



January 6, 2022

L-2021-248  
10 CFR 54.17

U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
11545 Rockville Pike  
One White Flint North  
Rockville, MD 20852-2746

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

**SUBSEQUENT LICENSE RENEWAL APPLICATION - AGING MANAGEMENT REQUESTS FOR  
ADDITIONAL INFORMATION (RAI) SET 14 RESPONSE**

References:

1. NextEra Energy Point Beach, LLC (NEPB) Letter NRC 2020-0032 dated November 16, 2020, Application for Subsequent Renewed Facility Operating Licenses (ADAMS Package Accession No. ML20329A292)
2. NRC Email and Attachment dated December 17, 2021, Point Beach SLRA Safety RAIs Set 14 Final (ADAMS Accession Nos. ML21362A682, ML21362A681)

NEPB, owner and licensee for Point Beach Nuclear Plant (PBN) Units 1 and 2, has submitted a subsequent license renewal application (SLRA) for the Facility Operating Licenses for PBN Units 1 and 2 (Reference 1). The attachment to this letter provides the response to the NRC's Set 14 RAI (Reference 2).

For ease of reference, the index of attached information is provided on page 3 of this letter. The attachment includes associated revisions to the SLRA (Enclosure 3 Attachment 1 of Reference 1) denoted by ~~strike through~~ (deletion) and/or **bold red underline** (insertion) text. Prior SLRA revisions are denoted by **bold black** text, with SLRA table revisions included as excerpts from each affected table.

Should you have any questions regarding this submittal, please contact me at (561) 304-6256 or William.Maher@fpl.com.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on the 6<sup>th</sup> day of January 2022.

Sincerely,  
**William  
Maher**

William D. Maher  
Licensing Director - Nuclear Licensing Projects

Digitally signed by William Maher  
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Cc: Administrator, Region III, USNRC  
Project Manager, Point Beach Nuclear Plant, USNRC  
Resident Inspector, Point Beach Nuclear Plant, USNRC  
Public Service Commission Wisconsin

Attachments Index		
Attachment No.	RAI No.	Subject
1	B.3.3.2.2.8-2	Cracking Due to Stress Corrosion Cracking in Aluminum Alloys

### **SLRA Section 3.3.2.2.8, “Cracking Due to Stress Corrosion Cracking in Aluminum Alloys”**

#### **RAI 3.3.2.2.8-2**

##### Regulatory Basis:

Section 54.21(a)(3) of Title 10 of the Code of Federal Regulations (10 CFR) requires an applicant to demonstrate that the effects of aging for structures and components will be adequately managed so that the intended function(s) will be maintained consistent with the current licensing basis for the period of extended operation. One of the findings that the U.S. Nuclear Regulatory Commission (NRC) staff must make to issue a renewed license (10 CFR 54.29(a)) is that actions have been identified and have been or will be taken with respect to managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review under 10 CFR 54.21, such that there is reasonable assurance that the activities authorized by the renewed license will continue to be conducted in accordance with the current licensing basis. In order to complete its review and enable making a finding under 10 CFR 54.29(a), the staff requires additional information in regard to the matters described below.

##### Background:

NextEra submitted an annual update to the Point Beach SLRA by letter dated November 30, 2021 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21334A293). The update included revisions to SLRA Table 3.3.2-15, “Plant Air – Summary of Aging Management Evaluation,” which added aging management items for loss of material of aluminum valve bodies exposed internally to dry air (GALL-SLR item 3.3-1, 235) and loss of material and cracking of insulated aluminum valve bodies exposed externally to uncontrolled indoor air (GALL-SLR items 3.3-1, 245 and 3.3-1, 233, respectively).

##### Issue:

GALL-SLR item 3.3-1, 233 was omitted from SLRA Table 3.3-1, but NextEra stated in the response to RAI 3.3.2.2.8-1 (ADAMS Accession No. ML21242A230) that this item is not applicable because there are no insulated aluminum piping, piping components, or tanks exposed to air or condensation in the Auxiliary Systems. For GALL-SLR item 3.3-1, 245, SLRA Table 3.3-1 states that it is not applicable because there are no insulated aluminum piping, piping components, or tanks in the Auxiliary Systems. Since the annual update states that GALL-SLR items 3.3-1, 233 and 3.3-1, 245 are now applicable for Point Beach SLR, SLRA Table 3.3-1 states that these items require further evaluation in SLRA Sections 3.3.2.2.8 and 3.3.2.2.10, respectively. The annual update did not include any other revisions to the SLRA to indicate that these items are now considered applicable for SLRA and have been evaluated in Sections 3.3.2.2.8 and 3.3.2.2.10. Consequently, the annual update is inconsistent with the SLRA and the response to RAI 3.3.2.2.8-1 with respect to the Table 3.3-1 discussions for GALL-SLR items 3.3-1, 233 and 3.3-1, 245.

Request:

Provide a basis for not updating the discussions of GALL-SLR items 3.3-1, 233 and 3.3-1, 245 in SLRA Table 3.3-1 and for not updating SLRA Sections 3.3.2.2.8 and 3.3.2.2.10 to evaluate these GALL-SLR items. Alternatively, revise SLRA Table 3.3-1 to indicate that GALL-SLR items 3.3-1, 233 and 3.3-1, 245 are applicable and revise SLRA Sections 3.3.2.2.8 and 3.3.2.2.10 to evaluate these GALL-SLR items.

