

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Ronald M. Spritzer, Chairman  
Nicholas G. Trikouros  
Dr. Sekazi K. Mtingwa

In the Matter of

NEXTERA ENERGY SEABROOK, LLC

(Seabrook Station, Unit 1)

Docket No. 50-443-LA-2

ASLBP No. 17-953-02-LA-BD01

November 6, 2020

MEMORANDUM AND ORDER

(Denying Motion to Reopen, Motion for Leave, and Motion for Partial Reconsideration; Granting in Part and Denying in Part Motion for Leave to Reply)

On August 21, 2020, this Licensing Board issued an Initial Decision (LBP-20-9) concerning a challenge by intervenor C-10 Research and Education Foundation (C-10) to a license amendment request (LAR) filed by NextEra Energy Seabrook, LLC (NextEra), regarding the 10 C.F.R. Part 50 operating license for Seabrook Unit 1, in Seabrook, New Hampshire.<sup>1</sup> The license amendment revised the Unit 1 Updated Final Safety Analysis Report to include methods for analyzing the impact of concrete degradation caused by the alkali-silica reaction (ASR) affecting seismic Category I reinforced concrete structures at Seabrook.<sup>2</sup> On March 11,

<sup>1</sup> LBP-20-9, 92 NRC \_\_ (slip op.) (Aug. 21, 2020). A comprehensive summary of this proceeding can be found in LBP-20-9 and thus need not be repeated here.

<sup>2</sup> See Ex. INT010, Seabrook, 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) at PDF 1–3. As we noted in our initial decision,

2019, the NRC Staff (Staff) issued the license amendment to NextEra.<sup>3</sup> In our Initial Decision, we found that the license amendment, with the addition of four license conditions, labeled c. through f., provided reasonable assurance of adequate protection.<sup>4</sup>

On August 31, 2020, C-10 filed a Motion to Re-Open the Record for Consideration of Supplemental Testimony Regarding License Conditions (Motion to Reopen),<sup>5</sup> a Motion for Leave to File Motion for Partial Reconsideration (Motion for Leave),<sup>6</sup> and a Motion for Partial Reconsideration of LBP-20-09 (Motion for Partial Reconsideration).<sup>7</sup> In its motions, C-10 argues the license conditions imposed by the Board in LBP-20-9 “must be amended because they currently lack sufficiently specific terms for ensuring timely and reliable detection of unacceptable development of internal cracks caused by [ASR] in concrete structures at the Seabrook nuclear power plant.”<sup>8</sup> C-10 also asserts that (1) error bars should be required in

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for reference clarity, we refer to the original LAR pages using their PDF page numbers. See LBP-20-9, 92 NRC at \_\_\_ n.1 (slip op. at 1 n.1).

<sup>3</sup> Ex. INT024, NRC Safety Evaluation Related to Amendment No. 159 to Facility Operating License No. NPF-86 (Mar. 11, 2019) at 2, 61–63.

<sup>4</sup> LBP-20-9, 92 NRC at \_\_\_–\_\_\_ (slip op. at 192–93). The conditions were labeled c. through f. because the license amendment already included conditions a. and b imposed by the NRC Staff.

<sup>5</sup> [C-10]’s Motion for Partial Reconsideration and Motion to Re-Open the Record for Consideration of Supplemental Testimony Regarding License Conditions in LBP-20-09 (Aug. 31, 2020) at 4–5 [hereinafter Motion for Partial Reconsideration and Motion to Reopen]. Accompanying these C-10 motions are two proposed exhibits that contained public and non-public versions of supplemental testimony supporting the motions from C-10’s expert witness at the evidentiary hearing, Dr. Victor E. Saouma. See Ex. INT052, Supplemental Testimony of Victor E. Saouma, Ph.D Regarding LBP-20-09 (non-public); Ex. INT054, Supplemental Testimony of Victor E. Saouma, Ph.D Regarding LBP-20-09 - Redacted Public Version [hereinafter Proposed Ex. INT052/INT054, Dr. Saouma Supplemental Testimony]. The Board will include a parallel citation to both exhibits in the subsequent discussion.

<sup>6</sup> [C-10’s] Motion for Leave to File Motion for Partial Reconsideration of LBP-20-09 (Aug. 31, 2020) [hereinafter Motion for Leave].

<sup>7</sup> See Motion for Partial Reconsideration and Motion to Reopen at 2–4.

<sup>8</sup> Id. at 1–2.

license condition c.;<sup>9</sup> (2) the word “significantly” should be removed from license condition e. because it is too vague and leaves too much discretion to NextEra;<sup>10</sup> (3) acoustic sensors and bi-annual monitoring of the rebar should be required in license condition d;<sup>11</sup> and (4) license condition f. should be modified to require petrography able to identify cracks “as small as 10 [micrometers] ( $\mu\text{m}$ ).”<sup>12</sup>

On September 10, 2020, NextEra filed answers opposing all three of C-10’s August 31 motions.<sup>13</sup> NextEra generally argues that C-10’s motions fail to satisfy any of the requirements for reconsideration and to reopen the record<sup>14</sup> and that C-10’s arguments in its Motion for Partial Reconsideration address the adequacy of the license conditions but do not identify a clear and material error.<sup>15</sup>

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<sup>9</sup> See Proposed Ex. INT052/INT054, Dr. Saouma Supplemental Testimony at 1–2.

<sup>10</sup> Id. at 4.

<sup>11</sup> Id. at 2.

<sup>12</sup> Id. at 5.

<sup>13</sup> NextEra’s Answer Opposing C-10’s Motion to Reopen the Record for Consideration of Supplemental Testimony (Sep. 10, 2020) [hereinafter NextEra Ans. to Motion to Reopen]; NextEra’s Answer Opposing C-10’s Motion for Leave and Motion for Partial Reconsideration of LBP-20-9 (Sep. 10, 2020) [hereinafter NextEra Ans. to Motion for Partial Reconsideration].

<sup>14</sup> NextEra Ans. to Motion to Reopen at 3–8; NextEra Ans. to Motion for Partial Reconsideration at 3–10.

<sup>15</sup> NextEra Ans. to Motion for Partial Reconsideration at 4–5 (“Dr. Saouma does not identify any ‘error’ in the Board’s decision. Rather, he expresses his dissatisfaction with the ruling and notes how he would modify the license conditions. But Dr. Saouma’s personal preferences do not conjure a ‘manifest injustice.’ Moreover, C-10 fails to explain why Dr. Saouma could not have provided these views earlier in the proceeding.”).

