



August 6, 2019

L-2019-151
10 CFR 50.46

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

Re: NextEra Energy Point Beach, LLC
Point Beach Units 1 and 2, Docket Nos. 50-266, 50-301

Florida Power & Light Company
Turkey Point Units 3 and 4, Docket Nos. 50-250, 50-251

NextEra Energy Seabrook, LLC
Seabrook Station, Docket No. 50-443

10 CFR 50.46 - Emergency Core Cooling System LBLOCA 30-Day Report

Pursuant to 10 CFR 50.46(a)(3)(ii), this letter contains the 30-day report for the Point Beach Nuclear Plant, Units 1 and 2, Turkey Point Nuclear Plant, Units 3 and 4, and Seabrook Station for the emergency core cooling system analysis performed by Westinghouse Electric Company, LLC, in the respective attachments to this letter.

One error was identified by Westinghouse that affects the Large-Break (LB) LOCA models. As the reported error is of a 0°F impact, the PCT continues to remain within the limits. However, as the cumulative PCT change already exceeds 50 °F for the LBLOCA analysis, a 30 day 10CFR50.46 report must be issued. Evaluations of each reported error have concluded that re-analysis was not required.

This letter contains no new or revised regulatory commitments.

Should you have any questions regarding this report, please contact Mr. Steve Catron, Fleet Licensing Manager, at (561) 304-6206.

Very truly yours,

William L. Parks
Director, Nuclear Regulatory Affairs
Florida Power & Light Company

Attachments (3)

ADDZ
NRR

cc: USNRC Regional Administrator, Region I
USNRC Regional Administrator, Region II
USNRC Regional Administrator, Region III

USNRC Project Manager, Point Beach Nuclear Plant
USNRC Project Manager, Turkey Point Nuclear Plant
USNRC Project Manager, Seabrook Station

USNRC Senior Resident Inspector, Point Beach Nuclear Plant
USNRC Senior Resident Inspector, Turkey Point Nuclear Plant
USNRC Senior Resident Inspector, Seabrook Station

Attachment 1
POINT BEACH

Point Beach Units 1 and 2 Large Break LOCA PCT 30-Day Report

Evaluation Methodology:

Westinghouse, "Realistic Large-Break LOCA Evaluation Methodology Using the Automated Statistical Treatment of Uncertainty Method (ASTRUM)," WCAP-16009-P-A, January 2005.

Westinghouse, "Application of Best Estimate Large Break LOCA Methodology to Westinghouse PWRs with Upper Plenum Injection," WCAP-14449-P-A Revision 1, October 1999.

Evaluation Model PCT (Unit 1/Unit 2): 1975°F/1810°F

	Net PCT Effect Unit 1/Unit 2	Absolute PCT Effect Unit 1/Unit 2
Prior 10 CFR 50.46 Changes or Error Corrections – up to Year 2018 (Reference 1)	+210°F/+248°F	210°F/340°F
Prior 10 CFR 50.46 Changes or Error Corrections – Year 2019 (Reference 2)	0°F/0°F	0°F/0°F
New 10 CFR 50.46 Changes or Error Corrections – Year 2019		
Error in the Implementation of the Vessel Interfacial Heat Transfer Limit	0°F/0°F	0°F/0°F
Sum of 10 CFR 50.46 Changes or Error Corrections	+210°F/+248°F	210°F/340°F
<i>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</i>	2185°F/2058°F < 2200°F	

Error in the Implementation of Vessel Interfacial Heat Transfer Limit

Westinghouse identified an error in the implementation of vessel interfacial heat transfer limit applicable to the large break loss of coolant (LBLOCA) WCOBRA/TRAC code. Westinghouse has, however, determined that the use of the code remains consistent with the original code validation runs. The impact on the peak cladding temperature (PCT) is estimated to be 0°F.

References:

1. L-2019-057, W. Parks (FPL) to U.S. Nuclear Regulatory Commission, "10CFR50.46 Annual Reporting of Changes to, or Errors in Emergency Core Cooling System Models or Applications," March 19, 2019.
2. L-2019-058, W. Parks (FPL) to U.S. Nuclear Regulatory Commission, "10CFR50.46 – Emergency Core Cooling System LBLOCA 30-Day Report," March 25, 2019.

