

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
)	
SOUTHERN NUCLEAR OPERATING)	
COMPANY, INC.)	Docket No. 52-025-LA3
)	
License Amendment Application for)	
Combined License NPF-91)	
(Vogtle Electric Generating Plant, Unit 3))	June 5, 2020

**SOUTHERN NUCLEAR OPERATING COMPANY’S ANSWER
OPPOSING PETITION TO INTERVENE AND REQUEST FOR HEARING**

In accordance with 10 C.F.R. § 2.309(i), Southern Nuclear Operating Company, Inc. (“SNC”) hereby files its Answer to the “Petition for Leave to Intervene and Request for Hearing,” (the “Petition”)¹ submitted by the Blue Ridge Environmental Defense League and its Chapter Concerned Citizens of Shell Bluff (“Petitioner”). The Petition responds to the United States Nuclear Regulatory Commission’s (“NRC”) notice of an opportunity to request a hearing² regarding SNC’s February 7, 2020 License Amendment Request (“LAR”)³ for the Vogtle Electric Generating Plant (“Vogtle”) Unit 3.

¹ Petition for Leave to Intervene and Request for Hearing by The Blue Ridge Environmental Defense League and its Chapter Concerned Citizens of Shell Bluff Regarding Southern Nuclear Operating Company’s Request for a License Amendment and Exemption for Unit 3 Auxiliary Building Wall 11 Seismic Gap Requirements, LAR-20-001 (May 11, 2020) (ADAMS Accession No. ML20132D303).

² Vogtle Electric Generating Plant, Unit 3: License Amendment Application; Opportunity to Comment, Request a Hearing, and Petition for Leave to Intervene, 85 Fed. Reg. 13,944 (Mar. 10, 2020).

³ ND-20-0075, Letter from Brian Whitley to NRC Control Desk, Vogtle Electric Generating Plant Unit 3 Request for License Amendment and Exemption: Unit 3 Auxiliary Building Wall Seismic Gap Requirements (LAR-20-001) (Feb. 7, 2020) (ADAMS Accession No. ML20038A939).

Petitioner proffers two contentions, neither of which meets the Commission's contention admissibility requirements in 10 C.F.R. § 2.309(f). Proposed Contention One – a request that the NRC revoke the Vogtle Combined License (“COL”) due to alleged false statements regarding the basis for the LAR– is based on Petitioner's unsupported, inaccurate assertions and, in any event, is beyond the scope of this proceeding.

Proposed Contention Two calls for suspension of all construction activities, as well as abeyance of the LAR, in order to evaluate Petitioner's unsupported claims regarding the structural integrity of the nuclear island, which is also beyond the scope of LAR-20-001 and this proceeding. Specifically, Petitioner takes issue with the expected settling of the nuclear island but, in doing so, does not point to any references or data showing that the nuclear island settlement exceeds that anticipated in the AP1000 certified design or how the settlement impacts the actual modification requested in the LAR. Such speculation does not support an admissible contention. Regardless, the Vogtle Unit 3 settlement evaluation is unaffected by the proposed LAR, and it is axiomatic that petitioners may not use a hearing opportunity on a LAR to challenge existing portions of the licensing basis that are not being changed.

Accordingly, the Petition should be denied.

I. BACKGROUND

The AP1000 Design Control Document (“DCD”), the relevant portions of which are incorporated by reference into the Vogtle Units 3 and 4 Updated Final Safety Analysis Report (“UFSAR”), includes descriptions of the design of the nuclear island and adjacent buildings, including the minimum distances required to be maintained between the buildings in order to meet specified seismic requirements. The nuclear island structures include the containment,

shield and auxiliary buildings.⁴ These buildings are structurally integrated on a common six-foot-thick, reinforced concrete basemat.⁵ The nuclear island sits adjacent to, and structurally separated from, the annex, turbine, and radwaste buildings.⁶

SNC submitted LAR-20-001 on February 7, 2020, pursuant to 10 C.F.R. § 52.98(c). The purpose of the LAR is to accommodate an “as-built” localized nonconformance in a 13 foot vertical section between the nuclear island and annex building at Vogtle Unit 3.⁷ Specifically, the LAR requests modification of the UFSAR for the Vogtle Unit 3 north-south separation requirements between the nuclear island, specifically the auxiliary building, and the annex building from 3 inches to 2-1/16 inches for the portion of the walls west of Column Line I from El. 141’ through El. 154’.⁸ The LAR also proposes to modify ITAAC 819 for Vogtle Unit 3, which verifies the minimum horizontal distance between the nuclear island and the annex building, to reflect the change from 3 inches to 2-1/16 inches in the 13 foot vertical section.⁹ No other changes are requested in the LAR. LAR-20-001, Figure 1 provides a graphical representation of the localized nonconformance between the auxiliary building and the annex building:

⁴ Revision 8 to UFSAR, Chapter 3, Design of Structures, Components, Equipment and Systems, Section 3.8.5.1 (ADAMS Accession No. ML19171A058).

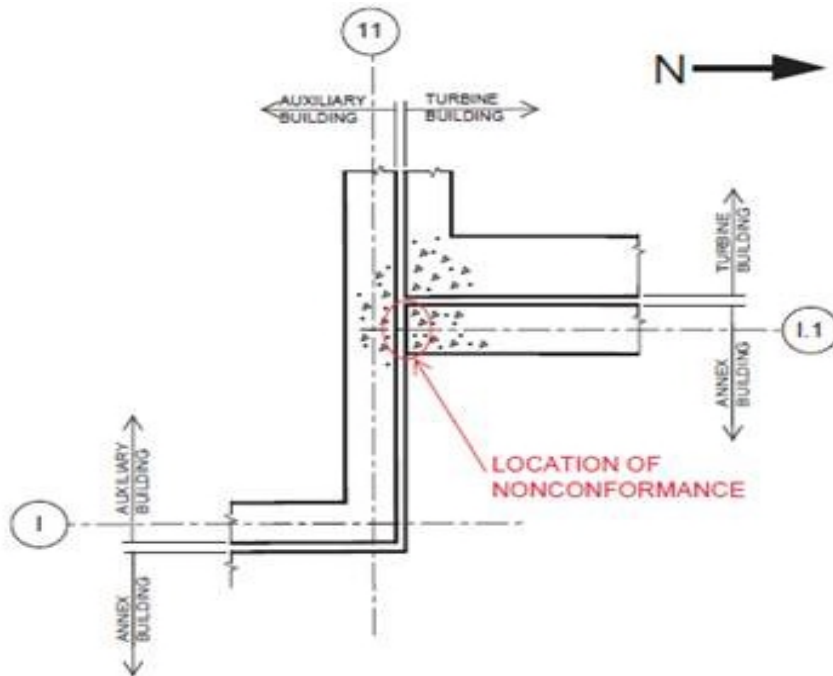
⁵ *Id.* The base of the nuclear island foundation begins underground, approximately 40 feet below final grade. *See* Revision 8 to UFSAR, Chapter 2, Site Characteristics, Section 2.5.4.5.1 (ADAMS Accession No. ML19171A055). The nuclear island is supported by backfill which begins about 40 feet below the nuclear island foundation, or 80 feet below final grade, and extends up to final grade. *Id.* Additionally, a retaining wall extends around the perimeter of the nuclear island to facilitate backfilling and construction. *Id.*

⁶ Revision 8 to UFSAR, Chapter 3, Design of Structures, Components, Equipment and Systems, Section 3.8.5.1 (ADAMS Accession No. ML19171A058).

