



HITACHI

GE Hitachi Nuclear Energy

Jerald G. Head
Senior Vice President
Regulatory Affairs

P.O. Box 780
3901 Castle Hayne Road
MC A09
Wilmington, NC 28402
USA

T 910 819 5692
F 910 362 5692

MFN 14-084

December 19, 2014

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

SUBJECT: 10 CFR 50.46 Annual Report for the GE ABWR Standard Plant Design-2014

Pursuant to 10 CFR 50.46, "Acceptance Criteria for Emergency Core Cooling Systems for Light-water Reactors," GE Hitachi Nuclear Energy (GEH) is submitting this report to document any emergency core cooling system (ECCS) evaluation model changes or errors that affect the temperature calculation for the GE ABWR Standard Plant Design. This annual report is for the GE ABWR Standard Plant Design as submitted in letter MFN 017-97 (Reference 1) and certified by the final rule in 10 CFR Part 52 Appendix A.

The information included in this letter is generic and is expected to apply to all COL applications referencing the GE Nuclear Energy (GE) "ABWR Design Control Document, Revision 4, March 1997" (GE DCD). By copy of this letter, COL Applicants are hereby notified of any changes or errors in the GE ABWR Standard Design Peak Cladding Temperature (PCT) as required by 10 CFR 50.46(a)(3)(iii).

Please contact me if you have any questions regarding this information.

Sincerely,

Jerald G. Head
Senior Vice President, Regulatory Affairs

No commitments are made in this letter or its enclosure.

Reference

1. MFN 017-97, Joseph F. Quirk to US NRC, Submittal of GE's ABWR DCD, Revision 4, dated March 28, 1997.

Enclosure

1. LOCA Margin Summary Sheet – Annual Report (Reporting Year 2014)

cc: A. Muniz, USNRC (with enclosure)
M. McBurnett, NINA/STP 3&4 (with enclosure)
H. Madronero, GEH/Wilmington (with enclosure)
W. Schumitsch, GEH/Wilmington (with enclosure)
T. Stoddard, GEH/Wilmington (with enclosure)
P. Yandow, GEH/Wilmington (with enclosure)
DBR-0004038

ENCLOSURE 1

MFN 14-084

LOCA Margin Summary Sheet – Annual Report

Plant Name:	Advanced Boiling Water Reactor (ABWR)			
Utility Name:	General Electric – Hitachi (as holder for Final Design Certification for Plant)			
Reporting Year: <u>2014</u>				
Evaluation Model: SAFER/GESTR (SAFER04A)				
		<u>LBPCT¹</u>	<u>Net PCT Effect</u>	<u>Absolute PCT Effect</u>
	Analysis of Record Licensing Basis PCT, with prior updates	1149 °F		
A.	Prior 10 CFR 50.46 Changes or Error Corrections – Previous Years	Δ PCT =	+ 210 °F	+ 210 °F
B.	Prior 10 CFR 50.46 Changes or Error Corrections – This year (itemized below)	Δ PCT =	- 10 °F	+ 10 °F
	2014-01: SAFER04A E4 Revision -Code Changes of Neutral Impact	0 °F		
	2014-02: SAFER04A E4 Revision -Mass Non-Conservatism	0 °F		
	2014-03: SAFER04E E4 Revision -Minimum Core DP Model	-10 °F		
	2014-04: SAFER04A E4 Revision -Lower Plenum CCFL Restriction	0 °F		
C.	Absolute Sum of 10 CFR 50.46 Changes	Δ PCT =		+ 220 °F
	Projected Licensing Basis PCT based on these changes	1349 °F		

1. Licensing Basis (LB) Peak Cladding Temperature (PCT)
2. The sum of the PCT from the most recent analysis using an acceptable evaluation model and the estimate of PCT impact for changes and errors identified since this analysis is less than 2200 °F.

References:

1. NEI-07-05, "10 CFR 50.46 Reporting Guidelines" November 2007.
2. ABWR, Standard Safety Analysis Report, 23A6100, Rev. 8, June 1993.
3. DRF A00-03024-01
4. DRF0000-0108-0967