

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
NextEra Energy Seabrook, LLC	)	Docket No. 50-443-LR
	)	
(Seabrook Nuclear Station, Unit 1)	)	ASLBP No. 10-906-02-LR-BD01

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NRC STAFF'S ANSWER TO INTERVENORS' SUPPLEMENT TO MOTION  
FOR LEAVE TO FILE A NEW CONTENTION CONCERNING  
SAFETY-RELATED CONCRETE STRUCTURES

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October 16, 2012

TABLE OF CONTENTS

	<u>PAGE</u>
INTRODUCTION .....	1
BACKGROUND .....	2
I. Procedural History .....	2
II. The Staff's Evaluation of ASR in Concrete Structures at Seabrook Under the ROP .....	4
DISCUSSION.....	6
I. The ASR Supplement, Like All Documents that Add Support for Pending Contentions, Must Meet the Requirements for Amending a Contention .....	6
II. Legal Standards .....	7
A. Timeliness Standards Under 10 C.F.R. § 2.309(c)(1) .....	7
B. Contention Admissibility Standards in NRC License Renewal Proceedings .....	9
1. Contention Admissibility Factors in 10 C.F.R. § 2.309(f)(1).....	9
2. Scope of NRC License Renewal Proceedings .....	10
3. An Admissible Contention Must Contain an Adequate Factual Basis .....	11
III. The Portions of the ASR Supplement Related to the Staff ROP Request and Charter Are Not Adequately Supported, Untimely, Immaterial, and Out of Scope.....	12
A. The Staff ROP Request and Charter Do Not Provide Adequate Factual Support for the ASR Contention .....	12
B. The Staff ROP Request and Charter Do Not Provide Materially Different Information than Previously Available .....	15
C. The Staff ROP Request and Charter are Not Material to the ASR Contention ...	18
D. NRC Regulations Do Not Require the Agency to Resolve All ROP Issues Before Considering a License Renewal Application .....	20
IV. The Portion of the ASR Supplement Related to RAI Set 19 Is Untimely and Does Not Support Several Portions of the ASR Contention .....	22
A. RAI Set 19 Does Not Provide New Information.....	22
1. Follow-Up RAI B.2.1.28-3.....	23

2.	Follow-Up RAI B.2.1.31-1 .....	24
3.	RAI B.2.1.31-5 .....	24
4.	RAI B.2.1.31-6 .....	25
5.	RAI B.2.1.31-7 .....	26
6.	RAI B.2.1.31-8 .....	27
7.	RAI B.2.1.31-9 .....	28
8.	RAI B.2.1.31-10 .....	28
9.	RAI B.2.1.31-11 .....	29
B.	RAI Set 19 Does Not Provide Adequate Factual Support for Several of the Assertions in the ASR Contention .....	30
V.	Portions of the C-10 Letter Do Not Provide Adequate Support for the ASR Supplement and It Is Untimely .....	32
A.	While Portions of the C-10 Letter Provide Factual Support for the ASR Contention, the C-10 Letter is Nevertheless Untimely.....	32
1.	Portions of the C-10 Letter Support the ASR Contention .....	32
2.	The Remainder of the C-10 Letter Does Not Provide Adequate Factual Support for the ASR Contention .....	33
B.	The C-10 Letter Does Not Contain New and Materially Different Information.....	35
	CONCLUSION .....	36

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INTRODUCTION

Pursuant to 10 C.F.R. § 2.309(i)(1), and the Atomic Safety and Licensing Board's ("Board") April 4, 2011 Initial Scheduling Order,<sup>1</sup> the Staff of the U.S. Nuclear Regulatory Commission ("NRC Staff" or "Staff") hereby answers Friends of the Coast and New England Coalition's ("FOTC/NEC" or "Intervenors") Supplement to their motion for leave to file a new contention regarding Alkali-Silica Reaction ("ASR").<sup>2</sup> FOTC/NEC asserts that the documents the ASR Supplement references provide additional support for the contention. Although limited portions of the ASR Supplement do support the contention, the entirety of the ASR Supplement is untimely. Consequently, the NRC Staff opposes FOTC/NEC's attempt to add additional support for the contention in the ASR Supplement.

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<sup>1</sup> Initial Scheduling Order (Apr. 4, 2011) (Agencywide Documents Access and Management System ("ADAMS") Accession No. ML110940336) ("ISO").

<sup>2</sup> Supplement to Friends of the Coast and New England Coalition's Motion for Leave to File a New Contention Concerning NextEra Energy Seabrook's Amendment of its Aging Management Program for Safety-Related Concrete Structures (Sep. 21, 2012) (ADAMS Accession No. ML12265A394) ("ASR Supplement").

BACKGROUND

I. Procedural History

On August 27, 2012, FOTC/NEC submitted a “Motion for Leave to File a New Contention Concerning NextEra Energy Seabrook’s [(“NextEra”)] Amendment of its Aging Management Program for Safety-Related Concrete Structures” (“ASR Contention”) in this license renewal proceeding.<sup>3</sup> The ASR Contention challenged NextEra’s aging management program for ASR (“ASR AMP”) at the Seabrook Nuclear Station (“Seabrook”) during the license renewal period.<sup>4</sup> The Staff and NextEra responded to the ASR Contention on September 21, 2012.<sup>5</sup> Although the ASR Contention raised some admissible issues, the Staff concluded that it was untimely under the Commission’s regulations.<sup>6</sup> A week later, on September 28, FOTC/NEC filed a reply to the Staff’s and NextEra’s answers.<sup>7</sup>

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<sup>3</sup> Friends of the Coast and New England Coalition’s Motion for Leave to File a New Contention Concerning NextEra Energy Seabrook’s Amendment of its Aging Management Program for Safety-Related Concrete Structures (Aug. 27, 2012) (ADAMS Accession No. ML12241A061) (“ASR Contention”).

<sup>4</sup> *Id.* at 1-2. Seabrook Station, NextEra Energy Seabrook License Renewal Application – Structures Monitoring Program Supplement - Alkali Silica Reaction (ASR) Monitoring, (May 16, 2012) (ADAMS Accession No. ML12142A323) (“ASR AMP”).

ASR can occur in a moistened environment when aggregate in concrete contains reactive silica which reacts with alkali hydroxides in the cement paste. The reaction forms an alkali-silica gel, which can absorb water and swell. This swelling causes internal stress in the concrete structure. In turn, that stress leads to cracking, which may degrade the mechanical properties of concrete. NRC Information Notice 2011-20: Concrete Degradation by Alkali-Silica Reaction, 2 (Nov. 18, 2011) (ADAMS Accession No. ML112241029); Transcript of Advisory Committee on Reactor Safety, Plant License Renewal Subcommittee, NRC Slides at 25 (July 10, 2012) (ADAMS Accession No. ML12207A401) (“ACRS Transcript”).

<sup>5</sup> NRC Staff’s Answer to Intervenor’s Motion for Leave to File New Contention Concerning Safety-Related Concrete Structures (Sep. 21, 2012) (ADAMS Accession No. ML12265A384) (“Staff Answer”); NextEra Answer Opposing Admission of Contention Concerning Alkali-Silica Reaction (Sep. 21, 2012) (ADAMS Accession No. ML12265A135).

<sup>6</sup> Staff Answer at 1.

<sup>7</sup> Friends of the Coast and New England Coalition’s Reply to NRC Staff’s Answer & NextEra’s (continued. . .)

On September 21, 2012, the same day NextEra and the Staff filed their responses, FOTC/NEC filed the ASR Supplement, which is the subject of this answer.<sup>8</sup> The ASR Supplement contends that four additional documents provide further support for the ASR Contention.<sup>9</sup> Those four documents are (1) a Request for Deviation from the Reactor Oversight Process (“ROP”) Action Matrix to Provide Increased Oversight of the Alkali-Silica Reaction Issue at Seabrook (“Staff ROP Request”);<sup>10</sup> (2) the Seabrook Alkali Silica Reaction Issue Technical Team Charter (“Charter”),<sup>11</sup> (3) Requests for Additional Information (“RAI”) for the Review of the Seabrook Station, License Renewal Application – Set 19 (“RAI Set 19”);<sup>12</sup> and (4) a Letter from Sandra Gavutis, Executive Director, C-10 Research and Education Foundation and Dr. David Wright, Co-Director, Global Security Program, Union of Concerned Scientists to William M. Dean, Regional Administrator Region 1, NRC (“C-10 Letter”).<sup>13</sup>

The Staff’s September 21, 2012 Answer fully described the relevant history of this

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Answer to Intervenor’s Motion for Leave to File New Contention Concerning Safety-Related Concrete Structures (Sep. 28, 2012) (ADAMS Accession No. ML 12273A008).

<sup>8</sup> ASR Supplement.

<sup>9</sup> *Id.* at 2-3.

<sup>10</sup> Request for Deviation from the Reactor Oversight Process Action Matrix to Provide Increased Oversight of the Alkali-Silica Reaction Issue at Seabrook (Sep. 5, 2012) (ADAMS Accession No. ML12242A370) (“Staff ROP Request”).