⁷ LAR, Encl. 1 at 3. The designation of the nonconformance as “as-built” recognizes that this issue was discovered after the affected section of the nuclear island and annex building walls were constructed. *See* Vogtle Unit 3 COL, Appendix C, Section 1.1 (“As-built means the physical properties of a structure, system, or component following the completion of its installation or construction activities at its final location at the plant site.”).

⁸ LAR, Encl. 1 at 5.

⁹ *Id.*, Encl. 3 at 2.



Although the LAR proposes to modify the Vogtle Unit 3 minimum horizontal distance between the walls in question from 3 to 2-1/16 inches, a “seismic response analysis,” performed using the System for Analysis of Soil-Structure Interaction (“SASSI”) program, supporting LAR-20-001 demonstrates that a gap of at least 1.32 inches between the nuclear island and annex building during an SSE event is maintained. This satisfies the greater than 1-inch gap provided for in the Vogtle Unit 3 licensing basis.¹⁰

The LAR also describes a settlement evaluation which demonstrates that the expected settlement of the respective foundations during construction has not otherwise reduced the gap between the buildings. This evaluation notes that given the observed differential settlement of the nuclear island during construction, the nuclear island walls would theoretically slightly tilt, within design tolerances, towards the center of the nuclear island basemat, i.e., *away from the*

¹⁰ *Id.*, Encl. 1 at 6–7, 9.

annex building, while the observed settlement would not affect the gap between the nuclear island and annex building.¹¹

Ultimately, the LAR concludes that the gap reduction to 2-1/16 inch in the localized area will not adversely affect the structural integrity or seismic performance of the nuclear island and adjacent buildings.¹²

II. LEGAL STANDARDS

A hearing request must demonstrate standing and at least one admissible contention. The following subsections provide background on the requirements for standing, contention admissibility, and the NRC’s review of LAR-20-001.

A. Standing Requirements

To determine whether a petitioner has standing, the petitioner must establish: (1) the nature of the petitioner’s right under the Atomic Energy Act (“AEA”) 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 effects of any decision or order that may be issued in the proceeding on the petitioner’s interest.¹³ In certain proceedings, the “proximity presumption” allows petitioners to establish standing by simply showing geographical proximity to a reactor, but this presumption only applies to “significant amendments.”¹⁴ For other less-significant amendments, petitioners must establish an “obvious potential for offsite consequences.”¹⁵

¹¹ *Id.* at 8.

¹² *Id.*

¹³ 10 C.F.R. § 2.309(d).

¹⁴ *See Fla. Power & Light Co.* (St. Lucie, Units 1 & 2), CLI-89-21, 30 N.R.C. 325, 329 (1989).

¹⁵ *See id.* at 329–30; *Exelon Generation Co.* (Peach Bottom Atomic Power Station, Units 2 & 3), CLI-05-26, 62 N.R.C. 577, 580–81; *Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 & 2), CLI-99-04, 49 N.R.C. 185, 191.

B. 10 C.F.R. 2.309 Legal Standards for Contention Admissibility

A petitioner must propose at least one contention that meets the admissibility requirements in 10 C.F.R. § 2.309(f)(1).¹⁶ Each contention must:

- (i) provide a specific statement of the legal or factual issue sought to be raised;
- (ii) provide a brief explanation of the 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; and
- (vi) provide sufficient information to show that a genuine dispute exists with regard to a material issue of law or fact.¹⁷

Failure to comply with any one of the six admissibility requirements is grounds for rejecting a proposed contention.¹⁸

These standards require more than notice pleading. Rather, a petitioner “must explain, with specificity, the particular legal or safety reasons requiring rejection of the contested [application].”¹⁹ In particular, this explanation must demonstrate that the contention is “material” to the NRC’s finding and that a genuine dispute of material issue of law or fact exists.²⁰ The Commission has defined a “material” issue as meaning one where “resolution of

¹⁶ See 10 C.F.R. § 2.309(a).

¹⁷ See 10 C.F.R. § 2.309(f)(1)(i)–(vi).

¹⁸ See, e.g., *FirstEnergy Nuclear Operating Co.* (Davis-Besse Nuclear Power Station, Unit 1), CLI-12-08, 75 N.R.C. 393, 395–96 (2012); *Private Fuel Storage, LLC* (Indep. Spent Fuel Storage Installation), CLI-99-10, 49 N.R.C. 318, 325 (1999); see also Final Rule, Changes to Adjudicatory Process; 69 Fed. Reg. 2182, 2221 (Jan. 14, 2004).

¹⁹ *Dominion Nuclear Conn. Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 N.R.C. 349, 359-60 (2001).

²⁰ 10 C.F.R. § 2.309(f)(1)(iv), (vi).

the dispute *would make a difference in the outcome* of the licensing proceeding.”²¹ Put simply, “the petitioner must demonstrate that the subject matter of the contention would impact the grant or denial of a pending license application.”²²

The petitioner bears the burden of meeting contention admissibility standards.²³ The presiding officer may not overlook material deficiencies in the pleadings by providing missing information or making factual inferences on behalf of a petitioner.²⁴ This means a petitioner must “provide the [technical] analyses and expert opinion showing why its bases support its contention.”²⁵ A “bald assertion that a matter ought to be considered or that a factual dispute exists...is not sufficient,” rather “a petitioner must provide documents or other factual information or expert opinion...” “to show why the proffered bases support [a] contention.”²⁶ Additionally, the issue raised must be within the scope of the proceeding.²⁷

²¹ Final Rule, Rules of Practice for Domestic Licensing Proceedings—Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168, 33,172 (Aug. 11, 1989) (emphasis added).

²² *Entergy Nuclear Operations, Inc.* (Indian Point, Units 2 & 3), LBP-08-13, 68 N.R.C. 43, 62 (2008) (footnote omitted).

²³ See *Entergy Nuclear Operations, Inc.* (Palisades Nuclear Plant), CLI-15-23, 82 N.R.C. 321, 329 (2015) (“It is Petitioner’s responsibility...to formulate contentions and to provide ‘the necessary information to satisfy the basis requirement’ for admission.”).

²⁴ See, e.g., *Ariz. Pub. Serv. Co.*, (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 N.R.C. 149, 155; *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 N.R.C. 235, 260 (2009) (noting that the contention admissibility rules “require the petitioner (not the board) to supply all of the required elements for a valid intervention petition” (footnote omitted)).

²⁵ *Georgia Inst. of Tech.* (Georgia Tech Research Reactor, Atlanta, Ga.), LBP-95-6, 41 N.R.C. 281, 305, *vacated in part and remanded on other grounds*, CLI-95-10, 42 N.R.C. 111 (1995).

²⁶ *Private Fuel Storage, L.L.C.* (Indep. Spent Fuel Storage Installation), LBP-98-7, 47 N.R.C. 142, 180 (1998)

²⁷ 10 C.F.R. § 2.309(f)(1)(iii)–(iv); *Susquehanna Nuclear, LLC* (Susquehanna Steam Electric Station, Units 1 and 2), CLI-17-4, 85 N.R.C. 59, 74 (2017) (citing the regulation).

