

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of)
)
NEXTERA ENERGY SEABROOK, LLC) Docket No. 50-443-LA-2
)
(Seabrook Station, Unit 1))

NRC STAFF BRIEF IN OPPOSITION TO NEXTERA'S APPEAL OF LBP-17-07

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November 27, 2017

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INTRODUCTION

Pursuant to 10 C.F.R. § 2.311, the U.S. Nuclear Regulatory Commission (“NRC”) staff (“Staff”) files this brief opposing the appeal (“Appeal”) filed by NextEra Energy Seabrook, LLC (“NextEra”)¹ of Atomic Safety and Licensing Board (“Board”) Memorandum and Order LBP-17-07. In LBP-17-07, the Board determined that, in its petition for leave to intervene (“Petition”),² C-10 Research & Education Foundation, Inc. (“C-10”) had established standing to intervene and had pled five admissible contentions.³ In admitting these five contentions, the Board reformulated them into a single contention for hearing.⁴

¹ NextEra’s Notice of Appeal of LBP-17-7 (Oct. 31, 2017); Brief in Support of NextEra’s Appeal of LBP 17-7 (Oct. 31, 2017) (Agencywide Documents Access and Management System (“ADAMS”) Accession No. ML17304B075) (“Appeal”). While NextEra challenged C-10’s standing below, it did not raise this issue in the instant appeal. See NextEra’s Answer Opposing C-10 Research & Education Foundation’s Petition for Leave to Intervene and Hearing Request on NextEra Energy Seabrook, LLC’s License Amendment Request 16-03, 13-15 (May 5, 2017) (ADAMS Accession No. ML17125A289) (“NextEra Answer”). The Staff also challenged C-10’s standing below. See NRC Staff’s Answer to C-10 Research and Education Foundation, Inc. Petition for Leave to Intervene, 8-23 (May 5, 2017) (ADAMS Accession No. ML17125A304) (“Staff Answer”).

² C-10 Research and Education Foundation, Inc. Petition for Leave to Intervene: Nuclear Regulatory Commission Docket No. 50-443 (Apr. 10, 2017) (ADAMS Accession No. ML17100B013) (“Petition”).

³ *NextEra Energy Seabrook, LLC* (Seabrook Station, Unit 1), LBP-17-07, 86 NRC __, __ (Oct. 6, 2017) (slip op. at 2) (“LBP-17-07”).

⁴ *Id.* at __ (slip op. at 34) (“We therefore admit the following reformulated contention: The large-scale test program, undertaken for NextEra at the [Ferguson Structural Engineering Laboratory], has yielded data that are not ‘representative’ of the progression of [alkali-silica reaction] at [Seabrook Station,

In its Appeal, NextEra argues that the Board abused its discretion and thereby committed reversible legal error.⁵ Specifically, NextEra asserts that the Board abused its discretion by itself providing information and arguments in order to make C-10's contentions admissible and by improperly reformulating C-10's contentions by "repositioning various assertions from multiple *inadmissible* contentions into a new configuration not pled by a petitioner"⁶ As explained below, however, the Board did not improperly supplement the information provided in C-10's Petition or change C-10's arguments in finding that five of C-10's proposed contentions were admissible as a single reformulated contention. Instead, the Board, recognizing that the five admitted contentions overlapped and that C-10 was a *pro se* petitioner, made the reasonable decision to simply read these contentions as a whole and not as five distinct and separate arguments.⁷ This was not an abuse of discretion and, consequently, the Commission should deny NextEra's Appeal.

BACKGROUND

This proceeding concerns the August 1, 2016, NextEra license amendment request ("LAR") to adopt a methodology to account for the impacts of alkali-silica reaction ("ASR") on reinforced concrete structures at Seabrook Station, Unit No. 1 ("Seabrook").⁸ The LAR states

Unit 1]. As a result, the proposed monitoring, acceptance criteria, and inspection intervals are not adequate.").

⁵ Appeal at 2-4.

