

May 21, 2021

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

Before the Atomic Safety and Licensing Board

In the Matter of)	
)	
NextEra Energy Point Beach, LLC)	Docket Nos. 50-266-SLR
)	50-301-SLR
(Point Beach Nuclear Plant, Units 1 and 2))	

**NextEra Energy Point Beach, LLC’s Answer Opposing the
Physicians for Social Responsibility Wisconsin’s
Amendment of Contention 2**

I. INTRODUCTION

NextEra Energy Point Beach, LLC (“NextEra” or “NEPB”) hereby answers and opposes the Physicians for Social Responsibility Wisconsin’s (“Petitioner”) amendment to Contention 2,¹ previously pled in Petitioner’s petition to intervene in the subsequent license renewal (“SLR”) proceeding for Point Beach Nuclear Plant, Units 1 and 2 (“Point Beach” or “PBNP”).² The amended Contention 2 should be rejected because it includes certain allegations that are untimely and because, like the original Contention 2, it fails to demonstrate any genuine material dispute with the Application. Indeed, the new allegations are largely irrelevant to both the Contention and Application.

Petitioner’s original Contention 2 alleged that “Point Beach’s continued operation violates 10 CFR Part 50 Appendix A, Criterion 14 because the reactor coolant pressure boundary has not been tested so as to have an extremely low probability of abnormal leakage, of rapidly

¹ Physicians for Social Responsibility Wisconsin’s Motion to Amend Contention 2 (Apr. 26, 2021) (“Motion”) (NRC ADAMS Accession No. ML21116A577).

² Petition of Physicians for Social Responsibility Wisconsin for Leave to Intervene in Point Beach Nuclear Plant, Units 1 and 2 Subsequent License Renewal Proceeding, and Requesting an Adjudicatory Hearing (Mar. 23, 2021) (“Petition”) (NRC ADAMS Accession No. ML21082A530).

propagating failure, and of gross rupture, and the aging management plan does not provide the requisite reasonable assurance.”³ Petitioner now seeks to amend this Contention by adding:

The Electric Power Research Institute has recently admitted that its computer software for predicting embrittlement in boiling water reactors is “nonconservative.” Physical specimens and coupons at Point Beach may indeed prove that embrittlement calculations made at Point Beach are not conservative. Without testing the physical specimens and coupons at Point Beach, NextEra is severely risking public safety.⁴

Petitioner includes a Supplemental Declaration of Arnold Gundersen⁵ discussing and attaching a March 21, 2021 letter from the Electric Power Research Institute (“EPRI”)⁶ identifying a potential non-conservatism in BWRVIP-235 and BWRVIP-100 Revision 1-A, which relate to the evaluation of flaws in boiling water reactor (“BWR”) core shrouds.⁷ Gundersen’s Supplemental Declaration also discusses the previous replacement of baffle bolts at Point Beach and questions whether baffle-former plates have been inspected.⁸ Petitioner then incorporates this amended contention and information into its reply to the answers opposing admission of the original contention,⁹ and in discussing the amended contention, Petitioner adds several additional claims and references relating to the available coupons and embrittlement of the Point Beach reactor vessel, which NextEra assumes are part of the purported basis for the amended contention.

³ Petition at 31.

⁴ Motion at 7.

⁵ Supplemental Declaration of Arnold Gundersen, Nuclear Engineer (Apr. 26, 2021) (hereinafter cited as “Gundersen Supp. Decl.”).

⁶ Letter from Electric Power Research Institute to the Document Control Desk, “Potential Non-Conservatism in EPRI Report, BWRVIP-100, Rev. 1-A, 3002008388 and Impacted BWRVIP Reports” (Mar. 22, 2021) (ADAMS Accession No. ML21084A164) (“EPRI Letter”).

⁷ Gundersen Supp. Decl., ¶¶ 7-11; attached EPRI Letter.

⁸ Gundersen Supp. Decl., ¶¶ 14-15.

⁹ Physicians for Social Responsibility Wisconsin’s Reply in Support of Petition for Leave to Intervene in Point Beach Nuclear Plant, Units 1 and 2 Subsequent License Renewal Proceeding, and Requesting an Adjudicatory Hearing (Apr. 26, 2021) at 9-13 (“Pet. Reply”).

As discussed below, the questions regarding inspection of baffle-former plates are untimely and submitted without good cause. Similarly, the new claims and references regarding the available coupons and embrittlement of the reactor vessel are untimely and submitted without good cause. In addition, Petitioner makes no attempt to show that the new elements of its amended contention meet the standards of admissibility in 10 C.F.R. § 2.309(f)(1); and indeed, none of Petitioner's new claims or references, including the EPRI letter and the related information in Gundersen's Supplemental Declaration, raise any genuine, material dispute with the Application.

