LBP-16-05

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Ronald M. Spritzer, Chairman
Nicholas G. Trikouros
Dr. James F. Jackson

In the Matter of SOUTHERN NUCLEAR OPERATING COMPANY, INC. (Vogtle Electric Generating Plant, Units 3 and 4)	Docket Nos. 52-025 and 52-026 ASLBP No. 16-944-01-LA-BD01 April 29, 2016

ORDER
(Ruling on Petition to Intervene and Request for a Hearing)

Before the Board is a petition to intervene and request for a hearing (Petition) filed by Blue Ridge Environmental Defense League and its chapter Concerned Citizens of Shell Bluff (collectively BREDL or Petitioner).[1] The Petition challenges the License Amendment Request (LAR) of Southern Nuclear Operating Company, Inc. (Southern Nuclear) to amend its combined licenses (COLs) for the construction and operation of Vogtle Electric Generating Plant (Vogtle) Units 3 and 4, located in Burke County, Georgia. We conclude that BREDL has representational standing but has not proffered an admissible contention under the Commission's stringent rules governing contention admissibility. We therefore deny the request for a hearing and dismiss the Petition.

[1] Corrected Petition for Leave to Intervene and Request for Hearing by the Blue Ridge Environmental Defense League and its Chapter Concerned Citizens of Shell Bluff (Dec. 23, 2015) [hereinafter Petition].

I. BACKGROUND

On February 10, 2012, the NRC issued COLs NPF-91 and NPF-92 to Southern Nuclear for the construction and operation of Vogtle Units 3 and 4.[2] Both new units are currently under construction. During construction, Southern Nuclear concluded it needed a license amendment because four containment internal structural wall modules (CIS wall modules) of the nuclear island[3] failed to comply with the thickness tolerances specified in Appendix C to the COLs.[4] The LAR explains that "[t]he need for [the] proposed change was identified during a survey performed of installed modules where it was identified that the tolerance specified in COL Appendix C was not met in a portion of one wall and there were possible inconsistencies with the underlying design construction tolerances."[5] Southern Nuclear submitted the LAR on September 18, 2015, stating that "[d]elayed approval of this licensing request could result in delay of the associated construction activity and subsequent dependent construction activities."[6]

In the LAR, Southern Nuclear proposes to revise COL Appendix C and the associated plant-specific Design Control Document (DCD) Tier 1 Table 3.3-1, "Definition of Wall Thicknesses for Nuclear Island Buildings, Turbine Building, and Annex Building," to increase the

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[2] Southern Nuclear Operating Company's Answer Opposing Petition to Intervene and Request for Hearing (Jan. 4, 2016) at 2 [hereinafter Southern Nuclear Answer].

[3] The "nuclear island" includes all equipment, systems, and other relevant hardware within the reactor and reactor auxiliary buildings of the nuclear power plant. The nuclear island includes various structures, including the containment vessel, containment internal structures, shield building, and auxiliary building. Vogtle Electric Generating Plant Units 3 and 4 Request for License Amendment and Exemption: CA04 Structural Module ITAAC Dimensions Change (LAR-15-015) (Sept. 18, 2015), Encl. 1, at 3 (ADAMS Accession No. ML15261A757) [hereinafter LAR].

[4] See Southern Nuclear Answer at 2.

[5] LAR, Encl. 1, at 3.

[6] Id. at 2.

concrete wall thickness tolerances of four CIS wall modules from ± 1 inches to ±1 ⅝ inches.[7] As explained in the LAR,

> [t]his proposed change refers to the tolerance for the concrete wall thicknesses for the containment internal structural modules CA04, CA01, and CB65. The CA04 module forms the reactor vessel cavity, and the walls of the CA01 module comprise the central walls of the containment internal structures including the two steam generator compartments and the refueling canal. Finally, the CB65 module is used in creating the walls of the reactor coolant drain tank room (termed the RCDT Room).[8]

On October 8, 2015, the NRC published a notice of the receipt of the LAR in the Federal Register.[9] In this notice, the NRC proposed that the LAR involved no significant hazards consideration and sought public comment on that proposed determination.[10] The notice also provided an opportunity to request a hearing.[11]

On November 9, 2015, BREDL submitted comments on the LAR.[12] In summarizing its concerns, BREDL stated:

> The American Concrete Institute standards for nuclear power plants would be undermined by the granting of Southern Nuclear's License Amendment Request. The standards are in need of updating; further departures from ACI-349 and other standards should not be approved by the Nuclear Regulatory Commission. Finally, the entire license amendment is being rushed. Southern Company has filed a preliminary amendment request which would allow the preemptory alteration of the license before a full public review as permitted by federal regulations. We oppose the granting of the Preliminary Amendment Request

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[7] Id., Encl. 1, at 3. Because the proposed tolerance change requires a departure from Tier 1 information in the Westinghouse Advanced Passive 1000 DCD, Southern Nuclear also requested an exemption from the requirements of the Generic DCD Tier 1. Id., Encl. 2, at 2. BREDL has not challenged the exemption request.

[8] Id., Encl. 1, at 4.

[9] Vogtle Electric Generating Plant, Units 3 and 4, 80 Fed. Reg. 60,937 (Oct. 8, 2015).

[10] Id. at 60,938–39.

[11] Id. at 60,939.

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

> PAR-15-015 and the License Amendment. Our principal interests are the health and safety of our members living near the plant and the general public.[13]

BREDL filed its Petition to Intervene on December 7, 2015. The Petition includes three contentions. In its first contention, BREDL argues that to protect the health and safety of its members, Southern Nuclear should not be permitted to deviate from industry standards developed by the American Concrete Institute (ACI), specifically ACI-117 ("Specifications for Tolerances for Concrete Construction and Materials") and ACI 349-01 ("Code Requirements for Nuclear Safety Related Concrete Structures").[14] In its second contention, BREDL argues that the proposed weakening of the tolerance standards could result in plant workers being exposed to levels of radiation in excess of the "as low as is reasonably achievable"[15] (ALARA) standard.[16] BREDL's third contention alleges that the approval of the license amendment would result in a disproportionate impact on residents of the Shell Bluff area, including low income and minority populations, by subjecting them to greater risk from ionizing radiation.[17] BREDL maintains that Executive Order 12898 requires the NRC to "take steps to avoid disproportionate, adverse environmental impacts on low income and minority populations," but the NRC has consistently failed to comply with that obligation.[18]

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[13] Id. at 3.

[14] Petition at 7–10.

[15] 10 C.F.R. § 20.1003.

[16] Petition at 10–11.

[17] Id. at 11–12.

[18] Id.

On December 11, 2015, this Atomic Safety and Licensing Board was established to preside over the proceeding.[19] The NRC issued the requested amendment and exemption five days later.[20] BREDL filed a Corrected Petition on December 23.[21] On January 4, 2016, the NRC Staff (Staff) and Southern Nuclear filed answers opposing the Petition. On March 15, 2016, the Board heard oral argument on standing and contention admissibility in Augusta, Georgia.[22]

II. PETITIONER'S STANDING

A. General Requirements for Standing

A petitioner's participation in a licensing proceeding requires a demonstration of standing. This requirement is derived from Section 189a of the Atomic Energy Act of 1954 (AEA),[23] which instructs the NRC to provide a hearing "upon the request of any person whose interest may be affected by the proceeding."[24] The Commission's regulation implementing the standing requirement, 10 C.F.R. § 2.309(d), directs a licensing board to consider (1) the nature of the petitioner's right under the AEA or the National Environmental Policy Act (NEPA) to be made a party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any decision or order that may

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[19] Establishment of Atomic Safety and Licensing Board (Dec. 11, 2015); see also 80 Fed. Reg. 79,104 (Dec. 18, 2015).

[20] Issuance of License Amendment No. 42 and Exemption for Vogtle Units 3 & 4 (LAR 15-015) (Dec. 16, 2015) (ADAMS Accession No. ML15302A398).

[21] The Corrected Petition deleted text from one sentence within Contention One. Petition at 8.

[22] Tr. at 1–131.

[23] 42 U.S.C. § 2011 et seq. (1954).

[24] Id. § 2239(a)(1)(A); see also 10 C.F.R. § 2.105(a)(4) (providing an opportunity for a hearing for "[a]n amendment to an operating license, combined license, or manufacturing license").

be issued in the proceeding on the petitioner's interest.[25] When assessing whether an individual or organization has set forth a sufficient interest, the Commission has applied contemporaneous judicial concepts of standing, under which the petitioner must allege "a concrete and particularized injury that is fairly traceable to the challenged action and is likely to be redressed by a favorable decision."[26]

In certain circumstances, however, the Commission has adopted a proximity presumption that allows a petitioner living,[27] having frequent contacts,[28] or having a significant property interest[29] within 50 miles of a nuclear power reactor to establish standing without the need to make an individualized showing of injury, causation, and redressability.[30] "The presumption rests on our finding, in construction permit and operating license cases, that persons living within the roughly 50-mile radius of the facility 'face a realistic threat of harm' if a release from the facility of radioactive material were to occur."[31] Although this threat can be

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[25] 10 C.F.R. § 2.309(d)(1)(ii)–(iv).