⁶ *Id.*

⁷ LBP-17-07 at __ (slip op. at 87-91). The Board's reasoning was consistent with the Staff's analysis of C-10's proposed contentions. See Staff Answer at 26-39; NRC Staff's Sur-Reply to NextEra's Reply to NRC Staff's Answer to C-10's Petition for Leave to Intervene, 12-15 (June 5, 2017) (ADAMS Accession No. ML17156A280) (stating that numerous of C-10's proposed contentions were interrelated with respect to C-10's challenge to the representativeness of the large-scale test program and that, therefore, their reformulation into a single contention did not supply, as the requisite basis for an admissible contention, information that is new to the Petition or that was missing from the Petition).

⁸ License Amendment Request 16-03, Revise Current Licensing Basis to Adopt a Methodology for the Analysis of Seismic Category I Structures with Concrete Affected by Alkali-Silica Reaction (Aug. 1, 2016) (ADAMS Accession No. ML16216A240) ("LAR").

that due to limitations in the publicly available test data related to ASR effects on structures, NextEra commissioned MPR Associates (“MPR”) to conduct large-scale test programs in collaboration with the Ferguson Structural Engineering Laboratory (“FSEL”) at the University of Texas at Austin (“the large-scale test program”).⁹ The methodology proposed in the LAR was developed based on the test results from the large-scale test program and existing literature.¹⁰

On February 7, 2017, the NRC published a notice of opportunity to request a hearing on the LAR.¹¹ On April 10, 2017, C-10 filed its Petition, which requested a hearing on the LAR with respect to ten proposed contentions.¹² On May 5, 2017, the Staff and NextEra filed answers opposing the granting of the requested hearing due to C-10’s failure to establish standing in its Petition.¹³ NextEra also argued that C-10 had not pled an admissible contention,¹⁴ while the Staff determined that C-10’s proposed contentions could be understood and reformulated as a single, admissible contention.¹⁵

In LBP-17-07, the Board ruled that C-10 had standing to intervene and had pled five contentions that are admissible on the two independent grounds that (1) they are individually

⁹ LAR at 14-15 of 73 (unnumbered).

¹⁰ *Id.* at 9 of 73 (unnumbered).

¹¹ Applications and Amendments to Facility Operating Licenses and Combined Licenses Involving Proposed No Significant Hazards Considerations and Containing Sensitive Unclassified Non-Safeguards Information and Order Imposing Procedures for Access to Sensitive Unclassified Non-Safeguards Information, 82 Fed. Reg. 9601, 9604 (Feb. 7, 2017).

¹² See Petition at 2-3.

¹³ Staff Answer at 1; NextEra Answer at 2-3.

¹⁴ NextEra Answer at 2-3.

¹⁵ Staff Answer at 26, 38-39 (suggesting a reformulation of C-10’s Contentions A, B, C, D, G, and H to state that “The MPR/FSEL large-scale test program is not bounding of the Seabrook concrete because of the age of the Seabrook concrete, the length of time that ASR has propagated in the Seabrook concrete, the effect of water at varying levels of height and varying levels of salt concentration on the Seabrook concrete, the effect of heat on the Seabrook concrete, and the effect of radiation on the Seabrook concrete. As a result, the proposed monitoring, acceptance criteria, and inspection intervals are not adequate.”).

admissible and (2) even assuming that none of the contentions could be admitted individually, they are admissible when read together with respect to their claim that “the large-scale test program is not representative of the progression of ASR in the Seabrook concrete, and, because the large-scale test program is not representative, NextEra’s other methods for detecting and testing for ASR progression, which are based on that program, are inadequate.”¹⁶

As discussed below, the Board’s second, independent basis for contention admissibility is not inconsistent with Commission precedent and, therefore, the Staff opposes NextEra’s Appeal.

DISCUSSION

I. Legal Standards

The Commission’s regulations at 10 C.F.R. § 2.311(d)(1) provide for an appeal as of right on the question of whether a request for hearing should have been wholly denied. On threshold matters such as standing and contention admissibility, the Commission gives substantial deference to Board rulings unless the appeal points to an error of law or abuse of discretion which might serve as grounds for reversal of the Board’s decision.¹⁷

A Board may reframe contentions, following a determination of their admissibility, for purposes of clarity, succinctness, and a more efficient proceeding, but the Board may not redraft an inadmissible contention to cure deficiencies and thereby render it admissible.¹⁸ A Board abuses its discretion when it supplies information that is lacking in a contention that otherwise

¹⁶ LBP-17-07 at ___ (slip op. at 2, 33, 87-91).

