January 4, 2016

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
	)	
SOUTHERN NUCLEAR OPERATING CO.	)	Docket Nos. 52-025 & 52-026
	)	
(Vogtle Electric Generating Plant, Units 3 & 4)	)	

NRC STAFF ANSWER TO "PETITION FOR LEAVE TO INTERVENE AND REQUEST A HEARING BY THE BLUE RIDGE ENVIRONMENTAL DEFENSE LEAGUE AND ITS CHAPTER CONCERNED CITIZENS OF SHELL BLUFF"

INTRODUCTION

Pursuant to 10 C.F.R. §§ 2.323 and 2.309, the staff of the U.S. Nuclear Regulatory Commission (Staff) hereby responds to the "Petition for Leave to Intervene and Request a Hearing by the Blue Ridge Environmental Defense League and its Chapter Concerned Citizens of Shell Bluff (BREDL) dated December 7, 2015 (Petition).[1] For the reasons set forth in detail below, BREDL has not demonstrated that it has standing in this proceeding, nor has it submitted at least one admissible contention. Accordingly, the Petition should be denied.

BACKGROUND

On September 18, 2015, Southern Nuclear Operating Company, Inc. (SNC, licensee) submitted an application to amend the combined licenses (COL) for Vogtle Electric Generating Plant (VEGP) Units 3 and 4, COL Numbers NPF-91 and NPF-92, respectively (Application).[2]

[1] On December 23, 2015, BREDL filed a corrected petition which involved a wording change on page eight. *See* Corrected Petition for Leave to Intervene and Request a Hearing by the Blue Ridge Environmental Defense League and its Chapter Concerned Citizens of Shell Bluff (December 23, 2015). For clarity, therefore, the Staff's answer is directed to the corrected petition.

[2] *See* Request for License Amendment and Exemption 15-015: CA04 Structural Module ITAAC Dimensions Change (LAR-15-015), letter from Southern Nuclear Operating Company (September 18, 2015) (ADAMS Accession No. ML15261A757) (Application).

The licensee requested changes to the concrete wall thickness tolerances for four Nuclear Island walls, which would involve changes to plant-specific Tier 1 information, including corresponding changes to Appendix C of the COLs), and to the text of Tier 2 information in the Updated Final Safety Analysis Report (UFSAR).[3] Because these departures included changes to Tier 1 information, pursuant to the requirements of 10 C.F.R. § 52.63, the Application also included a request for an exemption.[4]

On October 8, 2015, the Nuclear Regulatory Commission (NRC) published a notice of the receipt of the Application in the Federal Register.[5] The notice stated that the NRC has made a proposed determination that the license amendment request involves no significant hazards consideration, and sought public comment on that proposed determination.[6] The notice also provided an opportunity to request a hearing.[7]

On November 9, 2015, the Staff received a public comment from the Blue Ridge Environmental Defense League and its Chapter Concerned Citizens of Shell Bluff (BREDL).[8]

On December 7, 2015, BREDL filed its Petition. On December 11, 2015, an Atomic Safety and Licensing Board was established to preside over this proceeding.[9]

On December 16, 2015, the NRC issued the requested amendment and exemption.[10]

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[3] *Id.*

[4] *Id.*

[5] *See* License Amendment Application: Vogtle Electric Generating Plant, Units 3 and 4, 80 Fed. Reg. 60,937 (Oct. 8, 2015).

[6] *Id.* at 60,938-39.

[7] *Id.* at 60,939.

[8] *See* Comment from Blue Ridge Environmental Defense League on Vogtle Electric Generating Station, Units 3 and 4 (November 9, 2015) (ADAMS Accession No. ML15320A016).

[9] *See* Nuclear Regulatory Commission, Establishment of Atomic Safety and Licensing Board (December 11, 2015).

[10] *See* Issuance of License Amendment No. 42 and Exemption for Vogtle Units 3 & 4 (LAR 15-015) (ADAMS Accession No. ML15302A398). In that issuance, the NRC staff included its final no significant hazards consideration determination. *See* Safety Evaluation that Supports License Amendment No. 42 for Vogtle Units 3 & 4 (LAR 15-015), at 11 (ADAMS Accession No. ML15302A473). Per NRC regulations,

On December 23, 2015, BREDL filed a corrected petition.[11]

DISCUSSION

I. LEGAL STANDARDS

Section 189a. of the Atomic Energy Act (AEA) requires that the Commission "grant a hearing upon the request of any person whose interest may be affected by the proceeding."[12] The petitioner must meet the requirements of 10 C.F.R. § 2.309(d) for standing and offer at least one admissible contention pursuant to 10 C.F.R. § 2.309(f) to be granted a hearing.[13] Commission regulations require that a hearing request contain:

(i) The name, address and telephone number of the requestor or petitioner;

(ii) The nature of the requestor's/petitioner's right under the Act to be made a party to the proceeding;

(iii) The nature and extent of the requestor's/petitioner's property, financial or other interest in the proceeding; and

(iv) The possible effect of any decision or order that may be issued in the proceeding on the requestor's/petitioner's interest."[14]

A. Standing to Intervene

In evaluating whether the petitioner has the requisite "interest" as required by § 2.309(d)(iv), the Commission uses contemporaneous judicial concepts of standing.[15] The petitioner must demonstrate a "concrete and particularized injury that is fairly traceable to the

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the final no significant hazards consideration determination is not subject to challenge in this proceeding. 10 C.F.R. § 50.58(b)(6).

[11] *See* Corrected Petition for Leave to Intervene and Request a Hearing by the Blue Ridge Environmental Defense League and its Chapter Concerned Citizens of Shell Bluff (December 23, 2015).

[12] 42 U.S.C. § 2239(a)(1)(A).