**NEPB Response:**

SLRA Table 3.3-1 has been revised to indicate that GALL-SLR items 3.3-1, 233 and 3.3-1, 245 are applicable and SLRA Sections 3.3.2.2.8 and 3.3.2.2.10 have been revised to evaluate cracking and loss of material for insulated aluminum piping components.

**References:**

None



**Associated SLRA Revisions:**

SLRA Table 3.3-1 (page 3.3-74) is revised as follows:

Table 3.3-1: Summary of Aging Management Evaluations for the Auxiliary Systems					
Item Number	Component	Aging Effect/Mechanism	Aging Management Program (AMP)/TLAA	Further Evaluation Recommended	Discussion
3.3-1, 233	<u>Insulated aluminum piping, piping components, tanks exposed to air, condensation</u>	<u>Cracking due to SCC</u>	AMP XI.M29, "Outdoor and Large Atmospheric Metallic Storage Tanks," AMP XI.M32, "One-Time Inspection," AMP XI.M36, "External Surfaces Monitoring of Mechanical Components," or AMP XI.M42, "Internal Coatings/Linings for In-Scope Piping, Piping Components, Heat Exchangers, and Tanks"	Yes (SRP-SLR Section 3.3.2.2.8)	<p>Not applicable. There are no insulated aluminum piping, piping components, or tanks exposed to air, condensation in the Auxiliary Systems.</p> <p><u>Consistent with NUREG-2191. The External Surfaces Monitoring of Mechanical Components (B.2.3.23) AMP is used to manage cracking of insulated aluminum piping components exposed to air.</u></p> <p><u>Further evaluation is documented in Section 3.3.2.2.8.</u></p>

SLRA Table 3.3-1 (page 3.3-77) is revised as follows:

Table 3.3-1: Summary of Aging Management Evaluations for the Auxiliary Systems					
Item Number	Component	Aging Effect/Mechanism	Aging Management Program (AMP)/TLAA	Further Evaluation Recommended	Discussion
3.3-1, 245	Insulated aluminum piping, piping components, tanks exposed to air, condensation	Loss of material due to pitting, crevice corrosion	AMP XI.M29, "Outdoor and Large Atmospheric Metallic Storage Tanks," AMP XI.M32, "One-Time Inspection," AMP XI.M36, "External Surfaces Monitoring of Mechanical Components," or AMP XI.M42, "Internal Coatings/Linings for In-Scope Piping, Piping Components, Heat Exchangers, and Tanks"	Yes (SRP-SLR Section 3.3.2.2.10)	<p>Not applicable. There are no insulated aluminum piping, piping components, or tanks in the Auxiliary Systems.</p> <p><u>Consistent with NUREG-2191. The External Surfaces Monitoring of Mechanical Components (B.2.3.23) AMP is used to manage loss of material of insulated aluminum piping components exposed to air.</u></p> <p><u>Further evaluation is documented in Section 3.3.2.2.10.</u></p>

SLRA Section 3.3.2.2.8 (page 3.3-28) is revised as follows:

Auxiliary Systems contain aluminum piping and piping components exposed to uncontrolled indoor air. A review of PBN OE confirms halides are potentially present in the indoor environment at PBN. **Additionally, insulated piping components located indoors, particularly those in standby or periodically operated systems, could conservatively see an accumulation of contaminants from water intrusion through or beneath insulation.** As such, all aluminum components exposed to uncontrolled indoor air in the Auxiliary Systems are susceptible to cracking due to SCC and require management via an appropriate program.

Consistent with the recommendation of GALL-SLR, cracking of these components will be managed by the Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.3.25) and the External Surfaces Monitoring of Mechanical Components (B.2.3.23) AMPs for components exposed to air internally or externally, respectively. These AMPs provide for the management of aging effects through periodic visual inspection. Any visual evidence of cracking will be evaluated for acceptability. Deficiencies will be documented in accordance with the 10 CFR Part 50, Appendix B Corrective Action Program. The Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.3.25) and External Surfaces Monitoring of Mechanical Components (B.2.3.23) AMPs are described in Sections B.2.3.25 and B.2.3.23, respectively.

SLRA Section 3.3.2.2.10 (pages 3.3-30 to 3.3-31) is revised as follows:

Auxiliary Systems contain aluminum piping and piping components exposed to uncontrolled indoor air. A review of PBN OE confirms halides are potentially present in the indoor environments at PBN. **Additionally, insulated piping components located indoors, particularly those in standby or periodically operated systems, could conservatively see an accumulation of contaminants from water intrusion through or beneath insulation.** As such, all aluminum components exposed to uncontrolled ~~outdoor~~ **indoor** air in the Auxiliary Systems are susceptible to loss of material and require management via an appropriate program.

Consistent with the recommendation of GALL-SLR, loss of material of these components will be managed by the Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.3.25) and the External Surfaces Monitoring of Mechanical Components (B.2.3.23) AMP for components exposed to air internally or externally, respectively. These AMPs provide for the management of aging effects through periodic visual inspection. Any visual evidence of loss of material will be evaluated for acceptability. Deficiencies will be documented in accordance with the 10 CFR Part 50, Appendix B Corrective Action Program. The Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.3.25) and External Surfaces Monitoring of Mechanical Components (B.2.3.23) AMPs are described in Sections B.2.3.25 and B.2.3.23, respectively.

#### **Associated Enclosures:**

None.