



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

MAR 24 2003

10 CFR 50.59(d)(2)

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

Gentlemen:

In the Matter of ) Docket No.50-390  
Tennessee Valley Authority )

WATTS BAR NUCLEAR PLANT (WBN) UNIT 1 - 10 CFR 50.59, CHANGES,  
TESTS AND EXPERIMENTS SUMMARY REPORT - SUPPLEMENT

Pursuant to 10 CFR 50.59 (d)(2), this letter provides a supplement to the 10 CFR 50.59(c) Summary Report which was submitted on September 20, 2002, for WBN Unit 1. A WBN Corrective Action Document identified that the enclosed evaluation was not included in the Summary Report for the period of March 29, 2001, to August 9, 2002.

If you have any questions about this change, please contact me at (423) 365-1824.

Sincerely,

P. L. Pace  
Manager, Site Licensing  
and Industry Affairs

Enclosures  
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cc (Enclosure):

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ENCLOSURE

WATTS BAR NUCLEAR PLANT UNIT 1  
10 CFR 50.59 SUMMARY REPORT

SA-SE Number: WBPLMN-01-039-0

Implementation Date: 08/16/2001

Document Type:  
Engineering  
Document Change

Affected Documents:  
EDC E-50880-A

Title:  
Auxiliary Feedwater System  
Inleakage to Steam  
Generator

Description and Safety Assessments:

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This evaluation revises the design basis of the Auxiliary Feedwater System (AFW) to allow for leakage into the steam generator. The design basis is revised to reflect the acceptable inleakage of 20 gallons per minute (gpm) for up to 90 minutes after the AFW flow to the faulted steam generator is terminated at 15 minutes into the event. Steam generator inleakage is conservative for all of the analyzed accidents except for the steam generator tube rupture (SGTR). One of the major concerns for a SGTR is the possibility of a steam generator overfill as this could result in excessive primary to secondary leakage and the direct release of excessive leakage of radionuclides into the environment. Calculations were performed and the results concluded that steam generator is not allowed to overfill to water solid conditions and consequently, the results of the current offsite dose analysis remains valid. Therefore, the revised design basis does not increase the frequency or likelihood of occurrence or the consequences evaluated in the Updated Final Safety Analysis Report. The reduced margin to overfill of the steam generator is within the analytical basis as previously evaluated and the steam generator is qualified for the level of additional water from the inleakage.