

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:)

NEXTERA ENERGY SEABROOK, LLC)

(Seabrook Station Unit 1))

Docket No. 50-443-LA-2

November 6, 2019

**NEXTERA’S ANSWER OPPOSING C-10’S THIRD MOTION FOR LEAVE TO FILE
SUPPLEMENTAL TESTIMONY**

I. INTRODUCTION

Pursuant to 10 C.F.R. § 2.323(c), NextEra Energy Seabrook, LLC (“NextEra”) hereby timely files this answer to C-10 Research and Education Foundation’s (“C-10”) Motion to Submit Additional Exhibits Regarding Petrographic Observations and Analyses of ASR at Seabrook (“Motion”).¹ More specifically, the Motion seeks leave to submit as an exhibit a document (the “Petrography Report”)² that was disclosed and produced to C-10 *a year and a half ago*,³ along with untimely, supplemental testimony from C-10’s expert regarding that document (“Proposed Supplemental Testimony”).⁴ As a matter of law, in order to grant the Motion (which would undoubtedly *delay* this proceeding), the Board must find that C-10 has demonstrated the

¹ C-10 Research and Education Foundation’s Response to ASLB Memorandum and Motion to Submit Additional Exhibits Regarding Petrographic Observations and Analyses of ASR at Seabrook (“Motion”) (Oct. 28, 2019) (including two proposed exhibits as attachments).

² Proposed Exhibit INT050, “WJE Report No. 2014-3453.2” (May 26, 2016) (“Petrography Report”)

³ Letter from P. Bessette to N. Hildt-Treat, “Initial Disclosures Pursuant to 10 C.F.R. § 2.336; NextEra Energy Seabrook, LLC (Seabrook Station Unit 1), Docket No. 50-443-LA-2,” Encl. 2 at 8 (item no. 89) (Jan. 4, 2018); Letter from P. Bessette to N. Hildt-Treat, “NextEra Energy Seabrook, LLC (Seabrook Station Unit 1), Docket No. 50-443-LA-2” (Mar. 20, 2018).

⁴ Proposed Exhibit INT049, “Supplemental Testimony of Victor E. Saouma, Ph.D Regarding Petrographic Documents” (Oct. 28, 2019) (“Proposed Supplemental Testimony”).

existence of “unavoidable and extreme circumstances.” C-10 cites no such circumstances here, thus the Motion should be denied as untimely and prejudicial.

First, C-10 argues that discovery volume and competing priorities should excuse its untimely filing. But as explained below, such excuses are insufficient as a matter of law. C-10 further argues the Motion should be granted because the Petrography Report allegedly “contradicts” NextEra’s testimony in this proceeding,⁵ and “undermines” the U.S. Nuclear Regulatory Commission (“NRC”) Staff’s conclusions.⁶ C-10, however, grossly mischaracterizes NextEra’s written and oral testimony and the Petrography Report, which is entirely consistent with—and in fact *bolsters*—NextEra’s and the NRC Staff’s testimony. Thus, despite C-10’s alarmist and inaccurate characterization, the Petrography Report neither “contradicts” nor “undermines” NextEra’s testimony or the NRC Staff’s conclusions.

Finally, the “Proposed Supplemental Testimony” contains a response to the Board’s request for a “clarification”⁷ regarding C-10’s September 29, 2019 Motion to Compel.⁸ But the Board’s request that *counsel* provide a pleading clarification did not invite C-10 to submit *record evidence* in response thereto. Thus, that portion of the Proposed Supplemental Testimony is procedurally improper and does not constitute probative evidence. Moreover, as explained further below, the Proposed Supplemental Testimony still fails to identify any “unavoidable and extreme circumstances” that would warrant further delay of this proceeding. Thus, the Motion should be denied for this additional reason.

⁵ Motion at 2, 5.

⁶ *Id.* at 2, 6.

⁷ ASLB Memorandum (Request for Clarification) (Oct. 16, 2019) (unpublished) (“Memorandum”).

