



HITACHI

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MFN 12-012

Docket 52-001

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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

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 is the first annual report 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 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 enclosures.

DO50
A002
N20

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

cc: A. Muniz, USNRC (with enclosure)
M. McBurnett, NINA/STP 3&4 (with enclosure)
H. Madronero, GEH/Wilmington (with enclosure)
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ENCLOSURE 1

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LOCA Margin Summary Sheet – Annual Report

Plant Name: GE ABWR Standard Plant Design

Utility Name: N/A

Reporting Year: 2011

Evaluation Model: SAFER/GESTR (SAFER04A)

		<u>Net PCT Effect</u>	<u>Absolute PCT Effect</u>
Analysis-of-Record Licensing Basis PCT		<u>1149 °F</u>	
A.	Prior 10 CFR 50.46 Changes or Error Corrections – Previous Years (itemized below)	$\Delta PCT = + 165 ^\circ F$	$+ 165 ^\circ F$
	- SAFER03 to SAFER04 to SAFER04V	0	
	1996-01 Incorrect active fuel rods number	+30	
	1999-02 CCFL in upper tie plate, pre-GE11	+25	
	2001-02 Time step change for convergence	+25	
	2001-04 Steam condensed by ECCS injection	+10	
	2002-02 SAFER vessel water level – dryer dp	+10	
	2002-03 GESTR input file interpolation	0	
	2002-04 SAFER04V to SAFER04A	0	
	2003-01 SAFER Level/Volume Table	+10	
	2003-03 Steam Separator Pressure Drop	+5	
	2006-01 Top Peaked Power Shape	+50	
B.	Prior 10 CFR 50.46 Changes or Error Corrections – This year (itemized below)	$\Delta PCT = + 0 ^\circ F$	$+ 0 ^\circ F$
	NONE		
C.	Absolute Sum of 10 CFR 50.46 Changes	$\Delta PCT =$	$+ 165 ^\circ F$
Projected Licensing Basis PCT based on these changes		<u>1314 °F</u>	

The sum of the PCT from the most recent analysis using an acceptable evaluation model and the estimates of PCT impact for changes and errors identified since this analysis is less than 2200 °F.