[13] *See Florida Power & Light Co.* (St. Lucie Nuclear Power Plant, Unit 1), LBP-11-29, 74 NRC 612, 615-16 (2011).

[14] 10 C.F.R. § 2.309(d).

[15] *See Florida Power and Light Co.* (Turkey Point Nuclear Generating Units 3 and 4), CLI-15-25, 82 NRC __, __ (Dec. 17, 2015) (slip op. at 6); *Calvert Cliffs 3 Nuclear Project, LLC, & UniStar Nuclear Operating Services, LLC* (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-09-20, 70 NRC 911, 915 (2009).

challenged action and is likely to be redressed by a favorable decision, where the injury is to an interest arguably within the zone of interests protected by the governing statute."[16] The petitioner has the burden of proving that standing requirements are met.[17] However, the hearing request will be evaluated in the petitioner's favor.[18]

An organization may establish its standing to intervene based upon a theory of representational standing (based upon the standing of its members), or organizational standing (showing that its own organizational interests could be adversely affected by the proceeding).[19]

An organization may seek representational standing if at least one of its identified members consents to the representation and may be injured by the outcome of the proceeding.[20] In doing so, the organization must "identify the member(s) they purport to represent and . . . provide proof of authorization."[21] Further, "[t]he member seeking representation must qualify for standing in his or her own right; the interests that the representative organization seeks to protect must be germane to its own purpose; and neither the asserted claim nor the requested relief must require an individual member to participate in the organization's legal action."[22]

To demonstrate organizational standing, an organization must be able to intervene in its own right. "Organizations seeking to intervene in their own right must satisfy the same standing requirements as individuals seeking to intervene . . . because an organization, like an individual,

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[16] *Calvert Cliffs*, CLI-09-20, 70 NRC at 915 (*citing Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Unit 1), CLI-93-21, 38 NRC 87, 92 (1993) (internal quotations omitted)); *see also Lujan v. Defenders of Wildlife*, 504 U.S. 555, 559-61 (1992).

[17] *Commonwealth Edison Co*. (Zion Nuclear Power Station, Units 1 and 2), CLI-00-5, 51 NRC 90, 98 (2000).

[18] *See Turkey Point*, CLI-15-25, 82 NRC at __ (slip op. at 7); *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta Georgia), CLI-95-12, 42 NRC 111, 115 (1995).

[19] *See Yankee Atomic Elec. Co*. (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 195 (1998).

[20] *See Consumers Energy Co*. (Palisades Nuclear Power Plant), CLI-07-18, 65 NRC 399, 409 (2007); *see also Georgia Tech*, CLI-95-12, 42 NRC at 115.

[21] *Palisades*, CLI-07-18, 65 NRC at 410.

[22] *Id*. at 409.

is considered a 'person' as we have defined that word in 10 C.F.R. § 2.4 and as we have used it in 10 C.F.R. § 2.309 regarding standing."[23] Thus, to establish organizational standing, an organization "must demonstrate a palpable injury in fact to its organizational interests that is within the zone of interests protected by the AEA or [the National Environmental Policy Act ("NEPA")]."[24]

In certain cases, the Commission recognizes a "proximity presumption" in which a petitioner who lives in or frequents an area within a 50 mile radius of a plant need not meet the ordinary requirements for standing.[25] The proximity presumption has been recognized by the Commission in "proceedings for construction permits, operating licenses, or significant amendments thereto such as the expansion of the capacity of a spent fuel pool."[26] However, the proximity presumption only applies in cases where "a clear potential for offsite consequences" is present.[27] The burden is on the petitioner to demonstrate that "the kind of action at issue, when considered in light of the radioactive sources at the plant, justifies a presumption that the licensing action could plausibly lead to the offsite release of radioactive fission products."[28] "Absent situations involving such obvious potential for offsite consequences," the petitioner cannot rely on the presumption and must claim particularized injury to obtain standing.[29]

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[23] *Id.* at 411.

[24] *Crow Butte Resources, Inc.* (License Amendment for the North Trend Expansion Project), LBP-08-6, 67 NRC 241, 271 (2008).

[25] *See Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant Units 3 and 4), LBP-01-6, 53 NRC 138, 147 (2001).

[26] *Florida Power & Light Co.* (St. Lucie, Units 1 and 2), CLI-89-21, 30 NRC 325, 329 (1989); *see also Calvert Cliffs*, CLI-09-20, 70 NRC at 914-15 (recognizing the proximity presumption as applicable in combined license application proceedings).

[27] *St. Lucie*, CLI-89-21, 30 NRC at 329; *see also Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 & 2), CLI-99-04, 49 NRC 185, 191 (1999).

[28] *Exelon Generation Co., LLC & PSEG Nuclear, LLC* (Peach Bottom Atomic Power Station, Units 2 & 3), CLI-05-26, 62 NRC 577, 581 (2005).

[29] *St. Lucie*, CLI-89-21, 30 NRC at 329-30.

B. Legal Standards for Contention Admissibility

The legal requirements governing the admissibility of contentions are well established and are currently set forth in 10 C.F.R. § 2.309(f) of the Commission's Rules of Practice.

To be admissible, a newly proffered contention must satisfy the 10 C.F.R. § 2.309(f)(1) general contention admissibility requirements, which are that the contention must:

> (i) Provide a specific statement of the issue of law or fact to be raised or controverted . . . ;
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> (ii) Provide a brief explanation of the basis for the contention;
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> (iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;
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> (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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> (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
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> (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 petitioner 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 . . . .[30]

The 10 C.F.R. § 2.309(f)(1) requirements should "focus litigation on concrete issues and result in a clearer and more focused record for decision."[31] The Commission has stated that it "should not have to expend resources to support the hearing process unless there is an issue that is appropriate for, and susceptible to, resolution in an NRC hearing."[32] The Commission

[30] 10 C.F.R. § 2.309(f)(1).

