



Davis-Besse Nuclear Power Station
Terry J. Brown
Site Vice President
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L-24-024
June 19, 2024

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
2023 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), Vistra Operations Company LLC (formerly Energy Harbor Nuclear Corp.) hereby submits the 2023 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, 2023, to December 31, 2023.

There are no regulatory commitments contained in this submittal. If there are any questions, or if additional information is required, please contact Mr. Jack Hicks, Senior Manager, Licensing, at (254) 897-6725 or Jack.Hicks@luminant.com.

Sincerely,

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

Terry J. Brown

Attachment:
2023 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
NRR Project Manager
Utility Radiological Safety Board

Attachment
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2023 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.

In the 2023 calendar year, there were no EM error corrections, changes, or application errors incurred for either the small break loss-of-coolant accident (SBLOCA) or the large break loss-of-coolant accident (LBLOCA) analyses. In addition, there were no plant changes or other errors identified for 2023.

Therefore, a net PCT change of 0°F from the end of 2022 to the end of 2023 is reported for the SBLOCA and LBLOCA 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 2023

Plant Name:		Davis-Besse Nuclear Power Station, Unit No. 1	LOCA Spectrum	
Utility Name:		Energy Harbor	Mark-B-HTP LBLOCA Full-Core	Mark-B-HTP SBLOCA Full-Core
			PCT or PCT Change (Δ)	
Licensing Basis at Beginning of 2023			2,078°F Estimated	1,371°F Analyzed
2023 Licensing Activity				
Item #	Reporting Category	Description	PCT or PCT Change (Δ)	
1	EM Error	None.	N/A	N/A
2	EM Change	None.	N/A	N/A
Licensing Basis at End of 2023			2,078°F Estimated	1,371°F Analyzed