

NRR-PMDAPEm Resource

From: Beltz, Terry
Sent: Wednesday, December 10, 2014 1:32 PM
To: Millen, Michael (Michael.Millen@nexteraenergy.com)
Cc: 'Clark, Roger'; Locke, Kim; Scherwinski, Brenda; 'Jensen, William'; Audrain, Margaret; Collins, Jay; Pelton, David; Chawla, Mahesh
Subject: Point Beach Nuclear Plant, Unit 2 - Draft Requests for Additional Information (EPNB) - Second Round - Regarding Relief Request 2-RR-7 (TAC No. MF3304)
Attachments: Point Beach Nuclear Plant - 770 Recategorization Round 2 RAIs (TAC No. MF3304).docx

Dear Mr. Millen:

By letter to the U.S. Nuclear Regulatory Commission (NRC) dated December 27, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13365A310), as supplemented by letter dated July 24, 2014 (ADAMS Accession No. ML14206A929), NextEra Energy Point Beach, LLC (NextEra) submitted relief request 2-RR-7 for NRC staff review. The request is associated with the re-categorization of four steam generator nozzle to safe-end dissimilar metal welds installed at Unit 2 of the Point Beach Nuclear Plant (PBNP) under the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (Code) Code Case N-770-1, with conditions specified in Title 10 of the Code of Federal Regulations, Part 50 (10 CFR 50), paragraph 55a(g)(6)(ii)(F).

NextEra states that the proposed alternative categorization for the Unit 2 steam generator nozzle dissimilar metal welds (inlet and outlet) will be a permanent change to the PBNP Inservice Inspection Program for the duration of the extended license. The NRC staff in the Component Performance, NDE, and Testing Branch (EPNB) of the Office of Nuclear Reactor Regulation has identified areas where additional information is needed to complete its review.

On October 15, 2014, a teleconference was held between the NRC staff and representatives from NextEra. The primary focus of this conversation was to have further discussion regarding NextEra's July 24, 2014, letter in response to the staff's requests for additional information (RAIs). An ancillary aspect of the discussion was for the staff to provide further detail regarding the responses and conclusions of a probable need for an additional round of RAIs.

Please find draft RAIs provided as an attachment to this e-mail. You may accept the draft RAIs as formal Requests for Additional Information and provide a response by February 27, 2015. Alternatively, you may request to discuss the contents of this draft RAI with the NRC staff in a conference call, including any change to the proposed response date.

Please let me know if you have any questions or concerns.

Sincerely,

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REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST 2-RR-7

POINT BEACH NUCLEAR PLANT, UNIT 2

NEXTERA ENERGY POINT BEACH, LLC

DOCKET NO. 50-301

(TAC NO. MF3304)

By letter dated December 27, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13365A310), as supplemented by letter dated July 24, 2014 (ADAMS Accession No. ML14206A929), NextEraEnergy Point Beach, LLC (NextEra) submitted relief request 2-RR-7 for U.S. Nuclear Regulatory Commission (NRC) staff review and approval. In 2-RR-7, NextEra requests authorization to re-categorize the primary steam generator nozzle to safe-end welds under American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Code Case N-770-1, with conditions specified in Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(g)(6)(ii)(F) for duration of the extended license at the Point Beach Nuclear Plant, Unit 2.

To complete its review, the NRC staff in the Component Performance, NDE, and Testing Branch of the Office of Nuclear Reactor Regulation requests the following additional information:

Please perform a flaw evaluation to show adequate thickness against stress corrosion cracking. The flaw evaluation should be consistent with several factors found in "Evaluation of the Inlay Process as a Mitigation Strategy for Primary Water Stress Corrosion Cracking in Pressurized-Water Reactors" (Accession Number ML101260554), in particular:

1. Weld residual stress calculation
 - a. Assume a 50% weld repair during fabrication
 - b. Apply 3 weld layers and ground off the outer layer
 - c. Use minimum thicknesses from construction records in your model

2. Flaw analysis
 - a. Initial flaw depth is 1.5 mm (half the inlay weld thickness)
 - b. Assume PWSCC growth of alloy 52 weld material with a factor of improvement of 10 versus the MRP-115 crack growth rate for alloy 182 materials
 - c. Calculate time to 75% through-wall for axial (c/a of 2) and circumferential flaws (c/a of 10).
 - d. See the image below for clarification.

