



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

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Site Vice President  
Watts Bar Nuclear Plant

**JUL 16 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) - HUMAN FACTORS EVALUATION OF UNIT 2 CONTROL ROOM DEVICES FOR COMPONENTS WHICH WILL BE AVAILABLE TO SUPPORT UNIT 1 OPERATIONS

Reference: TVA letter to NRC dated October 2, 1987, "Watts Bar Nuclear Plant (WBN) - Detailed Control Room Design Review (DCRDR) - Summary Report."

The purpose of this letter is to summarize the activities which are being undertaken by TVA to ensure that applicable Unit 2 human engineering discrepancies (HEDs) are properly dispositioned prior to Unit 1 fuel load. Per the referenced letter, TVA submitted the WBN Detailed Control Room Design Review (DCRDR). The DCRDR was performed to identify and correct HEDs for Unit 1 and equipment which is designated common to both units. When Unit 1 commences operation, some Unit 2 equipment which is not designated common or required for Unit 1 operation will, however, be available to support Unit 1 operations. Full implementation of the Unit 2 HED corrective actions for this equipment is not practical due to the construction in progress in Unit 2. Since some Unit 2 equipment will be available and can be used at the discretion of Unit 1 operation's personnel, TVA has determined that interim corrective actions should be taken to improve the man-machine interface for the HEDs associated with this equipment.

TVA has performed a human factors evaluation of the Unit 2 Control Room devices (e.g., indicators, controllers, switches) for equipment which will be available to support operation of Unit 1. The human factors evaluation was performed by personnel trained and experienced in human factors evaluations and included support of licensed operators and system engineers. The review team evaluated applicable Unit 2 HEDs and developed interim actions to improve the man-machine interface for the Main Control Room and

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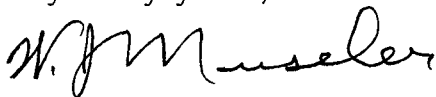
Auxiliary Control Room devices which will be used by Unit 1 control room personnel. The interim actions include:

- Lines of demarcation are being installed around the Unit 2 devices on the Main Control Room and Auxiliary Control Room panels. The lines will be the same color as the Unit 1 designated color and enable the Unit 1 operators to more readily locate the Unit 2 devices.
- Colored stripes are being installed at the top of each Unit 2 device on the Main Control Room and Auxiliary Control Room panels. The stripes will be the same color as the Unit 1 designated color.
- The labels for the Unit 2 devices are being replaced with enhanced labels. These labels include the standardized character sizes and device symbology used for Unit 1.
- Group labels are being installed with the lines of demarcation to identify that the Unit 2 devices supporting Unit 1 are under the control of Unit 1 operations.

TVA has prepared the "Watts Bar Nuclear Plant Human Factors Engineering Evaluation for Unit 2 I&C Control Room Devices that Support Unit 1," which details the results of the evaluation and describes the interim actions. The report is available onsite for NRC review. As construction progresses and systems are turned over in Unit 2, the full scope DCRDR corrective actions will be implemented to ensure the appropriate human engineering configuration as described in the referenced letter.

The enclosure to this letter contains the commitment made in this submittal. If you have any questions or require additional information, please contact P. L. Pace at (615) 365-1824.

Very truly yours,



William J. Museler

Enclosure

cc: (Enclosure):

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ENCLOSURE  
WATTS BAR NUCLEAR PLANT

LIST OF COMMITMENTS

The interim measures described in the "Watts Bar Nuclear Plant Human Factors Engineering Evaluation for Unit 2 I&C Control Room Devices that Support Unit 1," will be implemented by fuel load in Unit 1.