[26] Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Unit 1), CLI-93-21, 38 NRC 87, 92 (1993) (citations omitted); see also Ga. Inst. of Tech. (Ga. Tech Research Reactor), CLI-95-12, 42 NRC 111, 115 (1995).

[27] Fla. Power & Light Co. (St. Lucie, Units 1 & 2), CLI-89-21, 30 NRC 325, 329 (1989) ("[L]iving within a specific distance from the plant is enough to confer standing on an individual or group in proceedings for construction permits, operating licenses, or significant amendments thereto . . . .").

[28] Sequoyah Fuels Corp. (Gore, Okla. Site), CLI-94-12, 40 NRC 64, 75 (1994) (stating that the proximity presumption also applies to "persons who have frequent contacts in the area near a nuclear power plant").

[29] USEC, Inc. (Am. Centrifuge Plant), CLI-05-11, 61 NRC 309, 314 (2005).

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

[31] Calvert Cliffs 3 Nuclear Project, LLC (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-09-20, 70 NRC 911, 917 (2009) (quoting Calvert Cliffs 3 Nuclear Project, LLC (Calvert Cliffs Nuclear Power Plant, Unit 3), LBP-09-04, 69 NRC 170, 183 (2009)).

assumed in construction permit and operating license proceedings for power reactors,[32] for the proximity presumption to apply in license amendment proceedings, the proposed amendment must "'obvious[ly]' entail[] an increased potential for offsite consequences."[33]

Also, when, as here, an organization petitions to intervene in a proceeding, it must demonstrate either organizational or representational standing.[34] To demonstrate organizational standing, the petitioner must show "injury-in-fact" to the interests of the organization itself.[35] When an organization seeks to establish representational standing, it must demonstrate that at least one of its members would be affected by the proceeding and identify that member.[36] Moreover, the organization must show that the identified members would have standing to intervene in their own right, and that they have authorized the organization to request a hearing on their behalf.[37]

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[32] Id. at 915.

[33] Fla. Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 & 4), LBP-08-18, 68 NRC 533, 539 (2008) (first modification in original) (quoting Commonwealth Edison Co. (Zion Nuclear Power Station, Units 1 & 2), CLI-99-04, 49 NRC 185, 191 (1999)); see also Fla. Power & Light Co. (Turkey Point Nuclear Plant, Units 3 & 4), LBP-01-06, 53 NRC 138, 148 (2001) ("[T]he rule laid down in St. Lucie is intended to be applied across the board to all proceedings regardless of type because the rationale underlying the proximity presumption is not based on the type of proceeding per se but on whether 'the proposed action involves a significant source of radioactivity producing an obvious potential for offsite consequences.'" (quoting Ga. Tech, CLI-95-12, 42 NRC at 116)).

[34] Shaw Areva MOX Servs. (Mixed Oxide Fuel Fabrication Facility), LBP-07-14, 66 NRC 169, 183 (2007).

[35] See id.

[36] See id.

[37] See Sequoyah Fuels, CLI-94-12, 40 NRC at 72 ("An organization seeking representational standing on behalf of its members may meet the 'injury-in-fact' requirement by demonstrating that at least one of its members, who has authorized the organization to represent his or her interest, will be injured by the possible outcome of the proceeding." (citation omitted)).

B. Board Ruling on Standing

BREDL relies on representational standing and the proximity presumption. It has submitted a list of 62 members of BREDL and Concerned Citizens of Shell Bluff whose interests it represents in this proceeding.[38] Each of the members has filed a declaration stating that he or she lives within 50 miles of Vogtle Units 3 and 4.[39] Each member further states that he or she believes the license amendment "would increase the risk to my health and safety" and is "concerned about releases of radioactive substances to the air and water, an accident involving the release of radioactive materials, and my ability to protect myself and my family if a radioactive accident were to occur."[40] BREDL maintains that its members "have presumptive standing by virtue of their proximity to the two nuclear plants now under construction on the site."[41]

The Staff and Southern Nuclear challenge BREDL's claim of standing. They assert that the "proximity presumption" does not apply here because BREDL has not shown "a clear potential for offsite consequences."[42] And they argue that BREDL has failed to make the showing of injury, causation, and redressability that is necessary to establish standing in the absence of the proximity presumption.[43]

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[38] Petition at 4–5. One declaration was filed by an individual that lives within 50 miles of Vogtle Units 3 and 4 but did not claim membership in BREDL or Concerned Citizens of Shell Bluff. BREDL Standing Declarations (Dec. 7, 2015) [hereinafter Standing Declarations].

[39] Standing Declarations.

[40] Id.

[41] Petition at 5.

[42] NRC Staff Answer to "Petition for Leave to Intervene and Request [for] a Hearing by the Blue Ridge Environmental Defense League and its Chapter Concerned Citizens of Shell Bluff" (Jan. 4, 2016) at 7–8 [hereinafter NRC Staff Answer]; see also Southern Nuclear Answer at 6.

[43] See NRC Staff Answer at 8–9.

1. *The Proximity Presumption Applies*

For the proximity presumption to apply, the proposed license amendment must obviously entail an increased potential for offsite consequences.[44] The petitioner has the burden to show that the presumption should apply.[45] To satisfy its burden, "it is generally sufficient if the petitioner provides plausible factual allegations that satisfy each element of standing."[46] "[W]hen evaluating whether a petitioner has established standing, a licensing board is to 'construe the [intervention] petition in favor of the petitioner.'"[47]

In deciding whether BREDL has established standing, we do not decide the admissibility or merits of its contentions. The Commission has identified a clear distinction between standing and the ultimate merits of a proposed contention, concluding that a "full-blown factual inquiry" is not required for the "threshold legal question" of standing.[48] The Commission has adopted the "oft-repeated admonition to avoid the familiar trap of confusing the standing determination with

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[44] See cases cited supra note 33.

[45] Peach Bottom, CLI-05-26, 62 NRC at 581.

[46] U.S. Army Installation Command (Schoefield Barracks, Oahu, Haw., & Pohakuloa Training Area, Island of Haw., Haw.), LBP-10-04, 71 NRC 216, 229–30 (2010) (citing Lujan v. Defenders of Wildlife, 504 U.S. 555, 561 (1992)).

[47] Id. at 230 (quoting Ga. Tech, CLI-95-12, 42 NRC at 115).

[48] Sequoyah Fuels Corp. (Gore, Okla. Site Decommissioning), CLI-01-02, 53 NRC 9, 15 (2001) (quotation omitted); see also Shaw Areva, LBP-07-14, 66 NRC at 188 ("Petitioners are not required to demonstrate their asserted injury with 'certainty,' nor to 'provide extensive technical studies' in support of their standing argument. . . . Resolving standing questions is an entirely different matter than adjudicating the ultimate merits of a contention." (quotation omitted)).

the assessment of petitioner's case on the merits."[49] It follows "the fundamental principle that the ultimate merits of the case have no bearing on the threshold question of standing."[50]

On the issue of offsite consequences, the Commission previously rejected an appeal that sought to disturb a standing determination in a case where a research reactor licensee argued that the hypothetical scenarios underlying the proximity presumption were "incredible," because they would "first require three independent safety systems to fail."[51] In the Perry Nuclear Plant proceeding, the Commission held that the Petitioners had standing based on the proximity presumption without reviewing the merits at all, stating that its ruling did "not signify any opinion on the admissibility or the merits of the Petitioners' contention" and remanding those issues to the licensing board.[52] Similarly, licensing boards have found standing in cases where the proximity presumption was based on "unlikely" but plausible risk scenarios.[53]

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[49] Sequoyah Fuels, CLI-01-02, 53 NRC at 15 (quoting Sequoyah Fuels Corp. (Gore, Okla. Site Decontamination & Decommissioning Funding), LBP-94-05, 39 NRC 54, 68 (1994), aff'd, CLI-94-12, 40 NRC 64 (1994)).

[50] Id. (quoting Campbell v. Minneapolis Pub. Hous. Auth., 168 F.3d 1069, 1074 (8th Cir. 1999)); see also Blackhawk Heating & Plumbing Co. v. Driver, 433 F.2d 1137, 1140 (D.C. Cir. 1970) ("[T]he question of standing is a preliminary matter which does not go to the merits of the case."). Thus, "[a]t the pleading stage, 'general factual allegations of injury resulting from the defendant's conduct may suffice,' and the court 'presum[es] that general allegations embrace the specific facts that are necessary to support the claim.'" Sierra Club v. EPA, 292 F.3d 895, 898–99 (D.C. Cir. 2002) (quoting Defenders of Wildlife, 504 U.S. at 561).