<sup>11</sup> Seabrook Alkali Silica Reaction Issue Technical Team Charter (July 9, 2012) (ADAMS Accession No. ML121250588) (“Charter”).

<sup>12</sup> Requests for Additional Information for the Review of the Seabrook Station, License Renewal Application – Set 19 (Sep. 14, 2012) (ADAMS Accession No. ML12250A707) (“RAI Set 19”).

<sup>13</sup> Letter from Sandra Gavutis, Executive Director, C-10 Research and Education Foundation and Dr. David Wright, Co-Director, Global Security Program, Union of Concerned Scientists to William M. Dean, Regional Administrator Region 1, NRC (Sep. 13, 2012) (ADAMS Accession No. ML12265A398) (“C-10 Letter”).

proceeding and the Staff's evaluation of ASR in its review of the Seabrook license renewal application ("LRA").<sup>14</sup> Therefore, the Staff will not repeat that discussion here. Nonetheless, because the ASR Supplement references many documents regarding the Staff's review of ASR at Seabrook under the ROP, the Staff will briefly describe the ROP and how the Staff has examined ASR at Seabrook under that process.

II. The Staff's Evaluation of ASR in Concrete Structures at Seabrook under the ROP

The ROP is a risk-informed process for inspecting and assessing licensee performance.<sup>15</sup> A risk-informed process assesses the safety risk posed by a non-compliance and uses that risk to determine the level of regulatory response under the ROP.<sup>16</sup> The primary mechanism the NRC Staff uses to direct its oversight under the ROP is the Action Matrix.<sup>17</sup> The NRC Staff assigns each plant to one of five columns in the Action Matrix based on its performance.<sup>18</sup> If a plant demonstrates degraded performance, the NRC Staff will move it to a higher-numbered Column in the Action Matrix.<sup>19</sup> That reassignment will result in additional inspections.<sup>20</sup> In Columns I-IV<sup>21</sup> of the Action Matrix, the NRC Staff has reasonable assurance

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<sup>14</sup> Staff Answer at 2-7.

<sup>15</sup> Inspection Manual Chapter ("IMC") 0308, "Reactor Oversight Process (ROP) Basis Document," at 1-2 (Nov. 11, 2007) (ADAMS Accession No. ML071860181) ("IMC 0308").

<sup>16</sup> IMC 0305, Operating Reactor Assessment Program (IMC 0305) at 17 (Jul. 1, 2012) (ADAMS Accession No. ML12089A066) ("IMC 0305").

<sup>17</sup> IMC 0308 at 5.

<sup>18</sup> *Id.* at 17.

<sup>19</sup> IMC 0305 at 17-24.

<sup>20</sup> *Id.* at F1-1.

<sup>21</sup> Referring to the columns of the Action Matrix by Roman numerals is a short hand. The formal names for the columns are: I-Licensee Response Column; II-Regulatory Response Column; III-Degraded (continued. . .)

that the plant will operate safely.<sup>22</sup> If the NRC Staff determines that a plant's safety performance is unacceptable and that the NRC Staff therefore lacks reasonable assurance that the plant can comply with its licensing basis, the NRC Staff will move the plant to Column V and direct it to shut down.<sup>23</sup>

The NRC has monitored NextEra's treatment and analysis of ASR at Seabrook under the ROP since November of 2010.<sup>24</sup> The NRC has determined that the structures affected by ASR are currently "capable of performing their safety-related functions."<sup>25</sup> The NRC based this determination on (1) "engineering conservatisms in design," (2) the lack of significant "deformation, distortion, or displacement of structures," (3) the limited number of areas affected by ASR, and (4) ASR's slow progression at Seabrook combined with NextEra's monitoring plans.<sup>26</sup> Nonetheless, "the NRC still has concerns associated with long term operability."<sup>27</sup> Thus, NextEra has committed to provide the NRC with substantially more information regarding

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Cornerstone Column; IV-Multiple/Repetitive Degraded Cornerstone Column; V-Unacceptable Performance Column. *Id.* at F1-1.

<sup>22</sup> See IMC 0305 at 23 (noting that when a plant is in Column V, the NRC lacks reasonable assurance that the plant will operate safely).

<sup>23</sup> *Id.* at 23-24.

<sup>24</sup> Seabrook Station – NRC Inspection Report 05000443/2011010 Related to Alkali-Silica Reaction Issue in Safety Related Structures, Enclosure at 1 (Mar. 26, 2012) (ADAMS Accession No. ML120480066) ("ASR IR").

<sup>25</sup> Confirmatory Action Letter, Seabrook Station, Unit 1 – Information Related to Concrete Degradation Issues, at 2 (May 16, 2012) (ADAMS Accession No. ML12125A172) ("CAL").

<sup>26</sup> *Id.*

<sup>27</sup> ASR IR at 1.

ASR at Seabrook in the coming year.<sup>28</sup>

## DISCUSSION

### I. The ASR Supplement, Like All Documents that Add Support for Pending Contentions, Must Meet the Requirements for Amending a Contention

FOTC/NEC asserts that the ASR Supplement does not amend the ASR Contention but only adds basis and support for that contention.<sup>29</sup> Under NRC precedent, “a petitioner need not introduce at the contention phase every document on which it will rely in a hearing.”<sup>30</sup>

Nonetheless, if a petitioner provides additional information to support a pending contention, the addition must meet the normal requirements for filing a new or amended contention. “New bases for a contention cannot be introduced in a reply brief, or any other time after the date the original contentions are due, unless the petitioner meets the late-filing criteria set forth in 10 C.F.R. § 2.309[(c)(1)].”<sup>31</sup> The additional information must also meet the normal contention admissibility requirements.<sup>32</sup> These stringent standards serve an important policy purpose. As the Commission has observed, “There simply would be no end to NRC licensing proceedings if

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<sup>28</sup> CAL at 2-3.

<sup>29</sup> ASR Supplement at 2.

<sup>30</sup> *Nuclear Management Company, LLC* (Palisades Nuclear Plant), CLI-06-17, 63 NRC 727, 732 (2006).

<sup>31</sup> *Id.* Although FOTC/NEC claims that the ASR Supplement meets the requirements for new and amended contentions under 10 C.F.R. § 2.309(f)(2), the Staff notes that the Commission recently moved those standards to 10 C.F.R. § 2.309(c)(1). Amendments to Adjudicatory Process Rules and Related Requirements, 77 Fed. Reg. 46,562, 46,591 (Aug. 3, 2012). Because this amendment did not change the substance of those provisions, the Staff will refer to the new provisions in responding to FOTC/NEC’s arguments and rely on case law discussing § 2.309(c)(1)’s predecessor, § 2.309(f)(2).

<sup>32</sup> See *Palisades*, CLI-06-17, 63 NRC at 732 (“By stressing untimeliness, we by no means suggest that the new information . . . amounts to an admissible contention.”); *Amergen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 261 (2009) (noting that new and amended contentions must also meet the normal contention admissibility requirements under 10 C.F.R. § 2.309(f)(1)).

petitioners could disregard our timeliness requirements and add new bases or new issues that simply did not occur to [them] at the outset.”<sup>33</sup>

Consequently, like any attempt to add further support for a pending contention, the ASR Supplement must meet the Commission’s standards for new and amended contentions in 10 C.F.R. § 2.309(c)(1) and contention admissibility in § 2.309(f)(1). FOTC/NEC apparently agrees and contends that the ASR Supplement meets the requirements of 10 C.F.R. § 2.309(c)(1) and (f)(1)(v) and that the ASR Contention itself provides sufficient information to meet the remaining requirements in § 2.309(f)(1).<sup>34</sup> The Staff will discuss in turn each document the ASR Supplement references: the Staff ROP Request, the Charter, RAI Set 19, and the C-10 Letter. But, first, the following section will briefly discuss the Commission’s standards for contention amendment and admissibility.

## II. Legal Standards

### A. Timeliness Standards Under 10 C.F.R. § 2.309(c)(1)

Under 10 C.F.R. § 2.309(c)(1), a contention filed after the initial filing period may be admitted as a timely new or amended contention only with leave of the Board upon a showing that:

- (i) The information upon which the amended or new contention is based was not previously available;
- (ii) The information upon which the amended or new contention is based is materially different than information previously available; and
- (iii) The amended or new contention has been submitted in a

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<sup>33</sup> *Louisiana Energy Servs., L.P.* (National Enrichment Facility), CLI-04-25, 60 NRC 223, 225 (2004).