[31] Changes to Adjudicatory Process, 69 Fed. Reg. 2,182, 2,202 (Jan. 14, 2004) (final rule).

[32] *Id*.

has emphasized that the rules on contention admissibility are "strict by design."[33] Failure to comply with any of these requirements is grounds for the dismissal of a contention.[34] Attempting to meet these requirements by "[m]ere 'notice pleading' does not suffice."[35]

II. THE PETITIONER HAS NOT ESTABLISHED STANDING

BREDL's Petition does not fulfill the applicable standing requirements.[36] BREDL contends that the proximity presumption provides a basis for granting it standing in this proceeding.[37] In order to obtain standing pursuant to the proximity presumption, the action challenged in the proceeding must present "a clear potential for offsite consequences."[38]

Although BREDL acknowledges this requirement, it relies generically on its members' proximity to (*i.e*., residing within 50 miles of) the ongoing construction and eventual operation of

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[33] *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 & 3), CLI-01-24, 54 NRC 349, 358 (2001), *petition for reconsideration denied*, CLI-02-01, 55 NRC 1 (2002).

[34] *See Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 325 (1999).

[35] *Amergen Energy Co., L.L.C.* (Oyster Creek Nuclear Generating Station), CLI-06-24, 64 NRC 111, 119 (2006).

[36] According to the Petition, "BREDL and its chapters are unitary, with a common incorporation, financial structure, board of directors and executive officer." Petition at 3. It therefore does not appear that the petitioners here seek party status for the Chapter Concerned Citizens of Shell Bluff (CCSB) independent of BREDL. However, to the extent that is the petitioners' intent, CCSB's standing must be established separately. *See Tennessee Valley Auth*. (Bellefonte Nuclear Plant Units 1 and 2), LBP-10-07, 71 NRC 391, 414 (2010). In order to obtain organizational standing, CCSB must show, among other requirements, that it has been authorized to represent the interests of at least one of its members in the proceeding. *See id; see also Tennessee Valley Auth.* (Sequoyah Nuclear Plant, Units 1 & 2), LBP-13-08, 78 NRC 1, 7-8 (2013). While the member affidavits submitted by the petitioners assert each individual's membership in both BREDL and CCSB, CCSB cannot meet organizational standing requirements because none of the affidavits specifically authorizes representation by CCSB, only by BREDL. In any event, as explained further below, BREDL does not meet other requirements for establishing its own standing.

[37] Petition at 5-6.

[38] *St. Lucie*, CLI-89-21, 30 NRC at 329. Applying the "clear potential for offsite consequences" test, the proximity presumption has been recognized by the Commission in "proceedings for construction permits, operating licenses, or significant amendments thereto such as the expansion of the capacity of a spent fuel pool." *Id.* But for license amendments more generally, a petitioner must "(1) assert an injury-in-fact associated with the challenged license amendment, not simply a general objection to the facility; and (2) in the absence of a showing that the proposed action obviously entails an increased potential for offsite consequences, base its standing upon more than residence or activities within a particular proximity of the plant by making a showing of a plausible chain of events that would result in offsite radiological consequences posing a distinct new harm or threat to the participant." *PPL Susquehanna LLC* (Susquehanna Steam Elec. Station, Units 1 & 2), LBP-07-10, 66 NRC 1, 15 (2007).

the Vogtle units – that is, on proximity to the activities previously authorized by the issuance of the Vogtle combined licenses. While the initial issuance of a combined license is an action which the Commission has, for purposes of determining standing, found to involve a clear potential for offsite consequences and thus justify a proximity presumption,[39] in license amendment proceedings, "a petitioner's challenge must show that the amendment will cause a distinct new harm or threat apart from the activities already licensed" to fulfill standing obligations.[40] In addition, the petitioner must demonstrate a "plausible chain of causation" between the license amendment challenged and the injury alleged.[41] Therefore, in this license amendment proceeding, merely invoking the proximity of BREDL's members to the Vogtle site is insufficient to show BREDL's standing. BREDL must allege injury based on the potential for offsite consequences from granting the license amendment, not generically from the prior licensing of the construction and operation of Vogtle Units 3 and 4. BREDL has not done so.

BREDL asserts that petitioners will suffer injury from "construction and operation of additional nuclear reactors" at the Vogtle site, and it asserts that granting the proposed license amendment "would directly affect our members."[42] But as discussed further in the following sections of this response, the Petition does not explain why the license amendment at issue would increase the potential for radiological releases into the environment, much less why the action would pose "a clear potential for offsite consequences."[43] Consequently, BREDL has not articulated a causal connection between the issuance of the license amendment and the asserted injury. Because the Petition does not articulate a basis for concluding that the action

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[39] *See id.* at 329-30; *see also Calvert Cliffs*, CLI-09-20, 70 NRC at 914-15.

[40] *International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-01-21, 54 NRC 247, 251 (2001), *citing International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-01-18, 54 NRC 27 (2001) (internal quotations omitted); *see also Susquehanna*, LBP-07-10, 66 NRC at 15.

[41] *Zion*, CLI-99-04, 49 NRC at 192 (internal quotations omitted).

[42] Petition at 6.

[43] *St. Lucie*, CLI-89-21, 30 NRC at 329.

authorized by the license amendment at issue creates any clear potential for offsite radiological releases or causes particularized injury, BREDL fails to establish standing under either the proximity presumption or through traditional judicial concepts of standing.