Contentions that challenge the existing licensing basis not proposed to be modified by the LAR,²⁸ challenge a certified design,²⁹ seek to impose requirements stricter than those imposed by the agency,³⁰ or opine on how Staff should conduct its review³¹ are all outside the scope of the NRC adjudicatory process. The contention must refer to the “specific portions of the application . . . that the petitioner disputes,” along with the “supporting reasons for each dispute; or, if the petitioner believes that an application fails altogether to contain information required by law, the petitioner must identify each failure, and provide supporting reasons for the petitioner’s belief.”³²

C. Standard for Issuance of LAR-20-001

The NRC reviews a license amendment request using the same legal standards that governed initial issuance of the license.³³ The “applicant must satisfy the requirements of 10

²⁸ See *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Unit 3), LBP-08-9, 67 N.R.C. 421, 437–38 (2008).

²⁹ See 10 C.F.R. §§ 52.63, 2.335; 10 C.F.R. Part 52, Appendix D, Section VI.B; *Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plant, Units 2 & 3), CLI-10-09, 71 N.R.C. 245, 260 (2010) (“To the extent that [Petitioner] challenges the AP1000 design certified in Part 52, Appendix D, it is an impermissible challenge to NRC regulations”); *Southern Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), LBP-07-03, 65 N.R.C. 237, 252 (2007).

³⁰ See *Entergy Nuclear Vt. Yankee, LLC* (Vt. Yankee Nuclear Power Station), LBP-15-4, 81 N.R.C. 156, 167 (2015); *NextEra Energy Seabrook, LLC* (Seabrook Station, Unit 1), CLI-12-5, 75 N.R.C. 301, 315 (2012); *GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 N.R.C. 193, 206 (2000); *Curators of the Univ. of Mo.* (TRUMP-S Project), CLI-95-1, 41 N.R.C. 71, 170 (1995).

³¹ See, e.g., *Fla. Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 & 4), CLI-01-17, 54 N.R.C. 3, 25 (2001) (quoting *Balt. Gas & Elec. Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 & 2), CLI-98-25, 48 N.R.C. 325, 350 (1998), *aff’d sub nom Nat’l Whistleblower Ctr. v. NRC*, 208 F.3d 256 (D.C. Cir. 2000), *cert. denied*, 531 U.S. 1070 (2001)) (“[I]t is the license application, not the NRC Staff review, that is at issue in our adjudications.”).

³² *Susquehanna*, CLI-17-4, 85 N.R.C. at 74 (quoting and citing 10 C.F.R. § 2.309(f)(1)(vi)).

³³ See 10 C.F.R. § 50.92(a) (“In determining whether an amendment to a license . . . will be issued to the applicant, the Commission will be guided by the considerations which govern the issuance of initial licenses . . .”). The AEA also grants the NRC the authority to issue and make immediately effective any amendment “upon a determination by the Commission that such amendment involves no significant hazards consideration.” See 42 U.S.C. 2239(a)(2)(A). However, the NRC’s no significant hazards consideration is not subject to challenge in an adjudicatory proceeding. See *Vt. Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), LBP-90-6, 31 N.R.C. 85, 91 (1990) (“The issue of whether the proposed amendment does or does not involve a significant hazards consideration is not litigable in any hearing.”) (citing *Pac. Gas & Elec. Co.* (Diablo Canyon Nuclear Power Plant, Units 1 & 2), CLI-86-12, 24 N.R.C. 1, 6 n.3 (1986), *rev’d and remanded on other grounds sub nom. San Luis Obispo Mothers for Peace v. NRC*, 799 F.2d 1268 (9th Cir. 1986)).

[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.”³⁴ In this case, the NRC’s review of the LAR is governed by 10 C.F.R. § 52.97(b) and 10 C.F.R. Part 50, Appendix A, General Design Criteria (“GDC”) 1, 2, and 4.³⁵ Pursuant to 10 C.F.R. § 52.97(b), a COL must include the inspections, tests, analyses and acceptance criteria (“ITAAC”) that will provide reasonable assurance the facility will be operated in conformity with the license, the AEA and the Commission’s rules and regulations. Reactor designs must also meet GDC 1, 2, and 4, which provide design criteria for the nuclear island and annex building, and address design quality and protection against seismic events like SSEs.³⁶

III. PETITIONER HAS NOT SUBMITTED AN ADMISSIBLE CONTENTION PURSUANT TO 10 CFR 2.309(f)(1)

As summarized above, LAR-20-001 requests a modification to the minimum distance or “gap” between the nuclear island and the annex building walls to accommodate an as-built localized nonconformance in a 13 foot vertical section at Vogtle Unit 3.³⁷ SNC’s request is supported by analyses that show the proposed change will not reduce the greater than 1-inch gap maintained between the nuclear island and adjacent buildings during an SSE event³⁸ and that the

³⁴ *Tenn. Valley Auth.* (Sequoyah Nuclear Plant, Units 1 & 2; Watts Bar Nuclear Plant, Unit 1), LBP-02-14, 56 N.R.C. 15, 35 (2002); *accord Entergy Nuclear Operations, Inc.* (Palisades Nuclear Plant), CLI-15-22, 82 N.R.C. 310, 316 & n.44 (2015); *N. States Power Co.* (Prairie Island Nuclear Generation Plant, Units 1 & 2), ALAB-455, 7 N.R.C. 41, 44 (1978).

³⁵ See LAR, Encl. 1 at 10–11.

³⁶ See Part 50, Appendix A, GDC 1, Quality Standards and Records (“GDC 1”), GDC 2, Design Bases for Protection Against Natural Phenomena (“GDC 2”), and GDC 4, Environmental and Dynamic Effects Design Bases (“GDC 4”).

³⁷ See LAR, Encl. 1 at 3.

³⁸ *Id.* at 9 (concluding that the gap between the nuclear island and annex building will be larger than 1.32 inches during an SSE event).

LAR complies with all applicable NRC regulations and design criteria.³⁹ Notwithstanding the clarity of the request and supporting analyses, Petitioner mischaracterizes LAR-20-001 in an attempt to raise issues that are beyond the scope of the LAR and this proceeding.

For instance, in Proposed Contention One, Petitioner challenges the timing of the LAR to claim that SNC made materially false statements as to when the wall sections were completed. Not only is this claim premised on Petitioner's false statements regarding the Vogtle construction schedule and LAR itself, but it also falls outside the scope of this proceeding. Additionally, in Proposed Contention Two, Petitioner—without support—purports to challenge the “as built localized nonconformance” characterization of the condition in the LAR and seizes on the settlement evaluation described in the LAR (which was included solely to demonstrate that settlement will not have an impact on gaps between the nuclear island and adjacent buildings). Based on this claim, Petitioner demands that all construction be suspended due to the supposedly undisclosed “sinking” of the nuclear island. But Petitioner does not refute with any requisite specificity or basis the “as built” nature of the condition nor provide any information or data suggesting that such settlement exceeds that allowed by the certified design approved by the NRC in the AP1000 design certification rulemakings.⁴⁰

Importantly, neither of Petitioner's proposed contentions specifically challenge the actual modification that is requested in LAR-20-001, i.e., the localized change in the minimum horizontal separation from 3 inches to 2-1/16 inches, much less meet the strict contention admissibility requirements of 10 C.F.R. § 2.309(f)(1). Petitioner only makes passing reference to the supporting information and analysis included in the LAR and instead asserts that its review

³⁹ *Id.* at 10–11.