<sup>34</sup> ASR Supplement at 2.

timely fashion based on the availability of the subsequent information.<sup>35</sup>

Pursuant to the Board's modified Initial Scheduling Order, "[a] motion and proposed new contention shall be deemed timely under 10 C.F.R. § 2.309(c)(1)(iii) if it is filed within thirty (30) days of the date when the new and material information on which it is based first becomes available to the moving party through service, publication, or any other means."<sup>36</sup>

The Commission has made several points clear when discussing what constitutes new and materially different information for purposes of 10 C.F.R. § 2.309(c)(1). First, when a petitioner's motion makes little effort to meet the pleading requirements governing late-filed contentions, that in and of itself constitutes sufficient grounds for rejecting the petitioner's motion.<sup>37</sup> For example, the Commission has stated that a petitioner's failure to address the factors in 10 C.F.R. § 2.309(c)(1) is reason enough to reject the motion.<sup>38</sup> Second, petitioners cannot simply point to "documents merely summarizing earlier documents or compiling pre-existing, publicly available information into a single source...[as doing so]... do[es] not render 'new' the summarized or compiled information."<sup>39</sup> The Commission has explained, a "petitioner or intervenor [cannot] delay filing a contention until a document becomes available that collects, summarizes and places into context the facts supporting that contention. To conclude

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<sup>35</sup> 10 C.F.R. § 2.309(f)(2).

<sup>36</sup> Order (Granting Joint Motion to Modify Initial Scheduling Order), at 2 (Oct. 3, 2012) (ADAMS Accession No. ML12277A049) ("Amended Scheduling Order at 2").

<sup>37</sup> *Florida Power & Light Co.*, (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-06-21, 64 NRC 30, 33 (2006).

<sup>38</sup> *Id.* (noting that petitioner did not address any of the factors in 10 C.F.R. § 2.309(c)(1)).

<sup>39</sup> *Entergy Nuclear Vermont Yankee, L.L.C. and Entergy Nuclear Operations, Inc.* (Vermont Yankee Nuclear Power Station), CLI-11-02, 73 NRC 333, 344 (2011).

otherwise would turn on its head the regulatory requirement that new contentions be based on 'information ... *not previously available*.'"<sup>40</sup> Third, the Commission has emphasized that allegedly new and materially different information must support the proposed contention.<sup>41</sup> Thus, the Commission has noted that allegedly new and materially different information must articulate a "reasonably apparent" foundation for the contention.<sup>42</sup>

B. Contention Admissibility Standards in NRC License Renewal Proceedings

1. Contention Admissibility Factors in 10 C.F.R. § 2.309(f)(1)

In addition to meeting the 10 C.F.R. § 2.309(c)(1) requirements, an attempt to add additional bases to a contention must also meet the requirements of 10 C.F.R. § 2.309(f)(1).<sup>43</sup>

Under § 2.309(f)(1), an admissible contention must:

- (i) Provide a specific statement of the issue of law or fact to be raised or controverted;
- (ii) Provide a brief explanation of the basis for the contention;
- (iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;
- (iv) Demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding;

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<sup>40</sup> *Northern States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 and 2), CLI-10-27, 72 NRC 481, 496 (2010) (internal citations omitted); *see also* 77 Fed. Reg. at 46566.

<sup>41</sup> *See Prairie Island*, CLI-10-27, 72 NRC at 493-94 (noting that the SER petitioners cited to as having new and materially different information did not provide support for the contention and so did not contain new or materially different information).

<sup>42</sup> *Id.* at 495.

<sup>43</sup> *See Palisades*, CLI-06-17, 63 NRC at 732 ("By stressing untimeliness, we by no means suggest that the new information . . . amounts to an admissible contention."); *Oyster Creek*, CLI-09-7, 69 NRC at 261.

(v) Provide a concise statement of the alleged facts or expert opinions which support the requestor's/petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the requestor/petitioner intends to rely to support its position on the issue; and

(vi) Provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact. This information must include references to specific portions of the application (including the applicant's environmental report and safety report) that the petition disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief.<sup>44</sup>

The contention admissibility requirements are "strict by design."<sup>45</sup> Thus, the Commission has strictly applied them in NRC adjudications, including license renewal proceedings.<sup>46</sup>

## 2. Scope of NRC License Renewal Proceedings

Regarding scope, the Commission has held, "[a]djudicatory hearings in individual license renewal proceedings will share the same scope of issues as our NRC Staff review."<sup>47</sup> Part 54 governs the Staff's safety review of license renewal applications.<sup>48</sup> "Part 54 centers the license renewal reviews on the most significant overall safety concern posed by extended reactor

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<sup>44</sup> 10 C.F.R. § 2.309(f)(1).

<sup>45</sup> *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 & 3), CLI-01-24, 54 NRC 349, 358 (2001).

<sup>46</sup> *AmerGen Energy Company, LLC* (Oyster Creek Nuclear Generating Station), CLI-06-24, 64 NRC 111, 118-19 (2006).

<sup>47</sup> *Florida Power and Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 & 4), CLI-01-17, 54 NRC 3, 10 (2001).

<sup>48</sup> 10 C.F.R. § 54.1.

operation – the detrimental effects of aging.”<sup>49</sup> “Accordingly, Part 54 requires renewal applicants to demonstrate how their programs will be effective in managing the effects of aging during the proposed period of extended operation.”<sup>50</sup>

The Commission has repeatedly cautioned, “ ‘[L]icense renewal should not include a new, broad-scoped inquiry into compliance that is separate from and parallel to [our] ongoing compliance oversight activity.’ ”<sup>51</sup> That ongoing oversight is sufficient to ensure that plants comply with the terms of their existing licenses.<sup>52</sup> Therefore, “To require a full reassessment of these issues at the license renewal stage . . . would be both unnecessary and wasteful.”<sup>53</sup>

3. An Admissible Contention Must Contain an Adequate Factual Basis

Although petitioners are not required “to prove their case, or to provide an exhaustive list of possible bases” at the contention admissibility phase, they are required to provide “sufficient alleged factual or legal bases to support the contention, and to do so at the outset.”<sup>54</sup> In addition, “[T]he Commission will not accept the filing of a vague, unparticularized [contention], unsupported by alleged fact or expert opinion and documentary support.”<sup>55</sup> Put another way,

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<sup>49</sup> *Turkey Point*, CLI-01-17, 54 NRC at 7.

<sup>50</sup> *Id.* at 8.

<sup>51</sup> *E.g. Prairie Island*, CLI-10-27, 72 NRC at 490 (*quoting* Nuclear Plant License Renewal, 56 Fed. Reg. 64,943, 64,952 (Dec. 13, 1991) (alteration in original)).

<sup>52</sup> 56 Fed. Reg. at 64,946.

<sup>53</sup> *Turkey Point*, CLI-01-17, 54 NRC at 7.

<sup>54</sup> *Louisiana Energy Services, LP* (National Enrichment Facility), CLI-04-35, 60 NRC 619, 623 (2004).

<sup>55</sup> *Consumers Energy Co.* (Palisades Nuclear Power Plant), CLI-07-18, 65 NRC 399, 414 (2007) (quotations omitted).

“[g]eneral assertions or conclusions will not suffice.”<sup>56</sup> Thus, “[a] petitioner’s issue will be ruled inadmissible if the petitioner has offered no tangible information, no experts, [or] no substantive affidavits but instead only bare assertions and speculation.”<sup>57</sup> Although the Staff’s safety review is not the subject of NRC hearings, a document produced by the Staff may provide the requisite factual support for an admissible contention challenging the license application.<sup>58</sup> However, a petitioner seeking to rely on a Staff document must adequately explain how it supports the contention.<sup>59</sup>

### III. The Portions of the ASR Supplement Related to the Staff ROP Request and Charter Are Not Adequately Supported, Untimely, Immaterial, and Out of Scope

#### A. The Staff ROP Request and Charter Do Not Provide Adequate Factual Support for the ASR Contention

FOTC/NEC contends that information in the Staff ROP Request and Charter provides additional support for the ASR Contention under 10 C.F.R. § 2.309(f)(1)(v).<sup>60</sup> That section requires petitioners to “[p]rovide a concise statement of the alleged facts or expert opinions which support the requestor’s/petitioner’s position on the issue.”<sup>61</sup> But, neither the Staff ROP

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<sup>56</sup> *Id.*

<sup>57</sup> *Fansteel, Inc.* (Muskogee, Oklahoma, Site), CLI-03-13, 58 NRC 195, 203 (2003) (internal quotations omitted).

<sup>58</sup> *Baltimore Gas & Electric Company* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 NRC 325, 350 (1998) (noting that “[i]f a petitioner concludes that a staff RAI or an applicant RAI response raises a legitimate question about the adequacy of the application, the petitioner is free to posit that issue as a new or amended contention, subject to complying with the late-filing standards”).

<sup>59</sup> *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), LBP-91-41, 34 NRC 332, 338 (1991); see *USEC, Inc.* (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 471 (2006) (noting that “an expert opinion that merely states a conclusion (e.g., the application is ‘deficient,’ ‘inadequate,’ or ‘wrong’) without providing a reasoned basis or explanation for that conclusion is inadequate” to establish a material dispute).

<sup>60</sup> ASR Supplement at 2.

<sup>61</sup> 10 C.F.R. § 2.309(f)(1)(v).

Request nor the Charter discusses the issues raised by the ASR Contention. Consequently, they do not provide adequate support for the ASR Contention.