⁸ C-10 Research and Education Foundation’s Motion to Compel Production of Mineralogy Data and Request for Opportunity to Submit Supplemental Written Testimony Regarding the Data (Sept. 29, 2019) (“Motion to Compel”).

II. LEGAL STANDARDS

As this Board has explicitly recognized, “the Commission expects its licensing boards to set and adhere to reasonable schedules for the various steps in the hearing process,” and the parties likewise “are expected to adhere to the time frames specified in the . . . scheduling orders in the proceeding.”⁹ Intervenors may not “disregard [adjudicatory] timeliness requirements . . . at their convenience during the course of a proceeding” in order to advance additional arguments based on previously-available information.¹⁰ The Commission has instructed that the “good cause” standard (ordinarily applicable to motions) is different for requests to extend adjudicatory deadlines, which may be granted “*only* when warranted by unavoidable and extreme circumstances” (*i.e.*, the “Adjudicatory Extension Policy”).¹¹

III. THE MOTION FAILS TO IDENTIFY ANY “UNAVOIDABLE AND EXTREME CIRCUMSTANCES”

In February 2018, the Board issued a revised scheduling order (“RSO”) governing the submission of written testimony in this proceeding.¹² The RSO provided C-10 with an opportunity to file written direct testimony by June 10, 2019, and written rebuttal testimony by August 23, 2019.¹³ C-10 took advantage of both opportunities. On September 4, 2019, C-10 further requested leave to file “supplemental” rebuttal after the deadline for testimony

⁹ Statement of Policy on Conduct of Adjudicatory Proceedings, CLI-98-12, 48 NRC 18, 21 (1998).

¹⁰ *Id.*

¹¹ *Id.* (emphasis added). *See also* *Balt. Gas & Elec. Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 & 2), CLI-98-25, 48 NRC 325, 342 (1998); *Hydro Res., Inc.* (Albuquerque, NM), CLI-99-1, 49 NRC 1, 3 & n.2 (1999) (“We caution all parties in this case, however, to pay heed to the guidance in our policy statement that ordinarily only ‘unavoidable and extreme circumstances’ provide sufficient cause to extend filing deadlines”).

¹² *See* ASLB, Memorandum and Order (Revised Scheduling Order) (Feb. 15, 2018) (unpublished). *See also* ASLB, Initial Scheduling Order (Nov. 29, 2017) (unpublished).

¹³ *See* RSO at 3 (specifying that C-10 written direct testimony and written rebuttal testimony were due 90 days and 165 days, respectively, from the date the final Safety Evaluation (“FSE”) is issued). The FSE was issued on March 11, 2019. *See* Letter from to M. Nazar, NextEra, “Seabrook Station, Unit No. 1 – Issuance of Amendment No. 159 re: Methodology for Analysis of Seismic Category I Structures with Concrete Affected by Alkali-Silica Reaction (CAC No. MF8260; EPID L-2016-LLA-0007)” (Mar. 11, 2019) (ML18204A291).

submission.¹⁴ Although the Board acknowledged the Commission’s Adjudicatory Extension Policy, it found that the Policy was “primarily concerned with modifications of scheduling orders that would delay the completion of an adjudication.”¹⁵ The Board reasoned that C-10’s request would *not* delay the completion of the adjudication,¹⁶ and therefore granted the request on September 16, 2019.¹⁷ C-10’s expert also provided extensive oral testimony across four days of evidentiary proceedings between September 24-27, 2019.¹⁸ Additionally, C-10 has a pending motion to compel production of additional mineralogy data and submit supplemental testimony regarding ASR gel chemistry.¹⁹

C-10 now seeks permission to submit a remarkable *sixth* round of testimony.²⁰ As an initial matter, however, the instant Motion fundamentally differs from C-10’s September 4, 2019 request because granting the Motion *would* no doubt delay the completion of the adjudication.²¹ In contrast, as the Commission has explained unequivocally, applicants are “*entitled* to a prompt

¹⁴ C-10 Research and Education Foundation’s Motion for Leave to File Supplemental Rebuttal Testimony (Sept. 4, 2019).

¹⁵ ASLB Order at 3 (Granting C-10’s Motion for Leave to File Supplemental Rebuttal Testimony) (Sept. 16, 2019).

