



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

MAR 29 1999

10 CFR 50.46(a)(3)(ii)

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

Gentlemen:

In the Matter of
Tennessee Valley Authority

) Docket Nos. 50-390
)

WATTS BAR NUCLEAR PLANT (WBN) UNIT 1 - EMERGENCY CORE COOLING
SYSTEM (ECCS) EVALUATION MODEL CHANGES - ANNUAL NOTIFICATION AND
REPORTING FOR 1998

The purpose of the letter is to provide the changes or errors discovered in the WBN ECCS evaluation models for peak cladding temperature (PCT) in accordance with 10 CFR 50.46 for the Calendar Year 1998. This report identifies a change that affects the PCT for the small break loss of coolant accident (LOCA). That change will be implemented during Cycle 3 which is scheduled to beginning in April 1999. No changes were identified in 1998 for the large break LOCA. The PCT margin allocations resulting from the changes are summarized in the enclosure for both the large break and small break analysis. The sum of the PCT margin allocations do not exceed the threshold defined in 10 CFR 50.46(a)(3)(i) for a significant change.

To date, one change to the large break LOCA analysis has been identified for 1999 based on updated plant specific accumulator room temperature data. This resulted in a +19°F increase in PCT. The summary sheets for this change will be included as part of the annual notification and reporting for 1999.

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U.S. Nuclear Regulatory Commission
Page 2

MAR 29 1999

If you should have any questions concerning this matter, please telephone P. L. Pace at (423) 365-3855.

Sincerely,



P. L. Pace
Manager, Licensing and
Industry Affairs

Enclosure

cc (Enclosure):

NRC Resident Inspector
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Atlanta, Georgia 30323

Westinghouse LOCA Peak Clad Temperature Summary For Small Break

Plant Name: Watts Bar Unit 1
Utility Name: Tennessee Valley Authority
Revision Date: 3/20/98

Analysis Information

EM: NOTRUMP Analysis Date: 11/96 Limiting Break Size: 4 inch
FQ: 2.5 FdH: 1.65
Fuel: Vantage + SGTP (%): 10
Notes: Mixed Core - Vantage + / Performance +

	Clad Temp (°F)	Ref.	Notes
LICENSING BASIS			
Analysis-Of-Record PCT	1126	1.2	
MARGIN ALLOCATIONS (Delta PCT)			
A. PRIOR PERMANENT ECCS MODEL ASSESSMENTS			
1. Total	0	3	
B. 10 CFR 50.59 SAFETY EVALUATIONS			
1. Mid-Enriched Annular Axial Blanket Pellets	10	(a)	
C. 1998 10 CFR 50.46 MODEL ASSESSMENTS (Permanent Assessment of PCT Margin)			
1. None	0		
D. TEMPORARY ECCS MODEL ISSUES*			
1. None	0		
E. OTHER			
1. Tavg Uncertainty of 6 °F	1		

LICENSING BASIS PCT + MARGIN ALLOCATIONS PCT = 1137

- It is recommended that these temporary PCT allocations which address current LOCA model issues not be considered with respect to 10 CFR 50.46 reporting requirements.

References:

1. WAT-D-10337, "Tennessee Valley Authority Watts Bar Nuclear Plant, Final Safety Evaluation to Support Technical Specification Changes", March 5, 1997.
2. WAT-D-10356, "Tennessee Valley Authority Watts Bar Nuclear Plant Units 1 & 2, Final Report and Safety Evaluation for the 10% SGTP Program", June 2, 1997.
3. WAT-D-10499, "Tennessee Valley Authority Watts Bar Nuclear Plant Units 1 and 2, 10 CFR 50.46 Annual Notification and Reporting for 1997," February 27, 1998.

Notes:

- (a) This penalty applies beginning with Cycle 3.

Westinghouse LOCA Peak Clad Temperature Summary For Large Break

Plant Name: Watts Bar Unit 1
Utility Name: Tennessee Valley Authority
Revision Date: 3/20/98

Analysis Information

EM: BASH Analysis Date: 04/97 Limiting Break Size: Cd=0.6
FQ: 2.5 FdH: 1.6
Fuel: Vantage - SGTP (%): 5
Notes: Mixed Core - Vantage + / Performance +

	Clad Temp (°F)	Ref. Notes
LICENSING BASIS		
Analysis-Of-Record PCT	2111	1.2
MARGIN ALLOCATIONS (Delta PCT)		
A. PRIOR PERMANENT ECCS MODEL ASSESSMENTS		
1. Total	0	3
B. 10 CFR 50.59 SAFETY EVALUATIONS		
1. None	0	
C. 1998 10 CFR 50.46 MODEL ASSESSMENTS (Permanent Assessment of PCT Margin)		
1. None	0	
D. TEMPORARY ECCS MODEL ISSUES*		
1. None	0	
E. OTHER		
1. None	0	

LICENSING BASIS PCT + MARGIN ALLOCATIONS PCT = 2111

- It is recommended that these temporary PCT allocations which address current LOCA model issues not be considered with respect to 10 CFR 50.46 reporting requirements.

References:

1. WAT-D-10337, "Tennessee Valley Authority Watts Bar Nuclear Plant, Final Safety Evaluation to Support Technical Specification Changes", March 5, 1997.
2. WAT-D-10356, "Tennessee Valley Authority Watts Bar Nuclear Plant Units 1 & 2, Final Report and Safety Evaluation for the 10% SGTP Program", June 2, 1997.
3. WAT-D-10499, "Tennessee Valley Authority Watts Bar Nuclear Plant Units 1 and 2, 10 CFR 50.46 Annual Notification and Reporting for 1997," February 27, 1998.

Notes:

None