As discussed in the Staff's initial answer to the ASR Contention, the ASR Contention raises eight challenges to NextEra's ASR AMP.<sup>62</sup> Those challenges relate to (1) baselines for the ASR AMP, (2) visual inspections, (3) inaccessible areas, (4) ASR aggravating factors, (5) inspector qualifications, (6) measures to mitigate ASR, (7) inspection intervals, and (8) concrete sampling.<sup>63</sup> But, the Staff ROP Request and the Charter do not discuss any technical issues, let alone the eight issues raised by the ASR Contention. Therefore, these documents do not provide sufficient factual support to demonstrate that the ASR Contention would meet the requirements of 10 C.F.R. § 2.309(f)(1)(v).

Rather, the Staff ROP Request asks for additional staff resources to study ASR at Seabrook.<sup>64</sup> Previously, the Staff had studied ASR at Seabrook using the resources provided for by the ROP.<sup>65</sup> However, the Staff believes "this 'first-of-a-kind' issue warrants additional inspection and assessment beyond that normally allocated by the ROP."<sup>66</sup> Thus, the Staff ROP Request asks for more resources to "conduct additional inspections and assessments

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<sup>62</sup> Staff Answer at 8.

<sup>63</sup> ASR Contention at 9-10. As the NRC Staff noted in its answer, FOTC/NEC's stated contention is impermissibly vague. Staff Answer at 30 n. 133. Moreover, FOTC/NEC's stated bases are also too general to meet the NRC's specific pleading standards. *Palisades*, CLI-07-18, 65 NRC at 414; 10 C.F.R. § 2.309(f)(1)(i), (v), (vi) Those bases are: "The Proposed ASR Structures Monitoring Program is not a Functional Effective tool for AMP" and "NextEra has not Developed Reliable Inventory and Analysis on Which to Base an ASR Monitoring Program or Aging Management Program for Affected Concrete Structures." ASR Contention at 9-10. Because the eight listed issues in the ASR Contention are the only portions of the pleading that raise claims with sufficient specificity to meet the NRC's pleading requirements, they should be the appropriate focus for an analysis of the contention's admissibility.

<sup>64</sup> Staff ROP Request at 2.

<sup>65</sup> *Id.* at 2.

<sup>66</sup> *Id.*

associated with” ASR in concrete at Seabrook.<sup>67</sup>

Likewise, the Charter only establishes procedures for coordinating Seabrook ASR reviews among NRC offices studying the issue.<sup>68</sup> The NRC promulgated the charter to coordinate “onsite inspections, in-office technical reviews, and other associated evaluation and assessment activities involving NextEra’s review and resolution of the ASR issues at Seabrook Station.”<sup>69</sup> The Charter specifies the Seabrook ASR Issue Technical Team’s objectives and responsibilities.<sup>70</sup> The Charter also lists the regulatory requirements governing the Staff’s ASR review.<sup>71</sup>

Consequently, unlike the ACRS Transcript, the Charter and the Staff ROP Request do not discuss technical issues in general or any of the eight specific technical issues FOTC/NEC identified in the ASR Contention.<sup>72</sup> Rather, these are simply administrative documents that establish the process the Staff will use to evaluate ASR at Seabrook and the resources that will support that evaluation. Therefore, they do not support the ASR Contention.

Although FOTC/NEC has not moved to amend the ASR Contention to include new claims, FOTC/NEC nonetheless argues that these documents support the contention because

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<sup>67</sup> *Id.* at 1-2.

<sup>68</sup> Charter, Enclosure at 1-2.

<sup>69</sup> *Id.*

<sup>70</sup> *Id.*

<sup>71</sup> *Id.* at Enclosure, Attachment, A-4.

<sup>72</sup> Compare ACRS Transcript at 154-78 (providing detailed discussion of the Staff’s technical concerns with NextEra’s proposed approach to managing ASR at Seabrook during the license renewal term, including NextEra’s reliance on visual inspections, baseline inspections, and sampling program) with Staff ROP Request (asking for additional resources to study ASR under the ROP); Charter (describing how the Staff will coordinate reviews of ASR at Seabrook).

they demonstrate that “it is also quite clear that the licensee has not provided the staff with enough information to generate assurance that ASR-affected structures will not fail under the current license” and reveal “uncertainties about multiple aspects of going forward under the current license.”<sup>73</sup> But, even if FOTC/NEC had moved to amend the ASR Contention to include these claims, they are too vague to support an admissible contention.<sup>74</sup> Unlike the claims in the initial ASR Contention, these claims do not challenge or even discuss any specific feature of NextEra’s ASR AMP.<sup>75</sup> Rather, FOTC/NEC simply speculates that because the Staff is still reviewing ASR at Seabrook under the ROP, the ASR AMP must somehow be deficient.<sup>76</sup> As a result, FOTC/NEC’s claims constitute the type of “[g]eneral assertions or conclusions” that the Commission has previously found “will not suffice” to support an admissible contention.<sup>77</sup>

B. The Staff ROP Request and Charter Do Not Provide Materially Different Information than Previously Available

In addition to lacking an adequate factual basis, the portions of the ASR Supplement related to the Staff ROP Request and Charter are not timely under 10 C.F.R. § 2.309(c)(1). That section requires petitioners to demonstrate that new or amended contentions are timely filed and rest on new information that is materially different from previously available

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<sup>73</sup> ASR Supplement at 6, 7.

<sup>74</sup> *North Atlantic Energy Service Corporation, et al.* (Seabrook Station, Unit 1), CLI-99-06, 49, NRC 201, 219 (1999) (NRC regulations do permit “the filing of a vague, unparticularized contention”; rather, petitioners must provide “sufficiently detailed grievances to allow the adjudicator to conclude that genuine disputes exist justifying a commitment of adjudicatory resources to resolve them”).

<sup>75</sup> *Compare* ASR Contention at 9-10 (raising specific issues with NextEra’s plan to manage ASR during the period of extended operation) *with* ASR Supplement at 4 (claiming that the additional documents reflect the NRC’s “misgivings”).

<sup>76</sup> ASR Supplement at 4-9.

<sup>77</sup> *Consumers Energy Co.* (Palisades Nuclear Power Plant), CLI-07-18, 65 NRC 399, 414 (2007) (quotations omitted).

information.<sup>78</sup> As noted above, the Commission has also indicated that allegedly new and materially different information must articulate a “reasonably apparent foundation” for the contention.<sup>79</sup> But, the Staff ROP Request and Charter do not discuss any of the eight specific claims raised by ASR Contention, let alone provide sufficient information to demonstrate a “foundation” for the contention’s admissibility. Consequently, these documents cannot meet the requirements of § 2.309(c)(1).

Nevertheless, FOTC/NEC asserts that the Staff ROP Request supports the ASR Contention because, “[i]t is clear that, as of this memorandum and three year[s] after the discovery of degraded concrete at Seabrook, NRC Staff has not been provided with enough information to be able to confirm if safety-related structures will continue to perform [their] safety function.”<sup>80</sup> Likewise FOTC/NEC claims that the Charter is significant because it “reveals uncertainties about multiple aspects of going forward under the current license.”<sup>81</sup>

But, information regarding the Staff’s long-term-operability concerns has been available for months. In a March 26, 2012 inspection report, the Staff noted that although NRC inspectors concluded that concrete “structures can currently perform their safety related functions despite the observed degradation due to ASR,” “the NRC still has concerns associated with long term operability.”<sup>82</sup> Likewise, on May 16, 2012, the NRC issued a Confirmatory Action Letter (“CAL”) that confirmed NextEra’s stated intent to submit the results of “long term aggregate expansion

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<sup>78</sup> 10 C.F.R. § 2.309(c)(1)(i)-(iii).

<sup>79</sup> *Prairie Island*, CLI-10-27, 72 NRC at 493-94 (internal citations omitted).

<sup>80</sup> ASR Supplement at 5 (quotations omitted) (third alteration in original).

<sup>81</sup> *Id.* at 7.

<sup>82</sup> ASR IR, Enclosure at 1.

testing” regarding ASR by July 30, 2013.<sup>83</sup>

Therefore, although FOTC/NEC suggests that the Staff ROP Request and Charter are significant because they show that the Staff continues to evaluate ASR at Seabrook from a long-term operability standpoint, that information was available months before the NRC published those documents. The inspection report and CAL clearly indicated that the Staff’s review of ASR under the ROP is ongoing and will likely continue well into 2013.<sup>84</sup> Consequently, to the extent FOTC/NEC relies on the Staff ROP Request and Charter to show that the Staff is still evaluating ASR at Seabrook under the ROP, that information is not materially different than previously available information in the inspection report and CAL.

In addition, FOTC/NEC contends that the Charter is new information because in it “for the first time, NRC Staff provides an extensive list of areas and issues surrounding ASR that remained open as of” July 9, 2012.<sup>85</sup> But, the Commission has clearly indicated that petitioners cannot point to “documents merely summarizing earlier documents or compiling pre-existing, publicly available information into a single source...[as doing so]... do[es] not render ‘new’ the summarized or compiled information.”<sup>86</sup> As discussed above, information regarding the Staff’s ongoing review of ASR at Seabrook under the ROP was available well before the Charter became publicly available.<sup>87</sup> Consequently, the Charter’s summary of existing information does

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<sup>83</sup> CAL at 2.