III. THE PROPOSED CONTENTIONS ARE INADMISSIBLE

A. Proposed Contention 1

In Proposed Contention 1, BREDL asserts that the license amendment request "fails to conform to certain construction industry standards."[44] In particular, BREDL states that the "fundamental construction standards for the Westinghouse AP1000 nuclear power plants under construction at Plant Vogtle are based on conformance with industry codes developed by the American Concrete Institute," including ACI-117 and ACI 349-01.[45] BREDL states that these codes and standards, which are referenced in the Updated Final Safety Analysis Report (UFSAR) for the Vogtle combined licenses, define standards for reactor containment internal structures as well as the tolerances and procedures for fabrication, assembly, and installation of structural modules CA04, CA01, and CB65.[46] BREDL then asserts that for these three modules, "the concrete thickness tolerances do not meet ACI 349-01 and ACI 117."[47]

BREDL notes that the changes requested by the license amendment would increase the authorized wall thickness tolerance from plus or minus 1 inch to plus or minus 1 and five-eighths inches.[48] BREDL states that although the licensee's license amendment request "reported minimum margins of about 50% for vertical reinforcement, horizontal reinforcement, and shear," it did not specify what the margins were "with the original tolerances," and that BREDL therefore "cannot gauge the significance of the proposed new tolerances to the previously accepted

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[44] Petition at 7.

[45] *Id.*

[46] *See id.*

[47] *Id*. at 7-8.

[48] *See id.* at 8.

margins."[49] BREDL also references a presentation and a report from the Nuclear Energy Standards Coordination Collaborative, which BREDL describes as relating to ACI 349 and concrete durability.[50] Finally, BREDL complains that the change proposed by the license amendment request was only identified after "inspectors identified out of compliance work."[51]

Staff Response: For the reasons set forth below, Proposed Contention 1 is inadmissible because it fails to explain why the issues raised are material to the findings that the NRC must make in this proceeding; is insufficiently supported by alleged facts or expert opinion; and fails to identify a genuine dispute with the Application regarding a material issue of law or fact, contrary to the requirements of 10 C.F.R. § 2.309(f)(1)(iv)-(vi).[52]

In the Application, the licensee stated that UFSAR Subsection 3.8.3.6.1 requires structural module tolerances to conform to ACI 117, American Welding Society (AWS) D1.1, "Structural Welding Code – Steel," and AISC N690 and that UFSAR Subsection 3.8.4.4.1,

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[49] *Id*.

[50] *See id*. at 9.

[51] *Id*. at 10.

[52] As BREDL seems to recognize, *see* Petition at 8, combined license holders may request license amendments pursuant to 10 C.F.R. § 50.90; similarly, pursuant to 10 C.F.R. § 52.63(b), if a change to a combined license involves a change to certified information within the scope of a referenced certified design, the licensee may request an exemption consistent with the requirements of 10 C.F.R. § 52.7. Here, the Application explains the licensee's proposed basis for seeking an amendment and exemption – including, for example, that the design would continue to provide safety margins for reinforcement that are more conservative than what is required by the ACI codes. As explained in more detail below, BREDL has not presented any information to dispute the licensee's technical justification and conclusion that the proposed change would continue to provide reasonable assurance of public health and safety. Nonetheless, to the extent BREDL's Proposed Contention 1 is asserting that it is *per se* impermissible for a licensee to request (or the NRC to approve) any change to a combined license that would allow a departure from a provision of an industry code or standard referenced in the licensing basis, such a claim is unsupported. A licensee may request an exemption from a design standard required by Tier 1 of a certified design DCD in the same manner it may request an exemption to any other NRC substantive requirement.

Furthermore, although the NRC staff has issued the requested license amendment, to the extent BREDL's contention is directed to the NRC staff's conclusions, it is well established that a petitioner's challenges on safety issues must focus on the adequacy of the license application, rather than the NRC staff's review. *Shaw AREVA MOX Services, LLC* (Mixed Oxide Fuel Fabrication Facility), CLI-15-9, 81 NRC 512, 531 (2015); *Curators of the University of Missouri* (TRUMP-S Project), CLI-95-8, 41 NRC 386, 395-96 (1995).

"Seismic Category I Structures," requires design and analysis procedures to conform with ACI 349.[53]

The licensee stated that for the affected walls, the proposed new thickness tolerance (±1-5/8") exceeds the tolerance requirements of ACI 117 (+1" and -3/4") and ACI 349-01(± 1").[54]

The affected walls, which are a mix of SC composite modules and reinforced concrete, are designed in accordance with the requirements of ACI 349-01 for reinforced concrete and the requirements of AISC N690 for structural steel. To address the departure from the tolerances required by ACI 349-01 and ACI 117, the licensee performed an assessment of the smallest of the affected walls (CA04/CB65), which is 36" thick, in order to determine the potential impact on the margin of safety (ratio of the reinforcement required by the Code to the reinforcement provided by the design) as a result of the increased tolerance. That assessment showed that the minimum margin for the vertical reinforcement is 47.9%, the horizontal reinforcement is 54.8%, and the shear reinforcement is 61.3%. As indicated in the Application, the licensee concluded from this assessment that sufficient margin exists because, even assuming the minimum tolerance permitted under the proposed change, the provided reinforcement of the affected walls continues to exceed the minimum reinforcement required by ACI 349-01 and ACI 117.[55]

In addition, the licensee stated that the shear reinforcement spacing is sufficient for the increased tolerances. In other words, the licensee's assessment indicated that, even assuming the minimum tolerance permitted under the proposed change, there are still substantial margins of safety, significantly above the minimum reinforcement required by the industry codes. The licensee also performed a similar assessment on the thicker CA01/CA04 walls, which are 7'-6" to 9'-0" thick. Because of their size, the walls are designed as mass concrete structures,

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[53] Application at Enclosure 1, p. 4 of 13.

[54] *See id.* at 6-7 of 13.