¹⁶ *Id.* at 3 n.13 (“The schedule for this proceeding, including the evidentiary hearing, will not be altered by allowing C-10 to file INT030”).

¹⁷ *Id.* at 5.

¹⁸ *See* Tr. 214-1203.

¹⁹ *See* Motion to Compel.

²⁰ C-10 filed: (1) Initial and (2) Rebuttal Testimony, (3) the Supplemental Rebuttal, plus (4) oral testimony at the evidentiary hearing. It also has requested permission to file further “supplemental” testimony as to (5) ASR gel chemistry, *see* Motion to Compel, and (6) the Petrography Report, *see* Motion.

²¹ The Board has 90 days from the close of the record to issue its ruling. *See* 10 C.F.R. Part 2, App. B § II. The Board would “normally” close the record after ruling on transcript corrections, *see* Tr. at 1182, a step the Board has already taken. *See* ASLB Order (Adopting Transcript Corrections, Transcript Redactions, and Final Exhibit List) (Oct. 29, 2019). Thus, the Board normally would be preparing to close, or already have closed, the record as of the date of this filing. In contrast, granting the instant Motion would require the Board to keep the record open (likely for an additional period of weeks or months) to accommodate the filing of responsive testimony from NextEra and the NRC Staff (which would be required as a matter of fundamental fairness). This delay in closing the record would, in turn, delay the issuance of the Board’s decision.

resolution of disputes concerning their applications.”²² Thus, because further delay would be prejudicial to NextEra’s Commission-recognized rights, the Board must strictly apply the “unavoidable and extreme circumstances” standard from the Adjudicatory Extension Policy to C-10’s instant Motion. As detailed below, C-10 identifies neither an unavoidable nor an extreme circumstance (much less an “unavoidable *and* extreme circumstance”)²³ to explain why it could not have submitted the Petrography Report and corresponding testimony in a timely manner.

A. Discovery Volume and Competing Commitments Do Not Constitute “Unavoidable and Extreme Circumstances”

C-10 argues that the volume of discovery and other employment commitments of its current expert witness should excuse its tardy filing.²⁴ But such excuses have long been held as inadequate justifications for noncompliance with adjudicatory deadlines.²⁵ As the Commission has explained, its “timeliness rules require a *high level of discipline and preparation by petitioners*, who must examine the [] available material and set forth their claims and the support for their claims” in a timely manner.²⁶ This obligation is “iron-clad.”²⁷

Moreover, C-10’s excuses are entirely unpersuasive. C-10 submitted 18 Non-Disclosure Affidavits for individuals associated with C-10 to review NextEra’s disclosures. NextEra went to great effort to strictly comply with its disclosure obligations and to accommodate C-10’s large cadre of reviewers, including supplying multiple USB drives to its team of reviewers *for each* document production. Furthermore, C-10 originally listed *three additional* experts in its

²² *Adjudicatory Extension Policy*, CLI-98-12, 48 NRC at 19.

²³ *Id.* at 21.

²⁴ Motion at 7.

²⁵ *See, e.g., Commonwealth Edison Co.* (Byron Station, Units 1 & 2), LBP-81-30-A, 14 NRC 364, 373 (1981).

²⁶ *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 271-72 (2009).

²⁷ *See generally N. States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 and 2), CLI-10-27, 72 NRC 481, 496 (Sept. 30, 2010).

disclosures in January 2018,²⁸ and then added one of Dr. Saouma’s post-doctoral colleagues as yet another reviewer to “assist” him in reviewing documents and preparing his testimony.²⁹ All of these individuals presumably were capable of supporting C-10’s document review. Thus, C-10’s claim that Dr. Saouma single-handedly had to review 350 documents by himself rings hollow. Ultimately, C-10, not Dr. Saouma, is the party here. Thus, C-10 had the legal obligation to conduct a timely review. Notwithstanding, the Commission has long held that intervenors have an unwavering “obligation to review the record *closely* and to raise their arguments *promptly*,” otherwise, “NRC adjudicatory proceedings would prove endless.”³⁰ That is precisely why “the Commission must *insist* that intervenors and all parties be disciplined in their scrutiny of the record.”³¹ So too here.