<sup>84</sup> *Id.*; ASR IR, Enclosure at 2.

<sup>85</sup> ASR Supplement at 7.

<sup>86</sup> *Vermont Yankee*, CLI-11-02, 73 NRC at 344.

<sup>87</sup> *See, e.g.*, CAL at 2-3.

not transform it into new information.<sup>88</sup> Accordingly, the portions of the ASR Supplement related to the Staff ROP Request and Charter do not meet the requirements of § 2.309(c)(1).

C. The Staff ROP Request and Charter are Not Material to the ASR Contention

Moreover, the Board should not amend the proposed bases for the ASR Contention to include the Staff ROP Request and Charter because FOTC/NEC has not shown how those documents are material to this proceeding.<sup>89</sup> Pursuant to 10 C.F.R. 2.309(f)(1)(iv), a contention's proponent must demonstrate that it raises issues that are "material to the findings the NRC must make to support the action." Moreover, the proponent must show "a genuine dispute exists with the applicant/licensee on a material issue of law or fact."<sup>90</sup>

NRC license renewal proceedings consider the adequacy of the applicant's plans to manage the effects of aging during the period of extended operation.<sup>91</sup> Because the NRC already adequately considers current operating events under the ROP, the Commission determined not to expend agency resources on a duplicative review of these issues during license renewal.<sup>92</sup> Consequently, the relevant inquiry in this proceeding is whether NextEra has "demonstrate[d] how their programs will be effective in managing the effects of aging during the proposed period of extended operation."<sup>93</sup> Indeed, the Commission has found that "generalized assertions" regarding current operating issues are immaterial to license renewal without a

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<sup>88</sup> *Prairie Island*, CLI-10-27, 72 NRC at 496.

<sup>89</sup> 10 C.F.R. § 2.309(f)(1)(iv), (vi).

<sup>90</sup> 10 C.F.R. § 2.309(f)(1)(vi).

<sup>91</sup> 10 C.F.R. § 54.29.

<sup>92</sup> 56 Fed. Reg. at 64,946.

<sup>93</sup> *Turkey Point*, CLI-01-17, 54 NRC at 8.

demonstrated nexus between those current operating issues and aging management.<sup>94</sup>

The Staff ROP Request and the Charter do not discuss the adequacy of the ASR AMP, or any other AMP proposed by NextEra to manage the effects of aging at Seabrook during the license renewal period.<sup>95</sup> Rather, as discussed above, the documents only discuss the NRC's future plans for evaluating ASR at Seabrook during the current operating term under the ROP.<sup>96</sup> If a Staff document issued under the ROP contained information that was relevant to a proposed AMP, it could support a license renewal contention.<sup>97</sup> But, FOTC/NEC has not pointed to such information in either the Staff ROP Request or the Charter.<sup>98</sup> Rather, FOTC/NEC has only cited portions from these documents that indicate the Staff's review of long-term operability under the ROP is ongoing. This information alone is simply not relevant to the question at stake in this proceeding: whether the ASR AMP is adequate to manage the effects of aging under Part 54.<sup>99</sup> Consequently, the Board should not amend the ASR Contention to include the Charter and Staff ROP Request because FOTC/NEC has not shown

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<sup>94</sup> See *Pacific Gas and Electric Company* (Diablo Canyon Nuclear Power Plant Units 1 and 2), CLI-11-11, 74 NRC \_\_, \_\_ (2011) (slip op. at 11) (finding that "generalized assertions" regarding current operating issues, that did not provide a nexus between the assertions and "issues relevant to Part 54," were immaterial).

<sup>95</sup> The Charter does indicate that one objective of the Seabrook ASR Issue Technical Team ("SAITT") will be to "ensure coordination of long term aging management program issues related to the ASR." Charter, Enclosure, at 2. But, this statement does not provide any substantive information on aging management. It only indicates that the SAITT will coordinate its activities with the current Seabrook LRA review.

<sup>96</sup> See *supra*, section III.A.

<sup>97</sup> See *Calvert Cliffs*, CLI-98-25, 48 NRC at 350 (finding that information from a Staff request for additional information, while not normally the focus of adjudicatory hearings, could support an admissible contention in some instances); see also *Diablo Canyon*, CLI-11-11, 74 NRC at \_\_ (slip op. at 11).

<sup>98</sup> ASR Supplement at 4-9.

<sup>99</sup> See *Diablo Canyon*, CLI-11-11, 74 NRC at \_\_ (slip op. at 11).

how those documents are material to this license renewal proceeding.<sup>100</sup>

D. NRC Regulations Do Not Require the Agency to Resolve All ROP Issues Before Considering a License Renewal Application

Finally, FOTC/NEC asks how the NRC could find “adequate protection of public health and safety for a program that will begin in 2032 when they cannot affirm or confirm adequate protection of public health and safety for a program intended to address the same issue for the intervening twenty years.”<sup>101</sup> Rather, FOTC/NEC asserts that ongoing ASR issues “should have been resolved before filing the Seabrook LRA.”<sup>102</sup> Until NextEra resolves these issues, FOTC/NEC suggests that NextEra is not “entitled to a discrete LRA review of its proposed ASR monitoring plan.”<sup>103</sup>

But, contrary to FOTC/NEC’s suggestion that license renewal is legally contingent upon resolution of current operating issues, the NRC relies on separate regulatory processes to consider current operating issues and license renewal issues.<sup>104</sup> The NRC fully considers operability questions under the ROP and aging management in its LRA review.<sup>105</sup> Because the Commission found that the ROP would adequately address current operating issues as they arose, the Commission concluded that the NRC need not reconsider those issues at the time of license renewal.<sup>106</sup> In fact, the Commission acknowledged that plants might operate outside of

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<sup>100</sup> 10 C.F.R. § 2.309(f)(1)(iv), (vi).

<sup>101</sup> ASR Supplement at 7-8.

<sup>102</sup> *Id.* at 7.

<sup>103</sup> *Id.* at 8.

<sup>104</sup> 56 Fed. Reg. at 64,946.

<sup>105</sup> *Id.*

<sup>106</sup> *Id.*

their licensing bases at the time of license renewal but concluded that the normal oversight process would be sufficient to address those issues without undertaking a duplicative review as part of license renewal.<sup>107</sup> Thus, the Commission has noted that the two reviews are parallel and distinct.<sup>108</sup>

As a result, the NRC does not necessarily need to await the resolution of an issue under the ROP before it may consider a license renewal application.<sup>109</sup> Consideration of an issue under the ROP and in license renewal may involve similar information. But, contrary to FOTC/NEC's suggestion, NRC regulations impose no legal requirement that a licensee must resolve all current operating issues under the ROP before the NRC may consider the separate question of license renewal.<sup>110</sup> Under firmly established NRC precedent, "a contention that simply states the petitioner's views about what regulatory policy should be does not present a litigable issue."<sup>111</sup> Consequently, to the extent the ASR Supplement challenges existing NRC regulations, which permit licensees to file LRAs regardless of ROP status, the ASR Supplement is barred by NRC regulations and outside the scope of this proceeding.<sup>112</sup>

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<sup>107</sup> *Id.* at 64,945.

<sup>108</sup> 56 Fed. Reg. at 64,952.

<sup>109</sup> 10 C.F.R. § 54.29.

<sup>110</sup> *Id.* See also, *Diablo Canyon*, CLI-11-11, 74 NRC \_\_ (slip op. at 11) (litigation of "current operational issues" "is precisely the type of duplicative review that appropriately is excluded from a license renewal proceeding").

<sup>111</sup> *Tennessee Valley Authority* (Bellevue Nuclear Plant, Units 1 and 2), LBP-10-07, 71 NRC 391, 420 (2010) (citing *Philadelphia Elec. Co.* (Peach Bottom Atomic Power Station, Units 2 & 3), ALAB-216, 8 AEC 13, n.33 (1974)).

<sup>112</sup> 10 C.F.R. § 2.309(f)(1)(iii); 10 C.F.R. § 2.335.

IV. The Portion of the ASR Supplement Related to RAI Set 19 Is Untimely and Does Not Support Several Portions of the ASR Contention

FOTC/NEC asserts that RAI Set 19 offers additional support for the ASR Contention.<sup>113</sup> Specifically, Intervenors argue that RAI Set 19 provides “a window on more narrowly drawn ASR characterization, monitoring, and mitigations [and] technical issues,” and therefore “illumin[ates] technical and practical problems with NextEra’s proposed ASR monitoring program.”<sup>114</sup> However, FOTC/NEC’s reliance on RAI Set 19 is entirely untimely under 10 C.F.R. § 2.309(c)(1). Furthermore, FOTC/NEC has not shown that RAI Set 19 establishes a factual basis for several assertions in the ASR Contention, rendering this portion of the ASR Supplement deficient with respect to those assertions under 10 C.F.R. § 2.309(f)(1)(v). Therefore, Intervenors should not be permitted to supplement the bases for the ASR Contention with RAI Set 19.

