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

January 19, 1983

U.S. Nuclear Regulatory Commission
Region II
Attn: Mr. James P. O'Reilly, Regional Administrator
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - NRC-OIE REGION II INSPECTION REPORT 50-390/82-27, 50-391/82-24 - REVISED RESPONSE TO DEVIATIONS

The subject inspection report cited TVA with two deviations. Our interim response to the deviations was submitted on October 14, 1982, and our final response was provided on December 1, 1982. Included in our response was a discussion of our management controls over commitments to the NRC. This response also addressed concerns expressed by Inspectors T. Gibbons, A. Ruff, and T. Conlin during an October 19, 1982 telephone call. The enclosed report provides the following revised information.

1. Item 6, page 3 of our December 1, 1982 response is revised to reflect TVA actions with respect to signal trace inspection of safety-related cable.

2. Item 9, page 4 of our December 1, 1982 response is revised to reflect the proper actions to prevent recurrence for items c, d, and e of infraction 390/80-23-01.

In our response submitted June 25, 1979 to infraction 390/79-20-01, 391/79-16-01, it was stated that nonsafety-related cables (nondivisional) would be inspected by signal tracing on a surveillance basis. Since this is not within the scope of TVA's Quality Assurance Program, this requirement is being deleted.

If you have any questions, please get in touch with R. H. Shell at FTS 858-2688.

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

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills, Manager
Nuclear Licensing

IE01

Enclosure
cc: See page 2

cc: Mr. Richard C. DeYoung, Director (Enclosure)
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verification by signal tracing because visual verification cannot always be accomplished after the pull is completed. In the interim, cable inspection manpower available increased while cable pull volume decreased, allowing visual inspection of all pulls. Therefore, revision 14 to WBNP-QCP-3.05, effective July 19, 1982, was issued, requiring that an inspector witness the pull and visually verify correct routing. This was viewed as strengthening the previous procedure to ensure that cable is pulled and routed per design requirements.

390/82-27-06, 391/82-24-06 - Tamperproof paint was applied to access covers at the conclusion of Test 6-99 to provide a visible indication that the covers had not been removed since completion of inspection. This method proved to be ineffective because of the number of cables in junction boxes, which may not be required to be terminated at the same time. Test 6-99 (and consequently the requirement for tamperproof paint on access covers) was deleted in the July 19, 1982, revision to WBNP-QCP-3.6 because of provisions in new procedures that required the use of tamperproof paint on cable terminations (WBNP-QCP-1.42-4) and controlled the rework of previously finalized features (WBNP-QCI-1.07). The objective of this change was to strengthen the electrical inspection program by more specifically affixing responsibilities and controlling rework.

In response to deviations 390/82-27-05, 391/82-24-05, 390/82-27-06, and 391/82-24-06, a historical review was conducted of all 10CFR50.55(e) and enforcement commitments to determine if there had been any inadvertent changes or deletions of NRC commitments by subsequent procedure revisions.

The following items were identified by the site Procedures and Training Unit (PTU) as changes to NRC commitments due to subsequent procedure changes. The information provided with each will constitute amended responses to the final report for the 10CFR50.55(e) items and items of noncompliance discussed.

1. Audit WB-G-80-05, 10CFR50.55(e) (390/80-12-08, 391/80-09-08): Referenced procedure WBNP-QCP-4.26 has been superseded by WBNP-QCT-4.26. Commitment has not changed.

2. NCR 2424R (390/80-27-04, 391/80-21-04): WBNP-QCP-4.23 is referenced as requiring inspection documentation of pipe hanger locations. This documentation is still required, but is now covered in WBNP-QCP-4.23-3.

3. NCR 3575 (390/81-17-09, 391/81-17-09): Referenced WBNP-QCP-3.6 has been superseded by WBNP-QCP-3.06-2. Commitment has not changed.

4. Audit M81-11, deficiency 1 (390/81-95, 391/81-89): Referenced procedure WBNP-QCP 1.12 has been superseded by WBNP-QCI-1.12. Commitment has not changed.

