Tennessee Valley Authority, Post Office Box 2000, Spring City, Tennessee 37381

William J. Museler
Site Vice President
Watts Bar Nuclear Plant

NOV 01 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) UNITS 1 AND 2 - GENERIC LETTER 83-28 - SALEM ATWS EVENTS, REVISED RESPONSE TO ITEMS 3.1.1 AND 3.2.1 AND SUPPLEMENT TO ITEM 1.1 (TAC NOS M77285, M77286, M64345, M64346)

The purpose of this letter is to provide an update of responsibilities for the post-trip review and to modify a statement concerning the Quality Assurance (QA) organization review of post-maintenance testing documents. The enclosure provides an updated response to TVA's letter dated November 7, 1983, for the applicable portions of Items 1.1, 3.1.1, and 3.2.1 to the subject generic letter.

If you have any questions, please telephone John Vorees at (615) 365-8819.

Very truly yours,

W. J. Museler

William J. Museler

Enclosure
cc: See page 2

A016 1/1

090016

9311090322 931101
PDR ADOCK 05000390
A PDR

cc (Enclosure):

NRC Resident Inspector
Watts Bar Nuclear Plant
Rt. 2, Box 700
Spring City, Tennessee 37381

Mr. P. S. Tam, Senior Project Manager
U.S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Rockville, Maryland 20852

U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

ENCLOSURE

WATTS BAR NUCLEAR PLANT (WBN) UNITS 1 AND 2
GENERIC LETTER (GL) 83-28
REVISED RESPONSE

The following revises a statement in Items 3.1.1 and 3.2.1 of TVA's November 7, 1983 letter concerning the Quality Assurance (QA) organization review of post-maintenance testing documents. In addition, TVA is updating Item 1.1 to show the current responsibility of post-trip reviews and the enhancements made to that program.

3.0 POST-MAINTENANCE TESTING

3.1.1 Post-Maintenance Testing (reactor trip system components)
3.2.1 Post-Maintenance Testing (all other safety-related components)

Licensees and applicants shall submit the results of their review of test and maintenance procedures and Technical Specifications to assure that post-maintenance operability testing of safety-related components and safety-related components in the reactor trip system are required to be conducted and that the testing demonstrates that the equipment is capable of performing its safety functions before being returned to service.

Revised Response

In TVA's November 7, 1983 response, TVA indicated that before any maintenance or testing can be performed, QA organization was to review the MR form to assure that the format and content are in compliance with QA requirements. After the PMT was completed, the MR was to be signed by the section completing the test and the SI covering the test was to be listed. Plant Operations was also to sign the MR acknowledging that testing was completed. Once the MR was completed, QA was again to review it to assure that the format and content were in compliance with QA requirements. The completed SI was also reviewed for accuracy and completeness.

WBN procedures that govern work activities (i.e., maintenance requests (MR), work orders, workplans), establish the methodology and responsibilities for returning equipment/components to an operational condition. If the work document is initiated because of a Technical Specifications surveillance instruction (SI) deficiency (i.e. failure to meet SI requirements), the pre- or post-maintenance requirements is the successful completion of the applicable portions of the instruction that the work document was initiated against.

For maintenance activities, WBN has developed a Post-Maintenance Test (PMT) instruction that provides the methods, requirements, and responsibilities for an effective PMT program. This program ensures that the ability of a particular component or system can perform its intended function, that the original deficiency is corrected, and that no new problems are created. The on-shift Senior Reactor Operator is responsible for ensuring that the PMT is completed before declaring the components operable.

ENCLOSURE

WATTS BAR NUCLEAR PLANT (WBN) UNITS 1 AND 2
GENERIC LETTER (GL) 83-28
REVISED RESPONSE

The requirement for QA review of work orders was initially contained in Administrative Instruction (AI) 9.2.8. This procedure was later replaced by Site Standard Practice (SSP) 6.02, and the requirement was carried forward. In January 1993, the rate of QA review was changed to a continuous sampling review of work documents. The number to be reviewed and selection was based on Military Standard 1235A. QA issued instructions to control the sampling review of work documents both prior to work (front end) and at closure (back end). TVA has, subsequently, revised the QA instructions to delete the requirement for QA review of work documents prior to work. QA continues to sample completed work documents. This revision is acceptable based on the following:

- No significant deficiencies have been identified in front end review of work documents.
- The attribute acceptance rate based on QA review has remained at a high level for the past 12 months.
- Sampling review of work document closures also detects problems attributable to work document initiation.
- Resources can be better directed toward other aspects of work control.
- QA audits/assessments evaluate work documents in process.

WBN's program requires post-maintenance testing and the procedures for this testing require that operability be demonstrated before safety-related components or systems including the reactor trip system, can be returned to service.

SUPPLEMENTAL INFORMATION

1.1 POST-TRIP REVIEW

In TVA's response dated November 7, 1983, TVA stated that since WBN was still under construction, the procedures and programs for post-trip reviews are either under development or will be developed in the future. TVA submitted the procedure for the reactor/turbine trip report to NRC in a letter dated July 26, 1985. That procedure, currently Plant Administrative Instruction (PAI) 2.04, has been revised. Those revisions, primarily in the area of responsibility, are enhancements to the previous program.

The criteria for determining that the reactor is ready to restart has not changed. However, responsibility for this determination has been revised. In the previous program, the Unit Operator (UO), the Assistant Shift Engineer (ASE), and the Shift Technical Advisor (STA) were the primary personnel involved in post-trip review. TVA no longer uses the terms UO and ASE. The trip report is now initiated and the data is collected by the Shift Operating Supervisor (SOS) and/or STA, following any unscheduled reactor or turbine trip. The SOS and STA

are now involved in the preliminary post-trip review and data retrieval. This area has been enhanced to assemble an investigation team to evaluate the retrieved post-trip data (charts, sequence of events printouts, personnel statements, etc.) and make recommendations for corrective actions and ultimately, restart. The team is composed of individuals with expertise in the areas that contributed to and/or complicated the event response, or can provide support for data evaluation, design issues, etc.

Previously, the Shift Engineer (SE) had the authority to authorize unit restart. The current program allows restart only with the authorization from the SOS, the Operations Superintendent, the Operations Manager, and the Plant Manager.

The Plant Operations Review Committee (PORC) still performs a post-event assessment. The assessment may be performed subsequent to restart unless:

1) Root cause of the trip can not be determined, or
2) Plant response was not as expected and can not be explained.

However, if either of these conditions is met, PORC review is <u>required</u> before restart. This serves as the independent assessment.

In addition to the sources that are available for use in a post-trip analysis as described in the previous letter, plant personnel also have the advantage of the WBN emergency response facility data system (ERFDS). This system is capable of trending a large number of parameters at very short time intervals.

As a minor correction to Item 1.2.2.3 of the November 7, 1983 letter, the group scanning duration should be reversed. Group 1 points are monitored for 2 minutes before trip and 3 minutes after a reactor trip and Group 2 points are monitored for 10 seconds both before and after a reactor trip.

TVA considers that the above revisions are within the guidelines of Generic Letter 83-28 and would not significantly modify the NRC's safety evaluation provided August 13, 1990 for Item 1.1 of this generic letter.