A. RAI Set 19 Does Not Provide New Information

The portion of the ASR Supplement that relies on RAI Set 19 depends wholly on information previously available to FOTC/NEC and is thus untimely in its entirety under 10 C.F.R. § 2.309(c)(1).<sup>115</sup> As discussed below, the NRC Staff has asked similar questions to those in RAI Set 19 from the beginning of its review of the ASR issue at Seabrook.<sup>116</sup> At most, RAI Set 19 “summarize[s] earlier documents or compil[es] pre-existing, publicly available

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<sup>113</sup> ASR Supplement at 9-13.

<sup>114</sup> *Id.* at 9.

<sup>115</sup> FOTC/NEC does not state with specificity which portions of RAI Set 19 purportedly support which portions of the ASR Contention. Instead, FOTC/NEC quotes several pages of RAI Set 19, but then asserts that they intend to rely on RAI Set 19 “in its entirety.” ASR Supplement at 13. The Staff will therefore address each RAI in turn.

<sup>116</sup> Staff Answer at 3-7.

information into a single source.”<sup>117</sup> But, the Commission has plainly stated that doing so does not “render ‘new’ the summarized or compiled information.”<sup>118</sup> Consequently, RAI Set 19 does not provide new information that is materially different from previously available information within the meaning of § 2.309(c)(1).

1. Follow-Up RAI B.2.1.28-3

The Staff’s first question in RAI Set 19 relates to NextEra’s apparent application of “passive” cracking thresholds to cracking from ASR, which is an example of “active” cracking.<sup>119</sup> Passive cracking will not continue to grow over time, whereas active cracking can continue to grow over time and thus warrants continuous monitoring. In a March 30, 2012 letter, NextEra made clear that it had identified a maximum crack width of 8 mils in the exterior face of the Containment Structure and that two locations on the Containment Structure exhibited cracking that may be indicative of ASR.<sup>120</sup> NextEra wrote that because the maximum crack width was less than 15 mils, further evaluation of the Containment Structure was unnecessary.<sup>121</sup> However, the 2002 report from the American Concrete Institute (ACI) cited by NextEra actually states that while passive cracks less than 0.4 mm (15 mils) in maximum width are generally

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<sup>117</sup> *Vermont Yankee*, CLI-11-02, 73 NRC at 344.

<sup>118</sup> *Id.*

<sup>119</sup> RAI Set 19 at 12.

<sup>120</sup> Seabrook Station, Response to Request for Additional Information, NextEra Energy Seabrook License Renewal Application Supplemental Response – Alkali Silica Reaction (ASR), Enclosure 1 at 5 (Mar. 30, 2012) (ADAMS Accession No. ML12094A364).

<sup>121</sup> *Id.*

acceptable, active cracking requires further evaluation.<sup>122</sup> The information underlying Follow-up RAI B.2.1.28-3 was thus previously available to Intervenors.

2. Follow-Up RAI B.2.1.31-1

In RAI B.2.1.31-1 the Staff's questions whether the ASR AMP's acceptance criteria for combined crack mapping index and crack width limits for concrete are based on tests of full-scale replicas of Seabrook concrete structures. In NextEra's Response to RAIs dated March 30, 2012, it stated that it planned to perform testing on full-scale replicas of Seabrook structures to develop crack limits.<sup>123</sup> However, the ASR AMP, dated May 16, 2012, has acceptance criteria that are not based on such testing.<sup>124</sup> The Staff's concern is based entirely on information previously available to Intervenors. Both the March 30, 2012 and May 16, 2012 submissions were available to FOTC/NEC three months before the ASR Contention was filed, well over the thirty day period for filing contentions based on new information provided for in the Board's scheduling order.<sup>125</sup>

3. RAI B.2.1.31-5

The Staff's next question, expressed in RAI B.2.1.31-5, addresses the inadequacy of visual inspections alone to rule out the presence of ASR in a concrete structure and the consequent need for further investigation (i.e., petrographic examination) to confirm the absence of ASR. FOTC/NEC contends that the Staff discussed this issue for the first time in the

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<sup>122</sup> ACI 349.3R, "Evaluation of Existing Nuclear Safety-Related Concrete Structures," at 14 (January 2002).

<sup>123</sup> Seabrook Station, Response to Request for Additional Information, NextEra Energy Seabrook License Renewal Application Supplemental Response – Alkali Silica Reaction (ASR), Enclosure 1 at 19 (Mar. 30, 2012) (ADAMS Accession No. ML12094A364).

<sup>124</sup> ASR AMP, Enclosure 2 at 14.

<sup>125</sup> Amended Scheduling Order at 2.

ACRS Transcript.<sup>126</sup> But, as noted in the Staff's Answer to the ASR Contention, the Staff previously expressed this concern in an RAI.<sup>127</sup>

In a June 2011 RAI, the Staff noted that the applicant had previously modified an AMP "to include confirmatory testing of the containment concrete to determine the compressive strength, the presence *or absence of ASR*, the concrete modulus of elasticity, and the presence or absence of rebar degradation."<sup>128</sup> The Staff asked the applicant to "explain how these properties . . . can be verified without taking core samples."<sup>129</sup> The Staff explained that it was "unaware of any method other than core bores that can be used to determine" these properties.<sup>130</sup> The Staff's June 2011 RAI plainly discloses the inadequacy of visual inspections alone to fully evaluate ASR and rule out its presence more than a year before the Intervenors proposed their ASR Contention.

Therefore, information regarding the insufficiency of visual inspections to gauge the status of ASR has been publicly available since at least 2011.

#### 4. RAI B.2.1.31-6

RAI B.2.1.31-6 questions whether the inclusion of the current acceptance criteria for combined cracking index ("CCI") and individual crack width in the ASR AMP is adequate without first performing a detailed investigation and structural evaluation. The RAI indicates acceptance

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<sup>126</sup> ASR Contention at 9.

<sup>127</sup> Staff Answer at 13-16.

<sup>128</sup> Request for Additional Information for the Review of the Seabrook Station License Renewal Application, Enclosure at 5 (June 29, 2011) (ADAMS Accession No. ML11178A338) (emphasis added).

<sup>129</sup> *Id.*

<sup>130</sup> *Id.*

criteria in the ASR AMP include a CCI of 1.0 mm/m or less and an individual crack width of 1.0 mm or less,<sup>131</sup> which is inconsistent with industry publications.

The information underlying this concern has been available for several years. In addition to being available in a January 2010 Federal Highway Administration Report, which states that “expansions in structural members in excess of 0.5mm/m (0.018 in/yd) should warrant further investigations and . . . the potential consequences of such expansions should be assessed,”<sup>132</sup> this information was available in a 1992 Institution of Structural Engineers report on detecting and monitoring ASR.<sup>133</sup>

#### 5. RAI B.2.1.31-7

RAI B.2.1.31-7 relates to baseline inspections. The Staff understands that out of the 131 areas at Seabrook where ASR has been identified, only twenty have been selected for baseline inspection. However, in an RAI dated November 18, 2010, the Staff stated that “[a] baseline quantitative concrete inspection of in-scope structures is necessary for monitoring and trending degradation during the period of extended operation.”<sup>134</sup> Further, the Staff requested that the applicant “provide plans for conducting a quantitative baseline inspection, in accordance with

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<sup>131</sup> RAI Set 19 at 5.

<sup>132</sup> U.S. Department of Transportation Federal Highway Administration, *Report on the Diagnosis, Prognosis, and Mitigation of Alkali-Silica Reaction in Transportation Structures*, at 13 (January 2010), available at <http://www.fhwa.dot.gov/pavement/concrete/pubs/hif09004/hif09004.pdf> (“FHWA ASR Report”).

<sup>133</sup> Institution of Structural Engineers, “Structural Effects of Alkali-Silica Reaction – Technical Guidance Appraisal of Existing Structures,” at 29 (July 1992).

<sup>134</sup> Request for Additional Information related to the Review of the Seabrook Station License Renewal Application (TAC No ME4028) – Aging Management Programs, Enclosure at 17 (Nov. 18, 2010) (ADAMS Accession No. ML103090558).

the ACI 349.3R, prior to the period of extended operation.”<sup>135</sup> Finally, the ASR AMP, dated May 16, 2012, noted NextEra’s plan to monitor “at least 20 areas identified in the baseline inspection” as having ASR-associated cracking.<sup>136</sup> Thus, all information related to baseline inspection was previously available to Intervenors. Consequently, information regarding this claim has been available for longer than 30 days, the deadline provided by the Board for filing claims based on new information.<sup>137</sup>

6. RAI B.2.1.31-8

In RAI B.2.1.31-8, the Staff questions the absence of rebar inspection and monitoring in the ASR AMP. Rebar inspection was mentioned in NextEra’s March 30, 2012 letter,<sup>138</sup> but not in the May 16, 2012 ASR AMP submittal.<sup>139</sup> Again, both of these documents were previously available to Intervenors. Furthermore, a March 14, 2012 report by the Union of Concerned Scientists regarding ASR issues at Seabrook specifically notes that further investigation of ASR-induced effects “is of significant importance in establishing the vulnerability of embedded steel to chloride-induced corrosion.”<sup>140</sup> This report has been available to Intervenors since its public

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<sup>135</sup> *Id.*

<sup>136</sup> ASR AMP, Enclosure 2 at 7.