5. NCR 3433R (390/82-13-01): Test 6.05 was deleted from WBNP-QCP-3.6. However, subject breakers were preset before shipment, and site testing is not required by NEMA Standard Publication AB1-1975. WBNP-QCP-3.06-1 issued May 17, 1982, specifies the inspection method for verifying that the correct trip device settings for selective tripping have been applied to the Westinghouse type DS circuit breakers.

Reference to WBNP-QCP-3.6 "tests 6 through 66" was a typographical error which should have been "test 6-66 . This is still performed as test 66 in WBNP-QCP-3.06-1.

It should be noted that most of the above changes occurred when procedures were reformatted and assigned new prefixes (e.g. QCP or QCT) or numerical designations, with no change in committed tests or inspections.

6. Infraction 390/79-20-01, 391/79-16-01: Revision 9 to WBNP-QCP-3.5 provided instructions for documenting the node points of actual cable pull routes if they were different from those specified on the pull slip and for assuring that those node point changes were acceptable. WBNP-QCP-3.05 now requires that a field change request (FCR) be written if the routing is different from the pull slip. This change is a more formalized method of accomplishing what was covered previously in WBNP-QCP-3.5 revision 9.

   In response to deviation 390/82-27-05, 391/82-24-05, the requirement for 100-percent signal trace inspection of safety-related cable was reinstated in WBNP-QCP-3.05 in revision 15 effective October 18, 1982.

   TVA will revise WBNP-QCI-3.05, "Cable Installation," to require that the routing of 10 percent of all safety-related cables be verified by electronic signal tracing. Every tenth pull slip for safety-related cables returned to the Electrical Engineering Unit after completion of visual inspection will be returned to the Electrical QC (inspection) Unit for signal trace verification of routing. The procedure for inspection of cable installation, WBNP-QCP-3.05, will be revised such that 10 percent of all safety-related cables installed after the effective date of the revision will be inspected by the electronic signal trace method to verify that they were routed as specified on their respective pull slips.

   WBNP-QCI-3.05 and WBNP-QCP-3.05 will be revised to require signal trace verification of 10 percent of safety-related cables by January 31, 1983.

7. Infraction 390/79-33-04, 391/79-28-04: Report section "Action Taken to Avoid Further Noncompliance" stated that a Field Instruction (WBFI) was being written to provide details on the use of dynamometers. This commitment was initially implemented by means of formal classroom training for craftsmen and later by procedural requirements governing the use of dynamometers. The requirements for use of dynamometers are contained in QCI and QCR-3.05. The requirements for the use of dynamometers are also specified in Construction Specification G-38.

8. Violation 390/81-15-02, 391/81-15-02: Report committed revision to WBNP-QCI-1.36, "Housekeeping" to include random inspection of temporary construction loads on installed safety-related piping and documentation in the monthly housekeeping inspection. Craft functions have since been separated from QCPs and placed in QCIs and General Construction Specifications. WBNP-QCI-1.07 now requires a work release to rig from or on permanent plant features. This supersedes the load inspections previously referenced in WBNP-QCI-1.36.

9. Infraction 390/80-23-01, 391/80-1[illegible]: Action to prevent recurrence section of report stated in subsections c, d, and e:

   c. A housekeeping procedure has been implemented onsite which requires an engineering supervisor to make a monthly surveillance of all plant areas.

   d. Plant area teams of management personnel have been assigned. These teams are responsible for all work within a given plant area and will make inspections on a frequent basis.

   e. A review of WBNP-QCP-4.10, Appendix E, is in progress to ensure that it implements the current EN DES requirements.

   Items c and d are now covered by the following:

   1. WBNP-QCI-1.36, "Storage and Housekeeping," has been issued to define requirements of storage and housekeeping and ensure that craft personnel would be informed of these requirements.

   2. WBNP-QCP-1.36, "Storage and Housekeeping," has been issued to require a monthly inspection by an inspector certified to QCP-1.36 of all areas for proper housekeeping and storage requirements.