The Staff also filed answers on September 10, 2020.<sup>16</sup> It opposes C-10's Motion to Reopen.<sup>17</sup> The Staff also opposes every revision to the license conditions posited by C-10 in its Motion for Partial Reconsideration, except that it agrees with C-10 that the phrase "significantly" should be removed from license condition e.<sup>18</sup> Instead of asking the Board to remove that term, however, the Staff asks the Board to increase the threshold for the engineering evaluation called for in license condition e. to 0.24 millimeters per meter (mm/m) (0.024%) from 0.2 mm/m (0.02%).<sup>19</sup> The Staff also suggests several non-substantive changes to the conditions, including spelling out several acronyms and removing unnecessary language.<sup>20</sup>

On September 17, 2020, C-10 filed a motion for leave to reply to the Staff's and NextEra's answers (Motion for Leave to Reply),<sup>21</sup> accompanied by (1) C-10's Reply to Oppositions to Motions for Partial Reconsideration and to Reopen for Consideration of Supplemental Testimony Regarding License Conditions (C-10's Reply), and (2) Proposed Ex. INT053/INT055, Rebuttal Supplemental Testimony of Victor E. Saouma, Ph.D.<sup>22</sup> In his Rebuttal

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<sup>16</sup> NRC Staff's Answer to C-10's Motion for Partial Reconsideration and to Reopen the Record (Sep. 10, 2020) [Staff Ans. to Motion for Partial Reconsideration and Motion to Reopen]. In support of its answer, the Staff also provided an affidavit that contained information from the Staff's expert witnesses at the hearing. See Staff Ans. to Motion for Partial Reconsideration and Motion to Reopen, Aff. of Angela Buford, Bryce Lehman, Jacob Philip, and George Thomas in Response to C-10's Motion for Partial Reconsideration and to Reopen the Record (Sep. 10, 2020) [hereinafter New Staff Affidavit].

<sup>17</sup> Staff Ans. to Motion for Partial Reconsideration and Motion to Reopen at 3–4.

<sup>18</sup> Id. at 4–5.

<sup>19</sup> Id. at 5.

<sup>20</sup> Staff Ans. to Motion for Partial Reconsideration and Motion to Reopen at 3.

<sup>21</sup> [C-10]'s Motion for Leave to File Reply to Oppositions to Motion for Partial Reconsideration of LBP-20-09 (Sept. 17, 2020) [hereinafter Motion for Leave to Reply].

<sup>22</sup> [C-10]'s Reply to Oppositions to Motion for Partial Reconsideration and Motion to Re-Open the Record for Consideration of Supplemental Testimony Regarding License Conditions in LBP-20-09 (Sept. 17, 2020) at 6 (non-public); C-10's Reply to Oppositions to Motion for Partial Reconsideration and Motion to Re-Open the Record for Consideration of Supplemental Testimony Regarding License Conditions in LBP-20-09 (Oct. 5, 2020) at 6 (redacted public

Testimony, Dr. Saouma, among other things, opposes the Staff's request that the Board should change the value in license condition e. from 0.2 mm/m (0.02%) to 0.24 mm/m (0.024%).<sup>23</sup>

On September 28, 2020, NextEra filed an answer opposing C-10's Motion for Leave to File a Reply and its request for leave to file Proposed Ex. INT053/INT055.<sup>24</sup> NextEra argued that several procedural and substantive grounds warranted Board denial of the Motion for Leave to Reply and the admission of Proposed Ex. INT053/INT055.<sup>25</sup>

For the reasons explained below, C-10's motions are denied, except that we grant C-10's Motion for Leave to Reply solely for the purposes identified infra in Section II.D. The Board adopts the non-substantive changes proposed by the Staff, but we deny its request to adopt a specific numeric threshold of 0.24 mm/m (0.024%) for the engineering evaluation referred to in license condition e.

## I. Legal Standards

### A. Motion to Reopen

Section 2.326 of the NRC's rules of practice sets forth the requirements to reopen a closed evidentiary record. The motion must (1) be timely; (2) "address a significant safety or

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version) [hereinafter C-10's Reply]. In the subsequent discussion, the Board will refer to C-10's public filing.

In support of its reply, C-10 once again proffered additional proposed public and nonpublic versions of an exhibit consisting of testimony from its expert witness Dr. Saouma. See Ex. INT053, Rebuttal Supplemental Testimony of Victor E. Saouma, Ph.D Regarding LBP-20-09 (non-public); Ex. INT055, Rebuttal Supplemental Testimony of Victor E. Saouma, Ph.D Regarding LBP-20-09 – REDACTED PUBLIC VERSION [hereinafter Proposed Ex. INT053/INT055, Dr. Saouma Rebuttal Supplemental Testimony]. The Board will include a parallel citation to both exhibits in the subsequent discussion.

<sup>23</sup> C-10's Reply at 6; Proposed Ex. INT053/INT055, Dr. Saouma Rebuttal Supplemental Testimony at 6.

<sup>24</sup> NextEra's Answer Opposing C-10's Motion for Leave to File a Reply and Motion for Leave to File [Ex.] INT053 (Sept. 28, 2020) [hereinafter NextEra Ans. to Motion for Leave to Reply].

<sup>25</sup> Id. at 2.

environmental issue[]”; and (3) “demonstrate that a materially different result would be or would have been likely had the newly proffered evidence been considered initially.”<sup>26</sup> In addition, “the motion must be accompanied by affidavits that set forth the factual and/or technical bases for the movant's claim. . . .”<sup>27</sup> Commission precedent indicates reopening the record is an “extraordinary action”<sup>28</sup> that imposes a “‘deliberately heavy’ burden” on a movant to meet the “high standard” of reopening the record.<sup>29</sup> Accordingly, “[t]o meet the reopening standard . . . it is insufficient merely to point to disputed facts.”<sup>30</sup> Instead, the most important criterion in a motion to reopen is the second requirement, identification of a significant safety or environmental issue.<sup>31</sup>

For a motion to reopen to be timely, it must seek to admit information that could not have been submitted at an earlier time in the proceeding.<sup>32</sup> In other words, “[t]he critical question is whether the information could have been submitted earlier.”<sup>33</sup> If the information offered with a

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<sup>26</sup> 10 C.F.R. § 2.326(a)(1)–(3).

<sup>27</sup> Id. § 2.326(b).

<sup>28</sup> Entergy Nuclear Vt. Yankee, LLC (Vt. Yankee Nuclear Power Station), CLI-11-2, 73 NRC 333, 338 (2011) (quoting Criteria for Reopening Records in Formal Licensing Proceedings, 51 Fed. Reg. 19,535, 19,538 (May 30, 1986)); id. at 337–38 (“We consider reopening the record for any reason to be an extraordinary action’ and we therefore impose a deliberately heavy burden upon an intervenor who seeks to supplement the evidentiary record after it has been closed, even with respect to an existing contention.” (quotations and citations omitted)).

<sup>29</sup> Id. at 338 (quoting AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-08-28, 68 NRC 658, 674 (2008)).

<sup>30</sup> Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-12-10, 75 NRC 479, 499 (2012).

<sup>31</sup> Phila. Elec. Co. (Limerick Generating Station, Units 1 & 2), ALAB-834, 23 NRC 263, 264 (1986).

<sup>32</sup> See Tex. Util. Elec. Co. (Comanche Peak Steam Elec. Station, Units 1 & 2), CLI-99-12, 36 NRC 62, 76 (1992).

