NEXTera® ENERGY
POINT BEACH

April 6, 2016

NRC 2016-0015
10 CFR 50.46(a)(3)(ii)

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

Point Beach Nuclear Plant, Units 1 and 2
Dockets 50-266 and 50-301
Renewed License Nos. DPR-24 and DPR-27

Large Break Loss-of-Coolant Accident
Margin Summary Sheet – 30-Day Report

In accordance with 10 CFR 50.46(a)(3)(ii), NextEra Energy Point Beach (NextEra), LLC, is submitting this 30-day report for the Point Beach Nuclear Plant (PBNP) Units 1 and 2 for the emergency core cooling system (ECCS) analysis performed by Westinghouse Electric Company, LLC. The following 30-day report pertaining to the application of the Westinghouse large break loss of coolant accident (LBLOCA) evaluation model is provided pursuant to 10 CFR 50.46(a)(3)(ii).

The Enclosure describes the ECCS evaluation model changes and errors to the large break loss of coolant accident (LOCA). The Table provides the large break LOCA peak cladding temperatures margin summary.

This submittal contains no new commitments or revisions to existing commitments.

Sincerely,

NextEra Energy Point Beach, LLC

Bryan Woyak
Licensing Manager
Point Beach Nuclear Plant

Enclosure

cc: Administrator, Region III, USNRC
Project Manager, Point Beach Nuclear Plant, USNRC
Resident Inspector, Point Beach Nuclear Plant, USNRC

ENCLOSURE

NEXTERA ENERGY POINT BEACH, LLC
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

Emergency core cooling system (ECCS) analyses for Point Beach Units 1 and 2 are performed by Westinghouse Electric Company, LLC. The following 30-day report pertaining to the application of the Westinghouse large break loss of coolant accident (LBLOCA) evaluation model is provided pursuant to 10 CFR 50.46(a)(3)(ii). A summary of the calculated peak cladding temperature (PCT) changes for LBLOCA is provided in the Table.

LARGE BREAK LOCA ECCS EVALUATION MODEL CHANGES AND ERRORS

Error in Use of ASME Steam Tables

The steam table applicable to steam/gas is used to determine the upper head fluid temperature. However, the water in the upper head is in the subcooled liquid state during normal operation (and the steady-state calculation). Therefore, the steam table applicable to liquid should be used to determine the upper head fluid temperature.

- The effect was evaluated and the estimated PCT impact is 0 °F for Point Beach Units 1 and 2.

Previous LBLOCA PCT changes are documented in Reference 1. The Table summarizes the estimated impact of the changes/errors on the Point Beach Units 1 and 2 LBLOCA PCT, along with the cumulative effect of absolute PCT changes for both Point Beach Units. The limiting LBLOCA PCT with the estimated effect of all the changes/errors is 2185 °F and 2058 °F for Units 1 and 2, respectively. With the impact of all changes/errors, Point Beach Units 1 and Unit 2 continue to comply with the 10 CFR 50.46 acceptance criterion for PCT of ≤ 2200 °F.

Proposed Schedule

The schedule for LBLOCA re-analyses is as provided previously in Reference 2.

References

1 NextEra Energy Point Beach, LLC letter to NRC, dated March 22, 2016, "Point Beach Nuclear Plant, Units 1 and 2, 10 CFR 50.46 Annual Report" (ML16082A296)

2 NextEra Energy Point Beach, LLC letter to NRC, dated March 1, 2013, "Thermal Conductivity Degradation Impact on Large Break Loss of Coolant Accident Analyses with ASTRUM Response to Request for Additional Information" (ML13063A289)

TABLE
LARGE BREAK LOCA MARGIN SUMMARY SHEET – 30-DAY REPORT

Plant Name: Point Beach Units 1 and 2

Utility Name: NextEra Energy

Evaluation Model: Westinghouse Realistic Large Break LOCA Evaluation Model using ASTRUM. (WCAP-16009-P-A)

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
A	Prior 10 CFR 50.46 Changes or Errors Corrections – up to Year 2015	ΔPCT	+210°F/+248°F	210°F/340°F
B	Prior 10 CFR 50.46 Changes or Errors Correction – Year 2016	ΔPCT	None	None
C	10 CFR 50.46 Changes in Year 2016 Since Item B			
	Error in ASME Steam Table Use	ΔPCT	0 °F / 0 °F	0 °F / 0 °F
D	Absolute Sum of 10 CFR 50.46 Changes	ΔPCT		210 °F / 340 °F

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*	**2185 °F/2058 °F** < 2200 °F