¹⁷ *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), CLI-08-17, 68 NRC 231, 234 (2008) (citing *PPL Susquehanna LLC* (Susquehanna Steam Electric Station, Units 1 and 2), CLI-07-25, 66 NRC 101, 104 (2007)); *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-06-24, 64 NRC 111, 121 (2006); *Private Fuel Storage, LLC* (Independent Spent Fuel Storage Facility), CLI-00-21, 52 NRC 261, 265 (2000).

¹⁸ *Andrew Siemaszko*, CLI-06-16, 63 NRC 708, 720-21 (2006) (quoting *Virginia Elec. & Power Co.* (North Anna Power Station, Units 1 and 2), LBP-84-40A, 20 NRC 1195, 1199 (1984)).

would be inadmissible.¹⁹ Similarly, a Board abuses its discretion when it reformulates a contention such that the reformulated contention presents a different challenge than the original contention.²⁰

II. The Board Did Not Abuse its Discretion by Admitting C-10's Proposed Contentions A, B, C, D, and H as a Single Reformulated Contention for Hearing with Respect to the Representativeness of the Large-Scale Test Program

In LBP-17-07, the Board determined that, even assuming that proposed Contentions A, B, C, D, and H could not be admitted individually, they could be admitted when read together with respect to whether the large-scale test program is representative of Seabrook's concrete and the corresponding consequences if the concrete is not representative.²¹ The Board stated that such a reformulation was within its discretion because these contentions were interrelated and thus reading them together requires no supplementation of the Petition.²² In essence, the Petition itself already put forth this argument, "though inarticulately," and so the reformulated contention does not supplement arguments that are missing from the Petition.²³

NextEra, however, argues that the Board's reformulation of the contentions is contrary to *Fermi*.²⁴ In *Fermi*, the Commission reversed a Board's contention admissibility decision, finding that the Board had abused its discretion because (1) the Board, and not the petitioner, provided the nexus between a petitioner statement and the licensing action, which was necessary to establish a genuine dispute for an admissible contention, and (2) the Board reformulated a

¹⁹ *DTE Elec. Co.* (Fermi Nuclear Power Plant, Unit 2), CLI-15-18, 82 NRC 135, 141-42 (2015) (citing *Crow Butte Res., Inc.* (North Trend Expansion Project), CLI-09-12, 69 NRC 535, 552-53, 565-66 (2009)).

²⁰ *Id.* at 145-46.

²¹ LBP-17-07 at ___ (slip op. at 87-89).

²² *Id.*

²³ *Id.*

²⁴ Appeal at 27-29.

contention into a contention regarding subsistence consumption, but the original contention, by its own terms, seemed to only relate to the Staff's notification of Tribes.²⁵ NextEra argues that, as in *Fermi*, the Board in the instant proceeding is itself supplying a nexus between the proposed Contention D argument regarding the representativeness of the large-scale test program and the proposed Contention A, B, C, and H arguments regarding the adequacy of various aspects of the LAR.²⁶

The Staff opposes NextEra's argument because, based on the text of the Petition itself, it is apparent that C-10's proposed Contentions A, B, C, D, and H are interrelated. Although not a model of clarity or organization, the Petition implicitly ties the arguments of these contentions together with respect to the representativeness of the large-scale test program. The effect of the Board's reformulation was simply to make these ties explicit; the Board did not itself provide the nexus between the contentions, supplement the contentions, or change C-10's arguments. Therefore, the Board did not abuse its discretion in admitting the reformulated contention.

A. The Arguments of Proposed Contention A are Tied to the Arguments of Proposed Contention D with Respect to the Representativeness of the Large-Scale Test Program

Whereas C-10's proposed Contention D challenges the representativeness of the large-scale test program in general,²⁷ its proposed Contention A challenges the efficacy of NextEra's proposed methods for determining the presence and extent of ASR in safety-related structures at Seabrook.²⁸ C-10 states that NextEra endorsed the use of a combined cracking index ("CCI") methodology in its LAR and, in support of this, quotes the LAR statement that, "[e]xpansion measurements from the large-scale test programs have shown that crack index provides a

²⁵ *Fermi*, CLI-15-18, 82 NRC at 141-42, 145-46.