<sup>33</sup> Metro. Edison Co. (Three Mile Island Nuclear Station, Unit No. 1), ALAB-815, 22 NRC 198, 202 (1985) (citations omitted); Entergy Nuclear Vt. Yankee, LLC (Vt. Yankee Nuclear Power Station), LBP-10-19, 72 NRC 529, 546 (2010) (“For purposes of the timeliness analysis under 10 C.F.R. § 2.326(a)(1), the question is: when should these issues have been identified and

motion to reopen had “been apparent from the outset of th[e] proceeding” or “is not an unexpected revelation,” the motion must be denied as untimely.<sup>34</sup> In addition, “documents merely summarizing earlier documents or compiling preexisting, publicly available information into a single source do not render ‘new’ the summarized or compiled information.”<sup>35</sup>

Turning to the second requirement to reopen a record,<sup>36</sup> a movant must identify “uncorrected . . . errors [that] endanger safe plant operation.”<sup>37</sup> Finally, to satisfy the third requirement to reopen a record,<sup>38</sup> a movant must seek to submit evidence “sufficiently compelling to suggest a likelihood of materially affecting the ultimate results in the proceeding.”<sup>39</sup> A board must determine “the likelihood that a different result will be reached if the [new] information is considered.”<sup>40</sup> The movant bears the burden to satisfy each requirement.<sup>41</sup>

#### B. Motion for Leave to File and Motion for Partial Reconsideration

Under 10 C.F.R. § 2.323(e), “[m]otions for reconsideration may not be filed except . . . upon a showing of compelling circumstances, such as the existence of a clear and material error in a decision, which could not have reasonably been anticipated, that renders the decision

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asserted? Are these complaints based on new information, or on information that has been available for a significant time period?”).

<sup>34</sup> Vt. Yankee, CLI-11-2, 73 NRC at 340 (quoting Vt. Yankee, LBP-10-19, 72 NRC at 546, 547).

<sup>35</sup> Id. at 344.

<sup>36</sup> 10 C.F.R. § 2.326(a)(2).

<sup>37</sup> Pub. Serv. Co. of N.H. (Seabrook Station, Units 1 & 2), ALAB-940, 32 NRC 225, 243 (1990) (quoting Pac. Gas & Elec. Co. (Diablo Canyon Nuclear Power Plant, Units 1 & 2), ALAB-756, 18 NRC 1340, 1345) (1983)).

<sup>38</sup> 10 C.F.R. § 2.326(a)(3).

<sup>39</sup> Pilgrim, CLI-12-10, 75 NRC at 499.

<sup>40</sup> 51 Fed. Reg. at 19,537.

<sup>41</sup> Oyster Creek, CLI-08-28, 68 NRC at 668–69.

invalid.”<sup>42</sup> The Commission has stated that reconsideration is “an extraordinary action and should not be used as an opportunity to reargue facts and rationales which were (or should have been) discussed earlier.”<sup>43</sup> The identification of compelling circumstances is a high standard that “is intended to permit reconsideration only where manifest injustice would occur in the absence of reconsideration” and requires more than a request that a presiding officer “reexamine existing evidence that may have been misunderstood or overlooked, or to clarify a ruling on a matter.”<sup>44</sup>

Motions for reconsideration are not granted “lightly,” and the Commission strictly applies the reconsideration standard.<sup>45</sup> Notably, “[r]econsideration petitions must establish an error in a . . . decision, based upon an elaboration or refinement of an argument already made, an overlooked controlling decision or principle of law, or a factual clarification.”<sup>46</sup> In addition, the publication of a legally required document, by itself, is not an unanticipated event sufficient to justify reconsideration.<sup>47</sup> At bottom, a movant must identify a legal or factual error to succeed on its motion for reconsideration.<sup>48</sup> In addition to the strict standards, motions for reconsideration “may not be filed except upon leave of the presiding officer.”<sup>49</sup>

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<sup>42</sup> 10 C.F.R. § 2.323(e).

<sup>43</sup> Changes to Adjudicatory Process, 69 Fed. Reg. 2182, 2207 (Jan. 14, 2004).

<sup>44</sup> Id. (stating the “compelling circumstances” standard is “a higher standard than the existing case law” which permitted motions for reconsideration “to reexamine existing evidence that may have been misunderstood or overlooked, or to clarify a ruling on a matter”).

<sup>45</sup> Pac. Gas & Elec. Co. (Diablo Canyon Power Plant Indep. Spent Fuel Storage Installation), CLI-06-27, 64 NRC 399, 400–01 (2006); La. Energy Serv’s, L.P. (Nat’l Enrichment Facility), CLI-04-35, 60 NRC 619, 622 (2004).

<sup>46</sup> Dominion Nuclear Conn., Inc. (Millstone Nuclear Power Station, Unit 2), CLI-03-18, 58 NRC 433, 434 (2003) (citing Dominion Nuclear Conn., Inc. (Millstone Nuclear Power Station, Units 2 & 3), CLI-02-1, 55 NRC 1, 2 (2002)).

<sup>47</sup> Diablo Canyon, CLI-06-27, 64 NRC at 401.

<sup>48</sup> See Millstone, CLI-03-18, 58 NRC at 435.

<sup>49</sup> 10 C.F.R. § 2.323(e).



## II. Board Ruling

### A. Motion to Reopen

Because C-10 fails to meet the high bar for reopening the record, the Motion to Reopen is denied.

Regarding timeliness, the issue is not just whether the Motion to Reopen was filed within ten days of our Initial Decision,<sup>50</sup> but whether the information contained in Proposed Ex. INT052/INT054 could have been submitted earlier in the proceeding.<sup>51</sup> C-10 argues the information has been timely provided because it could not have anticipated the Board would impose license conditions.<sup>52</sup> In ruling on C-10's Emergency Petition several months before the evidentiary hearing, however, the Commission plainly stated this Board has the authority to place license conditions on the license amendment.<sup>53</sup> Therefore, the unremarkable fact that the Board's Initial Decision imposed license conditions does not make C-10's Motion to Reopen timely.

Furthermore, Dr. Saouma's testimony in Proposed Ex. INT052/INT054 is not based on new information. Rather, he largely referenced information in the evidentiary hearing record, which C-10 had access to since at least September 2019, that he claims supports his suggested revisions to the Board-imposed license conditions.<sup>54</sup> A licensing board decision based on information previously available to a petitioner in the evidentiary record is not considered "new information" sufficient to satisfy the timeliness requirement.<sup>55</sup> The Initial Decision published no

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<sup>50</sup> Motion for Partial Reconsideration and Motion to Reopen at 4.

<sup>51</sup> See supra notes 32–33 and accompanying text.

<sup>52</sup> Motion for Partial Reconsideration and Motion to Reopen at 3.

<sup>53</sup> CLI-19-7, 90 NRC 1, 11 (2019).

<sup>54</sup> See Proposed Ex. INT052/INT054, Dr. Saouma Supplemental Testimony.

<sup>55</sup> See Vt. Yankee, CLI-11-2, 73 NRC at 344 (citing N. States Power Co. (Prairie Island Nuclear Generating Plant, Units 1 & 2), CLI-10-27, 72 NRC 481, 493–96 (2010)).

new information, but rather contained the Board’s analysis of the extensive evidentiary record created by the parties through their exhibits and witness responses to Board questions.<sup>56</sup>

For example, Dr. Saouma contends that license condition c. should be modified to require the use of error bars.<sup>57</sup> But license condition c. is not a new creation by the Board. Rather, we modified an existing Staff license condition, referred to as Check 3, to require that control extensometers be monitored every six months.<sup>58</sup> C-10 does not question that modification of Check 3. It does not argue, for example, that the control extensometers should be monitored more frequently than the Board directed. Instead, C-10 argues for a different modification of Check 3 that it could have presented at the evidentiary hearing.