⁴⁰ *See* Petition at 15.

and analysis have “been seriously hampered due to the lack of any complete engineering analyses or accurate information provided for review by SNC.”⁴¹ However, the settlement evaluation and SASSI analyses are sufficiently described in the LAR and provide SNC’s justifications for the proposed change.⁴² Accordingly, Petitioner’s assertions regarding lack of data are not consistent with the record before it.

In addition, Petitioner fails to establish how Mr. Arnold Gundersen is qualified to provide expert testimony related to the interaction between the structures and the foundation. Although Mr. Gundersen’s declaration and curriculum vitae state that Mr. Gundersen has some experience with structural engineering, this experience is listed generally, with little detail.⁴³ Mr. Gundersen’s qualifications do not include structural engineering or professional engineering licensure. Petitioner and Mr. Gundersen provide no specific description of Mr. Gundersen’s experience as it relates to detailed aspects of the structural integrity of the Vogtle Unit 3 facility. Nowhere does Mr. Gundersen demonstrate he has any education, knowledge or experience with respect to settlement surveys. Nor does Mr. Gundersen demonstrate how he is an expert on identifying structural and seismic issues caused by, what he refers to as, “dishing” or “cupping.”

⁴¹ See *id.* at 6.

⁴² To the extent Petitioner is alleging that some part of the LAR is incomplete, it is required to specifically identify the portions of the LAR that are deficient and may not rely on general statements of deficiency. See 10 C.F.R. § 2.309(f)(1)(vi); see also, *UMETCO Minerals Corp.* (Source Materials License No. SUA-1358), 1992 WL 348077 at 1 (1992) (intervenor “shall describe in detail any deficiencies or omissions in the license amendment, including the reasons why any section or portion thereof is deficient, and why any omissions are material”); *Northeast Nuclear Energy Co.* (Millstone Nuclear Power Station, Unit No. 3), LBP-98-28, 48 N.R.C. 279, 282–83 (1998).

⁴³ See Declaration of Arnold Gundersen to Support the Petition for Leave to Intervene and Request for Hearing by BREDL at 2 (May 11, 2020) (ADAMS Accession No. ML20132D309) (the “Declaration”) (noting that Mr. Gundersen has “professional nuclear experience including and not limited to...Structural Engineering Assessments”); Arnold Gundersen Curriculum Vitae at 15, 16 (May 11, 2020) (ADAMS Accession No. ML20132D314) (experience includes “structural engineering assessments,” “structural analysis,” and “structural engineering”).

Moreover, Mr. Gundersen’s recent declarations submitted to the NRC in other matters show a pattern of claimed expertise in areas where he has none. Mr. Gundersen has claimed expertise on a multitude of issues, including hydrogen combustion,⁴⁴ groundwater contamination,⁴⁵ steam generator design,⁴⁶ quality assurance,⁴⁷ and containment coatings.⁴⁸ And, not surprisingly, Mr. Gundersen’s expertise has been called into question in other NRC proceedings.⁴⁹ Mr. Gundersen shows he is willing to claim expertise on any and all nuclear matters he is asked to comment upon. Where, as here, Petitioner relies on expert support, the support should “set[] out the credentials showing the author is an expert” on the relevant technical issues.⁵⁰ Petitioner has failed to meet this burden.

A. Proposed Contention One is Inadmissible

On its face, Proposed Contention One is beyond the scope of this proceeding because it requests revocation of the Vogtle COL for SNC’s supposed withholding of information or supply of false information to the NRC⁵¹—a claim that, even if it had some grounding in reality (which

⁴⁴ See Declaration of Arnold Gundersen to Support the Petition for Leave to Intervene and Request for Hearing by the Blue Ridge Environmental Defense League and its Chapter Concerned Citizens of Shell Bluff (May 2, 2016) (ADAMS Accession No. ML16124B064).

⁴⁵ See Official Exhibit, Prefiled Direct Testimony of Arnold Gundersen Regarding Consolidated Contention RK-EC-3/CW-EC-1 (Spent Fuel Pool Leaks) (Dec. 22, 2011) (ADAMS Accession No. ML11356A519).

⁴⁶ See Expert Witness Report of Arnold Gundersen to Support the Petition for Leave to Intervene and Request for Hearing by Beyond Nuclear (May 20, 2013) (ADAMS Accession No. ML13141A243).

⁴⁷ See Testimony of Arnold Gundersen Supporting Intervenors Contention 15: DTE COLA Lacks Statutorily Required Cohesive QA Program (Apr. 30, 2013) (ADAMS Accession No. ML13120A785).

⁴⁸ See Proposed New Contention by Joint Intervenors Regarding Inadequacy of Applicant’s Containment/Coating Inspection Program, Declaration of Arnold Gundersen (Aug. 12, 2020) (ADAMS Accession No. ML102240697).

⁴⁹ *Southern Nuclear Operating Co., Inc.* (Vogtle Electric Generating Plant, Units 3 & 4), LBP-16-10, 84 N.R.C. 17, 50 (2016) (Arnold, J., concurring) (noting that Mr. Gundersen’s credentials indicate he may be qualified to provide expert testimony on the “general topic of nuclear engineering,” but not the topic of evolution, transport and combustion of hydrogen); *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), LBP-12-01, 75 N.R.C. 1, 17 (2012) (“We also note that both [licensee] and Staff have raised sound challenges to Mr. Gundersen’s credentials as an expert....”).

⁵⁰ *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), LBP-11-23, 74 N.R.C. 287, 306 (2011).

⁵¹ Petition at 9.

it does not), is only appropriate in a Section 2.206 petition, not a contention on the LAR. Moreover, Petitioner offers only demonstrably incorrect and unsupported statements about the Vogtle construction schedule as the basis for its claim. Specifically, Petitioner relies on Mr. Gundersen's false statement that "[t]he construction of the walls and foundations in question were completed at least a half-decade ago" as the basis for Petitioner's attack on SNC's truthfulness regarding timing and need for the LAR.⁵² In fact, the wall elevations in question were completed in 2019—a fact that was ascertainable from the NRC public record or basic internet research of the Vogtle project.

As fully demonstrated below, Proposed Contention One is not supported by any relevant evidence, does not raise a contested issue of law or fact that is germane to this license amendment proceeding, and seeks to litigate issues beyond the scope of this proceeding. Mr. Gundersen does not have expertise in the matters opined upon and, in any case, his declaration regarding the timing of wall construction is factually incorrect. Therefore, Proposed Contention One fails to satisfy the criteria in 10 C.F.R. § 2.309(f)(1) and should be denied.

1. *Proposed Contention One Lacks Adequate Factual and Expert Opinion Support, as Required by 10 CFR 2.309(f)(1)(v).*

As an initial matter, Proposed Contention One is premised on Petitioner's unsupported claim that SNC's statement that the LAR will "facilitate construction"⁵³ is somehow false. But Petitioner misunderstands the use of the term "facilitate construction." Ultimately, the as-built Unit 3 facility must meet ITAAC 819, which verifies the gap between the nuclear island and annex building.⁵⁴ The LAR proposes to revise ITAAC 819 to reflect the change in the minimum

⁵² *Id.* at 10–11.

