



HITACHI

GE Hitachi Nuclear Energy

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M190165

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

October 8, 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), M180188, ESBWR Design Certification Annual 10 CFR 50.46 Report for 2018, October 29, 2018.

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. Since the 2018 report (Reference 1), no evaluation model changes have occurred.

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,



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 R3

Enclosure 1

M190165

ESBWR Design Certification 10 CFR 50.46 Annual Report – 2019

ESBWR Design Certification

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

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 |
| 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 (2018): Letter, M. P. Catts (GEH) to Document Control Desk (NRC), M180188, ESBWR Design Certification Annual 10 CFR 50.46 Report for 2018, October 29, 2018.