Attachment 2
TURKEY POINT

Turkey Point Units 3 and 4 Large Break LOCA PCT 30-Day Report

Evaluation Methodology:

Westinghouse, "Realistic Large-Break LOCA Evaluation Methodology Using the Automated Statistical Treatment of Uncertainty Method (ASTRUM)," WCAP-16009-P-A, Revision 0, January 2005.

Evaluation Model PCT (Unit 1/Unit 2): 2152°F (Reference 1)

	Net PCT Effect	Absolute PCT Effect
Prior 10 CFR 50.46 Changes or Error Corrections – up to Year 2018 (Reference 2)	-28°F	80°F
Prior 10 CFR 50.46 Changes or Errors Corrections – Year 2019		
Error in Vapor Temperature Resetting Logic (Reference 3)	0°F	0°F
New 10 CFR 50.46 Changes or Errors Corrections – Year 2019		
Error in the Implementation of the Vessel Interfacial Heat Transfer Limit	0°F	0°F
Sum of 10 CFR 50.46 Changes or Errors Corrections	-28°F	80°F
<i>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</i>		2124°F < 2200°F

Error in the Implementation of Vessel Interfacial Heat Transfer Limit

Westinghouse identified an error in the implementation of vessel interfacial heat transfer limit applicable to the large break loss of coolant (LBLOCA) WCOBRA/TRAC code. Westinghouse has, however, determined that the use of the code remains consistent with the original code validation runs. The impact on the peak cladding temperature (PCT) is estimated to be 0°F.

References:

1. L-2012-019, M. Kiley (FPL) to U.S. Nuclear Regulatory Commission, "Response to NRC Reactor Systems Branch Request for Additional Information Regarding Extended Power Uprate License Amendment Request No. 205 and Thermal Conductivity Degradation," January 16, 2012.
2. L-2019-057, W. Parks (FPL) to U.S. Nuclear Regulatory Commission, "10 CFR 50.46 Annual Reporting of Changes to, or Errors in Emergency Core Cooling System Models or Applications," March 19, 2019.
3. L-2019-058, W. Parks (FPL) to U.S. Nuclear Regulatory Commission, "10 CFR 50.46 – Emergency Core Cooling System LBLOCA 30-Day Report," March 25, 2019.

Attachment 3

SEABROOK

Seabrook Unit 1 Large Break LOCA PCT 30-Day Report

Evaluation Methodology:

Westinghouse, "Code Qualification Document for Best Estimate LOCA Analysis," WCAP-12945-P-A, March 1998.

Evaluation Model PCT: 1784°F (Reference 1)

	Net PCT Effect	Absolute PCT Effect
Prior 10 CFR 50.46 Changes or Error Corrections – up to Year 2018 (Reference 2)	155°F	155°F
Prior 10 CFR 50.46 Changes or Errors Corrections – Year 2019		
Error in Vapor Temperature Resetting Logic (Reference 3)	0°F	0°F
New 10 CFR 50.46 Changes or Errors Corrections – Year 2019		
Error in the Implementation of the Vessel Interfacial Heat Transfer Limit	0°F	0°F
Sum of 10 CFR 50.46 Changes or Errors Corrections	155°F	155°F
<i>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</i>	1939°F < 2200°F	

Error in the Implementation of Vessel Interfacial Heat Transfer Limit

Westinghouse identified an error in the implementation of vessel interfacial heat transfer limit applicable to the large break loss of coolant (LBLOCA) WCOBRA/TRAC code. Westinghouse has, however, determined that the use of the code remains consistent with the original code validation runs. The impact on the peak cladding temperature (PCT) is estimated to be 0°F.

References:

1. NYN-04016, M. Warner (FPL Energy) to U.S. Nuclear Regulatory Commission, "License Amendment Request 04-03, Application for Stretch Power Uprate," March 17, 2004.
2. L-2019-057, W. Parks (FPL) to U.S. Nuclear Regulatory Commission, "10 CFR 50.46 Annual Reporting of Changes to, or Errors in Emergency Core Cooling System Models or Applications," March 19, 2019.
3. L-2019-058, W. Parks (FPL) to U.S. Nuclear Regulatory Commission, "10 CFR 50.46 – Emergency Core Cooling System LBLOCA 30-Day Report," March 25, 2019.