⁵³ *See* LAR, Encl. 1 at 4.

⁵⁴ *See* Vogtle COL, Appendix C, ITAAC 3.3.00.13.

gap requirement between these two buildings.⁵⁵ Thus, the term “facilitate construction” was merely meant to convey that the LAR seeks to reconcile the as-built condition of the structures in question to the licensing basis and the acceptance criteria in ITAAC 819. In any event, the purpose of the LAR in the context of the stage of construction of Vogtle Unit 3, which is observed daily by NRC inspectors, is evident.

Petitioner cites no evidence to support its claim that the walls at issue in LAR-20-001 were constructed five years ago. Instead, Petitioner relies on the opinion of Mr. Gundersen who cites only his beliefs and conclusions and offers no supporting documents or information.⁵⁶ Specifically, Mr. Gundersen proffers: (1) the nuclear island walls were completed “certainly by sometime in 2015”; (2) SNC has known and failed to disclose that there were nonconformances associated with the walls since then; and (3) therefore, either Westinghouse, SNC, or both decided to “wait until the last minute” to amend the Vogtle Unit 3 COL.⁵⁷

Petitioner’s and Mr. Gundersen’s bare assertions are not accurate. Publicly available information shows that the relevant portions of the nuclear island, including the auxiliary building, were not constructed in 2015. NRC quarterly inspection reports from 2019, which are all publicly available on the NRC’s website, provide a description of the construction progress on the auxiliary building and show the sequence and timing of construction.⁵⁸ These reports

⁵⁵ LAR, Encl. 3 at 2.

⁵⁶ See Rules of Practice for Domestic Licensing Proceedings, 54 Fed. Reg. at 33,171 (a contention is not to be admitted “where an intervenor has no facts to support its position and where the intervenor contemplates using discovery or cross-examination as a fishing expedition which might produce relevant supporting facts.”).

⁵⁷ Declaration at 4–6.

⁵⁸ See Vogtle Electric Generating Plant, Units 3 and 4 – NRC Integrated Inspection Reports 05200025/2019001, 05200026/2019001 at 4 (May 15, 2019) (ADAMS Accession No. ML19135A691) (“In the auxiliary building, floors at 117’-6” and 135’-3” and walls from 135’-3” to 163’-3” *continued to be constructed* and floors at 135’-3” (including the main control room roof) were installed.”) (emphasis added); Vogtle Electric Generating Plant, Units 3 and 4 – NRC Integrated Inspection Reports 05200025/2019002, 05200026/2019002 at 3 (Aug. 7, 2019) (ADAMS Accession No. ML19220B678) (“[F]or the auxiliary building, the licensee *continued construction* of the structure from the operating deck to the roof....”) (emphasis added); Vogtle Electric Generating Plant, Units 3 and 4 – NRC

demonstrate that SNC has only neared completion of the auxiliary building within the last quarter of 2019 and first quarter of 2020.⁵⁹ Accordingly, the identified as-built nonconformance could not have been identified until this construction was complete. Mr. Gundersen’s baseless assertions to the contrary do not call any of these well-documented facts into question.

The 2019 first quarter inspection report documents that the NRC performed a direct inspection of placement of a portion of the auxiliary wall that is significantly lower than the elevations associated with the nonconformance.⁶⁰ The fact that the NRC was observing wall placements below the area in question in 2019 shows it is impossible for the auxiliary building walls to have been completed five years ago.⁶¹ In addition, the Southern Company and Georgia Power Company websites include many photographs and videos showing progression of Vogtle Unit 3 construction.⁶² Vogtle Unit 3 construction progress is also shown throughout social media platforms, including aerial construction progress videos on YouTube.⁶³ These

Integrated Inspection Reports 05200025/2019003, 05200026/2019003 at 3 (Nov. 4, 2019) (ADAMS Accession No. ML19309D596) (“The licensee *continued construction* of the auxiliary building structure from elevation 117’-6” to the roof...”) (emphasis added).

⁵⁹ See Vogtle Electric Generating Plant, Units 3 and 4 – NRC Integrated Inspection Reports 05200025/2020001, 05200026/2020001 at 10 (May 7, 2020) (ADAMS Accession No. ML20128J831) (“The licensee was nearing the end of the construction of the auxiliary building structure.”); Vogtle Electric Generating Plant, Units 3 and 4 – NRC Integrated Inspection Reports 05200025/2019004, 05200026/2019004 at 10 (Feb. 11, 2020) (ADAMS Accession No. ML20042E292).

⁶⁰ See Vogtle Electric Generating Plant, Units 3 and 4 – NRC Integrated Inspection Reports 05200025/2019001, 05200026/2019001 at 31 (May 15, 2019) (ADAMS Accession No. ML19135A691) (NRC inspected “Wall 11 from column line I to Q and elevation 100’-0” to 117’-6””).

⁶¹ The NRC’s inspection schedule is tied to SNC’s construction schedule. See Inspection Manual Chapter 2503, Construction Inspection Program: Inspections of Inspections, Tests, Analyses and Acceptance Criteria (ITAAC) Related Work, 2503-05.05.02.a. at 2 (March 4, 2020). This means the NRC performs inspections as SNC constructs and, absent extenuating circumstances, there is no significant delay between completion of a portion of construction and NRC inspection of that construction. Through descriptions of the NRC inspections, Petitioner could have easily deduced that the area of the nuclear island wall related to the LAR was not constructed until after the first quarter of 2019.

⁶² See Southern Company, Plant Vogtle 3 and 4, <https://www.southerncompany.com/innovation/nuclear-energy/plant-vogtle-3-and-4.html> (providing construction videos through second quarter of 2018); Georgia Power Company, Plant Vogtle 3 and 4 Project Update, <https://www.georgiapower.com/company/plant-vogtle.html> (providing monthly construction photos).

⁶³ See Vogtle 3 & 4 Aerial Tour 2019, Apr. 15, 2019 (https://www.youtube.com/watch?v=_trqJPERgSE).

photographs and videos clearly show that construction of the auxiliary building was ongoing throughout 2019.⁶⁴ All of these materials are publicly available and were easily accessible by Petitioner.⁶⁵

In sum, rather than avail itself of the abundance of publicly available NRC inspection reports and other information detailing the progression of construction at Vogtle Unit 3, Petitioner presents demonstrably false claims to support a baseless request to revoke the Vogtle license. The NRC quarterly inspection reports, PSC filings, and photographs and videos of construction progress clearly show the timing and sequence of construction of the auxiliary building. This information shows that the portion of the walls at issue were completed and the localized nonconformance identified shortly before submittal of the LAR, not half a decade ago, and that the LAR was necessary to “facilitate construction” as it ensures the Vogtle Unit 3 ITAAC will ultimately be met. Petitioner had a duty to review the publicly available information related to Vogtle Unit 3 construction progress.⁶⁶ Petitioner’s failure to review any of this information, and failure to provide any support that SNC withheld information from the NRC related to the nonconformance, justifies the rejection of its contentions.