As is clearly evident from the above, C-10 had more than an ample opportunity to review and submit testimony on the Petrography Report well before the start of the evidentiary hearing, but failed to do so. And the Board already has generously permitted C-10 to file additional testimony not contemplated in the scheduling order. But this proceeding cannot be “endless.” At bottom, the proposed submissions are long overdue. That is the fault of C-10—not NextEra, nor the NRC Staff, nor the Board. Thus, as a matter of law, the Motion must be denied as untimely and prejudicial.

²⁸ See C-10 Research and Education Foundation, Inc. Summary of Discovery Items and List of Experts (Jan. 3, 2018).

²⁹ See Letter from D. Curran to NextEra and NRC Staff Counsel, “Signed Non-Disclosure Declaration of Mohammed Hariri-Ardebili, Seabrook LAR Proceeding, Docket No. 50-443 LAR” (Aug. 14, 2019).

³⁰ *Hydro Res., Inc.* (Rio Rancho, NM), CLI-04-33, 60 NRC 581, 591 (2004) (emphasis added).

³¹ *Id.* (emphasis added).

B. Dr. Saouma’s Mischaracterization or Misunderstanding of NextEra’s Testimony and the Petrography Report Does Not Identify “Unavoidable and Extreme Circumstances”

C-10 further argues that the Motion should be granted because the Petrography Report allegedly “contradicts” NextEra’s testimony at the evidentiary hearing,³² and allegedly “undermines” the NRC Staff’s conclusions.³³ However, these allegations are the erroneous product of an imprecise reading of the Petrography Report and a fundamental mischaracterization or misunderstanding of NextEra’s written and oral testimony. More specifically, the Petrography Report discusses a series of cores that were removed from portions of a single building (the RHR Equipment Vault) at Seabrook because *surface cracking* was detected at those locations.³⁴ Petrography was performed and showed (not unexpectedly) that, for some of the cores, ASR was more severe internally than at the surface of the core.³⁵ C-10 then claims NextEra’s witnesses testified at the evidentiary hearing that “ASR is always more severe at the surface of concrete structures [than on the interior].”³⁶ But C-10 is wrong. As is clear from the existing record in this proceeding and as explained further below, NextEra’s witnesses clearly understood and fully acknowledged that internal ASR can be more severe than surface ASR. Instead, NextEra’s witnesses unambiguously testified that surface *cracking* will indicate the presence of internal ASR *even if* that cracking is not caused by surface ASR.³⁷ In

³² Motion at 2, 5.

³³ *Id.* at 2, 6.

³⁴ Petrography Report at PDF page 7 (noting that the purpose of the petrography was to identify the causes of cracking that had been detected in a previous assessment).

³⁵ *See, e.g., id.* at PDF page 19 (“Of the eight cores with ASR, Core 2 was the only one that exhibited the most severe ASR in the top portion of the core”).

³⁶ Motion at 2.

³⁷ *See, e.g.,* SGH Testimony at A65 (NER004) (“The FHWA Guideline notes that surface cracking will develop...even when the surface region is not expanding”).

other words, C-10 erroneously conflates surface *ASR* with surface *cracking*. The Petrography Report fully supports, and even strengthens, NextEra’s existing testimony.

1. C-10’s Claim That NextEra’s Witnesses Testified that Surface ASR Is Always More Severe Than Internal ASR Is Categorically Untrue

C-10 claims that NextEra’s witnesses testified at the evidentiary hearing that “ASR is always more severe at the surface of concrete structures [than on the interior].”³⁸ But NextEra’s witnesses said no such thing. For example, C-10 cites Mr. Sherman’s testimony that “[ASR] is never worse at depth within the core concrete than what is *indicated* at the surface.”³⁹ But the *indication* to which Mr. Sherman is referring is the presence of *cracking* at the surface—not the level of ASR at the surface. Mr. Sherman repeatedly testified about the adequacy of the crack width indexing technique *precisely because* surface cracking will occur (and thereby identify the presence of internal ASR) *regardless* of the presence or severity of ASR at the surface level.⁴⁰ In other words, NextEra’s expert testified that there simultaneously could be internal ASR expansion along with zero ASR at the surface, but the internal ASR expansion would manifest itself through surface cracking. The Petrography Report highlights this precise phenomenon in which surface cracking alerted NextEra to the potential presence of internal ASR, which was then analyzed exactly as contemplated in the SMP. Thus, C-10’s characterization of the Petrography Report as somehow contradicting NextEra’s testimony is demonstrably untrue.