[55] *See id.* at 11 of 13.

resulting in an evaluation of the volume of concrete in lieu of evaluating the adequacy of the existing reinforcement. According to the licensee, the results showed an insignificant change in the volume of concrete.[56]

In sum, the licensee's assessment quantified substantial margins of safety that would remain above the minimum reinforcement required by ACI 349-01 and ACI 117 - even if the minimum proposed tolerance were applied to the smallest of the affected walls. BREDL's primary complaint appears to be that the Application does not specify the safety margins under the original permitted tolerances, only the margins under the proposed new tolerances.[57] However, given that the licensee's calculated margins of safety remain well above the Code-required reinforcement, BREDL does not explain why specifying the prior margin is material to the staff's findings. Accordingly, BREDL fails to show that its claim meets the requirements of 10 C.F.R. § 2.309(f)(1)(iv).

BREDL similarly does not challenge the licensee's quantification of the margin of safety under the proposed revised tolerances, nor does it explain why those margins of safety (which represent conservatisms beyond the reinforcement that would be required to meet the industry code) are insufficient to support the NRC's safety findings on the amendment. Likewise, with respect to the licensee's volumetric calculation for the thicker of the affected walls, and its conclusion that any change in concrete volume resulting from the revised tolerances would be insignificant, BREDL does not directly dispute that analysis, let alone explain why the analysis is insufficient to support the NRC's safety findings. Moreover, the aforementioned codes and standards are robust in that they already include safety factors that account for the uncertainties that exist in structural design, yet BREDL does not identify what safety concern it has with calculated margins of safety that remain above the reinforcement required by these codes and

[56] *See id.* at 7 of 13.

[57] *See* Petition at 8.

standards. Because BREDL identifies no basis to challenge the licensee's evaluations in the Application concluding that there would be no safety significant effects on safety margins or structural integrity, BREDL fails to show that its claim constitutes a genuine dispute with the application on a material issue, contrary to 10 C.F.R. § 2.309(f)(1)(vi).

For similar reasons, BREDL also has not provided sufficient facts or expert opinion to support Contention 1. To support a contention, "a petitioner must provide documents or other factual information or expert opinion that set forth the necessary technical analysis to show why the proffered bases support its contention."[58] Beyond summarizing the Application, the only factual references BREDL cites in connection with Proposed Contention 1 are quotes from two documents from the Nuclear Energy Standards Coordination Collaborative (NESCC).[59] But, as described below, BREDL fails to explain why these documents are relevant to the Application, let alone why they dispute any aspect of the licensee's analysis.

The NESCC is a joint initiative of the American National Standards Institute and the National Institute for Standards and Technology; it is a joint forum open to various stakeholders, including industry, academia, governmental organizations, and other interested parties.[60] One mission of the NESCC is to review subject areas of interest to determine if new or revised consensus standards might be beneficial. NESCC Task Groups perform a general review of the state of technology and the related standards and regulatory requirements in a particular subject area, and their reports offer recommendations for improvements. However, the reports and recommendations developed by the NESCC are not, themselves, "industry standards." Here,

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[58] *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 180 (1998) (*citing Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), LBP-95-6, 41 NRC 281, 305, *vacated in part and remanded on other grounds*, CLI-95-10, 42 NRC 1, *aff'd in part*, CLI-95-12, 42 NRC 111 (1995) (A petitioner is obligated "to provide the [technical] analyses and expert opinion" or other information "showing why its bases support its contention.")).

[59] *See* Petition at 9.

[60] *See, e.g.*, NESCC Webpage, http://www.ansi.org/standards_activities/standards_boards_panels/nescc/overview.aspx?menuid=3 (last visited December 24, 2015).

BREDL quotes a 2010 NESCC Task Group presentation as recommending that the ACI 349 standard "incorporate the Design Basis Accident such as high energy component or system failure[.]"[61] While BREDL characterizes this recommendation as identifying "needs specific to ACI 349,"[62] BREDL does not explain how it has any bearing on the justification for the instant amendment's proposed change in wall thickness tolerance, or, even if it did, how the NESCC recommendation identifies any material deficiency in the licensee's analysis in the Application (which states, among other things, the wall design's continued margins of safety above the reinforcement called for by ACI 349).

BREDL's other citation is to a 2011 NESCC report (cited in footnote 4 of the Petition) that contains a section, "5.3 Durability of Concrete," from which BREDL included an excerpt on internal attack, specifically alkali silica reaction (ASR).[63] First, contrary to BREDL's implication in the preceding sentence in the Petition, the quoted paragraph does not relate to radiation impacts. And in any event, BREDL does not explain in what way the licensee's requested change in wall thickness tolerance would have any implication for the structure's susceptibility to ASR, or even if it did, how that identifies any material deficiency in the licensee's analysis in the Application. BREDL states that the 2011 report also "adds that accurate measurement, inspection on the nuclear plant construction site and proper test standards are essential."[64] But again, BREDL does not explain why this observation disputes anything in the licensee's request or analysis, much less identifies a deficiency that is material to the NRC's safety findings. BREDL has not demonstrated how the NESCC documents are material to the Application, has not explained how they reveal any genuine dispute with the Application, and accordingly has

[61] Petition at 9.

[62] *Id.*

[63] *See id.* at 9 n.4.

[64] *Id*. at 9.

identified no facts or expert opinion that provide a technical basis for Contention 1, contrary to 10 C.F.R. § 2.309(f)(1)(iv), (vi), and (v), respectively.[65]

In sum, BREDL has neither disputed the licensee's technical analysis and conclusions stated in the Application nor identified the factual or expert support for an assertion that the requested change in wall thickness tolerances would have any safety implications contrary to applicable industry standards and codes. Proposed Contention 1 fails to meet § 2.309(f)(1)(iv), (v), and (vi), and thus Proposed Contention 1 should not be admitted.