In fact, Dr. Saouma did argue for the use of error bars in the Corroboration Study, another Staff condition. Error bars were a subject of discussion at the hearing.<sup>59</sup> The Board considered requiring error bars to account for data uncertainty in the Corroboration Study and found them unnecessary.<sup>60</sup> Thus, Dr. Saouma’s recommendation for the use of error bars to account for data uncertainty is not new information but was discussed at the hearing and in the Board’s Initial Decision. Dr. Saouma now urges their inclusion as part of the check on the control extensometers in license condition c. But C-10’s attempt to re-introduce its previously considered argument in the context of license condition c. is untimely.

Dr. Saouma also suggests revisions to license condition d. to require the use of acoustic sensors and bi-annual monitoring of the rebar.<sup>61</sup> C-10 had ample opportunity to raise issues

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<sup>56</sup> See 10 C.F.R. § 2.1210(c).

<sup>57</sup> Proposed Ex. INT052/INT054, Dr. Saouma Supplemental Testimony at 1–2.

<sup>58</sup> LBP-20-9, 92 NRC at \_\_–\_\_ (slip op. at 96–97).

<sup>59</sup> Tr. at 474 (Mtingwa).

<sup>60</sup> LBP-20-9, 92 NRC at \_\_–\_\_ (slip op. at 167–70).

<sup>61</sup> Proposed Ex. INT052/INT054, Dr. Saouma Supplemental Testimony at 2.

regarding monitoring of the rebar during the evidentiary hearing. In fact, license condition d. was in large part based on Dr. Saouma's testimony that excessive steel stresses caused by the chemical prestressing effect could result in premature fracture or yielding of rebar.<sup>62</sup> At the hearing, C-10 could have proposed license conditions it deemed necessary to address this potential future problem.

Moreover, Dr. Saouma did propose the use of acoustic sensors, but the Board found that issue beyond the scope of the proceeding.<sup>63</sup> Dr. Saouma identifies no new information on which he bases his new testimony regarding the proposed use of acoustic sensors. Since Dr. Saouma merely repeats his previous argument to use an alternative methodology based on existing information in the record,<sup>64</sup> it must be rejected as untimely for that reason as well.<sup>65</sup> This argument could have been, and was, raised earlier in the proceeding.

Dr. Saouma also seeks to modify license condition e. by removing the word "significantly."<sup>66</sup> He cites various exhibits in the record to support his position that license condition e. "does not contain clear or stringent enough criteria for triggering an engineering

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<sup>62</sup> LBP-20-9, 92 NRC at \_\_-\_\_ (slip op. at 120-21).

<sup>63</sup> Id. at \_\_-\_\_ (slip op. at 142-43).

<sup>64</sup> See Ex. INT027, Pre-Filed Opening Testimony of Victor E. Saouma, Ph.D Regarding Scientific Evaluation of NextEra's Aging Management Program for Alkali-Silica Reaction at the Seabrook Nuclear Power Plant - Redacted Version Filed June 26, 2019 at 35 [hereinafter Ex. INT027, Dr. Saouma Pre-Filed Testimony]; Ex. NER013, U.S. Department of Transportation, Federal Highway Administration (FHWA), "Report on the Diagnosis, Prognosis, and Mitigation of Alkali-Silica Reaction (ASR) in Transportation Structures" (FHWA-HIF-09-004) (Jan. 2010) at 33 [hereinafter Ex. NER013, FHWA Report]; Ex. NER012, The Institution of Structural Engineers, "Structural Effects of Alkali-Silica Reaction" (July 1992) at 17 [hereinafter Ex. NER012, ISE Structural Effects of [ASR] (non-public); Ex. NER075, Swiss Committee on Dams, "Concrete Swelling of Dams in Switzerland" (May 8, 2017) at 12-14 [hereinafter Ex. NER075, Swiss Committee on Dams]; Tr. at 1150 (Saouma).

<sup>65</sup> Proposed Ex. INT052/INT054, Dr. Saouma Supplemental Testimony at 2.

<sup>66</sup> Id. at 4.

evaluation.”<sup>67</sup> Again, Dr. Saouma identifies no new information but explicitly relied on existing evidence in the record.

Further, concerning license condition f., Dr. Saouma suggests that the petrography should be able to identify cracks “as small as 10  $\mu\text{m}$ .”<sup>68</sup> In doing so, however, he cites documents in the record to claim that the phrase “petrography” is too vague.<sup>69</sup> Moreover, C-10 could have anticipated the Board would impose a license condition regarding petrography. In its original Contention C, C-10 maintained that “[t]horough petrographic analysis, including core sample testing of Seabrook’s in-situ concrete, must be integral to NextEra’s assessment of the advance of ASR.”<sup>70</sup> Therefore, C-10 could have argued how a “thorough petrographic analysis” should be conducted during the evidentiary hearing. Its effort to raise the issue now must therefore be rejected as untimely.

In sum, C-10’s proposed license condition revisions rely entirely on information that has “been apparent from the outset of th[e] proceeding.”<sup>71</sup> Dr. Saouma does not identify new information that could be classified as “an unexpected revelation.”<sup>72</sup> The suggested revisions to the license conditions concern matters that have always been part of NextEra’s monitoring

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<sup>67</sup> Id.

<sup>68</sup> Id. at 5.

<sup>69</sup> Id. (citing Ex. NER012, ISE Structural Effects of [ASR] at 17 (non-public); Ex. NER075, Swiss Committee on Dams at 12–14).

<sup>70</sup> LBP-17-7, 86 NRC at 107 (quoting C-10 Research and Education Foundation, Inc. Petition for [L]eave to [I]ntervene: Nuclear Regulatory Commission Docket No. 50-443 (Apr. 10, 2017) at 6 [hereinafter C-10 Petition]. In LBP-17-7, this Board admitted five contentions, including Contention C, which we reformulated into one contention. Id. at 89–90, 126–27.

<sup>71</sup> Vt. Yankee, CLI-11-2, 73 NRC at 340 (quoting Vt. Yankee, LBP-10-19, 72 NRC at 546).

<sup>72</sup> Id.

program; therefore there is no reason the arguments could not have been raised earlier.<sup>73</sup>

Consequently, we must deny the Motion to Reopen as untimely.

C-10 similarly fails to “address a significant safety or environmental issue” in its Motion to Reopen, in contravention of 10 C.F.R. § 2.326(a)(2).<sup>74</sup> C-10 fails to identify “uncorrected . . . errors [that] endanger safe plant operation.”<sup>75</sup> Rather than identifying errors, Dr. Saouma questions the “adequacy” of the license conditions.<sup>76</sup> To be sure, the license conditions do address significant safety issues, but that is not the relevant inquiry. Here, C-10 has failed to identify a significant safety issue based on new information. Repeating arguments on existing safety issues already rejected by the Board or offering differing analyses on existing factual information is wholly insufficient to reopen the record.<sup>77</sup> Since C-10 failed to identify a significant safety issue or “errors [that] endanger safe plant operation,”<sup>78</sup> it fails to meet the requirements of 10 C.F.R. § 2.326(a)(2).

Contrary to the third reopening requirement, C-10 also does not “demonstrate that a materially different result would be or would have been likely had the newly proffered evidence been considered initially.”<sup>79</sup> Specifically, C-10 must demonstrate that it would have been, at a

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<sup>73</sup> NextEra Ans. to Motion to Reopen at 4.

<sup>74</sup> 10 C.F.R. § 2.326(a)(2).