II. LEGAL STANDARDS

A. Standards for Timeliness

The NRC does not look with favor on amended or new contentions made after the initial filing deadline.¹⁰ As the Commission has repeatedly stressed, “[t]here simply would be no end to NRC licensing proceedings if petitioners could disregard our timeliness requirements and add new contentions at their convenience during the course of a proceeding based on information that could have formed the basis for a timely contention at the outset of the proceeding.”¹¹

The Commission's regulations therefore explicitly prohibit the consideration of contentions filed after the initial deadline, absent a finding of good cause for the late filing. Contentions filed after the intervention deadline “*will not be entertained* absent a determination by the presiding officer that a participant has demonstrated good cause” for the late filing.¹² The good cause demonstration requires a petitioner to show that:

¹⁰ *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 N.R.C. 631, 638 (2004).

¹¹ *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 N.R.C. 235, 272 (2009) (footnotes and internal quotation marks omitted).

¹² 10 C.F.R. § 2.309(c)(1) (emphasis added).

- (i) The information upon which the filing is based was not previously available;
- (ii) The information upon which the filing is based is materially different from information previously available; and
- (iii) The filing has been submitted in a timely fashion based on the availability of the subsequent information.¹³

B. Standards for Contention Admissibility

Even if a petitioner satisfies the good cause requirements of 10 C.F.R. § 2.309(c), the petitioner must still demonstrate that its new contention satisfies the standards for admissibility in 10 C.F.R. § 2.309(f)(1).¹⁴ The standards for contention admissibility were previously discussed in NextEra’s Answer to Petitioner’s original Petition.¹⁵ For the sake of brevity, Applicant hereby references and incorporates that discussion into this Answer.

III. PETITIONER’S AMENDED CONTENTION INCLUDES CLAIMS AND REFERENCES THAT ARE UNTIMELY AND STILL FAIL TO DEMONSTRATE ANY GENUINE MATERIAL DISPUTE WITH THE APPLICATION

A. Petitioner’s Questions Regarding Baffle-Former Plates and Certain Other Claims and References Regarding the Available Coupons and Embrittlement of the Reactor Vessel Are Untimely

Petitioner and Gundersen pose new questions regarding the inspection of baffle-former plates, but these claims could have been raised previously and therefore should be rejected as untimely. Gundersen claims that “almost 200 baffle-former bolts” were replaced at Point Beach in the 1990s, yet Gundersen alleges that he “cannot find any record that the baffle-former plates

¹³ 10 C.F.R. § 2.309(c)(1)(i)-(iii).

¹⁴ *Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station, CLI-93-12, 37 N.R.C. 355, 362-63 (1993)).

¹⁵ NextEra Energy Point Beach, LLC’s Answer Opposing the Physicians for Social Responsibility Wisconsin’s Petition for Leave to Intervene and Request for Hearing (April 19, 2021) at 4-7 (NRC ADAMS Accession No. ML21109A133) (“NextEra Answer”).

themselves have been tested and were replaced if warranted.”¹⁶ As Gundersen acknowledges, the baffle bolts at Point Beach were replaced “more than 20 years ago.”¹⁷ Thus, this is decades-old information, which is not *new* information for the purposes of a new or amended contention under 10 C.F.R. § 2.309(c)(1). And, in point of fact, the inspection of the baffle-former plates in both Point Beach Units is summarized in EPRI reports that have been in ADAMS for several years.¹⁸ If Petitioner and Gundersen wanted to address the status of baffle-former plates, based on the replacement of baffle bolts in the 1990s, they should have done so in the initial Petition. There is no excuse for adding a new claim based on such old information. The mere claim that Gundersen could not find the documents (readily available in ADAMS) showing that baffle-former plates have been inspected does not make any alleged concern timely.

The addition of the last two sentences in the amended contention (adding that “[p]hysical specimens and coupons at Point Beach may indeed prove that embrittlement calculations made at Point Beach are not conservative,”¹⁹ and that “[w]ithout testing the physical specimens and coupons at Point Beach, NextEra is severely risking public safety”²⁰), which are taken from Gundersen’s Supplemental Declaration,²¹ are also untimely. Petitioner offers no good cause for