³⁸ Motion at 2.

³⁹ *Id.* at 5 (citing Tr. at 397) (emphasis added).

⁴⁰ *See, e.g.*, Tr. at 497 (Mr. Sherman analogizing surface concrete *without* ASR expansion to a dry lake bed, and noting that *cracking* will still occur due to surface shrinkage or subsurface expansion/deformation that “drags all those top pieces along”); *id.* at 499 (Mr. Sherman explaining that, “[v]ery specifically, since th[e] surface is not expanding [due to ASR], [crack indexing is] actually catching more of the inner expansion that’s happening”).

As another example, C-10 cites Dr. Bayrak’s testimony that the notion of a “hidden crack on the inside is directly refuted by 200 cores that have been taken by the plant.”⁴¹ C-10 portrays this statement as somehow contrary to statements in the Petrography Report regarding “ASR that was more significant at depth.”⁴² But Dr. Bayrak’s statement is entirely unrelated to ASR severity gradients. Rather, Dr. Bayrak was responding to Dr. Saouma’s unsupported speculation that “hidden” mid-plane cracking or delamination somehow could occur. NextEra’s experts have consistently testified that surface cracking (whether caused by shrinkage, ASR, deformation, etc.) will signal the potential presence of internal ASR; and that the SMP requires removed cores be inspected for mid-plane cracking and delamination. The Petrography Report *in no way* contradicts that testimony. Indeed, the cores discussed in the Petrography Report were removed *because* surface cracking signaled the potential presence of internal expansion.⁴³ Thus, nothing was “hidden,” and NextEra’s process worked precisely as intended. Moreover, some of the cores with surface cracking ultimately had no internal ASR whatsoever, further validating the conservative nature of NextEra’s SMP. To the extent C-10’s Motion characterizes the Petrography Report as somehow contradicting Dr. Bayrak’s testimony, its characterization is demonstrably untrue.

As noted above, the Petrography Report is entirely consistent with NextEra’s argument that surface cracking (and thus, crack width indexing) is an excellent indicator of internal ASR expansion *even if* ASR is not present (or is less severe) on the surface of a structure. Thus, the Petrography Report certainly does not “contradict” NextEra’s testimony.

⁴¹ Motion at 5 (citing Tr. at 705).

⁴² *Id.*

⁴³ Petrography Report at PDF page 7 (noting that cracking had been detected at those locations, thus triggering the core removal and petrography).

2. C-10's Claim That the Petrography Report Undermines the NRC Staff's Conclusion Is Meritless

Second, C-10 claims that the Petrography Report somehow “undermines” the NRC Staff’s conclusion regarding the adequacy of NextEra’s SMP.⁴⁴ More specifically, C-10 cites Ms. Buford’s testimony that any potential internal ASR that is severe enough to challenge the licensing basis of the structures (*i.e.*, would prevent them from performing their intended safety functions) will be accompanied by surface indications (*i.e.*, cracking).⁴⁵ C-10 then alleges that the Petrography Report somehow contradicts Ms. Buford’s statement because it shows that internal ASR may be more severe than surface ASR. But this is another apples to oranges comparison. C-10 again conflates the concepts of surface cracking (the surface indicator to which Ms. Buford was referring) and surface ASR severity (which was clearly not the subject of Ms. Buford’s testimony) and in any event is irrelevant in the context of the SMP. The record unquestionably demonstrates that the SMP looks for cracking *regardless* of the presence or severity of ASR. Ultimately, C-10’s claim that the Petrography Report contradicts or undermines the NRC Staff’s testimony is entirely meritless.