<sup>75</sup> Seabrook, ALAB-940, 32 NRC at 243 (quoting Diablo Canyon, ALAB-756, 18 NRC at 1345).

<sup>76</sup> Proposed Ex. INT052/INT054, Dr. Saouma Supplemental Testimony at 1 (“ . . . I do not agree [license condition c.], by itself, is adequate. . . .”).

<sup>77</sup> See Hous. Lighting & Power Co. (S. Texas Project, Units 1 & 2), LBP-85-42, 22 NRC 795, 799 (1985) (“Differing analyses of experts of factual information already in the record do not normally constitute the type of information for which reopening of the record would be warranted.” (citing Hous. Lighting & Power Co. (S. Texas Project, Units 1 & 2), LBP-84-13, 19 NRC 659, 718–19 (1984); Pac. Gas & Elec. Co. (Diablo Canyon Nuclear Power Plant, Units 1 & 2), ALAB-644, 13 NRC 903, 994–95 (1981))).

<sup>78</sup> Seabrook, ALAB-940, 32 NRC at 243 (quoting Diablo Canyon, ALAB-756, 18 NRC at 1345).

<sup>79</sup> 10 C.F.R. § 2.326(a)(3).



as moot. But even if we granted the Motion to Reopen, the Motion for Partial Reconsideration must be denied because it fails to satisfy the standards for the “extraordinary action” of reconsideration.<sup>84</sup>

C-10 does not identify any “clear and material error” that “renders the decision invalid.”<sup>85</sup> Rather, Dr. Saouma maintains that the license conditions give an “excessive and unnecessary degree of discretion” to NextEra, and thus LBP-20-9 is “invalid.”<sup>86</sup> But to satisfy the standards for reconsideration, C-10 must identify a legal or factual error.<sup>87</sup> No statute or regulation mandates an explicit level of detail or a limit on licensee discretion in license conditions. Rather, the regulation permitting the imposition of license conditions, 10 C.F.R. § 50.50, plainly states that the Commission may impose license conditions “as it deems appropriate and necessary.”<sup>88</sup> It contains no other requirements.<sup>89</sup> Thus, a disagreement on the level of discretion afforded in the license conditions does not render our decision invalid, nor does it show a legal or factual error. C-10 may view the conditions as inadequate, but subjective opinion on the adequacy of the license conditions is entirely different from the identification of a legal or factual error.

Furthermore, it is important to remember that the license amendment will remain in effect for the next thirty years. It is reasonable to expect that in that time there will be changes in technology. Thus, a highly prescriptive condition could mandate adherence to a methodology that is outdated by the time its use is called for. If improved technology becomes available,

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<sup>84</sup> Changes to Adjudicatory Process, 69 Fed. Reg. at 2207.

<sup>85</sup> 10 C.F.R. § 2.323(e).

<sup>86</sup> Motion for Partial Reconsideration and Motion to Reopen at 3–4.

<sup>87</sup> Millstone, CLI-03-18, 58 NRC at 435.

<sup>88</sup> 10. C.F.R. § 50.50.

<sup>89</sup> The Commission in its decision regarding C-10’s Emergency Petition stated that this Board may impose a license condition if we found “that the license amendment should not have been granted.” See CLI-19-7, 90 NRC at 11. The Commission did not identify any other requirements for imposing or limiting the contents of license conditions. Id.

unless NextEra could rely on 10 C.F.R. § 50.59, it would then have to file a license amendment to use the more up-to-date technology. The Board therefore decided not to mandate the use of particular technologies because they may become outmoded in the future.

Turning to the specific conditions, C-10 identifies no Board error, much less a “manifest injustice,” from the lack of an error-bar requirement in license condition c.<sup>90</sup> We addressed the potential use of error bars to account for data uncertainty in the Corroboration Study and found them unnecessary.<sup>91</sup> C-10’s disagreement with our holding does not amount to an error or demonstrate “manifest injustice.”<sup>92</sup> Moreover, as explained above, license condition c. is a modification of an existing Staff-imposed condition, not a Board creation. Check 3 as imposed by the Staff did not require error bars, and thus C-10 could have raised that issue during the evidentiary hearing. It is therefore too late to raise the issue now.

Turning to the use of acoustic sensors, we held that they are beyond the scope of the proceeding.<sup>93</sup> Mere disagreement with the Board’s ruling<sup>94</sup> is insufficient to satisfy the high bar of reconsideration, which requires demonstration of compelling circumstances that render the decision invalid.<sup>95</sup> Moreover, Dr. Saouma himself previously characterized “Acoustic Emission” as only a “Potentially Applicable Technique for monitoring ASR-relevant parameters, but not

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<sup>90</sup> Changes to Adjudicatory Process, 69 Fed. Reg. at 2207.

<sup>91</sup> LBP-20-9, 92 NRC at \_\_–\_\_ (slip op. at 167–70).

<sup>92</sup> Proposed Ex. INT052/INT054, Dr. Saouma Supplemental Testimony at 2 (stating error bars should be added because “it is particularly difficult to interpret laboratory data for purposes of evaluating next steps”).

<sup>93</sup> LBP-20-9, 92 NRC at \_\_–\_\_ (slip op. at 142–43).

<sup>94</sup> Proposed Ex. INT052/INT054, Dr. Saouma Supplemental Testimony at 2 (stating the lack of acoustic sensors “is a matter of concern” but identifying no legal or factual error); Proposed Ex. INT052/INT054, Dr. Saouma Supplemental Testimony at 2.

<sup>95</sup> 10 C.F.R. § 2.323(e).



performed with success yet at the structural level in the field.”<sup>96</sup> Thus, revisiting the potential use of acoustic sensors is not necessary to correct a “manifest injustice.”<sup>97</sup>

We also are not persuaded by the Staff’s and C-10’s argument that the use of the word “significantly” in license condition e.<sup>98</sup> renders the decision invalid because it permits licensee engineering judgment.<sup>99</sup> In fact, license condition e. explicitly aims to reduce NextEra’s discretion in conducting “Follow-Up and Interim inspections.”<sup>100</sup> We noted that under NextEra’s SMP such inspections could be conducted “entirely ‘at the discretion of the engineer.’”<sup>101</sup> Therefore, we imposed license condition e. to limit that discretion and require action when “the ASR expansion rate in any area of a Seabrook seismic Category I structure significantly exceeds 0.2 mm/m (0.02%) through-thickness expansion per year[.]”<sup>102</sup>

The Board’s Initial Decision explains the considerations relevant to determining whether an increase in the expansion rate is significant. The Board noted Staff testimony indicating that the inspections should be “frequent enough to capture expansion prior to hitting the limits.”<sup>103</sup>

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<sup>96</sup> Ex. INT027, Dr. Saouma Pre-Filed Testimony at 35.

<sup>97</sup> Changes to Adjudicatory Process, 69 Fed. Reg. at 2207; see Proposed Ex. INT052/054, Dr. Saouma Supplemental Testimony at 2.

<sup>98</sup> License condition e. states: “If the ASR expansion rate in any area of a Seabrook seismic Category I structure significantly exceeds 0.2 mm/m (0.02%) through-thickness expansion per year, NextEra’s Management will perform an engineering evaluation focused on the continued suitability of the six-month monitoring interval for Tier 3 areas. If the engineering evaluation concludes that more frequent monitoring is necessary, it shall be implemented under the [Structures Monitoring Program].” LBP-20-9, 92 NRC at \_\_ (slip op. at 193).