[51] See Ga. Tech., CLI-95-12, 42 NRC at 117 (addressing renewal of research reactor license).

[52] Perry, CLI-93-21, 38 NRC at 96.

[53] See Shaw Areva, LBP-07-14, 66 NRC at 187–88 (concluding based on "the Application and the Board's own technical expertise" that nuclear criticality was a "legitimate concern" in the context of license to operate a mixed oxide fuel fabrication facility); CFC Logistics, Inc., LBP-03-20, 58 NRC 311, 320 (2003) (identifying an "unlikely, yet plausible, scenario in which an accident of some sort could damage the armored pool containing the cobalt-60 at the [food processing irradiator] facility").

Therefore, whether the petitioner is ultimately correct on the merits is generally a distinct issue from the threshold question of standing for purposes of the proximity presumption.[54]

Applying these principles, we conclude that BREDL's allegations are sufficient to show that the LAR obviously entails an increased potential for offsite consequences. BREDL states that the changes proposed in the LAR "would alter the construction standards" for Vogtle Units 3 and 4 and that those changes would "alter the reactors' critical internal structural components."[55] That much appears to be undisputed. The LAR itself states that "the containment internal structures are those concrete and steel structures inside, but not a part of, the containment pressure boundary that support the reactor coolant system components and related piping systems and equipment. The concrete and steel structures also provide radiation shielding."[56] The LAR further explains:

> The nuclear island structures provide protection for the safety-related equipment from the consequences of either a postulated internal or external event. The nuclear island structures are designed to withstand the effects of natural phenomena such as hurricanes, floods, tornados, tsunamis, and earthquakes without loss of capability to perform safety functions. The nuclear island structures are designed to withstand the effects of postulated internal events such as fires and flooding without loss of capability to perform safety functions.[57]

Thus, if the CIS wall modules are structurally inadequate to perform their protective function during one or more of the postulated internal or external events, safety-related equipment inside the nuclear island would be at risk, creating an obvious potential for off-site consequences. As Southern Nuclear acknowledged at oral argument, "[i]f the wall[s] structurally

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[54] See also Int'l Uranium (USA) Corp. (White Mesa Uranium Mill), CLI-02-10, 55 NRC 251, 255–56 (2002).

[55] Petition at 1.

[56] LAR, Encl. 1, at 3–4.

[57] Id. at 3.

weren't adequate, there potentially could be an off-site consequence."[58] But, it argued, "in this case, that has not even been alleged."[59] According to Southern Nuclear and the Staff, BREDL has alleged only harm resulting from the operation of additional reactors at Vogtle, not from the license amendment itself.[60]

We disagree. It is true that in its standing argument BREDL claimed that its members have "presumptive standing by virtue of their proximity to the two nuclear plants now under construction on the site."[61] By itself, this argument is insufficient to uphold BREDL's standing because it incorrectly assumes that proximity to an operating nuclear reactor alone establishes standing in a license amendment proceeding. But BREDL's apparent misunderstanding of the law does not necessarily mean that it lacks standing.[62] The Board may review BREDL's standing declarations, its Petition, and relevant documents cited by the participants to decide

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[58] Tr. at 29.

[59] Id.

[60] See Southern Nuclear Answer at 8; NRC Staff Answer at 7–8.

[61] Petition at 5.

[62] BREDL is a pro se petitioner, and it is the Commission's longstanding policy that pleadings submitted by pro se petitioners are afforded greater leniency than petitions drafted with the assistance of counsel. See Entergy Nuclear Vt. Yankee, L.L.C. (Vt. Yankee Nuclear Power Station), CLI-10-17, 72 NRC 1, 45 n.246 (2010) (declining to reject argument on procedural grounds given practice of "treating pro se litigants more leniently than litigants with counsel"); Fla. Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 & 4), CLI-01-17, 54 NRC 3, 15 (2001) ("Given that Mr. Oncavage is a pro se intervenor, however, the Commission has made a special effort to review the contentions he made in his Amended Petition before the Board."); Va. Electric & Power Co. (N. Anna Power Station, Units 1 & 2), ALAB-146, 6 AEC 631, 633 & n.4 (1973) (recognizing that pro se petitioner is not held to the same standards of clarity and precision as a lawyer). It is therefore particularly appropriate in this case for the Board to review BREDL's declarations, its Petition, and other cited parts of the record to determine whether the proximity presumption should apply, rather than dismissing the Petition solely because BREDL misunderstood the law.

whether standing requirements have been met.[63] Having done so, we conclude that BREDL has set forth sufficient allegations to demonstrate an obvious potential for offsite consequences from the license amendment itself, not just from the operation of the additional Vogtle reactors.

First, BREDL's declarants have alleged an increased risk of harm resulting from the license amendment. Each of BREDL's members states that he or she believes that Vogtle Units 3 and 4 "are inherently dangerous and the proposed amendment would increase the risk to my health and safety."[64] Moreover, in Contention One, BREDL makes several specific arguments supporting a plausible or obvious increased potential for offsite consequences resulting from the license amendment, not just from the operation of Vogtle Units 3 and 4. BREDL states that "[t]he License Amendment Request fails to conform to certain construction industry standards required for nuclear power plants."[65] As BREDL explains, the "fundamental construction standards [for Vogtle Units 3 and 4] are based on conformance with industry codes developed by the American Concrete Institute."[66] BREDL notes that Updated Final Safety Analysis Report (UFSAR) section 3.8.3.2 specifies the code requirements for containment internal structures.[67] That section cites both ACI 117 and ACI 349-01. BREDL further states that "UFSAR Subsection 3.8.3.6.1 requires that the tolerances for fabrication, assembly, and

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[63] See Private Fuel Storage, L.L.C. (Indep. Spent Fuel Storage Installation), CLI-98-13, 48 NRC 26, 32 (1998) (Board did not misapply the facts or the law when it "reviewed the entire record and reached the reasonable conclusion that Ms. Reed's contacts with Skull Valley reservation are enough for standing under prevailing judicial and Commission precedent"). See also 10 C.F.R. §2.309(d)(2) (The Board ruling on a request for a hearing or petition to intervene "must determine, among other things, whether the petitioner has an interest affected by the proceeding considering the factors enumerated in paragraph (d)(1) of this section.").

[64] See Standing Declarations (emphasis added).

[65] Petition at 7.

[66] Id.

[67] See id.

installation of structural modules CA04, CA01, and CB65 conform to the requirements of ACI-117, and UFSAR Subsection 3.8.4.4.1 requires that the procedures conform with ACI 349-01."[68] BREDL emphasizes that the amended tolerances for those CIS wall modules do not conform to the tolerance requirements of ACI 117 and 349-01.[69]

BREDL asserts that the significance of the requested tolerance deviations cannot be fully evaluated because the reinforcement margins[70] of safety under the original tolerances have not been provided for comparison with the stated margins of safety resulting from the amendment.[71] To further support its position that deviation from the ACI tolerances should not be permitted, BREDL quotes two documents identifying concerns with ACI 349 raised by the Nuclear Energy Standards Coordination Collaborative (NESCC).[72] The first suggests that ACI

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[68] Id. The Board also notes that UFSAR section 3.8.3.2 incorporates the requirements of ACI 117 and 349-01 for purposes of "the design, materials, fabrication, construction, inspection, or testing of the containment internal structures." Vogtle Electric Generating Plant (VEGP) Units 3 and 4 Updated Final Safety Analysis Report, Revision 3, Chapter 3, Section 3.8, Design of Category I Structures (May 15, 2014) § 3.8.3.2 (ADAMS Accession No. ML14183B226) [hereinafter UFSAR]. In turn, NUREG-0800 section 3.8.3 includes ACI 349 as an applicable code for purposes of acceptance criteria and NRC Staff evaluation. See Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition, Chapter 3.8.3, Concrete and Steel Internal Structures of Steel or Concrete Containments, NUREG-0800, at 3.8.3-16 to -21, -25, -35 (Rev. 4 Sept. 2013) (ADAMS Accession No. ML13198A250); see also 10 C.F.R. § 52 app. D.VIII.B.6.c(4) (requiring compliance with ACI 349); Tr. at 81–87 (referencing Part 52, Appendix D and NUREG-0800 as critical documents in the Staff's review of the license amendment).

[69] Petition at 8.

[70] By "margins," we understand BREDL to mean the extent to which the calculated reinforcement exceeds the minimum requirements under ACI 349-01.