⁶⁴ See *id.*; Georgia Power Company, Plant Vogtle 3 and 4 Project Update, http://vogtlegallery.georgiapower.com/vogtle-photos/2018_08/WCK_1864.jpg; http://vogtlegallery.georgiapower.com/vogtle-photos/2018_07/WCK_7230.jpg (pictures from July and August 2018 showing ongoing construction of the auxiliary building walls below the elevation of the wall related to the LAR).

⁶⁵ Petitioner also had access to the Vogtle Construction Monitoring Report (“VCM”), which is submitted semiannually by Georgia Power Company to the Georgia Public Service Commission (“PSC”) and provides publicly available updates on the construction of Vogtle Units 3 and 4. The most recent VCM, which covers the period between July 1, 2019 and December 31, 2019, clearly states that walls for the auxiliary building were still being constructed through 2019. See Georgia Power Company, Twenty-second Semi-annual Vogtle Construction Monitoring Report (Feb. 2020), Docket No. 29849, at 29 (noting that during time period there were “[c]oncrete wall placements at varying elevations in the Auxiliary Building”).

⁶⁶ See generally *Duke Power Co.* (Catawba Nuclear Station, Unit 1 & 2), ALAB-687, 16 N.R.C. 460, 468 (1982), vacated in part on other grounds, CLI-83-19, 17 N.R.C. 1401 (1983) (describing petitioner’s “ironclad obligation” to examine publicly available information); *Pacific Gas and Elec. Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-12-13, 75 N.R.C. 681, 686 n.30 (2012) (“By participating in our proceedings, intervenors accept the obligation of uncovering relevant, publicly available information.”).

2. *Petitioner Fails to Demonstrate that the Issue Raised in Proposed Contention One is Within the Scope of the Proceeding, Material to the Findings the NRC Must Make to Support Issuance of the LAR, or That a Genuine Dispute Exists on a Material Issue of Fact, as Required by 10 CFR 2.309(f)(1)(iii), (iv) and (vi).*

The only relevant question in this proceeding is whether the proposed modification to the minimum distance between a portion of the nuclear island and annex building walls satisfies applicable NRC standards.⁶⁷ Rather than object to the substance of SNC's request or discuss the applicability of relevant NRC regulations and design criteria, Petitioner argues in Contention One that SNC's license should be revoked because it has failed to provide accurate information to the NRC as required by 10 C.F.R. § 50.9.⁶⁸ In reality, as is evident from Petitioner's extensive discussion regarding the supposed five-year lag in bringing this issue to the NRC's attention, Petitioner believes that SNC violated 50.9 by failing to disclose the localized nonconformance or seek the LAR sooner. Even if there were some factual basis for its claim, Petitioner cites to no regulation or precedent to support the assertion that licensees must seek a LAR within a certain timeframe—nor can it because there is no such requirement. In any event, claims that a licensee violated its license or NRC regulation are handled through the NRC's enforcement process, as is the remedy requested by Petitioner.⁶⁹ Requests for enforcement action are handled pursuant to

⁶⁷ See *U.S. Dep't of Energy* (High-Level Waste Repository), CLI-09-14, 69 N.R.C. 580, 588 (2009) (a petitioner's claims must show "specific ties to NRC regulatory requirements").

⁶⁸ See Petition at 10–11.

⁶⁹ See *Pacific Gas & Elec. Co.* (Diablo Canyon Nuclear Power Plant, Units 1 & 2), 85 N.R.C. 195, 207 (2017) ("Section 50.9 is handled under the enforcement process, which is separate from the license amendment review process."). *Gen. Pub. Utilities Nuclear Corp.* (Three Mile Island Nuclear Station, Units 1 & 2), CLI-85-4, 21 N.R.C. 561, 562 n.3 (1985) ("The Commission cannot revoke a license without instituting an enforcement proceeding.").

the 10 C.F.R. § 2.206 process, not in license amendment proceedings.⁷⁰ Thus, Proposed Contention One should be rejected.⁷¹

B. Proposed Contention Two is Inadmissible Because It Fails to Meet the Requirements of 10 CFR 2.309(f)(1)

Proposed Contention Two generally asserts that construction of Vogtle Unit 3 should be stopped until SNC: “(1) reevaluates the structural integrity of the entire Nuclear Island, 2) performs a complete root cause analysis of the new stresses on the basemat upon which the Nuclear Island on Vogtle Unit 3 is being constructed, 3) presents the complete analyses and root cause analysis information in public licensing hearings, and 4) an entirely new licensing review and full analysis of the new stress conditions placed on other components on the site that are no longer level as a result of the disproportionate sinking have been concluded and subjected to satisfactory independent engineering review.”⁷² Petitioner also requests that the LAR be held in abeyance until Petitioner’s contentions are resolved.⁷³ In support of such actions, Petitioner asserts that the cause of the localized nonconformance is differential settling instead of an as-

⁷⁰ See e.g., *Zion*, CLI-99-04, 49 N.R.C. at 196 (1999) (“[T]he NRC maintains a public petitioning process precisely to consider enforcement-type grievances... 10 C.F.R. § 2.206, and it is to that process, not to a license amendment adjudication, that [a petitioner] must resort if he wishes to pursue his claims further.”); *Consumers Power Co.* (Big Rock Point Nuclear Plant), LBP-80-4, 11 N.R.C. 117, 121 (1980) (“[A]llegations and past instances of administrative...insufficiencies on the part of the licensee that are unrelated to the [license amendment request] should properly be the subject of a...proceeding initiated under 10 CFR 2.202 and 2.206 rather than this license amendment proceeding.”).

⁷¹ See *Portland Gen. Elec. Co.* (Trojan Nuclear Plant), ALAB-534, 9 N.R.C. 287, 289 n.6 (1979) (“[A] licensing board does not have the power to explore matters beyond those which are embraced by the notice of hearing for the particular proceeding.”) (citing *Pub. Serv. Co. of Ind.* (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-316, 3 N.R.C. 167, 170-71 (1976)).

⁷² Petition at 12-13.

⁷³ *Id.* at 17.

built condition, that the settlement evaluations and SASSI analyses performed by SNC are insufficient, and that the differential settlement poses an ongoing risk.

As discussed below, Proposed Contention Two is not supported by any relevant expert or technical support, fails to articulate any relevant disputed issue of fact or law, and raises issues outside the scope of this proceeding; therefore, Proposed Contention Two should be denied.

1. *Proposed Contention Two Lacks Adequate Factual and Expert Opinion Support as Required by 10 CFR 2.309(f)(1)(v)*

Relying on statements by Mr. Gundersen, Proposed Contention Two challenges the “as built localized nonconformance” characterization of the condition in the LAR and asserts that the nonconformance at issue in LAR-20-001 was instead caused by differential settling of the nuclear island, resulting in degradation of the nuclear island, which Petitioner refers to as “dishing” or “cupping.”⁷⁴ However, not only has Petitioner failed to demonstrate Mr. Gundersen’s expertise relevant to the issues raised in LAR-20-001, Mr. Gundersen provides no support for his conclusions.⁷⁵ As the Commission has made clear, “neither mere speculation nor bare conclusory assertions, *even by an expert*, alleging that a matter should be considered will suffice to allow the admission of a proffered contention.”⁷⁶ Mr. Gundersen’s assertions are unsupported and do not meet the requirements of 2.309(f)(1).