<sup>137</sup> Amended Scheduling Order at 2.

<sup>138</sup> Seabrook Station, Response to Request for Additional Information, NextEra Energy Seabrook License Renewal Application Supplemental Response – Alkali Silica Reaction (ASR), Enclosure 1 at 19 (Mar. 30, 2012) (ADAMS Accession No. ML12094A364).

<sup>139</sup> *See generally* ASR AMP.

<sup>140</sup> Paul Brown, Commentary on the Alkali-Silica Reaction in Concrete Structures at the Seabrook Nuclear Plant (March 14, 2012) (prepared under contract with the Union of Concerned Scientists), at 4, *available at* [http://www.ucsusa.org/assets/documents/nuclear\\_power/brown-seabrook-concrete-report-3-14-12.pdf](http://www.ucsusa.org/assets/documents/nuclear_power/brown-seabrook-concrete-report-3-14-12.pdf).

release on April 23, 2012.<sup>141</sup> Thus, to be timely under the Board's order, FOTC/NEC should have brought any claim based on this information by June 16, 2012.<sup>142</sup>

7. RAI B.2.1.31-9

RAI B.2.1.31-9 notes the ASR AMP's lack of explanation as to how inaccessible concrete structures will be monitored for the effects of ASR. However, the Staff's questions regarding inspections for inaccessible or buried concrete were outlined in an earlier RAI dated November 18, 2010. In this RAI, the Staff observed that below-grade concrete structures have experienced groundwater infiltration and requested that the applicant, "Explain if/why the [core] samples are representative of affected concrete throughout the plant, including foundations and the containment enclosure building."<sup>143</sup> Furthermore, the Generic Aging Lessons Learned Report, revised in December 2010, discusses the need for AMPs to address monitoring of inaccessible areas.<sup>144</sup> Thus, information was publicly available as early as 2010 relating to monitoring inaccessible or buried concrete.

8. RAI B.2.1.31-10

Next, RAI B.2.1.31-10 asks whether mitigative actions will be part of the ASR AMP, as there appears to be conflicting information between submittals from the applicant regarding mitigation. Much like RAI B.2.1.31-8, this question stems from conflicting information in

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<sup>141</sup> See Press Release, Union of Concerned Scientists, Report Finds Many Unanswered Questions about Concrete Degradation at Seabrook, New Hampshire, Nuclear Plant (April 23, 2012), available at [http://www.ucsusa.org/news/press\\_release/report-finds-many-unanswered.html](http://www.ucsusa.org/news/press_release/report-finds-many-unanswered.html).

<sup>142</sup> Amended Scheduling Order at 2.

<sup>143</sup> Request for Additional Information Related to the Review of the Seabrook Station License Renewal Application (TAC No ME4028) – Aging Management Programs, Enclosure at 16 (Nov. 18, 2010) (ADAMS Accession No. ML103090558).

<sup>144</sup> Generic Aging Lessons Learned Report, Rev. 2, XI.S7-3 (Dec. 2010).

applicant submittals. While NextEra's March 30, 2012 letter discusses mitigative actions,<sup>145</sup> the May 16, 2012 ASR AMP does not.<sup>146</sup> Again, both documents were previously available to FOTC/NEC more than three months before FOTC/NEC filed the ASR Contention.

9. RAI B.2.1.31-11

RAI B.2.1.31-11 requests information regarding why the Containment Enclosure Building ("CEB"), where the presence of ASR has been confirmed by petrographic examination, is not mentioned in the ASR AMP Scope of Program. Again, both the confirmation of ASR in the CEB and the omission of the CEB from the ASR AMP Scope of Program are previously available information. NextEra communicated that it identified ASR in the CEB no later than April 2012,<sup>147</sup> and the May 16, 2012 ASR AMP plainly does not include the CEB in the Scope of Program.<sup>148</sup>

Ultimately, Intervenor's reliance on RAI Set 19 amounts to impermissible reliance on a document "summarizing earlier documents or compiling pre-existing, publicly available information into a single source."<sup>149</sup> Doing so does not "render 'new' the summarized or compiled information."<sup>150</sup> As all of the information presented in RAI Set 19 was previously

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<sup>145</sup> Seabrook Station, Response to Request for Additional Information, NextEra Energy Seabrook License Renewal Application Supplemental Response – Alkali Silica Reaction (ASR), Enclosure 1 at 13 (Mar. 30, 2012) (ADAMS Accession No. ML12094A364).

<sup>146</sup> ASR AMP, Enclosure 2 at 10 ("There are no preventive actions specified in the Seabrook Station Structures Monitoring Program.").

<sup>147</sup> NextEra, Impact of Alkali Silica Reaction on Seabrook Structures (April 23, 2012), slide 15 (ADAMS Accession No. ML121160422).

<sup>148</sup> ASR AMP, Enclosure 2 at 9.

<sup>149</sup> *Vermont Yankee*, CLI-11-02, 73 NRC at 344.

<sup>150</sup> *Id.*

available to FOTC/NEC, the portion of the ASR Supplement that relies on RAI Set 19 is untimely in its entirety under 10 C.F.R. § 2.309(c)(1).

B. RAI Set 19 Does Not Provide Adequate Factual Support for Several of the Assertions in the ASR Contention

In addition, RAI Set 19 does not support many of the claims in the ASR Contention. As discussed above, the ASR Contention challenges NextEra's ASR AMP with respect to (1) baselines for the ASR AMP, (2) visual inspections, (3) inaccessible areas, (4) ASR aggravating factors, (5) inspector qualifications, (6) measures to mitigate ASR, (7) inspection intervals, and (8) concrete sampling.<sup>151</sup> Because RAI Set 19 does not provide a sufficient factual basis for several of these points of contention, the ASR Supplement fails to comply with 10 C.F.R. § 2.309(f)(1)(v) with respect to those points and should not be admitted.

FOTC/NEC complains that the ASR AMP "makes no provision for monitoring ASR-aggravating factors[], such as the moisture content, the presence of liquid water, the potential of chemically aggressive water, or the temperature of affected [or] susceptible concrete," and that "there is no active component proposed to arrest, mitigate or manage the growth of ASR."<sup>152</sup> However, RAI Set 19 contains no information regarding monitoring the *causes* of ASR or the need to mitigate ASR.<sup>153</sup> Additionally, FOTC/NEC asserts that ASR "observations are to be done by untrained or minimally-trained personnel."<sup>154</sup> However, RAI Set 19 contains no

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<sup>151</sup> ASR Contention at 9-10.

<sup>152</sup> *Id.* at 9.

<sup>153</sup> *See generally* RAI Set 19. While RAI B.2.31-10 requests clarification on whether mitigative actions will be relied on to manage ASR, this request stems from conflicting information between submittals rather than information supporting a need to enact mitigative actions. *Id.* at 8.

<sup>154</sup> ASR Contention at 9.

information relating to personnel training.<sup>155</sup> Without mentioning any information regarding these three points of contention, RAI Set 19 cannot provide any factual basis for them.

Intervenors also claim that NextEra's "proposed intervals of inspection of six months . . . appears nominal[,] not tied to any calculation of the rate of growth of ASR in any given set of locations."<sup>156</sup> While RAI B.2.1.31-7 questions how trend data will be used to change the inspection frequency, it does not question the initial inspection frequency of six months.<sup>157</sup> Rather, the Staff's concern is simply how trend data from ASR inspections will affect that initial six-month inspection frequency. Thus, RAI Set 19 does not provide a factual basis for FOTC/NEC's claim that the initial six-month inspection interval is "nominal."

The sole point of contention that was unsupported in the ASR Contention but that does have support in RAI Set 19 is FOTC/NEC's claim that the ASR AMP "makes no allowance for inspection of inaccessible or buried concrete save for opportunistic inspections which may never happen."<sup>158</sup> In RAI B.2.1.31-9, the Staff notes that it did not find in the ASR AMP "any discussion on how the effects of the ASR will be detected and monitored in the inaccessible structures such as base slabs of buildings, water intake and discharge structures, service water pump house, and below grade walls of the spent fuel pool covered with the liner plate on [the] inside surface."<sup>159</sup> Therefore, the ASR Supplement does provide support for the inaccessible concrete aspect of the ASR Contention. As explained above, however, the Staff's concern and

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<sup>155</sup> See generally RAIS Set 19.

<sup>156</sup> ASR Contention at 10.

<sup>157</sup> RAI Set 19 at 6.

<sup>158</sup> ASR Contention at 9.