[71] Petition at 8. BREDL also asserts that the need for a license amendment occurred after the CIS wall modules were constructed and inspected. See id. at 10. The legal relevance of this observation, if any, was not revealed during this proceeding.

[72] Id. at 9. The Staff explains that 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. One mission of the NESCC is to review subject areas of

349 does not adequately account for "Design Basis Environmental Loads," including a "Design Basis Accident such as high energy component or system failure."[73] The second appears to urge consideration of radiation impacts on concrete durability.[74] In summarizing its disagreement with the LAR, BREDL argues that "[t]he granting of the Company's License Amendment Request would not comply with UFSAR technical bases at Plant Vogtle"; that "[t]he American Concrete Institute standards for nuclear power plants should be adhered to"; and that, because the standards are in need of strengthening, "further departures from ACI-349 and other standards should not be approved by the Nuclear Regulatory Commission."[75]

Thus, according to BREDL, Southern Nuclear's failure to comply with the ACI codes establishing minimum tolerances for concrete thickness puts into doubt the strength and durability of the CIS wall modules.[76] BREDL's allegations, coupled with the acknowledged possibility of offsite consequences if the CIS wall modules are structurally inadequate, satisfy

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> 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."

Staff Answer at 13.

[73] Petition at 9 (quotation omitted). The Board notes that in attempting to locate the material referenced by BREDL as the 2010 NESCC presentation, it could not locate a version of the document that included all of the text quoted by BREDL. See Chiara Ferraris, Concrete Codes and Standards for Nuclear Power Plants (CTG), NESCC, http://concretesdc.org/meetings/Past_Meeting&Sessions / Session28/N-1.pdf. Without a link to the source cited in the Petition, the Board assumes that BREDL added the words "such as high energy component or system failure (i.e. rotating equipment rupture, pipe break, tank failure causing interior building flooding, heavy load drop, etc.)."

[74] Petition at 9.

[75] Id. at 12.

[76] Id. at 7–9.

the requirement that BREDL show "a 'plausible chain of causation' explaining how the amendment itself would result in a 'distinct new harm or threat' beyond that posed by the licensed facility itself."[77]

As we have explained, our decision on standing is not a ruling on the admissibility or merits of BREDL's contentions. Thus, our ruling does not mean that BREDL has pled an admissible contention.[78] It means only that BREDL has satisfied standing requirements and we may consider the admissibility of its contentions.[79] Although Southern Nuclear and the Staff dispute BREDL's arguments that deviation from the ACI tolerances should not be permitted, the standing determination is not the place to decide those disputes.

We recognize that there are limits to proximity standing when there are no changes to "the physical plant itself, its operating procedures, design basis accident analysis, management, or personnel."[80] Thus, the Commission has rejected proximity standing for license transfers,[81] license amendments associated with shutdown and de-fueled reactors,[82] and certain changes to worker-protection requirements.[83] Here, however, the challenged LAR does request changes to

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[77] Southern Nuclear Answer at 5 (citing Zion, CLI-99-04, 49 NRC at 192).

[78] Dominion Nuclear Conn., Inc. (Millstone Nuclear Power Station, Unit 2), LBP-03-12, 58 NRC 75, 93 (2003) (concluding that an "obvious potential for offsite consequences" is not in itself sufficient to support an admissible contention).

[79] See infra Section III.

[80] See Peach Bottom, CLI-05-26, 62 NRC at 582 (stating that the license transfer did not implicate these concerns).

[81] Id. at 581.

[82] Commonwealth Edison Co. (Zion Nuclear Power Station, Units 1 & 2), LBP-98-27, 48 NRC 271, 276 (1998), aff'd, CLI-99-04, 49 NRC 185, 191 (1999).

[83] St. Lucie, CLI-89-21, 30 NRC at 329–30.

the design of the physical plant, authorizing CIS wall modules in Vogtle Units 3 and 4 that protect safety-related equipment to deviate from ACI tolerances identified in COL Appendix C.

In the Perry Nuclear Plant proceeding, petitioners challenged a license amendment that deleted the material specimen withdrawal schedule from the plant's technical specifications, which precluded the petitioners from requesting a hearing in the event of future changes to the schedule.[84] The Commission held that the petitioners had standing under the proximity presumption, observing that the purpose of the surveillance schedule is to ensure the structural integrity of the reactor vessel and that "[t]he material condition of the plant's reactor vessel obviously bears on the health and safety of those members of the public who reside in the plant's vicinity."[85] Similarly, in this proceeding the tolerances from which Southern Nuclear seeks to deviate are related to the structural integrity of the CIS wall modules, and the material condition of those walls also "bears on the health and safety of those members of the public who reside in the plant's vicinity."[86] We may therefore appropriately apply the proximity presumption and evaluate the admissibility of BREDL's contentions that "departures from ACI-349 and other standards should not be approved by the [NRC]."[87]

One issue remains. The Commission has stated that "[i]n ruling on claims of 'proximity standing,' we decide the appropriate radius on a case-by-case basis."[88] In their declarations, BREDL's members state that they live within 50 miles of the site of Vogtle Units 3 and 4, without further elaboration as to the specific distance. In its reply, however, BREDL stated that many of

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[84] Perry, CLI-93-21, 38 NRC at 90–92.

[85] Id. at 95–96.

[86] Id. at 96.

[87] Petition at 12.

[88] Peach Bottom, CLI-05-26, 62 NRC at 580.

its members "live within just 7 miles of Plant Vogtle."[89] BREDL further notes that, in a case involving an application for a power uprate, representational standing was granted to an organization with members who lived within 15 miles of the plant.[90] Neither Southern Nuclear nor the Staff has argued that BREDL's members live beyond the appropriate radius from the Vogtle plant. We therefore conclude that BREDL has satisfied the requirements for representational standing based on the proximity presumption.

Because the proximity presumption applies, the Staff and Southern Nuclear's remaining standing arguments are moot.[91]

2. *Petitioner's Standing to Allege Potential Harm to Plant Employees*

Although not raised by the parties, Contention Two presents a separate standing issue because BREDL alleges that the LAR implicates worker safety, rather than harm to its members. As far as we can determine, none of the individuals that signed a standing declaration works at the Vogtle facility or plans to do so. Therefore, if the impact of the amendment on worker safety was BREDL's sole allegation, we would dismiss the Petition for lack of standing.[92]

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[89] Reply of the Blue Ridge Environmental Defense League and its Chapter Concerned Citizens of Shell Bluff to Answers Filed by Southern Nuclear Operating Company and Nuclear Regulatory Commission Staff (Jan. 11, 2016) at 2.

[90] Id. (citing Entergy Nuclear Vt. Yankee, L.L.C. (Vt. Yankee Nuclear Power Station), LBP-04-28, 60 NRC 548, 553–54 (2004)).

[91] Peach Bottom, CLI-05-26, 62 NRC at 580 (stating that if "proximity standing" applies, "a petitioner need not expressly 'establish the [traditional] standing elements of injury, causation or redressability'" (quotation omitted)).

[92] See St. Lucie, CLI-89-21, 30 NRC at 329 ("[T]he exemption at issue deals with the protection of workers in the plant, not protection of the general public. In other words, those individuals affected will be workers in the plant, not members of the general public. The petitioner is not a worker at the plant and has not alleged an 'injury in fact.'").

BREDL has, however, established standing based on the potential impact of the license amendment on its members who live near Vogtle Units 3 and 4. The Commission has ruled that "once a party demonstrates that it has standing to intervene on its own accord, that party may then raise any contention that, if proved, will afford the party relief from the injury it relies upon for standing."[93] Thus, BREDL may allege an adverse impact to worker safety if success on that contention would afford relief to BREDL's members from the risk of harm they allege as the basis of their standing. That test is met here. As noted above, BREDL's declarants state that they will be injured as the result of the license amendment by releases of radioactive material that may harm their health and welfare and the environment where they live. All of their contentions, including Contention Two, will afford relief from the asserted injuries if upheld on the merits, because the license amendment would be invalid and construction of Vogtle Units 3 and 4 could proceed only in accordance with the original tolerances. Thus, all of BREDL's contentions, if proved, will afford relief from the injuries asserted as the basis of its members' standing.

III. ADMISSABILITY OF PETITIONER'S CONTENTIONS

A. General Pleading Requirements

To participate as a party in this proceeding, a petitioner for intervention must not only establish standing, but also proffer at least one admissible contention that meets the requirements of 10 C.F.R. § 2.309(f).[94] An admissible contention must: (i) provide a specific statement of the legal or factual issue sought to be raised; (ii) provide a brief explanation of the

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[93] Yankee Atomic Electric Co. (Yankee Nuclear Power Station), CLI-96-01, 43 NRC 1, 6 (1996); see also Strata Energy, Inc. (Ross In Situ Recovery Uranium Project), LBP-12-03, 75 NRC 164, 190 n.28 (2012) (citing cases), aff'd, CLI-12-12, 75 NRC 603 (2012); Crow Butte Res., Inc. (N. Trend Expansion Project), LBP-09-01, 69 NRC 11, 16–25 (2009), aff'd in part, rev'd in part, CLI-09-12, 69 NRC 535 (2009).

