection Effort') that states procedures QCI-1.2 and Engineering Design (EN DES) EP-1.26 do not establish measures to ensure corrective actions for conditions adverse to quality.

Quality Control Instruction (QCI) 1.2 and Division of Engineering Design Engineering Procedure (EN DES-EP) 1.26 have established measures to assure conditions adverse to quality are promptly corrected. Both of the aforementioned procedures are adequate in that they provide for Division of Construction (CONST) to refer to the design project any NCR requiring design review and approval of a recommended 'use-as-is' or 'repair' disposition. In addition, EN DES-EP 1.26R3 (dated March 13, 1980), Paragraph 6.0, 'Handling NCR's Coming to EN DES from the Construction Site,' notes that the design project manager (or his delegate) 'provides written acceptance of any use-as-is disposition recommended by CONST and agreed to by EN DES, includes an explanation of the acceptance either in section 8 of the NCR or in the memo returning the NCR to CONST.' However, admittedly, the above procedures were not followed for this NCR.

Corrective Steps Taken and Results Achieved

A sample of 857 NCR's and revised NCR's was selected to review for adequacy of the justification for 'use-as-is' disposition. CONST requested 'use-as-is' on approximately 57 percent of this sample. It was determined from this review that 34 (approximately 7 percent of those requesting use-as-is') did not have sufficient justification from EN DES as required by EP 1.26 R3.

These NCR's will be reviewed by the EN DES organization which prepared the original response. Each of these organizations has been requested to prepare a revised response for each of these NCR's documenting the original basis that was used to disposition the NCR 'use-as-is.' These responses were completed by October 1, 1981.

In regard to the corrective action for NCR 2793, after the completion of TVA test 13B (onsite ac distribution system), the component cooling heat exchangers will be taken out of service. We will then select one of the three heat exchangers for visual inspection. This will be accomplished by cutting the 24-inch inlet side, unbolting the flange, and moving the pipe for visual inspection. After analyzing the inspection results, we will make a determination of disposition regarding the remaining two heat exchangers.

Corrective Steps Taken to Avoid Further Violation

EN DES-EP 1.26 is currently undergoing a general revision. As a part of this general revision, we will also include clarification of the existing EN DES requirements and responsibilities when processing CONST NCR's requesting 'use-as-is' dispositions. This procedure will also clarify that the design project will delegate review and approval of dispositions which fall outside existing criteria to the branch responsible for the criteria.

Date When Full Compliance Will Be Achieved

TVA has been in full compliance in regard to the adequacy of our procedures since March 30, 1981.

TVA has been in full compliance in regard to review of WBN NCR's, with 'use-as-is' disposition since October 1, 1981.

Violation 50-390/81-09-05 and 50-390/81-09-03, 50-391/81-09-02

10CFR50, Apendix B, Criterion V, requires activities affecting quality to be accomplished in accordance with instructions. The accepted QA program, FSAR Section 17.1A.5, states that assurance is provided that activities are accomplished in accordance with these instructions. QCI-1.2, Section 5.2, states that responsible engineering representatives shall be responsible for initiating Nonconforming Condition Reports (NCR's).

Contrary to the above, as of April 16, 1981, activities affecting quality had not been accomplished in accordance with instructions in that an NCR had not been written by responsible engineering representatives to identify previously certified expansion anchor lot proof load tests which were nonconservatively tested by as much as 25 percent.

This is a Severity Level V Violation (Supplement II.E).

10CFR50, Appendix B, Criterion XVII, requires that records contain closely related data, such as qualifications of equipment. The accepted QA program, FSAR Section 17.1A.17, states that construction procedure Quality Assurance Records contain provisions for records generated at the site during the construction phase. Quality Control Instruction (QCI) 1.8, Quality Assurance Records, Section 5.1.f, states that the engineering unit supervisor prepares site-originated quality assurance records required by the quality assurance program.

Contrary to the above, as of April 16, 1981, records did not contain closely related data for equipment qualification in that attachment A of QCP-1.14, Production Lot Acceptance Test on Expansion Type Bolt Anchors, did not contain justification data for hydraulic 'jacks' used in bolt anchor testing.

This is a Severity Level VI Violation (Supplement II.F).

Admission or Denial of the Alleged Violations

TVA admits the violations occurred as stated.

Reason for Violations

In 1979 four anchor testing jacks were in use at Watts Bar Nuclear Plant (WBN) for which the calibration report from a fifth jack was applied to them. The employee responsible for this did not understand that calibration reports must be matched to the jacks on a unique basis. Upon detection, the Construction Engineer erroneously judged that an NCR was inappropriate.

Corrective Steps Taken and Results Achieved

Employees at WBN have been retrained in the application of WBN Quality Control Instruction (QCI) 1.2, Control of Nonconforming Items. Electrical Engineering Unit personnel have been instructed in the proper application of calibration data. NCR 3195R was written to identify the deficient proof load tests. The test results and calibration data have been reviewed and

approved by TVA's Engineering Design. No other cases of improper application of calibration data have been identified other than those documented by NCR's. Attachment A of WBN QCP 1.14 has also been revised to require specific calibration data.

Corrective Steps Taken to Avoid Further Noncompliance

WBN QCI 1.2 has been revised to provide clearer guidance on what constitutes a nonconforming condition. In the future, an NCR will be prepared to identify proof load testing that has not been documented to the latest revision of WBN QCP 1.14.

Date When Full Compliance Was Achieved

TVA was in full compliance as of September 28, 1981.

Violation 50-390/81-09-02, 50-391/81-09-01

10CFR50, Appendix B, Criterion XVI, requires that measures be established to assure that conditions adverse to quality, such as defective material and nonconformances, are promptly corrected. The accepted QA program, FSAR Section 17.1A.17, states that procedures are provided for correction of adverse conditions.

Contrary to the above, as of April 16, 1981, measures were not established to assure that conditions adverse to quality were promptly corrected in that Nonconforming Condition Report 2611R, which identified defective 3/8' self drilling bolt anchors, was invalidated by Construction management. Subsequent correspondence between Construction and Engineering Design failed to clearly define corrective action and prompt corrective action was not taken.

This is a Severity Level V Violation.

Admission or Denial of the Alleged Violation

TVA admits the violation occurred as stated.

Reason For Violation

Construction Management voided the NCR because the new qualification test requirements for self drilling bolt anchors were not included in the WBN site quality control procedures and were therefore exempt from the nonconformance procedure. It was not understood that these new requirements were to be implemented retroactive to Watts Bar, but that the tests were performed only to provide data input for TVA's response to OIE Bulletin 79-02.

Corrective Steps Taken and Results Achieved

TVA has filed a report (WBRD-50-390/81-59, WBRD-50-391/81-55) to the NRC pursuant to the requirements of 10CFR50.55(e) regarding NCR 3289R which documents the use of potentially defective anchor bolts. TVA is in the process of evaluating test reports and developing corrective action for this condition. The results of this investigation will be supplied to the NRC in future reports on NCR 3289R.

Corrective Steps Taken to Avoid Further Noncompliance

WBN QCI 1.2 was revised on August 26, 1980, to require a statement which justifies the invalidation of any NCR. QCI 1.2 was again revised on May 25, 1981 to include a requirement to write an NCR for nonconforming activities and services, as well as equipment, materials, structures, and components. Training classes were held on July 29 and August 7, 1981, for key personnel in the proper application of this instruction.

Date When Full Compliance Will Be Achieved

TVA is now in full compliance regarding the documentation of nonconforming conditions. All future reporting on the specific condition documented on NCR 3289R will be made per 10CFR50.55(e).