<sup>159</sup> RAI Set 19, at 7.

the information upon which it was based constitute previously available information and this portion of the ASR Supplement is thus untimely.<sup>160</sup>

V. Portions of the C-10 Letter Do Not Provide Adequate Support for the ASR Supplement and It Is Untimely

In the ASR Supplement, Intervenors assert that a fourth document, a letter dated September 13, 2012, from the C-10 Research and Education Foundation and the Union of Concerned Scientists (“UCS”) to the NRC Region I Administrator (“C-10 Letter”), provides support for the proposed ASR Contention.<sup>161</sup> FOTC/NEC asserts that the C-10 Letter “draws a nexus between the petition and the expressed misgivings of NRC experts and others regarding NextEra’s plans for managing determination and preservation of operability of ASR-affected structures.”<sup>162</sup> While portions of the C-10 Letter provide some support for the ASR Contention, FOTC/NEC’s reliance on the C-10 Letter is nevertheless untimely under 10 C.F.R. § 2.309(c)(1). Accordingly, FOTC/NEC should not be permitted to add the C-10 Letter to the proposed bases for the ASR Contention.

A. While Portions of the C-10 Letter Provide Factual Support for the ASR Contention, the C-10 Letter is Nevertheless Untimely

1. Portions of the C-10 Letter Support the ASR Contention

Portions of the ASR Supplement regarding the C-10 Letter meet the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1). Intervenors rely on a portion of the C-10 Letter stating that “Paul Brown agrees with the NRC staff that visual examination of concrete

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<sup>160</sup> See *supra* IV.A.7.

<sup>161</sup> C-10 Letter.

<sup>162</sup> ASR Supplement at 4.

cannot rule out ASR degradation.”<sup>163</sup> FOTC/NEC asserts that this portion of the letter supports the proposed ASR Contention in that it points “to a fatal weakness in relying on monitoring by visual inspection alone; visual inspection cannot rule out ASR degradation.”<sup>164</sup> The Staff agrees that FOTC/NEC has demonstrated a sufficient nexus between this portion of the C-10 Letter and FOTC/NEC’s visual inspection claim in the ASR Contention in accordance with 10 C.F.R. § 2.309(f)(1). However, as described below, FOTC/NEC reliance on the C-10 Letter is untimely. Thus, FOTC/NEC should not be allowed to amend the proposed ASR Contention with the C-10 Letter.

2. The Remainder of the C-10 Letter Does Not Provide Adequate Factual Support for the ASR Contention

The remaining portions of the C-10 Letter cited by FOTC/NEC in the ASR Supplement lack an adequate factual basis for the proposed ASR Contention. FOTC/NEC asserts that the C-10 Letter affirms their concern that “without a thorough ASR extent-of-condition review, including, for example, examination of identical source, identical mix, and similar environment; contemporary and older concrete pours across the region, NextEra and NRC will be constructing monitoring and mitigation programs at least partially in the blind, as is the case in the current proposed NextEra ASR Monitoring Program.”<sup>165</sup> This claim, however, is speculative because FOTC/NEC provides no support for this claim. The C-10 letter does not discuss the ASR AMP or the need for an examination of identical source, identical mix, contemporary, or older concrete. The C-10 Letter merely states, “The occurrence of ASR induced concrete

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<sup>163</sup> *Id.* at 15 (*quoting* C-10 Letter at 4).

<sup>164</sup> ASR Supplement at 15.

<sup>165</sup> *Id.* at 13-14.

degradation requires an extent of condition investigation under Seabrook's current license and under NRC NUREG-1800 Section: 3.5.2.2.1.4. as ASR concrete degradation is evidenced both below and above grade in multiple safety related buildings."<sup>166</sup> An intervenor's issue will be ruled inadmissible if the intervenor has offered no tangible information, no experts, or no substantive affidavits but instead only bare assertions and speculation.<sup>167</sup> Because FOTC/NEC has failed to indicate how the limited statement from the C-10 Letter supports this vast claim, this portion of their claim is unsupported.

FOTC/NEC also quotes the following section of the C-10 Letter as support:

According to [Dr. Paul] Brown, degradation due to ASR is not a linear phenomenon, as there is some period during which the occurrence of ASR does not cause cracking and actually results in higher strength when compared to a control sample not experiencing ASR. But as the available local pore volumes become filled, cracking initiates. Crack formation and growth are not linear with time. In concrete restrained by reinforcement, mechanical testing of extracted concrete cores to establish compressive strengths and Young's moduli are appropriate.<sup>168</sup>

FOTC/NEC asserts this portion of the C-10 Letter affirms its concern in the proposed ASR Contention that "there appears to be nothing tying the six-month visual inspection interval in the proposed NextEra monitoring program to real world experience; changing crack formation and growth rates do not call for static inspection intervals; especially twenty years out."<sup>169</sup> This portion of the C-10 Letter, however, does not discuss the ASR AMP or inspection intervals at all.

FOTC/NEC also quotes other portions of the C-10 Letter recounting Paul Brown's

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<sup>166</sup> ASR Supplement at 14 (*quoting* C-10 Letter at 2).

<sup>167</sup> *Fansteel, Inc.*, CLI-03-13, 58 NRC at 203.

<sup>168</sup> ASR Supplement at 15 (*quoting* C-10 Letter at 3).

<sup>169</sup> *Id.* at 15.

analysis<sup>170</sup> but provides no explanation as to how those portions support the proposed ASR Contention. Thus, FOTC/NEC has not provided enough information to show a sufficient nexus between these other portions of the C-10 Letter and the concerns in the proposed ASR Contention regarding the ASR AMP to establish a factual basis in accordance with 10 C.F.R. § 2.309(f)(1)(v). As a result, FOTC/NEC should not be allowed to amend the proposed ASR Contention with these portions of the C-10 Letter.

**B. The C-10 Letter Does Not Contain New and Materially Different Information**

Although portions of the C-10 Letter provide factual support for the ASR Contention, FOTC/NEC's reliance on the C-10 Letter is nevertheless untimely under 10 C.F.R. § 2.309(c)(1). As discussed above, FOTC/NEC cites as support for the proposed ASR Contention a portion of the C-10 Letter that "recounts the independent expert analysis and comments prepared under contract with Union of Concerned Scientists by Paul Brown Ph.D., Professor of Ceramic Science and Engineering at Penn State University regarding the ASR situation at Seabrook."<sup>171</sup> However, the comments and expert analysis Paul Brown prepared under contract with the UCS regarding ASR at Seabrook were published in a report dated March 14, 2012.<sup>172</sup> This report was publicly released by the Union of Concerned Scientists on April 23, 2012.<sup>173</sup> FOTC/NEC's reliance on the C-10 Letter is untimely because as FOTC/NEC

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<sup>170</sup> ASR Supplement at 14-15.

<sup>171</sup> *Id.* at 14.

<sup>172</sup> See Paul Brown, Commentary on the Alkali-Silica Reaction in Concrete Structures at the Seabrook Nuclear Plant (March 14, 2012) (prepared under contract with the Union of Concerned Scientists), *available at* [http://www.ucsusa.org/assets/documents/nuclear\\_power/brown-seabrook-concrete-report-3-14-12.pdf](http://www.ucsusa.org/assets/documents/nuclear_power/brown-seabrook-concrete-report-3-14-12.pdf).

<sup>173</sup> See Press Release, Union of Concerned Scientists, Report Finds Many Unanswered Questions about Concrete Degradation at Seabrook, New Hampshire, Nuclear Plant (April 23, 2012), *available at* [http://www.ucsusa.org/news/press\\_release/report-finds-many-unanswered.html](http://www.ucsusa.org/news/press_release/report-finds-many-unanswered.html).

itself states, the C-10 Letter merely “recounts” Paul Brown’s independent analysis and comments regarding ASR at Seabrook “prepared under contract with Union of Concerned Scientists.”<sup>174</sup> Intervenors cannot simply point to “documents merely summarizing earlier documents ... [as doing so]... do[es] not render ‘new’ the summarized or compiled information.”<sup>175</sup> FOTC/NEC has not demonstrated that the information in the C-10 Letter is new and materially different from information previously available in Paul Brown’s report which was publicly available in April 2012.<sup>176</sup> Thus, FOTC/NEC does not meet the timeliness requirements of 10 C.F.R. § 2.309(c)(1) with respect to the C-10 Letter and should not be permitted to amend the proposed ASR Contention with the C-10 Letter.

CONCLUSION

For the foregoing reasons, the NRC Staff opposes FOTC/NEC’s ASR Supplement.

Respectfully submitted,

**Executed in Accord with 10 CFR 2.304(d)**

***/Signed (electronically) by/***

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<sup>174</sup> ASR Supplement at 14.

<sup>175</sup> *Vermont Yankee*, CLI-11-02, 73 NRC at 344.

<sup>176</sup> Given that Paul Brown’s report was publicly available in April 2012, information regarding the inadequacy of visual examinations was available for over three months before the July 2012 ACRS Transcript Intervenors rely on in their original ASR Contention.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
NextEra Energy, LLC	)	Docket Nos. 50-443
	)	
(Seabrook Station, Unit 1)	)	ASLBP No. 10-906-02-LR-BD01

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing NRC STAFF'S ANSWER TO INTERVENORS' SUPPLEMENT TO MOTION FOR LEAVE TO FILE A NEW CONTENTION CONCERNING SAFETY-RELATED CONCRETE STRUCTURES dated October 16, 2012, have been served over the Electronic Information Exchange, the NRC's E-Filing System, this 16th day of October, 2012:

**Signed (electronically) by**  
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