¹⁶ Gundersen Supp. Decl., ¶ 15; Motion at 5. A basic search of the NRC website demonstrates that the baffle bolt issue is well known and has been largely remedied by plants converting from down-flow to up-flow. Point Beach is one of those plants that has converted to up-flow, with low levels of degradation since. See NRC, *Baffle-former Bolts*, available at <https://www.nrc.gov/reactors/operating/ops-experience/baffle-former-bolts.html> (page last updated Nov. 2, 2020). See also NextEra’s Subsequent License Renewal Application (“SLRA”) at B-74 (ADAMS Accession No. ML20329A247). The NRC has also generally determined that the baffle bolt degradation issue does not present a significant safety concern. Letter from J. Lubinski (NRR), J. Glitter (NRR) to W. Dean (NRR), *Degradation of Baffle-former Bolts in Pressurized-water Reactors—Documentation of Integrated Risk-informed Decisionmaking Process in Accordance with NRR Office Instruction LIC-504*, Attachment 3, at 4 (Oct. 20, 2016) (ADAMS Accession No. ML16225A341).

¹⁷ Gundersen Supp. Decl., ¶ 15; Motion at 5.

¹⁸ EPRI, Biennial Report of MRP-227-A Reactor Internals Inspection Results (May 18, 2016), Encl. at 55 (ADAMS Accession No. ML16144A789); EPRI, Biennial Report of Recent MRP-227-A Reactor Internals Inspection Results (Project 694) (May 12, 2014), Encl. at 53 (ADAMS Accession Nos. ML14135A383 and ML14135A384).

¹⁹ Motion at 7.

²⁰ *Id.*

²¹ Gundersen Supp. Decl., ¶ 13.

this expansion in the wording of the original contention. The last two added sentences have no apparent connection to the EPRI letter, which as discussed later, does not relate to the pressure boundary, the vessel material, or any calculation pertaining to it.

Similarly, Petitioner's claims that the reactor vessel pressure boundary for Unit 1 will not be tested (presumably meaning that Unit 1 vessel material will not be tested)²² and that there are no remaining capsules in Unit 1 to test from now until permanent termination of operations²³ are untimely. As Petitioner is basing these claims on statements in the Application (which Petitioner unfortunately misquotes²⁴), these new claims regarding the sufficiency of the supplemental capsule and the timing of its testing could have been made in the original contention. Petitioner provides no good cause for adding these claims now.

Finally, Petitioner provides an untimely reference to a 2013 NRC webinar summary as allegedly supporting its claim that Point Beach Unit 2 is one of the most embrittled reactor vessels in the country.²⁵ Petitioner previously made this claim in its original contention with a different reference that provided no support for the claim.²⁶ Petitioner provides no good cause for now changing its reference, nor can it as the 2013 meeting summary has been available for years.

²² Pet. Reply at 12-13. As previously stated, NextEra assumes that these new statements in the Reply are part of the basis for the amended contention.

²³ *Id.* at 12 n.34.

²⁴ See note 48 *infra*.

²⁵ Pet. Reply at 8 n.18, citing Summary of the March 19, 2013 Public Meeting Webinar Regarding Palisades Nuclear Plant (April 18, 2013) (ADAMS Accession No. ML13108A336) ("March 19, 2013 Webinar Summary").

²⁶ See NextEra Answer at 32-33 n.139.

B. Amended Contention 2 Still Fails to Raise Any Genuine Material Dispute with the Application

Petitioner makes no attempt to address the standards for the admissibility of contentions in 10 C.F.R. § 2.309(f)(1) and apply them to the new elements of the amended contention.²⁷ As discussed below, none of the claims in the amended contention or Gundersen's Supplemental Declaration raise a genuine, material dispute with the Application.

As a threshold matter, the EPRI letter that prompted Gundersen's Supplemental Declaration²⁸ (and purportedly provides an additional basis for the Contention²⁹) does not even appear relevant to the Contention. Both the original and amended Contention 2 allege that the "*reactor coolant pressure boundary*" has not been tested.³⁰ Yet, as Gundersen acknowledges, the EPRI Letter relates to predictions for "internal core structures,"³¹ or, as EPRI states, "core shroud materials."³² Reactor vessel internals are not part of the reactor coolant pressure boundary. Further, the shell of Point Beach's reactor vessels is made of carbon steel³³ and not stainless steel like BWR core shrouds, and their maximum projected fluence through the second period of extended operation is well below the fluence levels identified in the EPRI letter.³⁴

Petitioner provides no explanation how the EPRI letter supports its contention, why the letter is material to the application, or how the letter demonstrates any genuine material dispute with the Application. Petitioner and Gundersen provide no explanation how the BWRVIP

²⁷ To the extent that Petitioner is relying on its original Petition as providing support for the amended Contention, NextEra incorporates by reference its previous answer to Contention 2. See NextEra Answer at 25-35.

²⁸ Motion at 3.

²⁹ *Id.* at 2.

³⁰ Petition at 31.

