



10 CFR 52.3
10 CFR 50.46 (a)(3)(ii)

November 18, 2019
NRC3-19-0003

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

Reference: 1) Fermi 3
NRC Docket No. 52-033
NRC License No. NPF-95
2) Letter from Michelle P. Catts (GE Hitachi Nuclear Energy) to USNRC,
"ESBWR Design Certification Annual 10 CFR 50.46 Report for 2019," dated
October 9, 2019

Subject: DTE Electric Company 10 CFR 50.46 Annual Report of Fermi 3 Emergency Core
Cooling System (ECCS) Model Changes

By reference 2, GE Hitachi reported 2 errors in the ECCS model for the Certified ESBWR design; however, the correction of these errors had no impact on the calculated Peak Clad Temperature (PCT). The ECCS evaluation model changes are applicable to the Fermi 3 COL. Therefore, in accordance with 10 CFR 50.46 (a)(3)(ii), DTE is reporting these changes on the Fermi 3 docket.

Enclosure 1 contains the 2019 10 CFR 50.46 report GE Hitachi submitted in reference 2.

If you have any questions, or need additional information, please contact me at (313) 235-0443.

Sincerely,

A handwritten signature in black ink that reads "m. l. k. Brandon".

Michael K. Brandon, Manager
Nuclear Development – Licensing
DTE Electric Company

ADD 2
DD95
NRR

Cc: George Wunder, NRC Fermi 3 Project Manager
Fermi 2 Resident Inspector
Ho Nieh, Director, NRC Office of Nuclear Reactor Regulation
NRC Region III Regional Administrator
NRC Region II Regional Administrator
Supervisor, Electric Operators, Michigan Public Service Commission
Michigan Department of Environmental Quality
OWMRP, Radiological Protection Section
Craig D. Sly, Dominion Energy, Inc.
Lisa Schichlein, General Electric
Art Zaremba, Duke Energy
Steve Franzone, Florida Power and Light

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**Enclosure 1 to
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ESBWR Design Certification Annual 10 CFR 50.46 Report for 2019
(4 pages)**



HITACHI

GE Hitachi Nuclear Energy

Michelle P. Catts
Senior Vice President
Regulatory Affairs

3901 Castle Hayne Road
P.O. Box 780 M/C A-18
Wilmington, NC 28402
USA

T 910 200-9836
Michelle.Catts@ge.com

M190171

Docket 52-010
10 CFR 50.46
10 CFR 50.46(a)(3)(iii)
10 CFR Part 52, Appendix E

October 9, 2019

US Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555-0001

Subject: ESBWR Design Certification Annual 10 CFR 50.46 Report for 2019

Reference:

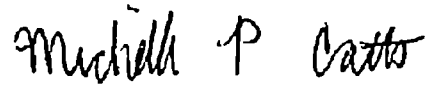
1. Letter, M. P. Catts (GEH) to Document Control Desk (NRC), M190165, ESBWR Design Certification Annual 10 CFR 50.46 Report for 2019, October 8, 2019.

GE Hitachi Nuclear Energy (GEH), as the applicant for the ESBWR Design Certification (10 CFR Part 52, Appendix E), submits this annual report under 10 CFR 50.46, "Acceptance Criteria for Emergency Core Cooling Systems for Light-Water Reactors." Specifically, Enclosure 1 is the 2019 annual report for the ESBWR Design Certification for emergency core cooling system (ECCS) evaluation model changes or errors that affect the peak cladding temperature (PCT) calculation. This is an update to the previous report (Reference 1), due to the omission of two error notifications that were submitted during the last reporting period. The notifications were zero-degree effects on the PCT calculation, so, although these evaluation model errors are corrected, there will be no change to any reported analysis results.

By this letter, GEH also notifies the licensees, DTE Electric Company for Enrico Fermi Nuclear Plant Unit 3, and Dominion Virginia Power for North Anna Unit 3, in accordance with 10 CFR 50.46(a)(3)(iii), because the licenses for these units reference the ESBWR Design Certification.

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

Sincerely,

A handwritten signature in black ink that reads "Michelle P Catts". The signature is written in a cursive, flowing style.

Michelle P. Catts
Senior Vice President, Regulatory Affairs
Commitments: No additional commitments are made.

Enclosure:

1. ESBWR Design Certification 10 CFR 50.46 Annual Report – 2019

cc: J. Colaccino, NRC
M. Brandon, DTE
R. Westmoreland, DTE
D. Aitken, Dominion
C. Sly, Dominion
DBR-0033424 R4

Enclosure 1

M190171

ESBWR Design Certification 10 CFR 50.46 Annual Report – 2019

ESBWR Design Certification

2019 Annual Report Under 10 CFR 50.46(a)(3)(Ili)

Emergency Core Cooling System Model

Plant Name:		ESBWR Design Certification (Docket 52-010; 10 CFR Part 52, Appendix E)		
Utility Name:		GE Hitachi (as applicant for the ESBWR Design Certification)		
Reporting Year: <u>2019*</u>				
	Evaluation Model: TRACG			
		<u>LBPCT</u>	<u>Net PCT Effect</u>	<u>Absolute PCT Effect</u>
	Analysis of Record Licensing Basis PCT (LBPCT), with prior updates	600°F		
A.	Prior 10 CFR 50.46 Changes or Error Corrections – Previous years	ΔPCT =	+/- 0°F	+ 0°F
B.	Prior 10 CFR 50.46 Changes or Error Corrections – This year (itemized below):	ΔPCT =	+/- 0°F	+ 0°F
2019-01 - TRACG Channel Inlet Subcooling Calculation			0	
2019-02 - TRACG Radiation Heat Transfer Calculation			0	
C.	Absolute Sum of 10 CFR 50.46 Changes	ΔPCT =	+ 0°F	+ 0°F
	Projected LBPCT based on these changes	600°F		

* The reporting period is 10/29/2018 through 09/30/2019. The sum of the peak cladding temperature (PCT) from the most recent analysis using an acceptable evaluation model and the estimates of PCT effect for changes and errors identified because this analysis is less than 2,200°F.

Most Recent Previous Report (2019): Letter, M. P. Catts (GEH) to Document Control Desk (NRC), M190165, ESBWR Design Certification Annual 10 CFR 50.46 Report for 2019, October 8, 2019.