²⁶ Appeal at 27-29.

²⁷ Petition at 8-11.

²⁸ *Id.* at 3.

reasonable and conservative approximation of true engineering strain for reinforced concrete members undergoing ASR expansion.”²⁹ C-10 also quotes the Staff statement that, “[t]he validation of the use of the CCI and crack width measurements for monitoring the structural impact of ASR has been an objective of the large specimen testing program.”³⁰ C-10 then concludes that “only sample testing of in-situ concrete can accurately gauge the extent of ASR within a given concrete matrix.”³¹

Although C-10 does not explicitly tie its proposed Contention A argument that NextEra’s methods for determining the presence and extent of ASR are not sufficient to its proposed Contention D argument that the large-scale test program is not representative, it does provide information stating that the basis for the methods criticized in proposed Contention A is the large-scale test program, which is, in turn, criticized in proposed Contention D. Given this common thread between C-10’s proposed Contentions A and D, combined with C-10’s status as a *pro se* petitioner, it is reasonable to interpret C-10’s references in proposed Contention A to the large-scale test program as linking its proposed Contention A argument to its proposed Contention D. Consequently, the Board’s combination of these arguments in its reformulated contention did not provide the nexus between these contentions, did not add to the information provided in either proposed Contention A or proposed Contention D, and did not change C-10’s arguments; it simply made explicit the connection between these contentions that C-10, a *pro se* petitioner, seemed, though imprecisely, to be itself expressing.

²⁹ Petition at 3 (quoting LAR at 28 of 73 (unnumbered)).

³⁰ *Id.* at 4 (quoting Seabrook Station, Unit No. 1 - NRC Integrated Inspection Report 05000443/2014002, at 21 (May 6, 2014) (ADAMS Accession No. ML14127A376)).

³¹ *Id.* at 4.

B. The Arguments of Proposed Contentions B and C are Tied to the Arguments of Proposed Contention D with Respect to the Representativeness of the Large-Scale Test Program

In proposed Contention B, C-10 argues that NextEra has “a false understanding of the forces at work” in Seabrook’s concrete.³² In proposed Contention C, C-10 argues that, instead of its LAR, NextEra should undertake core sampling of Seabrook’s concrete with “[t]horough petrographic analysis”³³ C-10 faults the LAR as a means to avoid such core sampling and faults NextEra for “promot[ing] the unverifiable claim that concrete samples removed from their ‘confinement’ cannot ‘represent’ ASR-attacked concrete in its confined state.”³⁴ Instead, C-10 asserts that “[c]ore data are always analyzed in the context of their service environment, so that ‘confinement’ is accounted for” and that “existing models . . . have been devised to predict the advancement of ASR for concrete in confinement”³⁵

Essentially, C-10 appears to be arguing that the process advanced by the LAR is not sufficient and that the only sufficient process is core sampling. Although C-10 does not specifically explain in proposed Contentions B and C what that process advanced by the LAR is, it does explain in proposed Contention D that the process is “testing concrete remotely fashioned in a laboratory setting, meant to ‘stand in’ for strength testing in lieu of Seabrook[]’s actual material”³⁶ Therefore, it is reasonable to conclude that C-10 is arguing, in part, that the large-scale test program is material to the findings that the NRC must make on the LAR because, if the test program does not provide information equivalent to that obtainable by core sampling, then “NextEra has no real basis . . . that Seabrook’s ASR progression is truly

³² Petition at 5.

³³ *Id.* at 6-7.

³⁴ *Id.* at 8.

³⁵ *Id.*

³⁶ *Id.*

understood.”³⁷ Again, the Board’s combination of these arguments in its reformulated contention did not provide the nexus between these contentions, did not add to the information provided in either proposed Contentions B and C or proposed Contention D, and did not change C-10’s arguments; it simply made explicit the connection between these contentions that C-10, a *pro se* petitioner, seemed, though imprecisely, to be itself expressing.