Specifically, Petitioner alleges: (1) the LAR is being proposed because the nuclear island is “sinking”, *i.e.*, settling; (2) SNC is ignoring differential settlement of the nuclear island; and (3) the differential settlement poses a “structural and seismic risk.”⁷⁷ Petitioner provides no

⁷⁴ Petition at 8, 12–17.

⁷⁵ Declaration at 5, 6, 8, 9–11.

⁷⁶ *Southern Nuclear* (ESP), LBP-07-03, 65 N.R.C. at 253 (emphasis added).

⁷⁷ See Petition at 15.

support for any of these claims, and the record is clear that each of these statements is as untrue as they are unsupported.

First, contrary to Petitioner’s assertion, the license amendment is requested to address an as-built localized nonconformance in the minimum distance between a portion of the nuclear island and annex building walls, not settlement of the nuclear island.⁷⁸ The LAR does not suggest or indicate that either the nonconformance or the modification is in response to settlement issues. Rather, it clearly states that the LAR is being proposed to accommodate an “as-built localized nonconformance.”⁷⁹ Petitioner is apparently confusing the explanation in the LAR—that settlement has not *independently* affected the gap between the nuclear island and adjacent buildings—with the reason for the LAR itself. As explained in the LAR:

[D]ifferential settlement of foundations may impact the gaps between the nuclear island and adjacent buildings. Therefore, differential settlement of foundations is evaluated based on the VEGP Unit 3 settlement survey data collected from the site-specific settlement monitoring program for potential impact on the gap between the nuclear island and adjacent buildings.⁸⁰

This provides that the settlement evaluation is performed to validate that the gap between the nuclear island and adjacent buildings is not otherwise impacted by observed settlement trends. Settlement has nothing to do with the nonconformance that led to the LAR in the first place, and Mr. Gundersen’s bare claims otherwise cannot manufacture an issue for hearing.

Second, as the inclusion of the settlement evaluation in the LAR illustrates, SNC is not ignoring or hiding the fact that the nuclear island is settling. Although Mr. Gundersen claims that differential settlement was never anticipated or evaluated, the Technical Evaluation in the

⁷⁸ LAR, Encl. 1 at 3.

⁷⁹ *Id.*

⁸⁰ *Id.* at 8.

LAR itself provides that differential settlement has been evaluated based on settlement survey data collected from the site-specific settlement monitoring program.⁸¹ This evaluation explicitly considers the effect of settlement on the nuclear island foundation and walls.⁸² In fact, during a recent audit for the LAR, the NRC reviewed SNC's supporting settlement survey data, including predicted and measured settlement of the nuclear island and annex building, settlement trends, and predicted annex building displacement during an SSE event, and did not identify any outstanding issues or the need for SNC to submit any additional information on the docket.⁸³

Moreover, settlement was considered as part of the AP1000 design basis. Specifically, DCD Section 3.8.5.4.2, titled "Analyses of Settlement During Construction," describes the evaluation of settlement on the AP1000 basemat during construction, considering various construction sequences and soil properties. The DCD explicitly considers a construction sequence described as:

A delayed auxiliary building case which assumes a delay in the construction of the auxiliary building while concrete placement for the shield building continues. **This bounding case maximizes tension stresses in the bottom of the basemat.**⁸⁴

⁸¹ *Id.*

⁸² *Id.* Contrary to Petitioner's assertion that settlement is the reason for the LAR, the LAR actually indicates that the measured settlements of the nuclear island would tend to *increase* the separation between the nuclear island and adjacent buildings. *Id.* ("The VEGP Unit 3 settlement survey data of the past few years indicates that the nuclear island basemat has deflected more in the center and less at the perimeter which would *tend to cause the perimeter walls to lean towards the center of the nuclear island*. Theoretically, *this suggests that the nuclear island tends to tilt away from the annex building.*" *Id.* (emphasis added)). This would actually increase the margin of space between the nuclear island and annex building.

⁸³ See Audit Report for Vogtle Electric Generating Plant Unit 3, Request for License Amendment and Exemption: Unit 3 Auxiliary Building Wall 11 Seismic Gap Requirements (LAR-20-001) at 2-3 (ADAMS Accession No. ML20141L698). The Petition was filed before the audit report for the LAR was released. Petitioner complains about a "lack of timeliness" by the NRC in filing the audit report and attempts to "reserve the right" to modify its Petition following release of the audit report. See Petition at 7. This request is impermissible. NRC regulations prescribe a process for amending contentions after the deadline and any such request may only be allowed after a showing of good cause. See 10 C.F.R. § 2.309(c).

⁸⁴ DCD Tier 2, Section 3.8.5.4.2 (emphasis added).

A condition maximizing tension stress at the bottom of the basemat is representative of the “dishing” condition referenced by Petitioner. The evaluation considers this, as well as various other conditions, and concludes with the following language:

The site conditions considered in the evaluation provide reasonable bounds on construction induced stresses in the basemat.
Accordingly, the basemat design is adequate for practically all soil sites and it can tolerate major variations in the construction sequence without causing excessive deformations, moments and shears due to settlement over the plant life.⁸⁵

The DCD and UFSAR also require SNC to monitor settlement levels at the Vogtle Unit 3 site.⁸⁶ This monitoring program is explained in DCD Section 2.5.4.3. The settlement monitoring program includes the following language and criteria:

- “Differential settlement under the nuclear island foundation could cause the basemat and buildings to tilt. Much of this settlement occurs during civil construction prior to final installation of the equipment. **Differential settlement of a few inches across the width of the nuclear island would not have an adverse effect on the safety-related functions of structures, systems, and components.**”
- “Table 2.5-1 provides guidance to the Combined License applicant on predictions of absolute and differential settlement that are acceptable without further evaluation.”
- “During construction and plant operation at a soil site, settlements would be measured and compared to the predicted settlement values [*i.e.*, the values in Table 2.5-1] and any exceedances would require additional investigation.”⁸⁷

⁸⁵ *Id.* (emphasis added).

⁸⁶ DCD Tier 2, Section 2.5.4.3 (“The Combined License applicant will address short-term...and long-term...settlement for soil sites for the history of loads imposed on the nuclear island foundation and adjacent buildings consistent with the construction sequence.”); Revision 8 to UFSAR, Chapter 2, Site Characteristics, Section 2.5.1.2.6.1 (ADAMS Accession No. ML19171A055) (“[S]ettlement monitoring will be required during and post construction.”).

⁸⁷ DCD Tier 2, Section 2.5.4.3 (emphasis added).