3. C-10's Assertions That the Proposed Exhibits Support Dr. Saouma's Testimony and Are Responsive to a Statement by Judge Trikouros at the Evidentiary Hearing Are Irrelevant, Inaccurate, and Do Not Identify "Unavoidable and Extreme Circumstances"

Third, C-10 alleges that the Petrography Report “supports Dr. Saouma’s testimony that surface ASR conditions are not reliable indicators of the severity of ASR within Seabrook structures, because the surface is drier than the interior of the concrete.”⁴⁶ But as explained above, NextEra’s SMP does not rely on “surface ASR conditions.” Again, NextEra’s SMP

⁴⁴ Motion at 2, 6.

⁴⁵ *Id.* at 6 (citing Tr. at 693).

⁴⁶ Motion at 6 (citing Proposed Supplemental Testimony, paras. 8 & 9).

conservatively looks for (and at) surface *cracking*, regardless of the cracking mechanism. Dr. Saouma’s opinion in this regard simply misreads—and therefore does not dispute—NextEra’s actual SMP. And C-10’s desire to repeat this irrelevant mischaracterization of the SMP in another round of unnecessary testimony certainly does not demonstrate “unavoidable and extreme circumstances” warranting a delay of the proceeding.

C-10 also claims that the proposed exhibits are responsive to a question posed at the evidentiary hearing. More specifically, C-10 quotes the following observation from Judge Trikouros:

The testimony has been on this that of all the core samples that were investigated by NextEra, they didn’t see any evidence of this asymmetric effect that you’re talking about, where the effects were much more severe internally than would be indicated by *surface cracking*.⁴⁷

Judge Trikouros correctly observed that the parameter of interest specified in the SMP is “surface cracking.” Judge Trikouros did not state, as C-10 suggests, that surface ASR severity is the parameter of interest. Thus, C-10’s assertion that Judge Trikouros requested that Dr. Saouma provide evidence that ASR severity may be greater internally than on the surface—a concept on which there is *absolutely no dispute among the parties*—is simply mistaken.⁴⁸ Ultimately, C-10’s claim that the proposed submissions are essential to a complete and meaningful record are meritless and unpersuasive. And in any event, they provide no basis for a conclusion that

⁴⁷ *Id.* at 6 (quoting Tr. at 450) (emphasis added).

⁴⁸ Moreover, Judge Trikouros’s encouragement to Dr. Saouma to “look at” this issue was made on Day 1 of the evidentiary hearing, and presumably requested that Dr. Saouma provide his input on Day 2. *See* Tr. at 451. And Judge Trikouros’s statement *explicitly* referred to Dr. Saouma reviewing a document from “Dave Stark.” *Id.* It is a far stretch to construe this brief statement from Judge Trikouros as an open-ended invitation to review other documents disclosed almost two years ago or to submit untimely, irrelevant, and duplicative post-hearing testimony at-will.

“unavoidable and extreme circumstances” exist and warrant the filing of an additional, untimely round of testimony.

C. Dr. Saouma’s Proposed Testimony In Response to the Board’s Request for a “Clarification” of Counsel Is Procedurally Improper and Still Fails to Identify “Unavoidable and Extreme Circumstances”

The Motion seeks leave to submit—as an evidentiary exhibit—the Proposed Supplemental Testimony. Notably, as Dr. Saouma notes therein, “[t]he purpose of this supplemental testimony is two-fold,” one of which is to “respond to questions raised by the [ASLB] in its October 16, 2019 Memorandum (Request for Clarification) (“Memorandum”).”⁴⁹ In that Memorandum, the Board requested that C-10 review certain documents and “inform the Board” whether they contain data responsive to C-10’s Motion to Compel. But the Memorandum in no way suggested that C-10’s “clarification”—regarding an adjudicatory *pleading*—should be supplied in the form of record evidence in this proceeding. And C-10 does not attempt to explain how a pleading clarification (supplied in paragraphs 2-4 of the Proposed Supplemental Testimony) somehow could be admissible as evidence in this proceeding. Nor could it. Thus, the Board should deny C-10’s request to enter the Proposed Supplemental Testimony into the evidentiary record.

