NEXTera ENERGY
POINT BEACH

October 1, 2010

NRC 2010-0156
10 CFR 50.90

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

License Amendment Request 261
Extended Power Uprate
Response to Request for Additional Information

References:
(1) FPL Energy Point Beach, LLC letter to NRC, dated April 7, 2009, License Amendment Request 261, Extended Power Uprate (ML091250564)
(2) NRC electronic mail to NextEra Energy Point Beach, LLC, dated May 26, 2010, Draft – Request for Additional Information from Mechanical and Civil Engineering Branch RE: AFW (ML101481053)
(3) NextEra Energy Point Beach, LLC letter to NRC, dated July 23, 2010, License Amendment Request 261, Extended Power Uprate, Response to Request for Additional Information (ML102070438)

NextEra Energy Point Beach, LLC (NextEra) submitted License Amendment Request (LAR) 261 (Reference 1) to the NRC pursuant to 10 CFR 50.90. The proposed amendment would increase each unit's licensed thermal power level from 1540 megawatts thermal (MWt) to 1800 MWt, and revise the Technical Specifications to support operation at the increased thermal power level.

Via Reference (2), the NRC staff determined that additional information was required to enable the staff's continued review of the request. Reference (3) provided the NextEra response to the NRC staff's request for additional information. In a conference call with the NRC staff on September 21, 2010, the staff requested clarification for two of the responses provided in Reference (3). Enclosure 1 provides the requested clarifications.

This letter contains no new Regulatory Commitments and no revisions to existing Regulatory Commitments.

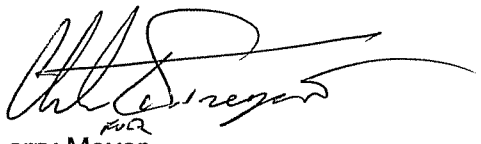
The information contained in this letter does not alter the no significant hazards consideration contained in Reference (1) and continues to satisfy the criteria of 10 CFR 51.22 for categorical exclusion from the requirements of an environmental assessment.

In accordance with 10 CFR 50.91, a copy of this letter is being provided to the designated Wisconsin Official.

I declare under penalty of perjury that the foregoing is true and correct.
Executed on October 1, 2010.

Very truly yours,

NextEra Energy Point Beach, LLC



Larry Meyer
Site Vice President

Enclosure

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

ENCLOSURE 1

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

LICENSE AMENDMENT REQUEST 261
EXTENDED POWER UPRATE
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

The NRC staff determined that additional information was required (Reference 1) to enable the Mechanical and Civil Engineering Branch to complete the review of License Amendment Request (LAR) 261, Extended Power Uprate (EPU) (Reference 2). Via Reference (3) NextEra provided the response to the NRC staff's request for additional information. In a conference call with the NRC on September 21, 2010, the staff requested clarification of the responses provided in Reference (3) for EMCB AFW RAI 2-1.b and EMCB AFW RAI 4-1.a. The requested clarifications are provided below:

EMCB AFW RAI 2-1.b

RAI 2 requested the following:

Provide loadings and load combinations used for the AFW piping design and analysis, which include seismic and fluid transient loads, and a quantitative summary of the maximum pipe stresses and fatigue usage factors with a comparison to code of record allowable stresses which shows that the acceptance criteria have been met for EPU conditions. Include data at critical locations. For equipment nozzles provide a summary of loads compared to specific allowable values.

NextEra's response in part answers EMCB RAI 2.

b) Please explain why fluid transient loads have not been mentioned in the response and provide a technical justification why water hammer can not occur in the AFW system, if that is the case.

Clarification: Clarify that discussions provided regarding fluid transient loading for the AFW system for CLTP are also applicable for EPU conditions.

NextEra Revised Response:

b) Analysis of fluid transients is not part of the current design basis for the Point Beach Nuclear Plant (PBNP) auxiliary feedwater (AFW) system. Additionally, the AFW system operates at low temperatures (100°F maximum operating temperature) and is maintained water filled. As a result, neither the existing nor the new system design would introduce the potential for fluid transients.

As described in NextEra Response to EMCB AFW RAI 1-1.b) (Reference 3), the maximum condensate storage tank (CST) temperature determines the maximum operating temperature for the AFW system. This temperature is not affected by EPU. The maximum CST level defines the maximum operating pressure for the AFW suction piping. This is not affected by EPU. The new motor-driven AFW (MDAFW) pump discharge piping is designed for maximum discharge pressure for the new pumps. For this parameter, there is no differentiation between EPU conditions and current licensed thermal power (CLTP). As discussed in Reference (4), the design pressure for AFW discharge piping to the steam generators is based on main steam relief valve setpoint. This is also not affected by EPU. As a result, neither existing nor the new system design would introduce the potential for fluid transients under either CLTP or EPU conditions.