³¹ Gundersen Supp. Decl., ¶ 16; Motion at 5.

³² EPRI Letter, Attachment 1 at 1.

³³ SLRA at 2.3-4.

³⁴ See SLRA at 4.2-4 to 4.2-5, showing a maximum projected fluence of 7.80E+19 n/cm². The EPRI letter reports a non-conservatism in the BWR methodology at fluences of 5E+20 n/cm² and above.

programs identified in the EPRI letter have any applicability to pressurized water reactors (“PWRs”) like Point Beach, or more specifically, to the testing or embrittlement of the Point Beach reactor pressure vessels. Gundersen fails to link calculations for the fluence received by internal core structures, particularly related to those structures in a BWR, to the Point Beach reactor coolant pressure boundary that is the subject of Contention 2. Gundersen does not even mention the computer codes and methodologies actually used at Point Beach in its embrittlement calculations, nor does he point to any issues in those calculations.

At most, Gundersen only speculates from the EPRI Letter that “physical specimens and coupons at Point Beach *may* indeed identify that embrittlement calculations made at Point Beach are not conservative,”³⁵ without providing any details supporting this assertion. Such conclusory assertions and mere speculation make for nothing more than the sort of ill-defined and poorly supported contentions that the Commission’s Rules of Practice are intended to avoid. Indeed, “[b]are assertions and speculation,’ even by [a purported] expert, are insufficient to trigger a full adjudicatory proceeding.”³⁶ In sum, Petitioner provides no explanation why the information in the EPRI letter and Mr. Gundersen’s discussion of it provide a basis for the contention, are material to the findings that the NRC must make, or show that a genuine, material dispute with the Application exists.

Rather than relating the EPRI letter to the Point Beach reactor vessels, Gundersen points to the projected fluence for reactor vessel internals (“RVI”)³⁷ and questions whether baffle-former plates have been inspected,³⁸ but these components are not part of the reactor vessel

³⁵ Gundersen Supp. Decl., ¶ 13; Motion at 5.

³⁶ *Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station)*, CLI-12-15, 75 N.R.C. 704, 714 (2012) (citation omitted).

³⁷ Gundersen Supp. Decl., ¶ 14.

³⁸ *Id.*, ¶ 15.

pressure boundary that is the subject of Contention 2. Nor does Gundersen or Petitioner address or identify any deficiency in the RVI aging management program (“AMP”) described in the Application.³⁹ Gundersen and Petitioner make no mention of the RVI AMP described in the Application. Indeed, Gundersen’s question regarding the baffle-former plates relates to whether there have been past inspections, and not to the activities that will be conducted under the RVI AMP. Further, as shown by the Application’s description of the specific activities relating to reactor vessel internals, the aging management of the baffle-former plates at Point Beach do not rely on an evaluation of flaws.⁴⁰ Consequently, even if baffle-former plates were within the scope of Contention 2 (which they are not, as they are not part of the reactor coolant pressure boundary), Gundersen and Petitioner fail to address or identify any deficiency in the RVI AMP, including the method of testing baffle-former plates, and thus fail to demonstrate any genuine material dispute with the Application.

The statement in Gundersen’s Supplemental Declaration that “without testing the physical specimens and coupons at Point Beach, NextEra is severely risking public safety,”⁴¹ which Petitioner adds to its amended contention,⁴² likewise fails to address and dispute the Reactor Vessel Material Surveillance Aging Management Program described in the Application.⁴³ Mr. Gundersen never mentions that aging management program, which as previously discussed in NextEra’s answer to the original contention includes testing of material in a supplemental capsule (as well as receipt of supplemental test data from other plants).⁴⁴

³⁹ SLRA, App. B, § B.2.3.7, and App. C.

⁴⁰ See SLRA at C-22 (Item W7).

⁴¹ Gundersen Supp. Decl., ¶ 13.

⁴² Motion at 7.

⁴³ SLRA, § B.2.3.19.

⁴⁴ NextEra Answer at 29-32.