Proposed Contention 2

In Proposed Contention 2, BREDL asserts that the license amendment request "does not demonstrate that it meets standards for nuclear plant worker radiation exposure limits," including that the plant workers exposure to radiation is as low as reasonably achievable ("ALARA").[66] BREDL states that all four walls that are the subject of the amendment are designated in the UFSAR as "Applicable Radiation Shielding Walls," noting as an example the "Shield Wall between Reactor Vessel Cavity and RCDT Room."[67] BREDL states that, using that wall as an example, under the revised tolerances the nominal thickness of 36" could mean that the wall could be 34-3/8ths inches or 37-5/8ths inches thick (as opposed to 35 or 37 inches thick under the present tolerances).[68] BREDL concludes that "[t]hickness affects the radiation shielding ability of a concrete wall."[69]

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[65] BREDL observes in its Petition that the license amendment request was submitted after the licensee determined during construction surveys that certain tolerances were out of compliance. *Id*. at 10 (*quoting* Application at Enclosure 1, p. 3 of 13). However, describing the licensee's motivation for choosing to request a license amendment does not constitute a material dispute with the licensee's technical justification for the request. Accordingly, contrary to 10 C.F.R. § 2.309(f)(1)(iv), this statement does not identify an issue material to the findings that the NRC must make on the Application.

[66] *Id*. at 10 (*citing* 10 C.F.R. § 20.1201).

[67] *Id*. at 10-11.

[68] *See id.* at 10.

[69] *Id.* at 11.

Staff Response: For the reasons set forth below, Proposed Contention 2 is inadmissible because it fails to identify facts or expert opinion in support of its claim and fails to articulate a genuine dispute with the Application regarding a material issue of law or fact, contrary to the requirements of 10 C.F.R. § 2.309(f)(1)(v), (vi).[70]

The licensee's evaluation in the Application states in several places the licensee's reasons for concluding that the amendment would result in no effects on radiation protection. However, as described below, BREDL does not identify a basis for disputing any of those statements. According to the Application, no system or design function or equipment qualification is affected by the proposed changes.[71] The Application states that the changes do not result in a new failure mode, malfunction or sequence of events that could affect a radioactive material barrier or safety-related equipment.[72] It states that the proposed changes do not allow for a new fission product release path, result in a new fission product barrier failure mode, or create a new sequence of events that would result in significant fuel cladding

[70] As part of Contention 2, BREDL also asserts that, in addition to the license amendment, the Applicant sought a "preliminary amendment" to allow work to proceed by November 12, 2015. *Id.* at 11. Although the relationship of this claim to Proposed Contention 2 is unclear, BREDL appears to challenge the appropriateness of that preliminary amendment request (PAR). *See id*. at 11. However, such a challenge is moot and, in any event, would be outside the scope of this proceeding, contrary to 10 C.F.R. § 2.309(f)(1)(iii). The PAR process is a limited procedural mechanism governed by a condition in the Vogtle licenses. It applies to certain changes to construction activities for which a license amendment is required. If the procedural criteria defined in the license condition are satisfied, the PAR allows the licensee, at its own business risk, to proceed with the requested activities during the pendency of the staff's review of the license amendment. It does not constitute NRC approval of the amendment, and if the license amendment is ultimately denied, the licensee must return to its original licensing basis.

Although the licensee initially submitted a PAR to proceed with the changes sought in this amendment, because of changes in the licensee's needed by date for the amendment, the NRC issued the license amendment on December 16, 2015. The staff accordingly did not respond to the PAR, and with the issuance of the amendment it is no longer necessary for the staff to do so. In any event, the PAR process is established by a license condition and is unaffected by the license amendment request at issue. Because a PAR by definition does not represent an NRC determination on the merits of the associated license amendment request, any challenge to the PAR is outside the scope of the license amendment proceeding. Accordingly, to the extent BREDL intended Contention 2 to encompass a challenge to the PAR, it fails to meet the requirements of 10 C.F.R. § 2.309(f)(1)(iii).

[71] *See* Application at Enclosure 1, p. 8 of 13.

[72] *Id.*

failures.[73] The licensee concluded that the proposed changes do not affect the containment, control, channeling, monitoring, processing or releasing of radioactive and non-radioactive materials; that the types and quantities of expected effluents are not changed, and no effluent release path is affected by the proposed changes; and that, therefore, radioactive or non-radioactive material effluents are not affected by the proposed changes.[74] Furthermore, the licensee stated that plant radiation zones (as described in UFSAR Section 12.3), controls under 10 C.F.R. Part 20, and expected amounts and types of radioactive materials are not affected by the proposed changes. The licensee's evaluation specified that increased wall tolerance was also examined with respect to the walls' effectiveness in providing radiation shielding, and no adverse impacts were identified.[75] The licensee concluded that individual and cumulative radiation exposures would not change.[76]

In Proposed Contention 2, BREDL does not dispute any particular aspect of this analysis with respect to ALARA requirements or any other NRC radiation protection standards – it merely asserts that the proposed amendment would permit a change in wall thickness tolerance and states in general terms that "thickness affects the radiation shielding ability of a concrete wall."[77] Particularly given that the four walls evaluated in the amendment[78] are located in remote, high radiation area locations in containment, where personnel access is restricted or not permitted during power operations, and the fact that the licensee concluded that the proposed increased wall tolerance for each of these four shield walls will not result in an increase in the designated

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[73] *Id.*

[74] *Id.*

[75] *Id.*

[76] *Id.*

[77] Petition at 11.

[78] *See, e.g.*, UFSAR Tier 1, Table 3.3-1, "Definition of Wall Thicknesses for Nuclear Island Buildings, Turbine Building, and Annex Building" (see entries for West Reactor Vessel Cavity Wall and East Reactor Vessel Cavity Wall; North Reactor Vessel Cavity Wall; Shield Wall between Reactor Vessel Cavity and RCDT Room) (ADAMS Accession No. ML15194A446).

plant radiation zones for the adjacent areas,[79] BREDL has not articulated its basis for a material dispute with the Application.

