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APR 16 1993

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U.S. Nuclear Regulatory Commission
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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, 391/93-12 -
REPLY TO NOTICE OF DEVIATION

This letter responds to Inspection Report 390, 391/93-12 dated March 17, 1993, which identified a deviation from WBN Final Safety Analysis Report (FSAR) commitments related to preoperational testing of safety-related equipment. TVA's response to this deviation is enclosed.

This issue and others related to the WBN Preoperational Test Program were discussed between TVA and NRC staff in a meeting at Region II headquarters on March 19, 1993. During the meeting, TVA explained processes which were recently developed or enhanced to ensure that appropriate safety-related testing is accomplished. Further, TVA's letter of April 2, 1993, provided NRC with a final "proposed" version of FSAR Chapter 14, "Initial Test Program," which, pending staff review, will be formalized in an amendment to the FSAR. TVA believes these initiatives will improve the effectiveness of the Startup and Test Program by providing a clear definition of program scope and associated regulatory requirements and FSAR commitments and will benefit NRC regional personnel during upcoming inspections. Accordingly, as we have begun implementing the proposed FSAR Chapter 14 revisions, TVA requests NRC review these changes at the staff's earliest convenience. TVA personnel will be made available to support this effort.

If you have any questions, please telephone Paul L. Pace at (615) 365-1824.

Very truly yours,

William J. Museler

Enclosure
cc: See page 2

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U.S. Nuclear Regulatory Commission
Page 2

APR 16 1993

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ENCLOSURE

WATTS BAR NUCLEAR PLANT UNIT 1
REPLY TO NRC'S MARCH 17, 1993 LETTER TO TVA
NOTICE OF DEVIATION 390/93-12-01

Description of Deviation

Licensee FSAR Section 14.2.1 third paragraph documents the commitment that preoperational tests will be performed on components, systems and structures that perform safety-related functions and selected non-safety related functions.

TVA letter dated January 13, 1993 is the response to NRC request for additional information (RAI) concerning FSAR Chapter 14.0 Initial Test Program. This letter further documents TVA commitments concerning the performance of preoperational tests as follows:

Page 11, TVA's response to NRC question 7.b states that:

Compliance with RGl.68, Revision 2 (with exceptions) does not reduce Watts Bar commitment to perform preoperational tests of all safety related components, systems, and structures and appropriate tests of nonsafety-related systems.

Page 20, TVA's response to NRC question 7.d specifies:

1. "Replace the third paragraph of section 14.2.1 in its entirety with the following new paragraph." The new paragraph states in part that:

During the preoperational testing phase, two types of tests will be performed to satisfy FSAR test requirements; (1) component tests and (2) preoperational tests. Component tests will be performed on safety related and nonsafety related components to verify proper installation and cleanliness and to demonstrate performance of individual components to be in accordance with design requirements. Preoperational tests will be performed on safety related and selected nonsafety related structures, systems, and components as required to demonstrate performance of completed systems and structures to be in accordance with design requirements.

Contrary to the above, on January 14, 1993, a Startup and Test Group memorandum to the Startup Manager and a Joint Test Group meeting No. 1-93-12 reviewed and approved (February 15, 1993) the deletion of scheduled preoperational tests for safety related systems: 213 Reactor MOV Power; 214 Control and Auxiliary Vent Board Power; 215 Diesel Auxiliary Power and 232 Reactor Vent Power. The licensee concluded in these documents that component tests using generic test procedures was sufficient to check the functions of each of the above 1E Motor Control Centers, their indications, annunciators, and design features. Generic test procedures are construction tests and are prerequisites to a preoperational test.

REASON FOR THE DEVIATION

The deviation occurred due to a non-conservative decision on the part of the Startup and Test Department (SUT) and supporting organizations to eliminate redundant preoperational test requirements for the following safety-related systems:

- 213 - Reactor Motor Operated Valve Power System
- 214 - Control and Auxiliary Vent Power System
- 215 - Diesel Auxiliary Power System
- 232 - Reactor Vent Power System

SUT Managers, Joint Test Group (JTG) members, and Site Licensing personnel had evaluated the testing requirements associated with these four systems and interpreted that the requirements of Regulatory Guide (RG) 1.68 Revision 2, "Initial Test Programs for Water-Cooled Nuclear Power Plants," and FSAR Table 14.2-1 (preoperational test summaries) pertaining to these motor control centers (MCCs) did not warrant preoperational testing specific to these systems. This conclusion was based, in part, on the observation that the significant portions of the MCCs did require preoperational testing in other systems (e.g., loads supplied by the breakers), and that a preop test specific to these four systems would only reverify the same component attributes previously tested by component tests. Further, although TVA provides system designators (213, 214, etc.) for MCCs, these systems are not uniquely defined within FSAR Chapter 14 test abstracts. The MCCs are components within the AC Power Distribution System for which several preoperational tests had been developed. These considerations failed to recognize that in deleting the subject preoperational tests, we would conflict with our commitment to perform preoperational tests on all safety-related systems.

CORRECTIVE STEPS TAKEN TO AVOID FURTHER DEVIATION

As discussed with NRC, TVA has committed to prepare and implement preoperational tests for Systems 213, 214, 215, and 232. Requirements to implement preoperational tests for these systems have been entered in the test requirements matrix (discussed below) and preoperational test numbers for these tests have been assigned.

The Startup and Test Department developed a matrix of systems, tests, and related FSAR test summaries to clarify which systems are tested in the preoperational phase test program along with the corresponding FSAR test summary. The matrix was developed based on a careful review of RG-1.68, Revision 2, to ensure that safety-related systems would be tested using preoperational tests. Through development of this matrix, TVA determined that the deviation was limited to tests for the subject systems (213, 214, 215, and 232). To ensure that any future changes to the scope of preoperational tests are appropriately controlled and that RG-1.68 Revision 2 and FSAR Table 14.2-1 requirements are implemented, the Startup and Test Department has placed this matrix under administrative control. This matrix and TVA's final "proposed" FSAR Chapter 14 rewrites

(including preoperational test abstracts) were provided to NRC by TVA letter dated April 2, 1993. In addition to "finalizing" the scope of preoperational tests, this proposed FSAR revision served to clarify the role of the component testing process within the preoperational test phase of the initial test program.

DATE WHEN CORRECTIVE ACTIONS WILL BE COMPLETE

The corrective actions described above are complete. As noted in TVA's April 2, 1993 letter, TVA will formally amend FSAR Chapter 14 pending the staff's review.