<sup>99</sup> Staff Ans. to Motion for Partial Reconsideration and Motion to Reopen at 2; Proposed Ex. INT052/INT054, Dr. Saouma Supplemental Testimony at 3–4.

<sup>100</sup> Ex. NER007, Seabrook Structures Monitoring Program Manual, Rev. 7 [PROPRIETARY] at 3-1.10 [hereinafter Ex. NER007, Seabrook [SMP] Manual Rev. 7] (non-public).

<sup>101</sup> LBP-20-9, 92 NRC at \_\_ (slip op. at 139) (quoting Ex. NER007, Seabrook [SMP] Manual Rev. 7, at 3-1.10 (non-public)).

<sup>102</sup> Id. at \_\_ (slip op. at 140).

<sup>103</sup> Id. at \_\_ (slip op. at 136) (quoting Tr. at 420 (Buford)).

This will ensure that the inspection intervals will be “short enough that there [is not] the potential for structural loss of function in between the inspection intervals.”<sup>104</sup> Thus, the 0.2 mm/m (0.02%) through-thickness expansion rate would be significantly exceeded if NextEra were to measure an expansion rate that makes the inspections not “frequent enough to capture the expansion prior to exceeding the expansion limits,” that is, an expansion rate that results in “the potential for structural loss of function in between the inspection intervals.”<sup>105</sup> We did not provide a specific number to define “significantly” because, depending on the total through-thickness expansion to date, different expansion rates may be considered significant. For example, if the total through-thickness expansion is nearing the expansion limit, even a small increase in the expansion rate would be significant if, as a result of the increase, the inspections will not be “frequent enough to capture the expansion prior to exceeding the expansion limits.”<sup>106</sup>

To be sure, such determinations may require some degree of engineering judgment. But, as NextEra argues, “the concept of engineering discretion (also known as engineering judgment) has long been part of the fabric of the NRC’s safety regulation framework.”<sup>107</sup> NextEra notes that “the term ‘significantly’ is used in countless codified NRC regulatory provisions, and the NRC routinely inspects against and enforces these requirements.”<sup>108</sup> Our own word search of 10 C.F.R. Part 50 returned over twenty instances in which “significantly” is used and over ninety instances of the use of “significant.”<sup>109</sup>

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<sup>104</sup> Id. (quoting Tr. at 1122 (Buford)).

<sup>105</sup> Id.

<sup>106</sup> Id. (quoting Tr. at 420).

<sup>107</sup> NextEra Ans. to Motion for Partial Reconsideration at 5.

<sup>108</sup> Id. at 6.

<sup>109</sup> See, e.g., 10 C.F.R. § 50.61a(f)(6)(i)(B) (requiring licensees to “determine if the surveillance data show a significantly different trend” than predicted in a reactor pressure vessel embrittlement model); id. § 50.61(a)(2) (“Pressurized Thermal Shock Event means an event or transient in pressurized water reactors (PWRs) causing severe overcooling (thermal shock)

In fact, agency judgment is an essential part of determining whether the reasonable assurance standard is satisfied. The Commission has explained that the “[r]easonable assurance [standard] is not quantified as equivalent to a 95% (or any other percent) confidence level, but is based on sound technical judgment of the particulars of a case and on compliance with our regulations.”<sup>110</sup> The Commission conducts a case-by-case analysis to determine whether the standard is met.<sup>111</sup> Therefore, any argument asserting license condition e. renders LBP-20-9 invalid because it permits some degree of engineering judgment is incorrect. Allowing the use of engineering judgment, a major component of the NRC’s regulatory system, is not a legal error, much less one that justifies reconsideration.

The Staff cites Private Fuel Storage, LLC (Independent Spent Fuel Storage Installation), CLI-00-13, 52 NRC 23, 34 (2000), in which the Commission held that a license condition must

be precisely drawn so that the verification of compliance becomes a largely ministerial rather than an adjudicatory act—that is, the Staff verification efforts should be able to verify compliance without having to make overly complex judgments on whether a particular contract provision conforms, as a legal and factual matter, to the promises [the applicant] has made.<sup>112</sup>

By contrast, license condition e. requires neither a legal judgment about a contract provision nor any other overly complex determination. If NextEra detects an increase in the expansion rate, all the license condition requires is a determination whether “inspection frequencies [will still be] frequent enough to capture [the] expansion prior to hitting the limits.”<sup>113</sup>

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concurrent with or followed by significant pressure in the reactor vessel.”); id. § 50.61(b)(1), (5); id. § 50.72(b)(3)(ii)(B) (requiring licensees to provide a notification to the NRC within 8 hours of a plant “being in an unanalyzed condition that significantly degrades plant safety”).

<sup>110</sup> AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 263 (2009).

<sup>111</sup> Id. at 262 n.143.

<sup>112</sup> Private Fuel Storage, CLI-00-13, 52 NRC at 34.

<sup>113</sup> LBP-20-9, 92 NRC at \_\_\_ (slip op. at 136) (quoting Tr. at 420 (Buford)).

The limited degree of engineering judgment required for such a calculation is fully consistent with Commission precedent. The Commission itself imposed a license condition in the Summer combined license proceeding that used several discretionary modifiers. The Commission required the licensee to adopt strategies that “provide reasonable protection for the associated equipment from external events [and that] [s]uch protection must demonstrate that there is adequate capacity to address challenges to core cooling, containment, and spent fuel pool cooling capabilities. . . .”<sup>114</sup> Further, the license condition required the licensee to notify the Commission if the implementation of the license condition “would adversely impact safe and secure operation of the facility[.]”<sup>115</sup> This Commission-imposed license condition, like license condition e., used phrases permitting, but reasonably circumscribing, licensee discretion. Thus, authorizing engineering judgment in implementing license conditions does not render a decision “invalid,” but is a permissible action supported by NRC regulations and case law.<sup>116</sup>

Finally, regarding the use of petrography in license condition f., we find C-10 failed to meet the reconsideration standards. Dr. Saouma identifies no error or “manifest injustice” in urging that we specify that petrography must capture cracks “as small as 10 µm.”<sup>117</sup> This is nothing more than a disagreement regarding the appropriate level of specificity in license condition f.; it fails to demonstrate a “manifest injustice.” Moreover, in C-10’s Proposed Ex. INT053/INT055, Dr. Saouma states that “another guide for a reasonably comprehensive and

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<sup>114</sup> S.C. Elec. & Gas Co. & S.C. Pub. Serv. Auth. (Virgil C. Summer Nuclear Station, Units 2 & 3), CLI-12-9, 75 NRC 421, 441 (2012) (emphasis added).

<sup>115</sup> Id. (emphasis added).

<sup>116</sup> Dr. Saouma states that in license condition e., due to the use of the word “significantly,” “there is no . . . limit [to] NextEra’s discretion. . . .” Proposed Ex. INT052/INT054, Dr. Saouma Supplemental Testimony at 4. In fact, as stated above, the use of “significantly” permits limited licensee discretion to make an informed decision based on the circumstances. In addition, as the discussion above demonstrates, NRC has experience enforcing regulations with discretionary phrases such as “significant,” “adequate,” and “reasonable.”

