



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

October 25, 2010

Mr. Larry Meyer
Site Vice President
NextEra Energy Point Beach, LLC
6610 Nuclear Road
Two Rivers, WI 54241-9516

SUBJECT: POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2 – REQUEST FOR
ADDITIONAL INFORMATION RE: LICENSE AMENDMENT REQUEST
ASSOCIATED WITH A REVISION TO THE REACTOR VESSEL HEAD DROP
ANALYSIS METHODOLOGY (TAC NOS. ME4006 AND ME4007)

Dear Mr. Meyer:

By letter to the U.S. Nuclear Regulatory Commission (NRC) dated June 1, 2010, as supplemented by letter dated July 9, 2010, (Agencywide Documents Access and Management System Accession Nos. ML101520200 and ML102030115), NextEra Energy Point Beach, LLC, submitted a license amendment request for the Point Beach Nuclear Plant, Units 1 and 2. The proposed amendment would revise the current license basis regarding a postulated reactor vessel head drop event.

The NRC staff is reviewing your submittal and has determined that additional information is required to complete the review. The specific information requested is provided as an enclosure to this letter. During a discussion with Mr. James Costedio on October 13, 2010, it was agreed that you would provide the additional information within 30 days of the date of this letter.

The NRC staff considers that timely response to the requests for additional information help ensure sufficient time is available for staff review and contribute toward the NRC's goal of efficient and effective use of staff resources. If circumstances result in the need to revise the requested response date, please contact me immediately at (301) 415-3049.

Sincerely,

A handwritten signature in black ink, appearing to read "Terry A. Beltz", with a long horizontal line extending to the right.

Terry A. Beltz, Senior Project Manager
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-266 and 50-301

Enclosure:
Request for Additional Information

cc w/encl: Distribution via ListServ

REQUEST FOR ADDITIONAL INFORMATION
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2
LICENSE AMENDMENT REQUEST
REVISION TO THE REACTOR VESSEL HEAD DROP ANALYSIS METHODOLOGY
TAC NOS. ME4006 AND ME4007

EMCB RAI 1

As described in Section 4.3 of Enclosure 2 to Reference 2, bottom mounted instrumentation (BMI) conduits 32 and 29 are the only conduits modeled in the ANSYS analyses used to support the conclusion in this license amendment request (LAR) that the BMI conduits will maintain their structural integrity under a postulated reactor vessel head (RVH) drop. While it is recognized by the U.S. Nuclear Regulatory Commission (NRC) staff that BMI conduits 32 and 29 geometrically bound the other conduits (i.e., they are the shortest and longest conduits, respectively), no information was provided which indicates that there would be no adverse affects on these conduits due to the structural interactions with the other 34 conduits attached to the reactor vessel. By analyzing conduits 32 and 29 individually, other interactions between the 34 conduits absent in the analyses may not be adequately accounted for in the present structural analyses.

Please provide justification which demonstrates that modeling only these two conduits, without loads resulting from possible interactions from adjacent conduits, provides a bounding structural evaluation.

EMCB RAI 2

Section 4.6 of Enclosure 2 to Reference 2 indicates that the material data used as an input to the ANSYS model used to demonstrate the structural integrity of the BMI conduits is based on true stress-strain data. The guidance found in NUREG-0612, "Control of Heavy Loads at Nuclear Power Plants," and in Section 2.3.2 of Nuclear Energy Institute (NEI) Report 08-05, "Industry Initiative on Control of Heavy Loads," stipulates that the use of true stress-strain data is appropriate for these analyses. However, the construction of true stress-strain curves used in these analyses can be based on a number of factors; these are also discussed in Section 2.3.2 of NEI 08-05.

Please address the following items regarding the true stress-strain curve used for the Point Beach Nuclear Plant RVH drop methodology LAR under consideration:

- a) A temperature of 70 degrees Fahrenheit has been assumed to develop the true stress-strain data curve for the material model.

Please provide justification for the use of this temperature as it relates to actual operating parameters when the accident is assumed to occur.

- b) In Reference 2, Enclosure 2, the Table 4-1 data points used to construct the true stress-strain curve in Figure 4-6 were gathered from Westinghouse Calculation Note, CN-RCDA-04-46, Rev. 1, "Weld Overlay – Material Properties," dated June 19, 2006 (Reference 5 of Enclosure 2).

Please discuss the methodology used in this calculation to develop these data points. This discussion should focus on the development of the material model curve and the justification for the use of this model as it relates to the guidance found in NEI 08-05.

- c) Please indicate whether a dynamic increase factor (DIF) has been incorporated into the true stress-strain curve found in Figure 4-6 of Enclosure 2 to Reference 1. If a DIF has been applied to the curve, please provide technical justification for the DIF(s) applied to the curve.
- d) Please confirm that the curve found in Figure 4-6 is not extrapolated further for the ANSYS analysis and that ultimate failure strain for this model is 0.26 in/in, as indicated in Table 4-1.

REFERENCES

- 1) Letter from L. Meyer, NextEra Energy Point Beach, LLC, to NRC Document Control Desk, "Point Beach Nuclear Plant, Units 1 and 2, Docket Nos. 50-266 and 50-301, Renewed License Nos. DPR-24 and DPR-27 – License Amendment Request 265 – Revision to the Reactor Vessel Head Drop Methodology," June 1, 2010 (ADAMS Accession No. ML101520200)
- 2) Letter from L. Meyer, NextEra Energy Point Beach, LLC, to NRC Document Control Desk, "Point Beach Nuclear Plant, Units 1 and 2, Docket Nos. 50-266 and 50-301, Renewed License Nos. DPR-24 and DPR-27 – License Amendment Request 265 – Revision to the Reactor Vessel Head Drop Methodology, Supplement 1," July 9, 2010 (ADAMS Accession Nos. ML102030115 (Cover Letter and Enclosure 1) and ML102030116 (Enclosure 2))

October 25, 2010

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Site Vice President
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Sincerely,

/RA/

Terry A. Beltz, Senior Project Manager
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-266 and 50-301
Enclosure:
Request for Additional Information
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ADAMS Accession No.: ML102870204

*** per memo dated September 29, 2010**

OFFICE	NRR/LPL3-1/PM	NRR/LPL3-1/LA	NRR/DE/EMCB/BC	NRR/LPL3-1/BC
NAME	TBeltz	BTully	MKhanna *	RPascarelli
DATE	10/15/10	10/21/10	09/29/10	10/25/10

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