[94] See 10 C.F.R. § 2.309(a).

basis for the contention; (iii) demonstrate that the issue raised is within the scope of the proceeding; (iv) demonstrate that the issue raised is material to the findings the NRC must make to support the action that is involved in the proceeding; (v) provide a concise statement of the alleged facts or expert opinions, including references to specific sources and documents, that support the petitioner's position and upon which the petitioner intends to rely at the hearing; and (vi) provide sufficient information to show that a genuine dispute exists in regard to a material issue of law or fact, including references to specific portions of the application that the petitioner disputes, or, in the case where the application is alleged to be deficient, the identification of such deficiencies and supporting reasons for this belief.[95]

B. Scope of Review of License Amendments

NRC regulations define the Commission's scope of review of a license amendment application broadly: "In determining whether an amendment to a license, construction permit, or early site permit will be issued to the applicant, the Commission will be guided by the considerations which govern the issuance of initial licenses, construction permits, or early site permits to the extent applicable and appropriate."[96] As summarized by Southern Nuclear, the "applicant must satisfy the requirements of 10 [C.F.R.] § 50.90 and demonstrate that the requested amendment meets all applicable regulatory requirements and acceptance criteria and does not otherwise harm the public health and safety or the common defense and security."[97]

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[95] Id. § 2.309(f)(1)(i)–(vi).

[96] Id. § 50.92(a).

[97] Southern Nuclear Answer at 14 n.43 (quoting Tenn. Valley Auth. (Sequoyah Nuclear Plant, Units 1 & 2; Watts Bar Nuclear Plant, Unit 1), LBP-02-14, 56 NRC 15, 35 (2002)).

C. BREDL Contention One

In Contention One, which we have previously summarized,[98] BREDL argues that the tolerance deviations proposed in the LAR should be rejected because (1) they fail to conform to construction industry standards required for nuclear power plants; (2) they cannot be adequately evaluated without the reinforcement margins of safety under the original tolerances; and (3) the ACI standards are in need of strengthening, for reasons given in the NESCC documents, and therefore departures from those standards should not be permitted.[99] In response, the Staff and Southern Nuclear do not dispute that the amended tolerances are greater than the tolerances permitted under ACI 117 and 349-01.[100] The Staff and Southern Nuclear contend, however, that the amended tolerances have been assessed pursuant to the reinforcement requirements of ACI 349-01 and provide an adequate margin of safety.[101] Furthermore, the Staff and Southern Nuclear contend that the magnitude of margin to ACI 349-01 is not relevant as long as reinforcement margin exists.[102] Finally, they contend that the NESCC documents fail to provide

[98] See supra pp. 13-15.

[99] Petition at 7–9, 12

[100] See Southern Nuclear Answer at 11; NRC Staff Answer at 11.

[101] See Southern Nuclear Answer at 14; NRC Staff Answer at 11; see also Safety Evaluation by the Office of New Reactors Related to Exemption and Amendment No. 42 to the Combined License Nos. NPF-91 and NPF-92 (Dec. 16, 2015) at 8 (ADAMS Accession No. ML15302A473) [hereinafter Safety Evaluation] (defining "margin of safety" as the "ratio of the reinforcement required by the Code to the reinforcement provided by the design"). The Board believes that the appropriate definition of margin of safety was provided by the Staff during oral argument when it stated that it "is the ratio of the reinforcement required by the design and the reinforcement required by the code." Tr. at 70. But see id. at 73 (restating margin of safety as "code over design"). Whether or not the ratio is inverted in the Safety Evaluation is not material to this proceeding.

[102] See Tr. at 97; see also UFSAR § 3.8.4.8 ("The minimum required reinforcement . . . represent[s] the minimum value[] to meet the design basis loads.").

the necessary factual or expert support for an admissible contention.[103] We address each of these disputes in turn.

1. *Tolerance Deviations*

UFSAR section 3.8.3.6.1 directs that "[t]olerances for fabrication, assembly and erection of the structural modules conform [in part] to the requirements of section 4 of ACI-117."[104] The LAR identifies section 4.5 of ACI 117, "Deviation from Cross-Sectional Dimensions," as the applicable tolerance provision.[105] Under section 4.5.1 of ACI 117-10, walls thicker than 36 inches are subject to a tolerance of plus 1 inch or minus ¾ inch.[106]

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[103] Southern Nuclear Answer at 16–17; Staff Answer at 13–14.

[104] Unlike ACI 349-01, the parties did not identify a specific version of ACI 117 by year of adoption. However, the tolerance requirements are the same under an earlier version of ACI 117. See Standard Specifications for Tolerances for Concrete Construction and Materials (ACI 117-90) (2002) § 4.4.1.

[105] LAR, Encl. 1, at 5.

[106] Id.; see also Specification for Tolerances for Concrete Construction and Materials (ACI 117-10) and Commentary (ACI 117R-10) (2015) § 4.5.1 [hereinafter ACI 117]. In contrast, section 7.5.2.1 of ACI 349-01 states that a plus or minus one-inch tolerance is applicable for purposes of reinforcement. LAR, Encl. 1, at 6; see also Code Requirements for Nuclear Safety Related Concrete Structures (ACI 349-01) (2001) § 7.5.2.1 [hereinafter ACI 349-01]. Furthermore, as stated in the Safety Evaluation, the ACI 117 tolerance is "inconsist[ent]" with the tolerance requirement identified in the UFSAR and the COLs, which require a plus or minus one-inch tolerance for the four structures at issue. See Safety Evaluation at 3–4; see also Combined License Vogtle Electric Generating Plant Unit 3, App. C (Feb. 10, 2012) at Tbl. 3.3-1 (ADAMS Accession No. ML112991102); Combined License Vogtle Electric Generating Plant Unit 4, App. C (Feb. 10, 2012) at Tbl. 3.3-1 (ADAMS Accession No. ML113060437); UFSAR at Tbl. 3.3-1. In turn, Southern Nuclear describes this discrepancy as ACI 117 requiring a "tighter" tolerance than that contained in the COLs. LAR, Encl. 1, at 5. Semantics aside, the tolerance discrepancy between UFSAR section 3.8.3.6.1 and note 2 of Table 3.3-1 of the COLs and UFSAR indicates that the tolerance requirements of ACI 117 are not absolute limits for purposes of licensing the structures at issue in this proceeding.

However, UFSAR section 3.8, "Design of Category I Structures," and ACI 117 indicate that deviation from identified tolerance requirements is permissible when an adequate justification is provided. For example, under UFSAR section 3.8.3.5.7,[107]

> [d]eviations from the design due to as-procured or as-built conditions are acceptable based on an evaluation . . . [and fulfillment of specified] acceptance criteria . . . . Depending on the extent of the deviations, the evaluation may range from documentation of an engineering judgement to performance of a revised analysis and design.

More generally, section 1.2.5 of ACI 117-10 states that if a tolerance is exceeded, the structure may be accepted "if it meets one of the following criteria: a) Exceeding the tolerances does not affect the structural integrity, legal boundaries, or architectural requirements of the element; or b) The element or total erected assembly can be modified to meet all structural and architectural requirements."[108] Tolerance deviation may be acceptable, subject to regulatory approval, in part because of the general purpose tolerances serve:

> Tolerances are a means to establish permissible variation in dimension and location . . . . They are the means by which the designer conveys to the contractor the performance expectations upon which the design is based or that the project requires. Such specified tolerances should reflect design assumptions and project needs, being neither overly restrictive nor lenient.[109]

Thus, tolerances are not absolute requirements. Accordingly, BREDL cannot rely on the undisputed deviations from the ACI tolerances as sole support for an admissible contention. It must provide a material and adequately supported argument challenging the basis of the LAR.

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[107] See also UFSAR § 3.8.4.5.3 (setting forth analogous requirement regarding deviations).

[108] As noted by Southern Nuclear, ACI 349-01 allows for design deviations if NRC regulations are satisfied. Southern Nuclear Answer at 12 n.39; see also ACI 349-01 § 1.4 ("Sponsors of any system of design or construction within the scope of this Code, the adequacy of which has been shown by successful use or by analysis or test, but which does not conform to or is not covered by this Code, shall have the right to present the data on which their design is based to the Regulatory Authority for review and approval. The Regulatory Authority may investigate the data so submitted, and may require tests and formulate rules governing the design and construction of such systems to meet the intent of this Code.").