<sup>117</sup> Id. at 5.

accurate petrographic analysis is provided by the industry standard ASTM C856, Standard Practice for Petrographic Examination of Hardened Concrete.”<sup>118</sup> NextEra’s hearing testimony explained that petrographic examinations for Seabrook were performed in accordance with ASTM C856.<sup>119</sup> And, in their response to Proposed Exhibits INT052/INT054 and INT053/INT055, NextEra witnesses state that “License Condition (f) is sufficient because, even without a prescriptive reference to ASTM C856, it is appropriately interpreted as requiring adherence to industry standard petrography practices.”<sup>120</sup> We agree.

Therefore, the Board would deny the Motion for Partial Reconsideration even if it granted the Motion to Reopen.

C. Staff Answer

As explained above, although the Staff opposes C-10’s Motion to Reopen and opposes the Motion for Partial Reconsideration of license conditions c., d., and f., the Staff agrees with C-10 that the phrase “significantly” should be removed from license condition e.<sup>121</sup> Unlike C-10, however, the Staff requests that the threshold for an engineering evaluation in license condition e. be increased to 0.24 mm/m (0.024%) from 0.2 mm/m (0.02%).<sup>122</sup> C-10 opposes the Staff’s proposed modification.<sup>123</sup> The Staff’s proposed modification of license condition e. is in substance a cross-motion for partial reconsideration because it requests a substantially different

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<sup>118</sup> Proposed Ex. INT053/INT055, Dr. Saouma Rebuttal Supplemental Testimony at 7.

<sup>119</sup> Ex. NER001, Testimony of NextEra Witnesses Michael Collins, John Simons, Christopher Bagley, Oguzhan Bayrak, and Edward Carley (“MPR Testimony”) at 48–49.

<sup>120</sup> NextEra Ans. to Motion for Leave to Reply, attach. 2, Aff. of John Simons, Christopher Bagley, and Edward Carley in Support of NextEra’s Answer Opposing C-10’s Motion for Leave to File a Reply and Motion for Leave to File [Ex.] INT053/[INT055] at 7 (Sept. 28, 2020).

<sup>121</sup> Staff Ans. to Motion for Partial Reconsideration and Motion to Reopen at 2, 3.

<sup>122</sup> Id. at 3.

<sup>123</sup> C-10’s Reply at 6.

modification than that proposed by C-10, based on evidence that has not previously been filed in this proceeding. So construed, the Staff's proposed modification fails to satisfy the criteria of 10 C.F.R. §§ 2.323(e) and 2.326.

According to the New Staff Affidavit, modification of license condition e. is required to comply with Office of Nuclear Reactor Regulation (NRR) Office Instruction LIC-101, a Staff guidance document.<sup>124</sup> The four Staff witnesses who previously testified at the evidentiary hearing state that the word "significantly" in license condition e. "is not quantitatively defined and, thus, its inclusion in this condition would make it unclear under exactly what conditions NextEra would be required to perform an engineering evaluation."<sup>125</sup> According to the Staff's witnesses, "[t]his would be contrary to the Staff's guidance . . . that license conditions 'should . . . be worded such that the meaning is clear and not open to different interpretations . . . .'"<sup>126</sup>

To begin with, the Staff's request to modify license condition e. is not properly before us. The Staff relies on an internal guidance document, NRR Office Instruction LIC-101, that is not part of the evidentiary record for this proceeding, not the subject of a motion for judicial notice under 10 C.F.R. § 2.337(f), and not cited in the Staff's previous filings.<sup>127</sup> The Staff also relies on a new affidavit explaining how it would apply its internal guidance to the Board's license

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<sup>124</sup> NRR, NRC, LIC-101, License Amendment Review Procedures (rev. 6 July 31, 2020) (ADAMS Accession No. ML19248C539) [hereinafter LIC-101].

<sup>125</sup> New Staff Affidavit at 9.

<sup>126</sup> *Id.* (citing LIC-101 at app. B, 22).

<sup>127</sup> The guidance document was not filed as an exhibit in this proceeding. The Board has reviewed the Staff's Statement of Position, Supplemental Statement of Position, Proposed Findings of Fact and Conclusions of Law, Exhibits NRC001, NRC005, NRC090, NRC091, INT024, and the Staff's exhibit list, and has also conducted a keyword search on ADAMS. This guidance document was not mentioned anywhere in any of the Staff's documents. An earlier revision was cited by NextEra, but only to explain the function of requests for additional information (RAIs). See NextEra's Reply to NRC Staff's Answer to C-10's Petition for Leave to Intervene (May 12, 2017) at 3 n.8 (citing NRR, NRC, LIC-101, License Amendment Review Procedures (rev. 5 Jan. 9, 2017) (ADAMS Accession No. ML16061A451)).

conditions. Under 10 C.F.R. § 2.323(c), a party may file an answer “in support of or in opposition to the motion, accompanied by affidavits or other evidence.”<sup>128</sup> However, the Staff in its “responsive” pleading has gone beyond merely answering C-10’s proposed modification of license condition e., instead proposing its own modification that C-10 opposes. Like C-10, the Staff has proffered new evidence to the Board to justify its proposed modification of license condition e. Unlike C-10, however, the Staff has not filed a motion to reopen the record under 10 C.F.R. § 2.326. That alone is sufficient to justify denial of the Staff’s request for modification of license condition e.

The Staff also fails to satisfy the standards governing motions for reconsideration. We have already considered and rejected the argument of the Staff and C-10 that the word “significantly” in license condition e. is a clear and material error that renders LBP-20-9 invalid. The argument of Staff witnesses based on NRR Office Instruction LIC-101 does not change our conclusion.<sup>129</sup> A Staff guidance document is not binding on this Board and thus cannot be the basis for concluding our decision is invalid. “NUREGs and Regulatory Guides, by their very nature, serve merely as guidance and cannot prescribe requirements [whereas o]nly statutes, regulations, orders, and license conditions can impose requirements upon applicants and licensees.”<sup>130</sup> Indeed, an agency violates the Administrative Procedure Act if it treats a guidance document as binding, either on itself or on the regulated community.<sup>131</sup>

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<sup>128</sup> 10 C.F.R. § 2.323(c).

<sup>129</sup> New Staff Affidavit at 9–10.

<sup>130</sup> Curators of the University of Mo. (TRUMP-S Project), CLI-95-1, 41 NRC 71, 98 (1995) (citing Carolina Power and Light Co. (Shearon Harris Nuclear Power Plant), ALAB–852, 24 NRC 532, 544–45 (1986)).

<sup>131</sup> Gen. Elec. Co. v. EPA, 290 F.3d 377, 384–85 (D.C. Cir. 2002); McLouth Steel Prod’s Corp. v. Lee, 838 F.2d 1317, 1321–32, (D.C. Cir. 1988). Similarly, in New Jersey v. NRC, 526 F.3d 98, 102 (3d Cir. 2008), the Third Circuit rejected a challenge to the NRC’s use of a guidance document, NUREG-1757, because the court agreed with the NRC that it was only a “non-binding guidance document.”