Petitioner now claims that the supplemental capsule “is in Unit 2” and “there are no remaining capsules whatsoever to test in Unit 1,”⁴⁵ but these new claims raise no genuine material dispute because the “replacement surveillance capsule contain[s] materials closely matching the limiting materials for both Units 1 and 2 . . .”⁴⁶ and the fluence that it will have received at 51 effective full power years (“EFPY”) when it is proposed to be withdrawn will bound the 72 EFPY projected fluence.⁴⁷ Neither Petitioner nor Mr. Gundersen provide any explanation why testing of a capsule containing material representative of the limiting materials for both units at a bounding fluence is insufficient.⁴⁸

Moreover, any assertion that only test results from a capsule in Unit 1 may be used to assess the embrittlement of Unit 1 materials is an impermissible challenge to the NRC rules. The PTS rule states explicitly that the “surveillance program results [used verify that RT_{NDT} for each vessel beltline material is a bounding value for the specific reactor vessel] means any data that demonstrates the embrittlement trends for the limiting beltline material, including but not limited to data from test reactors or from surveillance programs at other plants with or without surveillance program integrated per 10 CFR part 50, appendix H.”⁴⁹

Petitioner also claims that because the supplemental capsule is currently scheduled to be withdrawn in 2024, there will be a “complete absence beyond 2024 of any means of physically

⁴⁵ Pet. Reply at 12 n.24.

⁴⁶ NUREG-1839, Safety Evaluation Report Related to the License Renewal of the Point Beach Nuclear Plant, Units 1 and 2 (Dec. 2005) at 3-97 (ADAMS Accession No. ML053420137).

⁴⁷ SLRA, App. B at B-150.

⁴⁸ Petitioner inaccurately quotes the SLRA as stating “The PBN standby capsules (in both Units 1 and 2) do not contain the most limiting material and there are no plans to withdraw these capsules.” Pet. Reply at 12 n.24. The SLRA states that “The PBN standby capsules (“**N**” in both Units 1 and 2) do not contain the most limiting material and there are no plans to withdraw these capsules.” SLRA at B-150. Thus, this statement clearly does not pertain to the supplemental capsule (Capsule “A”), as Petitioner seems to have tried to suggest by omitting the specific reference to Capsule “N” from the quoted statement.

⁴⁹ 10 C.F.R. § 50.61(c)(2) n.5.

measuring and analyzing embrittlement for the ensuing 36+ years of operations.”⁵⁰ This claim too fails to address or raise any genuine material dispute with the aging management program described in the Application. The Application includes a request for NRC approval to “extend the Point Beach capsule A withdraw schedule from 43 EFPY to the first refueling outage that meets or exceeds (\geq) 51 EFPY with a projected fluence of 8.07×10^{19} n/cm² to bound the 80 year (72 EFPY) projected end of the SPEO fluence for the Point Beach Units 1 and 2 reactor vessels.”⁵¹ This is projected to occur in 2035.⁵² Neither Petitioner nor Mr. Gundersen provide any explanation why the schedule proposed in the Application presents any concern.

Finally, Petitioner’s repeated claim that Point Beach Unit 2 is one of the most embrittled reactors⁵³ continues to raise no genuine, material dispute with the Application. While the March 19, 2013 Webinar Summary now cited by Petitioner indicated that Point Beach was projected to exceed the screening criteria in the Pressurized Thermal Shock (“PTS”) rule (10 C.F.R. § 50.61) during the initial period of extended operation, it added:

Updated fluence calculations, capacity factors changes, power uprate, new surveillance data, and improved material property information (i.e., the use of direct rather than correlative measurements of the vessel material’s resistance to fracture) can change these estimates. For example, Point Beach has made a recent licensing submittal that seeks to use improved material property information to re-evaluate the level of embrittlement in the vessel. If approved, it is estimated that Point Beach would not exceed the screening criteria of 10 CFR 50.61 during their 20-year license extension period.⁵⁴

And indeed, the Application shows that the Point Beach reactor vessel materials are now projected to remain below the PTS screening criteria through the second period of extended

⁵⁰ Pet. Reply at 12.

⁵¹ SLRA at B-150.

⁵² *Id.*

⁵³ Motion at 2; Pet. Reply at 8.

⁵⁴ March 19, 2013 Webinar Summary, Encl. 2 at 2.

operation.⁵⁵ Neither Petitioner nor Gundersen address or dispute this information in the Application or provide anything to dispute it other than Gundersen's vague, conclusory and unsupported assertion that "mathematic modeling of neutron embrittlement is prone to errors."⁵⁶ Such a conclusory assertion that does not even mention the Application raises no genuine, material dispute.

IV. CONCLUSION

For all of the foregoing reasons, Petitioner's amended Contention 2 should be rejected.

Respectfully submitted,

/signed electronically by Anne Leidich /

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⁵⁵ SLRA at 4.2-6.

⁵⁶ Gundersen Supp. Decl., ¶ 12.1.

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Certificate of Service

I hereby certify that the foregoing NextEra Energy Point Beach, LLC's Answer Opposing the Physicians for Social Responsibility Wisconsin's Motion for Leave to File Amended Contention 2 has been served through the E-Filing system on the participants in the above-captioned proceeding this 21st day of May, 2021.

/signed electronically by Anne R. Leidich/

Anne R. Leidich