TENNESSEE VALLEY AUTHORITY
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AUG 03 1989

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) - RESPONSE TO NRC PREIMPLEMENTATION AUDIT OF THE DETAILED CONTROL ROOM DESIGN REVIEW (DCRDR)

Reference: Letter from NRC to TVA dated April 28, 1989, providing NRC staff's safety evaluation (SE) of the WBN DCRDR (TAC No. 63655)

TVA's response to the open issues identified in sections 2.2, 2.3, 2.5, 2.7, and 2.8 of the referenced SE are provided in the enclosure. The intent of the concerns in the SE was clarified with NRC's reviewer (Pat Castleman) on July 18, 1989. A supplemental DCRDR summary report will be provided before Unit 1 fuel load with the results of these additional actions.

The reference letter also expressed the staff's request that TVA demonstrate how previous concerns in the WBN Safety Evaluation Report (SER) Appendix D have been satisfied. A correlation of the SER concerns to the DCRDR human engineering discrepancies (HEDs) will be provided in a supplemental summary report before Unit 1 fuel load.

Activities described in our response to each section of the SE comprise the commitments made in this submittal. If there are any questions, please telephone T. W. Horning, WBN Site Licensing, at (615) 365-3381.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

M J Ray for

Manager, Nuclear Licensing
and Regulatory Affairs

Enclosure
cc: See page 2

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U.S. Nuclear Regulatory Commission

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ENCLOSURE

RESPONSE TO NRC SAFETY EVALUATION ON THE DETAILED CONTROL ROOM DESIGN REVIEW (DCRDR)

Section 2.2 - System Function and Task Analysis to Identify Control Room Operators Tasks and Information and Control Requirements During Emergency Operations

TVA will conduct additional System Functional Task Analysis for the following Westinghouse Owners Group Emergency Response Guidelines:

a) the six critical safety function trees

b) the symptoms sections of the emergency procedures

c) six Emergency Contingency Actions (ECAs)

ECA 1.1 Loss of Emergency Cooling Circulation
ECA 1.2 Loss of Coolant Accident Outside Containment
ECA 2.1 Uncontrolled Depressurization of All Steam Generators
ECA 3.1 Steam Generator Tube Rupture Loss of Coolant Accident with Subcooled Recovery
ECA 3.2 Tube Rupture Plus Loss of Coolant Accident with Saturated Recovery
ECA 3.3 Steam Generator Tube Rupture With Loss of Pressurizer Pressure Control

Section 2.3 - Comparison of Display and Control Requirements with a Control Room Inventory

TVA will conduct a supplemental comparison of display and control requirements to the control room inventory for the additional task analysis discussed in section 2.2.

Section 2.5 - Assessment of Human Engineering Discrepancies (HEDs) to Determine which are Significant and Should be Corrected

Any HEDs arising out of the additional task analysis and control room inventory activity described in sections 2.2 and 2.3 will be assessed for significance.

A HED closure procedure will be developed and will require that design improvements, performed as corrections for DCRDR HEDs, be assessed for creation of new HEDs. This is intended to address the audit team's concern relative to HED 082. An investigation will be performed and additional justification will be provided for HED 199 which concerns valves that may be opened when Phase A isolation has not been reset.

Section 2.7 - Verification that Selected Design Improvements Will Provide the Necessary Correction

As discussed in section 2.5, a closure procedure will be developed to provide a formal mechanism to verify that the design improvements provide the necessary correction of DCRDR HEDs and will not create new HEDs.

Section 2.8 - Verification that Selected Design Improvements Will Not Introduce New HEDs

As discussed in section 2.5, the closure procedure will be developed to provide a formal mechanism to verify that the design improvements provide the necessary corrections of DCRDR HEDs and will not create new HEDs.

The actions described in sections 2.2, 2.3, 2.5, 2.7 and 2.8 will be complete before fuel load. At that time, a supplemental DCRDR summary report will be provided with the results of these actions.