



June 28, 2013

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U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
11555 Rockville Pike
Rockville, MD 20852

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

Response to Inspection Report 05000266/2013011 and 05000301/2013011
Preliminary Yellow Finding

Reference: U.S. Nuclear Regulatory Commission, Point Beach Nuclear Plant, Units 1 and 2
NRC Integrated Inspection Report 05000266/2013011 and 05000301/2013011;
Preliminary Yellow Finding, dated June 18, 2013

The Nuclear Regulatory Commission (NRC) provided NextEra Energy Point Beach, LLC (NextEra) with results of the Temporary Instruction (TI) 2515-187, inspection of Near-Term Task Force Recommendation 2.3 Flooding Walk Downs, conducted at the Point Beach Nuclear Plant (PBNP) during the first quarter of 2013 (Reference).

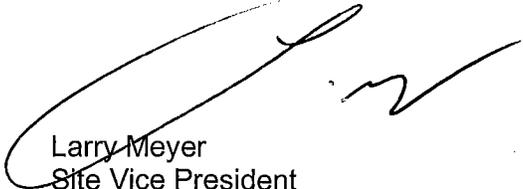
The referenced letter and Inspection Report contain an apparent violation that is being considered for escalated enforcement. NextEra Energy Point Beach, LLC, understands the violation and has taken corrective actions. NextEra is requesting a Regulatory Conference to discuss the final significance determination. This request was discussed with Mr. James Cameron on June 24, 2013.

The referenced letter also contains a request for additional information. As discussed with Mr. Cameron and explained in Enclosures 1 and 2, NextEra is completing analyses that will determine the impacts, if any, of the identified deficiency. As such, the information provided in response to the request for information is preliminary. NextEra will provide the results of its analyses when completed. We anticipate providing this additional detail prior to the requested Regulatory Conference.

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If you have any questions or require additional information, please contact
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Very truly yours,



Larry Meyer
Site Vice President
NextEra Energy Point Beach, LLC

Enclosure

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

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

Responses to NRC Request for Information

The referenced letter included a request for information that is addressed in this Enclosure. The request has been divided into three parts and NextEra's responses are provided below:

1) "provide a list of equipment that is impacted by the flood levels of interest (wave run-up from 592 to 596 feet mean sea level (MSL), impounding up to 2 feet of water at the turbine building grade level)"

The historic documents do not contain sufficient detail to assess movement of water (i.e., how much water will be impounded or flow into the buildings as a result of the postulated wave run-up) and internal water levels resulting from the assumed wave run-up to establish effects on plant equipment. This information is not readily available for the postulated wave run-up from 592 to 596 feet IGLD 1955.¹ Therefore, NextEra is performing an updated analysis, which includes detailed water flow modeling external and internal to the buildings, to determine the equipment that would be impacted by wave run-up from 592 to 596 feet IGLD 1955. NextEra anticipates having the results of that analysis early in July and will provide a supplement to this response when that information is available. NextEra will be prepared to discuss the results of that analysis at the requested Regulatory Conference.

The following table contains a list of components located at or below 589.2 feet IGLD 1955, which we believe is a conservative list of components that could potentially be impacted by the flood levels of interest. In its preliminary risk determination, NextEra has estimated the change in Core Damage Frequency (CDF) with failure of equipment up to 589.2 feet IGLD 1955 is in the range of 10^{-7} . The NRC staff has estimated the change in CDF to be on the order of 10^{-5} . The two orders of magnitude difference in the estimated change in CDF can be attributed to: 1) a difference in the frequency of flood occurrence; and 2) PRA modeling of Service Water pump continued availability upon loss of DC control power, which is not contained in the NRC's SPAR model.

¹The request for information specifies the flood levels of concern in units of Mean Sea Level. However, Point Beach Nuclear Plant flooding evaluations are expressed in terms of International Great Lakes Datum (IGLD) 1955 which is the same as the expression of elevations in the IPEEE.

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Table: Potentially Vulnerable Equipment Impacted by Accumulating Water Up To 589.2 Feet IGLD 1955

Component ID	Noun Name	Location (*)	Loss of Function (inches relative to 588.2 Feet IGLD 1955) (**)
1/2P-10A,B	RHR Pumps	PAB	-294" (below TB grade level)
1/2SI-851A/B	RHR Pump Suction from Containment Sump B	PAB	-108 (below TB grade level)
1/2P-2A,B,C	Charging Pumps	PAB	4"
D-07/D-08/D-09	Station Battery Chargers	CB	4.5"
G-01	A Train Emergency Diesel Generator	CB	8"
G-02	A Train Emergency Diesel Generator	CB	8"
C-34/C-35	G-01/G-02 EDG Alarm & Electrical Panels	CB	8"
C-79	G-02 EDG DC Power Transfer Control Panel	CB	8"
1/2A-03	4.16 kV Switchgear	CB	9"
1/2A-04	4.16 kV Switchgear	CB	9"
1/2A-05	4.16 KV Vital Switchgear (Train A)	CB	9"
1/2CC-738A,B	1/2HX-11A,B RHR HX Shell Side Inlet valves	PAB	10"
C-78	G-01 EDG DC Power Transfer Control Panel	CB	10"
B-33, B-43	Non-Safety Related 480V MCCs	PAB	12"
1/2P-99A,B	SGFP Seal Water Injection Pumps	TB	12"

Notes

*Turbine Building (TB), Control Building (CB), Primary Auxiliary Building (PAB)

** The Turbine Building (TB) grade and floor level is 588.2 feet IGLD 1955.

2) "the basis for the list of equipment (from request 1, above)"

The equipment listed in the table is equipment that would be vulnerable to water accumulation inside the buildings up to 12 inches. The measurements come from the most recent walk-downs and confirm that the previous initiatives were accurate or conservative. While NextEra has not yet completed the analysis to determine actual water levels inside the buildings, it is believed that this level will be conservative.