C. The Arguments of Proposed Contention H are Tied to the Arguments of Proposed Contention D with Respect to the Representativeness of the Large-Scale Test Program

In proposed Contention H, C-10 faults the inspection intervals provided in the LAR stating that, “[a]t this time, there is no real knowledge of the speed of disintegration of concrete caused by advancing ASR” or “whether ASR progresses at a steady rate or at an accelerating (or decelerating) rate.”³⁸ C-10 argues that the large-scale test program “is a snapshot only, and, further, a snapshot not of the actual concrete at Seabrook Station, but rather of specimens that were designed and fabricated to ‘represent reinforced concrete at Seabrook Station to the maximum extent practical.’”³⁹ C-10 concludes that, “[d]ue to these omissions in testing in the FSEL and due to the lack of knowledge of the speed of progression of ASR damage to the actual concrete at Seabrook Station, the LAR . . . needs to be rejected”⁴⁰

A reasonable reading of proposed Contention H is that C-10 is arguing that, since the large-scale test program concrete is not representative of the Seabrook concrete, and since the inspection intervals are based on this non-representative data, then the inspection intervals are arbitrary. Further, it is reasonable to conclude that C-10 was, in effect, attempting to incorporate its proposed Contention H arguments into its proposed Contention D. Therefore, the Board’s

³⁷ Petition at 8.

³⁸ *Id.* at 15.

³⁹ *Id.* (quoting MPR-4288, Revision 0, Seabrook Station: Impact of Alkali-Silica Reaction on Structural Design Evaluations, at 1-2 (July 2016) (ADAMS Accession No. ML16216A241)).

⁴⁰ *Id.* at 16.

combination of these arguments in its reformulated contention did not provide the nexus between these contentions, did not add to the information provided in either proposed Contention H or proposed Contention D, and did not change C-10's arguments. The reformulation was, thus, not an abuse of discretion.

D. The Board Did Not Abuse its Discretion in Reading Together as a Whole the Arguments of Proposed Contentions A, B, C, D, and H with Respect to the Representativeness of the Large-Scale Test Program

In conclusion, NextEra is correct that C-10 bears the burden of demonstrating that its proposed Contention D argument regarding the large-scale test program satisfies all of the Commission's strict by design contention admissibility requirements.⁴¹ However, NextEra is not correct that the Board abused its discretion by finding that, for proposed Contention D, the contention admissibility requirements were satisfied, in part, by information provided in other parts of the Petition. On the contrary, this was a reasonable exercise of the Board's discretion based on C-10's status as a *pro se* petitioner and based on the language of the Petition, which discusses the implications of the large-scale test program not only in proposed Contention D, but also in proposed Contentions A, B, C, and H. By reading proposed Contentions A, B, C, D, and H together as a whole, the Board simply analyzed the Petition as it appears that C-10 intended the Petition to be understood, *i.e.*, as various interdependent arguments related to the representativeness of the large-scale test program.⁴²

CONCLUSION

The Board determined that, even assuming that proposed Contentions A, B, C, D, and H could not be admitted individually, they could be admitted when read together with respect to

⁴¹ Appeal at 29.

⁴² Notably, while arguing that the Board should not have read the proposed contentions as a whole, NextEra itself reads the proposed contentions as a whole in arguing that "C-10's proposed contentions . . . rest largely on one chief complaint and demand—that NextEra must rely solely on *mechanical property* testing of Seabrook concrete samples to evaluate ASR." *Compare* Appeal at 2 *with* Appeal at 27-29.

whether the large-scale test program is representative of Seabrook's concrete and the corresponding consequences if the concrete is not representative. This determination was not an abuse of discretion because the Petition implicitly ties the arguments of these contentions together. The effect of the Board's reformulation was simply to make these ties explicit; the Board did not itself provide the nexus between the contentions, supplement the contentions, or change C-10's arguments. Therefore, the Commission should deny NextEra's Appeal.

Respectfully submitted,

/Signed (electronically) by/

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Dated at Rockville, Maryland
this 27th day of November, 2017

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CERTIFICATE OF SERVICE

Pursuant to 10 C.F.R. § 2.305, I hereby certify that copies of the foregoing "NRC STAFF BRIEF IN OPPOSITION TO NEXTERA'S APPEAL OF LBP-17-07," dated November 27, 2017, have been filed through the Electronic Information Exchange, the NRC's E-Filing System, in the above-captioned proceeding, this 27th day of November, 2017.

/Signed (electronically) by/

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Dated at Rockville, Maryland
this 27th day of November, 2017