[109] ACI 117, Intro., at 3.

2. *Failure to Identify the Original Margins*

BREDL contends that the original margins are required to evaluate the significance of the reinforcement margins for vertical reinforcement, horizontal reinforcement, and shear provided in the LAR.[110] BREDL hypothesizes that if, for example, the original margins were approximately 250 percent, while only approximately 50 percent margins exist under the license amendment, then the tolerance deviation would be significant from a safety standpoint.[111]

On this issue, BREDL has pled what amounts to a contention of omission. Such a contention alleges that "the application fails to contain information on a relevant matter as required by law . . . [and provides] the supporting reasons for the petitioner's belief."[112] Thus, the contention of omission must describe the information that should have been included and provide the legal basis that requires the omitted information to be included.[113]

The Staff and Southern Nuclear contend that BREDL has failed to raise a material issue. They argue that the legally significant fact is that adequate reinforcement margins exist after the tolerance amendment, not whether the effect of the amendment is to reduce the margins.[114] This concept of margin, they maintain, is implicit in the proposed amendment to UFSAR section 3.8.3.6.1, which states:

> In walls around the reactor vessel cavity, where the concrete is placed between portions of unconnected modules or between a module and a left-in-place form, the tolerance for the wall thickness may be increased over those in ACI 117.

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[110] See Petition at 8.

[111] Id. BREDL does not address the adequacy of the volume decrease analysis associated with the thicker CIS wall modules covered by the license amendment. The thicker CIS wall modules, which were designed as mass concrete structures, were not subject to reinforcement margin analysis for purposes of the license amendment. See LAR, Encl. 1, at 7; Safety Evaluation at 8. Because BREDL did not address this distinction, it was not considered by the Board.

[112] 10 C.F.R. § 2.309(f)(1)(vi).

[113] Id.

[114] See Southern Nuclear Answer at 13–15; NRC Staff Answer at 11–12.

> These walls have been evaluated against ACI 349-01 reinforcement design requirements and demonstrated sufficient margin to accommodate the increased tolerance.[115]

Stated differently, the structures at issue have design functions—including structural integrity and radiation protection—that are developed in response to various factors, including design loads.[116] In turn, the design function is subject to various parameters, including the margins defined in ACI 349-01,[117] which are adopted in the generic AP1000 DCD and incorporated in the plant's licensing design basis.[118]

Pursuant to § 2.309(f)(1)(vi), the Petition must provide sufficient information "to show that a genuine dispute exists with the . . . licensee on a material issue of law or fact." A petitioner is not required to prove its case at the contention admissibility stage,[119] but "[a]n allegation that some aspect of a license application is 'inadequate' or 'unacceptable' does not give rise to a genuine dispute unless it is support[ed] by facts and a reasoned statement of why the application is unacceptable in some material respect."[120] Stated differently, "a protestant does not become entitled to an evidentiary hearing merely on request, or on a bald or conclusory allegation that . . . a dispute exists. The protestant must make a minimal showing

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[115] LAR, Encl. 3, at 3.

[116] See Safety Evaluation at 4–5.

[117] UFSAR § 3.8.4.5.

[118] See Safety Evaluation at 4–5.

[119] See Yankee Atomic Electric Co. (Yankee Nuclear Power Station), CLI-96-07, 43 NRC 235, 249 (1996).

[120] Nuclear Mgmt. Co., LLC (Palisades Nuclear Plant), LBP-06-10, 63 NRC 314, 341 (2006), aff'd, CLI-06-17, 63 NRC 727 (2006).

that material facts are in dispute, thereby demonstrating that an 'inquiry in depth' is appropriate."[121]

BREDL fails to adequately explain why disclosure of the original magnitudes of margin to ACI 349-01 is legally or technically necessary. Southern Nuclear stated in the LAR that after assessing the effect of the tolerance deviation it concluded "that the minimum margin for vertical reinforcement is 47.9%, for horizontal reinforcement 54.8%[,] and for shear 61.3%."[122] BREDL does not challenge the accuracy of these calculations. BREDL also does not argue that the UFSAR—or any other technical or legal standard—requires a specific degree of reinforcement margin in excess of the requirements of ACI 349-01.[123] As previously discussed, BREDL implies that if the original margins were significantly higher than the approximately 50 percent margins that exist as a result of the tolerance deviation, then the license amendment may significantly reduce the margin of safety.[124] This observation alone, however, fails to establish a genuine dispute of material fact, given the absence of any requirement to exceed the reinforcement requirements of ACI 349-01.

Nor has BREDL provided any expert or factual support for its theory that the LAR must disclose the original margins and compare them to the margins under the license amendment. Under § 2.309(f)(1)(v), the Petition must "[p]rovide a concise statement of the alleged facts or expert opinions which support the . . . petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and

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[121] Rules of Practice for Domestic Licensing Proceedings—Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168, 33,171 (Aug. 11, 1989) (quoting Conn. Bankers Ass'n v. Bd. of Governors, 627 F.2d 245, 251 (D.C. Cir. 1980)).

[122] LAR, Encl. 1, at 7.

[123] BREDL has also not addressed the concept that ACI 349-01 is "robust" and includes "safety factors that account for the uncertainties that exist in structural design." Safety Evaluation at 8.

[124] See Petition at 8.

documents on which the . . . petitioner intends to rely to support its position on the issue." This requirement "generally is fulfilled when the sponsor of an otherwise acceptable contention provides a brief recitation of the factors underlying the contention or references to documents and texts that provide such reasons."[125]

BREDL does not provide any expert opinion or factual support for its argument that the original margins should have been included in the LAR. BREDL acknowledged that it lacked expert support and stated that no expert would appear on its behalf in this proceeding.[126] Without any expert opinion or factual support explaining the need for the omitted information, BREDL's position lacks sufficient support to justify an evidentiary hearing.

For these reasons, the Board concludes that BREDL has failed to satisfy the contention admissibility requirements of § 2.309(f)(1)(v) and (vi).[127]

3. *NESCC Document Excerpts*

As previously noted, Contention One includes excerpts from two NESCC documents.[128] As we understand the Petition, BREDL offers these excerpts to support its argument that the

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[125] 54 Fed. Reg. at 33,170 (quotation omitted).

[126] Tr. at 52.

[127] See Dominion Nuclear Conn., Inc. (Millstone Nuclear Power Station, Unit 3), CLI-08-17, 68 NRC 231, 233 (2008) ("Threshold contention standards are imposed to avoid circumstances the NRC regularly encountered prior to the 1989 contention rule revision, when licensing boards admitted contentions based on little more than speculation, creating serious delays of months and even years, 'as licensing boards . . . sifted through poorly defined or supported contentions,' and admitted intervenors who 'often had negligible knowledge of nuclear power issues.'"); Fansteel, Inc. (Muskogee, Okla. Site), CLI-03-13, 58 NRC 195, 203 (2003) ("A petitioner's issue will be ruled inadmissible if the petitioner 'has offered no tangible information, no experts, no substantive affidavits,' but instead only 'bare assertions and speculation.'" (citation omitted)).

[128] Petition at 9.

ACI "standards are in need of strengthening," and that accordingly "further departures from ACI-349 and other standards should not be approved by the Nuclear Regulatory Commission."[129]

The first excerpt is from a 2010 presentation by the NESCC Concrete Task Group recommending that certain types of accidents, including "rotating equipment rupture, pipe break, tank failure causing interior building flooding, [or] heavy load drop," be incorporated into ACI 349.[130] BREDL does not explain how this NESCC excerpt undermines the justification for the changed tolerances proposed in the LAR. As we have explained, the LAR shows that even with the tolerance deviations, the CIS wall modules will be able to withstand various structural loads, including, but not limited to, "dead, live, thermal, pressure, safe shutdown earthquake, and loads due to postulated pipe breaks."[131] Without additional information, the Board is unable to determine whether those conclusions are undermined by BREDL's excerpt from the 2010 NESCC presentation. "[P]roviding any material or document as a basis for a contention, without setting forth an explanation of its significance, is inadequate to support the admission of the contention."[132]

We have the same problem with BREDL's excerpt from the 2011 NESCC report, which refers generally to the need to consider concrete durability in the design of nuclear power plants. While the excerpt suggests that nuclear power plant designs should consider alkali silica reaction (ASR) cracking, it also states that this concern is present "regardless of element

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[129] Id. at 12.

[130] Id. at 9 (quotation omitted). The Board notes its earlier statement that it was unable to locate the 2010 NESCC document containing this quoted material. See supra note 73.

[131] UFSAR § 3.8.3.5.3; see also id. Tbl. 3.8.4-2 (setting forth "Load Combinations and Load Factors for Seismic Category I Concrete Structures," including, but not limited to, "Design Pressure," "Safe shutdown earthquake," "Accident pipe reactions," and "Pipe impact").

