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JAN 28 1994

CDR-50-390
CDR-50-391

10 CFR 50.55(e)

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

In the Matter of the Application of)
Tennessee Valley Authority)

Docket Nos. 50-390
50-391

WATTS BAR NUCLEAR PLANT (WBN) UNITS 1 AND 2 - CONSTRUCTION DEFICIENCY REPORT (CDR) 50-390, 391/91-32 - VIOLATION OF SINGLE FAILURE CRITERIA FOR CONTROL BUILDING NORMAL PRESSURIZING SUBSYSTEM - SUPPLEMENTAL REPORT

The purpose of this letter is to provide a revision to a commitment made to NRC. The subject deficiency was initially reported to the NRC Operations Center on June 28, 1991, in accordance with 10 CFR 50.55(e) as Problem Evaluation Report (PER) WBP900366PER. Subsequently, the deficiency was upgraded to Significant Corrective Action Report (SCAR) WBSCA910234. An interim report was provided to NRC on July 29, 1991. A final report was provided to NRC on November 5, 1991.

Enclosure 1 contains a discussion of the commitment revision. Enclosure 2 contains the revised commitment.

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

Very truly yours,

W. J. Museler

William J. Museler

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Enclosures
cc: See page 2

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cc (Enclosures):
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ENCLOSURE 1

WATTS BAR NUCLEAR PLANT (WBN) UNITS 1 AND 2
VIOLATION OF SINGLE FAILURE CRITERIA FOR CONTROL BUILDING
NORMAL PRESSURIZING SUBSYSTEM
CDR 50-390, 391/91-32
SUPPLEMENTAL REPORT

The subject deficiency described a problem in the normal Control Building pressurization subsystem when operating during a control room isolation. A single failure in the control system for the inlet modulating dampers associated with the normal pressurizing fans could result in an excessive air supply to the lower floors of the Control Building, exceeding the pressure in the Main Control Room Habitability Zone (MCRHZ). This could allow unfiltered, potentially contaminated air to enter the Main Control Room (MCR) or Technical Support Center during accident conditions.

In the final report for the subject deficiency, WBN committed to incorporate differential pressure switches into the upgraded Control Building pressurizing system under Design Change Notice (DCN) M-10706. These differential pressure switches were to detect overpressurization in the lower floors of the Control Building and initiate action to prevent the pressure in the lower floors from exceeding the pressure in the MCR.

The design of the Control Building pressurizing system was since reevaluated as part of the Mechanical Calculation Program. WBN concluded that the CB normal pressurizing fans (A-A and B-B) and the modulating control dampers (1-FCO-31-1A and 1-FCO-31-2A) were not required to maintain the MCRHZ within specifications. DCN M-10706 was canceled and DCN M-22223-A was issued to implement the redesign of the MCRHZ pressurizing system. The new modification abandons the normal pressurizing fans, removes the controls for the dampers and secures these dampers in the open position, and adds differential pressure sensors to monitor the pressure between the MCR and the adjacent areas. The pressure sensors will provide an alarm in the MCR on low differential pressure.

This new design eliminates the single failure concern that was the subject of the original deficiency report. The new design change will be implemented prior to the performance of preoperational testing on System 31.

ENCLOSURE 2

LIST OF COMMITMENTS

WBN will implement Design Change Notice (DCN) M-22223-A prior to the performance of preoperational testing on System 31.