EMCB AFW RAI 4-1.a

The response to RAI 4 identified that the only lines in the AFW system that meet the current licensing basis (LB) high energy (HE) line definition criteria are steam supply lines from the main steam system up to the normally closed TDAFW pump steam supply motor-operated valves. The RAI response stated that HE line break (HELB) analyses have been completed for these lines and have demonstrated acceptable response to a HELB event.

a) *Please discuss whether the pipe failure postulation and HELB analyses for these lines are in accordance with the current license conditions and whether they are affected by the station's HELB reconstitution stated in UFSAR 2007, Appendix A.2. Not approved yet. Approval has been sought with the EPU. If that is the case AFW will have to wait for the EPU.*

Clarification: Discuss how the statement that "the HELB evaluations for EPU conditions reduced the number of HELB locations" is applicable to the AFW steam supply piping and how these evaluations impact the HELB evaluations for both CLTP and EPU.

NextEra Revised Response:

a) The steam supply lines to the turbine-driven AFW (TDAFW) pumps are considered high energy lines from the connections at the main steam lines to the normally closed motor-operated valves located in the component cooling water heat exchanger room. Piping downstream of these valves is normally depressurized and is not considered a high energy system. The design of the steam supply lines from the main steam system up to the normally closed TDAFW pump steam supply motor-operated valves is not changing for the AFW system upgrade. These high energy lines will remain as currently physically routed for the EPU operating conditions.

The limiting high energy line break (HELB) process fluid conditions occur at hot shutdown conditions (547°F and 1020 psia), which are identical for CLTP and EPU operating modes. The existing design of the high energy steam supply piping up to the normally closed TDAFW pump steam supply valves has been evaluated for HELB and meets the current HELB licensing basis, as documented in the final safety analysis report (FSAR), Appendix A.2, High Energy Pipe Failure Outside Containment. Therefore, the break locations identified for the CLTP hot shutdown conditions (temperature and pressure) remain unaffected. The EPU hot shutdown operating conditions remain at the same values as the CLTP. Utilizing the guidance contained in Generic Letter 87-11, Relaxation in Arbitrary Intermediate Pipe Rupture Requirements,

no new break locations were identified and there is a net reduction in postulated break locations. In addition, the need to postulate a crack at the most adverse location remains unchanged. Although there are small differences in the full power operating pressure and temperature conditions at the CLTP and EPU full power conditions, they are both lower than the limiting hot shutdown conditions at CLTP and EPU conditions.

The HELB reconstitution evaluations reduced the number of HELB locations, did not identify new break locations for EPU conditions, and did not increase the loadings at the remaining locations, including the AFW steam supply piping. The only HELB required components identified that are located in the turbine hall are associated with the feedwater flow control valves, feedwater pumps, and condensate storage tank level. The TDAFW pumps are protected by safety-related low suction pressure switches located in the safety-related portion of the turbine hall and can be supplied from the safety-related service water system. Since the swing battery and associated components are not normally aligned systems, they were removed from the required equipment list. Other high energy systems located in the turbine hall (condensate, heater drain tank pump discharge, heater drains, and etc) do not require any of the previously mentioned components, except the condensate storage tank level. Therefore, NextEra determined that including these systems components as HELB components was not required.

The pipe whip restraints and the analysis to determine that the safe shutdown capabilities of the plant would not be affected, which are described in FSAR Appendix A.2, demonstrate that breaks of these high energy lines will not result in unacceptable damage to systems, structures, and components important to safety, including the upgraded AFW system. Therefore, the pipe failure postulation and HELB analyses of the TDAFW pump steam supply high energy lines will continue to meet the current HELB licensing basis. NRC approval of the HELB evaluations at EPU conditions is not required to implement the AFW system upgrades.

References

(1) NRC electronic mail to NextEra Energy Point Beach, LLC, dated May 26, 2010, Draft - Request for Additional Information from Mechanical and Civil Engineering Branch RE: AFW (ML101481053)

(2) FPL Energy Point Beach, LLC letter to NRC, dated April 7, 2009, License Amendment Request 261, Extended Power Uprate (ML091250564)

(3) NextEra Energy Point Beach, LLC letter to NRC, dated July 23, 2010, License Amendment Request 261, Extended Power Uprate, Response to Request for Additional Information (ML102070438)

(4) NextEra Energy Point Beach, LLC letter to NRC dated June 17, 2009, License Amendment Request 261 Supplement 1, Extended Power Uprate (ML091690090)