[132] USEC Inc. (Am. Centrifuge Plant), LBP-05-28, 62 NRC 585, 597 (2005) (citing Fansteel, CLI-03-13, 58 NRC at 205).

thickness."[133] BREDL does not explain how Southern Nuclear's requested change in wall thickness tolerances would have any implication for the CIS wall modules' susceptibility to ASR, given that ASR cracking is a concern regardless of the thickness of a wall or other structure. Thus, it is unclear why ASR cracking would be relevant to the tolerance deviation at issue in this proceeding. As with the 2010 NESCC excerpt, BREDL fails to provide a sufficient explanation connecting the 2011 excerpt to the justification for the LAR.

The Board therefore concludes, after examining all of BREDL's arguments in support of Contention One, that we may not admit the contention.

D. BREDL Contention Two

BREDL asserts that "[t]he License Amendment Request does not demonstrate that it meets standards for nuclear plant worker radiation exposure limits," which require that radiation exposure be "as low as [is] reasonably achievable."[134] BREDL notes, for example, that the minimum wall thickness under the original tolerances for the 36-inch wall—the thinnest of the four CIS wall modules at issue—was 35 inches.[135] Under the license amendment, the revised tolerances allow a minimum thickness of 34 ⅜ inches.[136] BREDL states generally that "[t]hickness affects the radiation shielding ability of a concrete wall," without providing further explanation or analysis about the significance of the ⅝ inch reduction in margin.[137] The implication, however, is that potentially thinner CIS wall modules results in increased occupational radiation exposures to plant workers.

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[133] Petition at 9.

[134] Id. at 10.

[135] Id.

[136] Id.

[137] Id. at 11.

The Staff and Southern Nuclear contend that Contention Two fails to satisfy the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi).[138] They assert that BREDL has failed to challenge the license amendment analysis regarding this issue or provided any factual or expert opinion in support of its claims.[139] For the following reasons, the Board agrees.

Pursuant to the license amendment, the variation in fabrication tolerances that necessitated the tolerance deviation resulted, in part, from a localized variation in approximately 60 square inches of the 36-inch CIS wall module.[140] In preparing the license amendment, Southern Nuclear stated that

> [t]he impact to the walls' effectiveness in providing radiation shielding was also examined, and there were no adverse effects because the radiation source terms were conservatively selected to envelope [sic] plant operating conditions. Consequently, this method accounts for tolerances and small perturbations in the as-built configuration of the plant [and] are not expected to impact the bounding conclusions of the radiation analysis.[141]

Additionally,

> Plant radiation zones (as described in UFSAR Section 12.3), controls under 10 CFR Part 20, and expected amounts and types of radioactive materials are not affected by the proposed changes. The increased wall tolerance was also examined with respect to the walls' effectiveness in providing radiation shielding, and no adverse impacts were identified. Therefore, individual and cumulative radiation exposures do not change.[142]

In performing a safety evaluation of the license amendment, the Staff concluded that the CIS wall modules

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[138] Southern Nuclear Answer at 19; NRC Staff Answer at 16.

[139] Southern Nuclear Answer at 19–20; NRC Staff Answer at 16.

[140] LAR, Encl. 1, at 6.

[141] Id. at 8.

[142] Id.

> are all within the Radiation Controlled Area (RCA) of the Vogtle plant. As discussed in Section 12.5.4, "Controlling Access and Stay Time," of the AP1000 DCD, entrance to the RCA area is normally through the access control area at the health physics area entry/exit location in the annex building. High and very high radiation areas are segregated and identified in accordance with the applicable requirements of 10 CFR Part 20. The entrances to high and very high radiation areas are locked or barricaded and equipped with audible and/or visible alarms, as required.[143]

The Staff concluded that the tolerance deviations were acceptable, in part, because the amendment affected remote and restricted areas within containment that would not result in an increase in the designated plant radiation zones for adjacent areas.[144]

BREDL does not challenge the specific conclusions reached in the license amendment that (1) the CIS wall modules at issue were designed subject to conservatisms that would account for variations in the as-built configuration of the walls; and (2) radiation protection controls limiting worker access to high radiation areas associated with the CIS wall modules negates any potential radiation exposure issues associated with the tolerance deviation. Rather than identifying specific areas of dispute with the license amendment, BREDL mentions only the undisputed fact that the tolerance deviation could result in four CIS wall modules that are up to ⅝ths of an inch thinner than originally designed.

BREDL has failed to provide any factual or expert opinion to support further consideration of whether the tolerance deviation at issue represents a potential radiation exposure risk to plant workers. For these reasons, BREDL has not satisfied the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi) for Contention Two.

E. BREDL Contention Three

In Contention Three, BREDL asserts that the NRC has failed to take steps to avoid disproportionate impacts to the low income and minority populations who live in the Shell Bluff

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[143] Safety Evaluation at 9–10.

[144] Id. at 10.

area, which is near the Vogtle Plant.[145] BREDL contends that the license amendment "would put residents of [that] community at greater risk from ionizing radiation exposure."[146] BREDL also cites a 2009 nuclear power siting study that "suggests that there is a 'reactor-related environmental injustice' at Plant Vogtle."[147] More generally, BREDL argues that the NRC has failed to implement Executive Order 12898, thus failing to satisfy its environmental justice responsibilities.[148] BREDL notes that it has brought this issue to the NRC previously, but alleges that it has not received any response.[149]

Southern Nuclear responds that this contention "is inadmissible because it fails to raise any legal or factual issues relevant to this proceeding and instead challenges the NRC's environmental justice policy and seeks to relitigate issues addressed during the [Vogtle] Early Site Permit . . . and [combined construction permit and operating license] proceedings."[150] Thus, according to Southern Nuclear, Contention Three fails to satisfy the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)(iii)–(vi).[151] The Staff argues that Contention Three "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

[145] Petition at 11–12.

[146] Id. at 11.

[147] Id. at 12.

[148] Id. at 11–12.

[149] Id. at 12.

[150] Southern Nuclear Answer at 23.

[151] Id. at 23–29.

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)."[152]

We conclude that Contention Three is inadmissible. To the extent it asserts a generalized grievance regarding NRC policy, it is outside the scope of this proceeding.[153] This proceeding is not BREDL's first attempt to litigate environmental justice issues associated with the Vogtle facility. Previously, in the Vogtle early site permit proceeding,[154] BREDL challenged environmental justice aspects of Southern Nuclear's Environmental Report, including "the area's heightened cancer rates, the evacuation methods used in the event of an emergency, and the effects of eating cesium (Cs)-137-laden fish caught by minority and low-income community residents engaged in subsistence fishing."[155] Following an extensive discussion of these issues, the licensing board in the early site permit proceeding concluded that BREDL's proposed environmental justice contention could not be admitted under 10 C.F.R. § 2.309(f)(1).[156]

Thereafter, in an attempt to reopen the closed Vogtle COL proceeding,[157] BREDL sought to admit a new contention based on environmental concerns associated with the NRC's

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[152] NRC Staff Answer at 19.

[153] 10 C.F.R. § 2.309(f)(1)(iii); see also Palisades Nuclear, LBP-06-10, 63 NRC at 338 ("Contentions are necessarily limited to issues that are germane to the application pending before the Board, and are not cognizable unless they are material to matters that fall within the scope of the proceeding for which the licensing board has been delegated jurisdiction as set forth in the Commission's notice of opportunity for hearing." (footnotes omitted)).

[154] S. Nuclear Operating Co. (Early Site Permit for Vogtle ESP Site), LBP-07-03, 65 NRC 237 (2007).

[155] Id. at 262.

[156] Id. at 262–67.

[157] S. Nuclear Operating Co. (Vogtle Electric Generating Plant, Units 3 & 4), LBP-11-27, 74 NRC 591 (2011), petition denied, CLI-12-7, 75 NRC 379 (2012).

Fukushima Task Force Report and associated "environmental justice issues."[158] Focusing primarily on Fukushima related issues, the licensing board rejected BREDL's attempt to reopen the COL proceeding as premature, because of the NRC's ongoing attempts to evaluate regulatory actions post-Fukushima.[159]

The licensing board in the COL reopening proceeding also stated that,

> BREDL . . . supplie[d] the declaration of Rev. Charles N. Utley as "a highly qualified expert in environmental justice." BREDL would have it that Rev. Utley's declaration "confirms the need for NRC to implement the Interim Task Force recommendations on emergency preparedness and public education and to comply with Executive Order 12898." BREDL maintains that "[s]ubsequent to the Vogtle COLA and ESP-FEIS, a nuclear power siting study was published which suggests that there is 'reactor-related environmental injustice' at Plant Vogtle."[160]

In this license amendment proceeding, BREDL has filed a similar declaration by Rev. Charles N. Utley that contains an analogous reference to the 2009 nuclear power siting study and generalized environmental justice concerns regarding siting of the Vogtle facility.[161]

In Contention Three, BREDL seems to be primarily interested in revisiting the issue of whether the NRC has failed to comply with the environmental justice requirements of Executive Order 12898 as it relates to disproportionate and adverse impacts from Vogtle Units 3 and 4 on low income and minority populations. Executive Order 12898 directed federal agencies to identify and address "disproportionately high and adverse human health or environmental

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[158] Id. at 596.