Furthermore, neither C-10’s Motion nor Dr. Saouma’s statements in the Proposed Supplemental Testimony articulate a basis for granting the Motion to Compel and permitting the extensive record already before the Board to be supplemented with further testimony regarding ASR gel chemistry (aka “gel type”).⁵⁰ Dr. Saouma purportedly reviewed the documents listed in the Board’s Memorandum and concluded that they were sufficient to allow a comparison of the

⁴⁹ Proposed Supplemental Testimony at 1 ¶ 1.

⁵⁰ Memorandum at 3.

physical aspects of “mineralogy.”⁵¹ This is not surprising because NextEra deemed the physical aspects of aggregate mineralogy to be a critical representativeness parameter for the LSTP.⁵²

But Dr. Saouma has no concerns with that aspect of the LSTP.⁵³

However, Dr. Saouma states that the documents listed in the Board’s Memorandum do not provide an analysis of the *chemical* aspects of “mineralogy,” which he asserts is necessary to ensure adequate “representativeness.”⁵⁴ But there exists *absolutely no dispute* that NextEra concluded gel chemistry was *not* a critical representativeness parameter for the LSTP.⁵⁵

Consistent with available industry guidance and academic literature (which does not differentiate ASR on the basis of gel chemistry),⁵⁶ NextEra neither relies on nor credits in its methodology any alleged representativeness of gel chemistry. Indeed NextEra explicitly designed the LSTP specimens to have aggregate that is *more* reactive than Seabrook to ensure that the specimens would expand quickly and experience bounding expansion. Thus, to the extent Dr. Saouma argues that NextEra *should have* considered ASR gel chemistry a critical parameter, he already testified to that position at the evidentiary hearing—and further testimony would be duplicative and unduly cumulative. And to the extent Dr. Saouma seeks to demonstrate that the gel chemistry in the LSTP specimens and Seabrook’s concrete are, in fact, dissimilar, such an argument is irrelevant and immaterial because NextEra intentionally did not rely on or credit gel

⁵¹ Proposed Supplemental Testimony at 2 ¶ 4.

⁵² See, e.g., MPR-3757 §§ 1.2, 3.2.1; MPR-4262 § 4.3.2.

⁵³ Dr. Saouma agrees there is a “very strong similarity” in aggregate physical properties between Seabrook and the LSTP specimens. Tr. at 1074.

⁵⁴ Proposed Supplemental Testimony at 2 ¶ 4.

⁵⁵ See MPR-3757 § 3.2.1. The coarse aggregate attributes considered in the LSTP were those related to structural performance. These included: coarse aggregate type/source, coarse aggregate grading and coarse aggregate proportion. Differences in coarse aggregate reactivity were acceptable in order to achieve bounding ASR expansion levels in a short time.

⁵⁶ See, e.g., Tr. at 986.

chemistry representativeness in its program. Ultimately, and in either case, the Motion fails to identify “unavoidable and extreme circumstances” warranting further duplicative or immaterial testimony and a delay of the conclusion of this proceeding.

IV. CONCLUSION

For all of the many reasons stated above, C-10’s Motion should be denied and the Board should close the record of this proceeding.

Respectfully submitted,

Executed in Accord with 10 C.F.R. § 2.304(d)

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Dated in Washington, DC
this 6th day of November 2019

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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NEXTERA ENERGY SEABROOK, LLC

(Seabrook Station Unit 1)

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) Docket No. 50-443-LA-2

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) November 6, 2019
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CERTIFICATE OF SERVICE

Pursuant to 10 C.F.R. § 2.305, I certify that, on this date, the foregoing “NEXTERA’S ANSWER OPPOSING C-10’S THIRD MOTION FOR LEAVE TO FILE SUPPLEMENTAL TESTIMONY” was served upon the Electronic Information Exchange (the NRC’s E-Filing System), in the above-captioned proceeding.

Signed (electronically) by Ryan K. Lighty

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