For the reasons stated above, in Proposed Contention 2 BREDL has neither disputed the Application's evaluation and conclusions with respect to radiation protection, nor has it identified factual or expert support for its claims that any radiation protection regulations (including those related to ALARA requirements) are not met. Therefore, Proposed Contention 2 fails to satisfy the requirements set forth in § 2.309(f)(1)(v) and (vi) and thus Proposed Contention 2 should not be admitted.

C. Proposed Contention 3:

In Proposed Contention 3, titled "Disproportionate Impact on Shell Bluff Residents," BREDL asserts that the "[a]pproval of the License Amendment Request by the NRC would put residents of the surrounding community at greater risk from ionizing radiation exposure."[80] BREDL then states that the NRC "must comply with the environmental justice requirements of Executive Order 12898."[81] BREDL contends that "[u]nless and until the NRC fully implements Executive Order 12898, environmental injustice will continue at Plant Vogtle and elsewhere."[82]

In support of its contention, BREDL includes the declaration of Rev. Charles N. Utley (Utley Declaration).[83] The Utley Declaration asserts that "the NRC has failed to properly address environmental justice in licensing decisions made since the Executive Order."[84] It asserts that "Shell Bluff is one example of where the NRC has failed to fully implement Executive Order 12898 to protect Minority Populations and Low-Income Populations from being exposed in a

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[79] *See* Application at Enclosure 1, p. 8 of 13 (*citing*, *inter alia*, UFSAR Section 12.3 and 10 C.F.R. Part 20 controls); *see also* UFSAR Section 12.3.1.2 (ADAMS No. ML15194A467).

[80] Petition at 11.

[81] *Id.*

[82] *Id*. at 12.

[83] *See id.* at 13-16.

[84] *Id*. at 14.

disproportionate way," and it refers to a 2009 study which, according to the Utley Declaration, "suggests that there is a 'reactor-related environmental injustice' at Plant Vogtle."[85]

Staff Response: For the reasons set forth below, Proposed Contention 3 is inadmissible because it fails to demonstrate that the issue raised is within the scope of the proceeding, fails to identify relevant supporting facts or expert opinion, and fails to articulate a genuine dispute with the Application regarding a material issue of law or fact, contrary to the requirements of 10 C.F.R. § 2.309(f)(1)(iii), (v), and (vi).

Executive Order 12898 "calls on agencies to determine whether a proposed action would have 'disproportionately high and adverse human health or environmental effects."[86] It does not create "new rights or remedies" but calls on federal agencies to "*underscore* certain provision[s] of *existing* law that can help ensure that all communities and persons across this Nation live in a safe and healthful environment."[87] The NRC evaluates environmental justice concerns, to the extent appropriate, through its NEPA reviews.[88] In its 2004 *Policy Statement on the Treatment of Environmental Justice Matters in NRC Regulatory and Licensing Actions*, the Commission stated "that an analysis of disproportionately high and adverse impacts needs to be done as part of the agency's NEPA obligations to accurately identify and disclose all significant environmental impacts associated with a proposed action" and "it will strive to meet those goals through its normal and traditional NEPA review process."[89]

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[85] *Id*. at 15-16.

[86] *Private Fuel Storage L.L.C.* (Independent Spent Fuel Storage Installation), CLI-02-20, 56 NRC 147, 153 (2002) (*quoting* E.O. 12898, sec. 1-101) (emphasis omitted).

[87] *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 102 (1998) (*quoting* Memorandum for the Heads of All Departments and Agencies, 30 Weekly Comp. Pres. Doc. 279 (Feb. 14, 1994) (internal quotations omitted) (emphasis added)); *see also PFS*, CLI-02-20, 56 NRC at 153.

[88] *See Claiborne*, CLI-98-3, 47 NRC at 102.

[89] "Policy Statement on the Treatment of Environmental Justice Matters in NRC Regulatory and Licensing Actions." 69 Fed. Reg. 52,040, 52,040 (Aug. 24, 2004) (Policy Statement).

In Proposed Contention 3, BREDL fails to explain in what way the proposed license amendment would result in any significant environmental impact, much less an impact that would be disproportionately high and adverse with respect to a particular community. Instead, BREDL criticizes the NRC's past implementation of environmental justice policies, at Plant Vogtle and more broadly.[90] Accordingly, BREDL has not demonstrated that its wide-ranging claims in Proposed Contention 3 are within the scope of this license amendment proceeding. "All proffered contentions must be within the scope of the proceeding as defined by the Commission in its initial hearing notice and order referring the proceeding to the Licensing Board."[91] As noted above, other than its bare assertion that approval of the license amendment "would put residents of the surrounding community at greater risk from ionizing radiation exposure," all of the factual claims underlying Proposed Contention 3 (including those in the Utley Declaration) relate either to the initial licensing of Plant Vogtle or more generically to the NRC's implementation of Executive Order 12898 and environmental justice policies, not to the present Application.[92] For example, the Utley Declaration refers to Vogtle as a site with "reactor-related environmental injustice," but does not identify how this assertion is anything