   Item e is now covered by the following:

   The review noted in time (e) was completed and WBNP-QCP 4.10, Appendix E has been superseded by direct implementation of N3M-890 (cleanliness class for various piping systems) and General Construction Specification G-39 (criteria for each classification). Craft personnel are now trained directly to the cleanliness requirements of General Construction Specification G-39.

In February 1982, the Procedures and Training Unit was formed to restructure all procedures to accomplish the following:

1. Place all procedures in a standard format.

2. Ensure that all requirements are implemented in site procedures.

3. Remove QA activities from non-QA procedures and place them in QA procedures.

4. Separate inspection functions and place them in Quality Control Procedures (QCPs).

5. Standardize the construction test program in Quality Control Test Procedures (QCTs).

6. Combine fragmented instructions into centralized procedures.

This restructure has resulted in the addition and deletion of many aspects of our previous program. The cited procedure changes were reviewed by site management, including QA, and determined not to be a deviation from commitments due to the fact that the restructured procedures enhanced the requirements for correct cable routing and terminations, and ensured that the conditions which caused the previous deficiencies could not recur.

Corrective Actions Which Will be Taken to Avoid Further Deviations

Closer coordination between the site PTU and the site Nuclear Licensing Unit (NLU) as described below will be maintained to prevent future deletion of NRC Enforcement and 10CFR 50.55(e) commitments from site procedures. The future coordination, combined with the procedure review will constitute our management control system to avoid this problem in the future.

Date When Corrective Actions Will be Completed

390/82-27-05, 391/82-24-05 - The signal tracing requirement for safety-related cables has been reinstated.

Results of the procedure review for NRC Enforcement and 10CFR 50.55(e) commitment alteration or deletion has been finalized.

Management Control Systems

As requested by the referenced letter, the following steps have been implemented to improve the effectiveness of management control over procedure revisions that may impact commitments made to the NRC.

1. The PTU will place a copy of the final response to the NRC that involved a procedure change in the working folder of the affected procedure so that persons working on any future revisions will be aware that an NRC commitment may be involved.

2. The NLU will review any procedure changes that may affect NRC commitments. If it is decided that a revised response to the NRC is needed, it will be initiated by NLU.

ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
REVISED RESPONSE TO DEVIATIONS

Deviation 390/82-27-05, 391/82-24-05,

In response to a Region II letter dated May 30, 1979, the licensee committed in its letter dated June 25, 1979, to corrective actions such that safety-related cables would be 100 percent inspected by signal tracing and relevant procedures would be revised to implement the requirement.

Contrary to the above, the licensee issued revision 14 to WBNP-QCP-3.05 on July 19, 1982, abrogating the requirement for 100 percent inspection by signal tracing of safety-related cables.

Deviation 390/82-27-06, 391/82-24-06

In the licensee's letter to the Director, NRC Region II, dated January 26, 1982, the licensee reported in accordance with 10CFR 50.55(e), that the licensee would take corrective actions such that tamperproof paint would be applied to junction boxes, condulets, and other equipment access covers.

Contrary to the above, on July 19, 1982, the licensee made a general revision of procedures to exclude the requirement for application of tamperproof paint to junction boxes, condulets, and other equipment access covers.

TVA Response

Because of the similarity between these items, the requested information is supplied in a combined format, with that which is unique to either deviation so noted.

Corrective Actions Which Have Been or Will be Taken

390/82-27-05, 391/82-24-05 - The requirement for routing verification by 100 percent signal trace inspection of safety-related cable was reinstated in WBNP-QCP-3.05. It should be noted that the commitment conveyed in the June 25, 1979, response to signal trace 100 percent of safety-related cable was partly due to a shortage of cable installation inspectors and the volume of cable being pulled (also referenced in the June 25, 1979, response). This made it difficult to document routing by visual inspection, which is a more stringent verification method than signal tracing. The cable inspection QCP in force at the time allowed visual inspection to verify cable routing after the pull if manpower was not available to witness the cable pull while in progress. After infraction 390/79-20-01, 391/79-16-01 was written against cable routing, TVA issued revision 9 to procedure WBNP-QCP-3.5 to require 100 percent