



Energy Harbor Nuclear Corp.
Davis-Besse Nuclear Power Station
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Terry J. Brown
Site Vice President, Davis-Besse Nuclear

419-321-7676

June 13, 2023
L-23-034

10 CFR 50.46

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

SUBJECT:

Davis-Besse Nuclear Power Station, Unit No. 1
Docket No. 50-346, License No. NPF-3
2022 Annual 10 CFR 50.46 Report of Changes to or Errors in Emergency Core Cooling
System Evaluation Models

In accordance with 10 CFR 50.46(a)(3)(ii), Energy Harbor Nuclear Corp. hereby submits the 2022 annual report of changes to or errors in an emergency core cooling system evaluation model, or in the application of such model, for the Davis-Besse Nuclear Power Station, Unit No. 1. The attached report covers the period of January 1, 2022, to December 31, 2022.

There are no regulatory commitments contained in this letter. If there are any questions or if additional information is required, please contact Mr. Phil H. Lashley, Manager - Fleet Licensing, at 330-696-7208.

Sincerely,

A handwritten signature in black ink, appearing to read "Terry J. Brown".

Terry J. Brown

Attachment:

2022 Annual 10 CFR 50.46 Report of Changes to or Errors in Emergency Core Cooling
System Evaluation Models

cc: NRC Region III Administrator
NRC Resident Inspector
NRC Project Manager
Utility Radiological Safety Board

Attachment
L-23-034

2022 Annual 10 CFR 50.46 Report of Changes to or Errors in
Emergency Core Cooling System Evaluation Models
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Title 10 of the *Code of Federal Regulations*, Part 50, Section 50.46(a)(3) states that each holder of an operating license shall report to the Nuclear Regulatory Commission (NRC), at least annually, each change to or error in an acceptable emergency core cooling system (ECCS) evaluation model (EM), or in the application of such a model, that affects the calculation of peak cladding temperature (PCT). The nature of the change or error and its estimated effect on the limiting ECCS analysis is to be included in the report.

During the 2022 calendar year, there were no changes or errors associated with the evaluation model currently being used to support the design basis at Davis-Besse. This resulted in a 0 degrees Fahrenheit estimated change to the large break loss-of-coolant accident (LBLOCA) and small break loss-of-coolant accident (SBLOCA) PCT, as reported in Framatome Letter FS1-0066488-1.0, "Transmittal of Input for Davis-Besse 50.46 Report for 2022," dated February 23, 2023.

Therefore, a net PCT change of 0°F from the end of 2021 to the end of 2022 is reported for both LBLOCA and SBLOCA analyses.

The effects on the peak cladding temperatures for this reporting period are summarized in Table 1.

Table 1
10 CFR 50.46 Summary for 2022

Plant Name:		Davis-Besse Nuclear Power Station, Unit No. 1	LOCA Spectrum	
Licensee:		Energy Harbor Nuclear Corp.	Mark-B-HTP LBLOCA Full-Core	Mark-B-HTP SBLOCA Full-Core
			PCT or PCT Change (Δ)	
Licensing Basis at Beginning of 2022			2,078°F Estimated	1,371°F Analyzed
2022 Licensing Activity				
Item #	Reporting Category	Description	PCT or PCT Change (Δ)	
1	EM Error	None	$\Delta = 0^\circ\text{F}$	$\Delta = 0^\circ\text{F}$
2	EM Change	None	$\Delta = 0^\circ\text{F}$	$\Delta = 0^\circ\text{F}$
Licensing Basis at End of 2022			2,078°F Estimated	1,371°F Analyzed