Staff guidance (or the Staff's explanation of how it would apply its guidance) may still be relevant to the extent it is persuasive. In this instance, however, we agree with NextEra that there is no safety-related reason to replace the language of license condition e. with the Staff's proposed prescriptive value of 0.24 mm/m (0.024%).<sup>132</sup> In fact, the Staff does not attempt to show that replacing the word "significantly" in license condition e. with 0.24 mm/m (0.024%) would ensure that the inspections will be frequent enough to prevent an exceedance of an expansion limit. Instead, the Staff attempts to justify the 0.24 mm/m (0.024%) figure because the Board referred to a hypothetical through-thickness expansion of 0.24 mm/m (0.024%) in the Initial Decision.<sup>133</sup> We did so, however, merely as one example (among many that could have been cited) of how a change in the expansion rate could affect the date on which an expansion limit is reached. Nothing in the Initial Decision indicates that we believe 0.24 mm/m (0.024%) or any other specific figure will necessarily be sufficient to define when through-thickness expansion "significantly" exceeds 0.2 mm/m (0.02%). That is an incorrect inference. We have purposefully not provided a specific figure to determine when an increase in the through-thickness expansion rate is "significant" because that determination depends on whether, taking into account both any observed increase in the expansion rate and the total through-thickness expansion up to that time, the inspection frequencies will be sufficient to prevent an exceedance of an expansion limit.<sup>134</sup>

Although we deny the Staff's request for a substantive modification of license condition e., the Staff also suggested several stylistic revisions to the license conditions that we elect to adopt. We will revise license condition c. to specify we are referring to MPR-4273, Revision

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<sup>132</sup> NextEra Ans. to Motion for Leave to Reply at 11.

<sup>133</sup> LBP-20-9, 92 NRC at \_\_\_ (slip op. at 135).

<sup>134</sup> Id.



1,<sup>135</sup> and remove the phrase “rather than in 2025 and every ten years thereafter.”<sup>136</sup> In license condition d., we will change the reference to “SEM” to “Structural Evaluation Methodology.”<sup>137</sup>

In license condition e., we will change the reference to “SMP” to “Structures Monitoring Program.” Accordingly, the license conditions now read:

- c. NextEra shall undertake the monitoring required by MPR-4273, Revision 1, Appendix B, Check 3, for control extensometers every six months.
- d. If stress analyses conducted pursuant to the Structural Evaluation Methodology show that the stress in the rebar from ASR-induced expansion and other loads will exceed the yield strength of the rebar, NextEra must develop a monitoring program sufficient to ensure that rebar failure or yielding does not occur, or is detected if it has already occurred, in the areas at-risk of rebar failure or yielding.
- e. If the ASR expansion rate in any area of a Seabrook seismic Category I structure significantly exceeds 0.2 mm/m (0.02%) through-thickness expansion per year, NextEra’s Management will perform an engineering evaluation focused on the continued suitability of the six-month monitoring interval for Tier 3 areas. If the engineering evaluation concludes that more frequent monitoring is necessary, it shall be implemented under the Structures Monitoring Program.
- f. Each core extracted from Seabrook Unit 1 will be subjected to a petrographic analysis to detect internal microcracking and delamination.

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<sup>135</sup> Ex. INT019-R, MPR-4273, Rev. 1, Seabrook Station - Implications of Large-Scale Test Program Results on Reinforced Concrete Affected by Alkali-Silica Reaction (July 2016) (Enclosure 5 to Letter SBK-18072); Ex. INT021, MPR-4273, MPR-4273, Rev. 1, Seabrook Station - Implications of Large-Scale Test Program Results on Reinforced Concrete Affected by Alkali-Silica Reaction (March 2018) (Enclosure 7 to Letter SBK-18072) (non-public).

<sup>136</sup> New Staff Affidavit at 5.

<sup>137</sup> Id. at 8.

D. C-10's Motion for Leave to Reply and C-10's Reply

In its Motion for Leave to Reply, C-10 asks that we allow it to reply and submit additional testimony from Dr. Saouma (Proposed Ex. INT053/INT055) in response to the answers of NextEra and the Staff to C-10's post-Initial Decision motions.<sup>138</sup> Because we have construed the Staff's proposed modification of license condition e. to be in substance a cross-motion for partial reconsideration, we grant C-10's Motion for Leave to Reply to the extent its Reply and Proposed Ex. INT053/INT055 respond to the Staff's proposed modification.<sup>139</sup> An answer to a motion for reconsideration is permitted by 10 C.F.R. § 2.323(c), and because of the manner in which the Staff's proposed modification was filed, C-10 has not yet had the opportunity to respond. We have also considered Dr. Saouma's statement in C-10's Proposed Ex. INT053/INT055 that "another guide for a reasonably comprehensive and accurate petrographic analysis is provided by the industry standard ASTM C856, Standard Practice for Petrographic Examination of Hardened Concrete."<sup>140</sup> In all other respects, the Motion for Leave to Reply is denied. We agree with NextEra that C-10 has failed to satisfy the demanding requirements for filing a reply, which require that it demonstrate "compelling circumstances" and "that it could not reasonably have anticipated the arguments to which it seeks leave to reply."<sup>141</sup>

**III. CONCLUSION**

For the reasons stated above, the Board DENIES C-10's Motion to Reopen; DENIES C-10's Motion for Leave and Motion for Partial Reconsideration; and DENIES in part, GRANTS in part, C-10's Motion for Leave to Reply. The Board denies C-10's request to admit Proposed Ex.

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<sup>138</sup> Motion for Leave to Reply at 1.

<sup>139</sup> C-10's Reply at 5–6; Proposed Ex. INT053/INT055, Dr. Saouma Rebuttal Supplemental Testimony at 6.

<sup>140</sup> Proposed Ex. INT053/INT055, Dr. Saouma Rebuttal Supplemental Testimony at 7.

<sup>141</sup> NextEra Ans. to Motion for Leave to Reply at 2 (citing 10 C.F.R. § 2.323(c)).

INT052/INT054. Proposed Ex. INT053/INT055 is admitted, but the Board has considered it only to the extent stated in the immediately preceding paragraph of this Order.<sup>142</sup>

IT IS SO ORDERED.

THE ATOMIC SAFETY  
AND LICENSING BOARD

*/RA/*

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Ronald M. Spritzer, Chairman  
ADMINISTRATIVE JUDGE

*/RA/*

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Nicholas G. Trikouros  
ADMINISTRATIVE JUDGE

*/RA/*

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Dr. Sekazi K. Mtingwa  
ADMINISTRATIVE JUDGE

Rockville, Maryland  
November 6, 2020

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<sup>142</sup> See Proposed Ex. INT053/INT055, Dr. Saouma Rebuttal Supplemental Testimony ¶¶ 18–20, 27.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing **MEMORANDUM AND ORDER (Denying Motion to Reopen, Motion for Leave, and Motion for Partial Reconsideration; Granting in Part and Denying in Part Motion for Leave to Reply) (LBP-20-12)** have been served upon the following persons by Electronic Information Exchange.

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NEXTERA ENERGY SEABROOK, LLC (Seabrook Station Unit 1) – Docket No. 50-443-LA-2  
**MEMORANDUM AND ORDER (Denying Motion to Reopen, Motion for Leave, and Motion for Partial Reconsideration; Granting in Part and Denying in Part Motion for Leave to Reply) (LBP-20-12)**

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Office of the Secretary of the Commission

Dated at Rockville, Maryland,  
this 17<sup>th</sup> day of November 2020.