[90] Although BREDL's claims in Contention 3 appear to be directed primarily to the NRC's implementation of Executive Order 12898, BREDL also asserts that the NRC has "ignored" an Obama Administration "Memorandum of Understanding on Environmental Justice and Executive Order 12898" from 2011 (MOU). Petition at 11. Yet BREDL seems to acknowledge that NRC is not a party to the MOU, as indicated by the Utley Declaration's statement that "the NRC should sign the MOU[.]" *Id.* at 15. To the extent this aspect of BREDL's claim amounts to generalized advocacy about what NRC policy should be, it does not support an admissible contention. It is well established that "a petitioner cannot seek to use a specific adjudicatory proceeding to …'express generalized grievances about NRC policies.'" *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), CLI-08-17, 68 NRC 231 (*quoting Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 40 NRC 328, 334-35 (1999)*; Philadelphia Elec. Co.* (Peach Bottom Atomic Power Station, Units 2 & 3), ALAB-216, 8 AEC 13, 21 (1974)). In any event, as with its assertions regarding Executive Order 12898, BREDL fails to explain how any aspect of the Application at issue (or any environmental impact from approval of it) would even run contrary to any purpose or provision of the MOU; accordingly, BREDL fails to demonstrate how this claim meets the contention admissibility standards of 10 C.F.R. § 2.309(f)(1)(iii), (vi).

[91] *Susquehanna*, LBP-07-10, 66 NRC at 23; *see also Union Elec. Co.* (Callaway Plant, Unit 1), LBP-12-15, 76 NRC 14, 25 (2012).

[92] *See* Petition at 11-16.

more than a recitation of a previous complaint about the initial licensing of the facility.[93] Because BREDL fails to explain how past NRC licensing activities (at Vogtle or otherwise) or BREDL's dissatisfaction with the general implementation of NRC's environmental justice policies have any relationship to any potential environmental impacts of granting the license amendment, BREDL fails to demonstrate that its contention falls within the scope of the proceeding, contrary to the requirements of 10 C.F.R. § 2.309(f)(1)(iii).

As a result, although BREDL refers in Proposed Contention 3 to various documents about environmental justice policy in general and to past NRC actions, BREDL provides no factual or expert support for its only assertion that even mentions the present license amendment – the conclusory statement that approving the amendment "would put residents of the surrounding community at greater risk from ionizing radiation exposure."[94] BREDL does not explain how any of the referenced documents (including the statements in the Utley Declaration) demonstrate any environmental impact from the license amendment, radiological or otherwise, much less a "disproportionate" risk to a particular community. Accordingly, BREDL has failed to identify relevant factual or expert support for its claims, contrary to the requirements of 10 C.F.R. § 2.309(f)(1)(v).

Finally, BREDL has also failed to demonstrate a dispute with the analysis in the Application. As part of its implementation of NEPA, the NRC has determined by rule that certain categories of actions do not individually or cumulatively have a significant effect on the human environment and that the NRC therefore need not prepare an environmental impact statement or an environmental assessment for those actions.[95] These categories are set forth in 10 C.F.R. § 51.22. In its Application, SNC asserted that the license amendment meets the categorical

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[93] *See id*. at 13-16. Indeed, the last statement in Proposed Contention 3 is that "[BREDL] has placed this issue before the Commission previously. However, we have had no response from the Commission or the Atomic Safety and Licensing Board." *Id.* at 12.

[94] *Id.* at 11.

[95] *See* 10 C.F.R. § 51.22.

exclusion criteria set forth in 10 C.F.R. § 51.22(c)(9).[96] As part of that analysis, SNC concluded that "the proposed amendment do[es] not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in the individual or cumulative occupational radiation exposure."[97]

In Proposed Contention 3, BREDL fails to acknowledge this analysis, let alone dispute it.[98] "[P]etitioners must do more than submit 'bald or conclusory allegation[s]' of a dispute with the applicant. They must 'read the pertinent portions of the license application…state the applicant's position and the petitioner's opposing view,' and 'explain[] why they have a disagreement with [the applicant].'"[99] Having identified no deficiencies in the Applicant's environmental impact analysis, BREDL "ha[s] not provided any evidence to dispute [the] Applicant's conclusion" that the amendment would have no significant effect on the human environment.[100] Therefore, Proposed Contention 3 fails to identify a genuine dispute with the Application as required by 10 C.F.R. § 2.309(f)(1)(vi).[101]

In sum, Contention 3 should not be admitted because BREDL fails to meet the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)(iii), (v), and (vi). BREDL did not substantiate its conclusion that the license amendment will result in increased radiological exposure, did not raise deficiencies with the Application, and failed to show that its claims are within the scope of this proceeding.

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[96] *See* Application at Enclosure 1, p. 13 of 13.

[97] *Id.* at 13 of 13.

[98] *See* Petition at 11-12; *see* 10 C.F.R. § 2.309(f)(1)(vi).

[99] *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 2), LBP-03-12, 58 NRC 75, 81 (2003) (internal citations omitted).

[100] *Luminant Generation Co., LLC* (Comanche Peak Nuclear Power Plant, Units 3 & 4), LBP-10-10, 71 NRC 529, 552 (2010).

[101] *See Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 6 & 7), LBP-11-6, 73 NRC 149, 180 (2011).

CONCLUSION

In view of the foregoing, BREDL has not demonstrated that it has standing in this proceeding, nor has it submitted at least one admissible contention. Accordingly, the Petition should be denied.

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Dated at Rockville, Maryland
this 4th day of January, 2016

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
	)	
SOUTHERN NUCLEAR OPERATING CO.	)	Docket Nos. 52-025 & 52-026
	)	
(Vogtle Electric Generating Plant, Units 3 & 4)	)	

CERTIFICATE OF SERVICE

I hereby certify that the "NRC STAFF ANSWER TO 'PETITION FOR LEAVE TO INTERVENE AND REQUEST A HEARING BY THE BLUE RIDGE ENVIRONMENTAL DEFENSE LEAGUE AND ITS CHAPTER CONCERNED CITIZENS OF SHELL BLUFF'" has been filed through the E-Filing system this 4th day of January, 2016.

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Dated at Rockville, Maryland
this 4th day of January, 2016