3) "a discussion of any differences between assumed flood impacts documented in the Individual Plant Examination of External Events (IPEEE), the internal flooding Probabilistic Risk Assessment (PRA) notebook, and the Flooding Vulnerability Report, dated October 26, 2012."

The three documents (IPEEE, PRA Internal Flooding Notebook and Flooding Vulnerability Report) were developed for different purposes over a period of 20 years. The following summarizes the purpose, assumptions and methodologies, and resulting flood impacts of the three documents.

NextEra has re-performed detailed in-plant measurements of the components in each of these documents for use in the current risk assessment. The components that are located at or below 589.2 feet IGLD 1955, which could potentially be impacted by the flood levels

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of interest are listed in the above table. There are two differences between the equipment listed in the above table and the list of affected equipment in the IPEEE: 1) the Service Water Pumps are not included in the table above because their elevation is above 589.2 feet IGLD 1955, and 2) the Charging Pumps are included in the above table because they have limiting subcomponents within the 589.2 feet IGLD 1955 level. These two differences are included in the NextEra risk assessment.

IPEEE

The general purpose of the IPEEE was to gain an understanding of the plant response to various external events; to gain an understanding of dominant risk sequences; and, identify hardware and procedure change strategies that could benefit the plant. The PBNP IPEEE was submitted to the NRC in 1995. This analysis was performed in accordance with the methodology described in NUREG-1407, "Procedural and Submittal Guidance for the Individual Plant Examination of External Events and Severe Accident Vulnerabilities."

The IPEEE credited placement of sandbag barriers in accordance with the requirements contained in then-existing procedure (Abnormal Operating Procedure (AOP) 13B, "High Lake Water Level") to mitigate leakage into the turbine building. The IPEEE did not include an analysis of the flow of water throughout the turbine and control buildings. Instead, the IPEEE conservatively assumed that with the sandbags being over topped with one foot of water, there will be flooding in the turbine building and auxiliary building. Additionally, the IPEEE assumed that, from 6 to 12 inches of water must accumulate at the equipment location in order to fail that equipment.

Vulnerable structures and equipment were described in the IPEEE in broad terms (e.g., Diesel Generator Room, Auxiliary Feedwater Pumps), with no consideration of supporting components. The IPEEE report contains a list of the structures and equipment that would be vulnerable to the accumulation of 6 to 12 inches of water based on floor elevations being at turbine building grade level (588.2 feet IGLD 1955) or less and did not include actual field measurements of the limiting supporting components.

PRA Internal Flooding Notebook

The PRA Internal Flooding Notebook (the "Notebook") was finalized in May 2013. This flood model upgrade was developed to comply with Regulatory Guide 1.200, "An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities" and the relevant ASME Standard for probabilistic risk assessment for nuclear power plant applications.

The supporting evaluation included walk-downs of equipment to a level of detail that far exceeded that of the IPEEE submittal. Wherever practical, cabinets and enclosures were opened to directly observe the elevation of potentially vulnerable subcomponents (e.g. relays, breakers, un-insulated bus bars, terminal strips, switches). This approach provided a greater understanding of the hazards to equipment associated with postulated water levels in the rooms.

During the course of investigating the performance deficiency and finalizing the Notebook, additional investigations of certain more risk-significant components were performed. Where appropriate, Notebook entries were annotated to indicate the newly developed information.

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Although the Notebook contains differences in equipment considered compared to IPEEE, the significance of the risk impact is not changed.

Draft Flooding Vulnerability Report

The draft Flooding Vulnerability Report was developed during 2012 to support evaluation of potential flood vulnerabilities based on the results of available physical margin reviews conducted in accordance with NEI 12-07 , "Guidelines for Performing Verification of Plant Flood Protection Features" and new external flood analysis as required under Fukushima Near-Term Actions. The report summarizes field measurements of safety related components located in the turbine and control buildings relative to the turbine building and control building grade level of 588.2 feet IGLD 1955. The vulnerabilities were then categorized into qualitative ranges of risk ("High", "Medium" or "Low").

In contrast to the walk-downs performed in support of the PRA Internal Flooding Notebook, many of the potentially vulnerable subcomponents could not be observed directly due to not being accessible. When photographic documentation or other sources were inadequate to provide detailed input, the lowest extremity of the cabinet or enclosure was used for determining the relative flooding vulnerability of the component.

The equipment-specific elevations that are contained in the draft Flooding Vulnerability Report were recently evaluated by engineering. The content of the report has not been used for any flooding risk assessments.

Conclusion

The three documents summarize initiatives that were performed at different times and for different purposes yet with the same overall objective to demonstrate the safety of Point Beach from flood events. The level of detail contained in each was deemed appropriate to the application.