[159] See id. at 601–02.

[160] Id. at 599 (footnotes omitted).

[161] Compare Petition, Attach. 1, Decl. of Rev. Charles N. Utley at 3–4 [hereinafter Utley Decl.], with Motion to Reopen the Record and Admit Contention Regarding the Safety and Environmental Implications of the Nuclear Regulatory Commission Task Force Report on the Fukushima Dai-Ichi Accident, S. Nuclear Operating Co. (Vogtle Electric Generating Plant, Units 3 & 4), Nos. 52-025-COL/52-026-COL (Aug. 11, 2011), Decl. of Rev. Charles N. Utley, at 4.

effects of its programs, policies, and activities on minority and low-income populations."[162] Under the language of Executive Order 12898,[163] "the NRC, as an independent agency, was not bound by the Executive Order, [but voluntarily] committed to undertake environmental justice reviews."[164]

"Executive Order 12898 did not, in itself, create new substantive authority for federal agencies; therefore, the NRC determined at the time that it would endeavor to carry out these environmental justice principles as part of the agency's responsibilities under NEPA."[165] In a 2004 policy statement,[166] the NRC reiterated the agency's "commitment to consider, in NEPA reviews, factors 'peculiar' to minority and low-income populations (environmental justice populations) and to 'identify significant impacts, if any, that will fall disproportionately on minority

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[162] Entergy Nuclear Operations, Inc. (Indian Point, Units 2 & 3), CLI-15-06, 81 NRC 340, 369 (2015) (quoting Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, Exec. Order No. 12898, 59 Fed. Reg. 7629 (Feb. 16, 1994) [hereinafter Executive Order 12898]).

[163] Executive Order 12898 § 6-604 ("Independent agencies are requested to comply with the provisions of this order."). Section 6-604 differs from the mandate that "each Federal agency shall" comply with Executive Order 12898. Id. § 1-101.

[164] Dominion Nuclear N. Anna, LLC (Early Site Permit for N. Anna ESP Site), CLI-07-27, 66 NRC 215, 238 (2007); Policy Statement on the Treatment of Environmental Justice Matters in NRC Regulatory and Licensing Actions, 69 Fed. Reg. 52,040, 52,041 (Aug. 24, 2004).

[165] Indian Point, CLI-15-06, 81 NRC at 369.

[166] N. Anna, CLI-07-27, 66 NRC at 240 ("A general statement of policy . . . does not establish a 'binding norm.' It is not finally determinative of the issues or rights to which it is addressed. The agency cannot apply or rely upon a general statement of policy as law because a general statement of policy only announces what the agency seeks to establish as policy." (quoting Pac. Gas & Electric Co. v. Fed. Power Comm'n, 506 F.2d 33, 38 (D.C. Cir. 1974))).

and low-income communities' due to these factors."[167] The harm suffered by an environmental justice population must be "disproportionate to that suffered by the general population."[168]

As a component of NEPA,

> [Environmental Justice] per se is not a litigable issue in NRC proceedings. The NRC's obligation is to assess the proposed action for significant impacts to the physical or human environment. Thus, admissible contentions in this area are those which allege, with the requisite documentary basis and support as required by 10 CFR Part 2, that the proposed action will have significant adverse impacts on the physical or human environment that were not considered because the impacts to the community were not adequately evaluated.[169]

Stated differently, "[b]ecause [Executive Order] 12898 does not create any new rights, it cannot provide a legal basis for contentions to be litigated in NRC licensing proceedings."[170]

BREDL asserts that the NRC has "side-stepped Executive Order 12898."[171] Beyond constituting a subjective and otherwise unsupported interpretation of the NRC's actions regarding voluntary implementation of Executive Order 12898, this claim represents a "generalized grievance" regarding an NRC policy.[172] Pursuant to Commission precedent, this

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[167] Indian Point, CLI-15-06, 81 NRC at 369–70 (quoting 69 Fed. Reg. at 52,048); see also Sys. Energy Res., Inc. (Early Site Permit for Grand Gulf ESP Site), CLI-05-04, 61 NRC 10, 13 (2005). "The NRC Staff developed its own guidance, using the Council on Environmental Quality's guidelines for implementing environmental justice as a reference." Indian Point, CLI-15-06, 81 NRC at 370.

[168] Grand Gulf, CLI-05-04, 61 NRC at 13; 69 Fed. Reg. at 52,047 ("The focus of any '[Environmental Justice]' review should be on identifying and weighing disproportionately significant and adverse environmental impacts on minority and low-income populations that may be different form the impacts on the general population.").

[169] 69 Fed. Reg. at 52,047.

[170] Id. at 52,044.

[171] Petition at 11.

[172] See Millstone Nuclear, CLI-08-17, 68 NRC at 233.

generalized grievance is outside the scope of this license amendment proceeding and cannot serve as a basis for identifying an admissible contention.[173]

BREDL also reasserts siting concerns regarding the Vogtle facility.[174] Those concerns were resolved in earlier licensing proceedings and do not implicate the license amendment currently before this Board. They are therefore outside the scope of this proceeding.

The one element of Contention Three that might fall within the scope of this proceeding is BREDL's assertion that the license amendment "would put residents of the surrounding community at greater risk from ionizing radiation exposure."[175] This claim, if adequately supported, could identify a genuine dispute with Southern Nuclear's conclusion that the license amendment falls within the categorical exclusion from NEPA review in 10 C.F.R. § 51.22(c)(9).[176] Pursuant to 10 C.F.R. § 51.22(b), an environmental impact statement or environmental assessment is not required if a categorical exclusion applies. A categorical exclusion applies to,

> Issuance of an amendment to a permit or license for a reactor under part 50 or part 52 of this chapter that changes a requirement or issuance of an exemption from a requirement, with respect to installation or use of a facility component located within the restricted area, as defined in part 20 of this chapter; . . . provided that:
>
> > (i) The amendment or exemption involves no significant hazards consideration;

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[173] Id. BREDL also asserts that the NRC has "ignored" the Obama Administration's August 4, 2011 Memorandum of Understanding addressing Executive Order 12898. Petition at 11. However, BREDL fails to identify what legal responsibility the NRC has to become a signatory to this Memorandum of Understanding. See Utley Decl. at 2 (identifying the agencies and cabinet departments that have signed the Memorandum of Understanding). Regardless, BREDL's assertion represents a generalized policy grievance that is outside the scope of this proceeding.

[174] Petition at 12.

[175] Id. at 11.

[176] Southern Nuclear Answer at 26; NRC Staff Answer at 21–22.

> (ii) There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite; and
>
> (iii) There is no significant increase in individual or cumulative occupational radiation exposure.[177]

BREDL seems to be alleging that either subsection (ii) or (iii) applies. But BREDL has not provided any facts or expert opinion to support its claim that the license amendment "would put residents of the surrounding community at greater risk from ionizing radiation exposure."[178] We therefore may not admit Contention Three to the extent it alleges, in substance, that the license amendment fails to qualify for a categorical exclusion from NEPA review.

For these reasons, BREDL has failed to satisfy the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)(iii) and (v).

[177] 10 C.F.R. § 51.22(c)(9)(i)–(iii).

[178] Petition at 11.

IV. CONCLUSION

Although BREDL has standing to intervene, it has not pled an admissible contention. Therefore, the petition to intervene and request for a hearing is denied. Petitioner may appeal this decision to the Commission pursuant to 10 C.F.R. § 2.311(c), within twenty-five days of service of this Order.

It is so ORDERED.

THE ATOMIC SAFETY
AND LICENSING BOARD

/RA/

Ronald M. Spritzer, Chairman
ADMINISTRATIVE JUDGE

/RA/

Nicholas G. Trikouros
ADMINISTRATIVE JUDGE

/RA/

Dr. James F. Jackson
ADMINISTRATIVE JUDGE

Rockville, Maryland
April 29, 2016

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing **ORDER (Ruling on Petition to Intervene and Request for a Hearing)** have been served upon the following persons by the Electronic Information Exchange.

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Office of the Secretary of the Commission

Dated at Rockville, Maryland
this 29th day of April, 2016