Petitioner does not reference or otherwise address the settlement criteria and monitoring program that were developed as part of the AP1000 certified design. Petitioner had an ironclad obligation to search the public record and cannot create an issue for hearing by simply ignoring available information and inventing claims that are easily disproven by a simple search on the NRC's website.⁸⁸

These portions of the Vogtle licensing basis are not proposed to be changed by the LAR and are not subject to challenge in this proceeding, as explained in the following section. Nevertheless, Petitioner provides no basis for its claim that the observed differential settlement at Vogtle Unit 3 poses a safety issue in and of itself. Petitioner's claims that nuclear island settlement poses a structural and seismic risk are premised on the assertion that differential settlement was never contemplated or evaluated for Vogtle Unit 3, which, as demonstrated above, is patently false. Moreover, Petitioner does not claim or present any evidence that settlement observed during construction and discussed in the LAR exceeds the amount contemplated and allowed by the Vogtle licensing basis. In fact, only two years ago, the NRC reviewed SNC's settlement evaluation for LAR-18-002. The NRC concluded that the settlement evaluation presented no risks and that the actual settlement was forty percent less than anticipated:

[T]he staff reviewed the VEGP Unit 3 and 4 settlement survey data and related documentation. The staff noted that the reviewed documents contain the settlement survey data and plots of VEGP Unit 3 and 4 for the past few years through different construction stages. The plots, based on the survey data, present the settlement profile in the east-west direction and north-south direction for the foundations of the NI and the turbine building and the annex building. As mentioned previously, the survey data represents the beginning of the construction stage to the current stage. **The staff**

⁸⁸ Despite Mr. Gundersen's proclamation that "[n]o evidence was found in the ADAMS database" (Declaration at 11), a simple search on the Vogtle Unit 3 docket for "differential settlement" returns 72 results, including the relevant portions of the UFSAR and safety analyses from NRC staff's review of the AP1000 DCD and COL.

further noted that measured actual settlements are at least 40 percent less than the calculated settlements using the analytical model. This indicates that the subsurface material properties under the foundations were conservatively assumed in analytical analysis. **Based on this observation, the staff reasonably expects that settlement will be well controlled within the settlement limits throughout the entire construction sequence and through the long-term (plant operation).**⁸⁹

Again, Petitioner ignores relevant information in the record that shows that nuclear island settlement has been monitored as required by the Vogtle licensing basis and falls well within permissible limits.

Nor does Petitioner provide any specific challenges to the SASSI analyses referenced in the LAR. Mr. Gundersen’s Declaration makes conclusory allegations that the SASSI analyses are “completely inappropriate” and a “simple estimation...nothing less than a guess.”⁹⁰ However, Mr. Gundersen provides no specific support showing how the SASSI analyses are insufficient and, more importantly, why the SASSI analyses do not support the LAR’s conclusion that the greater than 1-inch gap between the nuclear island and annex building will still be maintained during an SSE event.⁹¹ Instead, Petitioner raises general challenges to the concept of differential settlement and ultimately misstates the reason for the LAR. Regardless, contrary to Petitioner’s contention, SNC did evaluate settlement and structural integrity during development of the LAR and concluded that “the differential settlement does not have an adverse

⁸⁹ See Safety Evaluation Report, Vogtle Electric Generating Plant Units 3 and 4, Amendment Nos. 127 and 126 (LAR-18-002) at 5 (June 15, 2018) (ADAMS Accession No. ML18120A345) (emphasis added).

⁹⁰ See Declaration at 12–13.

⁹¹ The NRC has credited SNC’s SASSI analyses in the past—specifically in approving the Vogtle COL. See NUREG-2124, Final Safety Evaluation Report Related to the Combined Licenses for Vogtle Electric Generating Plant, Units 3 and 4, Section 3.7.2.4 (Sept. 2012)

impact on the gaps between the nuclear island and adjacent buildings.”⁹² Petitioner’s baseless statements to the contrary cannot form the basis of a contention

In summary, Proposed Contention Two provides no factual or technical support, and the reliance on the expert testimony of Mr. Gundersen is unfounded. Therefore, Proposed Contention Two should be denied.

2. *Proposed Contention Two Fails to Articulate Any Relevant Disputed Issue of Fact or Law and Raises Issues Outside the Scope of This Proceeding*
 - a. *Proposed Contention Two requests action that is beyond the scope of this proceeding*

Rather than challenge the LAR with requisite basis and specificity, Petitioner asserts without factual support, that “dishing” or “cupping” diminishes the structural integrity of the entire nuclear island and basemat and, based on that speculation, requests that construction at the site be halted and other actions unrelated to the LAR be taken.⁹³ Just like in Proposed Contention One, the arguments raised in Proposed Contention Two do not discuss the applicable legal standards or articulate how the LAR fails to satisfy relevant legal standards. Additionally, Petitioner’s request to halt construction is effectively a request to suspend a license under 10 C.F.R. § 2.206 and is impermissible in this proceeding.⁹⁴ Likewise, Petitioner’s request to hold the LAR in abeyance until the NRC reviews its contentions is impermissible. Petitioner’s challenges must focus on the LAR, not the NRC’s review of the LAR.⁹⁵ Thus, Proposed

⁹² See LAR, Encl. 1 at 8.

⁹³ Petition at 15.

⁹⁴ *Consumers Power Co.* (Midland Plant, Units 1 & 2), ALAB-674, 15 N.R.C. 1101, 1102 (1982) (“An intervenor . . . who seeks to halt already authorized plant construction should file a petition under 10 CFR 2.206 with the appropriate Commission official.”).

⁹⁵ See, e.g., *Baltimore Gas & Elec. Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 N.R.C. 325, 350 (1998) ([I]t is the license application, *not* NRC staff review, that is at issue in our adjudications.”) (emphasis added); *Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-08-15, 68 N.R.C. 1, 3 & n.2 (2008) (rejecting a challenge to an NRC staff decision to docket an application for review).

Contention Two raises another impermissible request for enforcement action and inappropriately requests that the LAR be held in abeyance. These types of requests are outside the scope of this proceeding.

b. Proposed Contention Two is an improper challenge to the finality of the AP1000 Certified Design and Vogtle COL

Proposed Contention Two revolves around Petitioner's assertion that differential settlement at Vogtle Unit 3 is so large that it has impacted the structural integrity of the nuclear island and, therefore, SNC should perform additional evaluations and analysis.⁹⁶ As discussed above, Petitioner apparently neglected to review the section of the Vogtle UFSAR, incorporated from the AP1000 DCD, titled "Analyses of Settlement During Construction" that discusses this exact issue in detail. In issuing the AP1000 certified design and approving the Vogtle COL, the NRC reviewed and approved criteria for settlement, including: (1) the existence of settlement at the Vogtle Unit 3 site, (2) applicable settlement limitations and (3) the settlement monitoring program required to be performed by SNC.⁹⁷ These issues have been afforded finality and are beyond the scope of this proceeding.

The AP1000 certified design and Vogtle licensing basis also include the structural reconciliation ITAAC that verify the structural integrity of the nuclear island. These ITAAC were approved as part of the AP1000 design and incorporated into the Vogtle COL.⁹⁸ The

⁹⁶ Petition at 12–13.

⁹⁷ See NUREG-1793, Final Safety Evaluation Report Related to Certification of the AP1000 Standard Design, Initial Report, Section 2.5.4.2 (Sept. 2004); NUREG-2124, Final Safety Evaluation Report Related to the Combined Licenses for Vogtle Electric Generating Plant, Units 3 and 4, Section 2.5.4.2 (Sept. 2012).

⁹⁸ See DCD Tier 1, Table 3.3-6; Vogtle COL, Appendix C, Table 3.3-6. These ITAAC have recently been consolidated through LAR-19-005, approved by the NRC on November 15, 2019. See ND-19-0162, Letter from Michael Yox to NRC Control Desk, Vogtle Electric Generating Plant Unit 3 Request for License Amendment and Exemption: Consolidation of Structural Building ITAAC (LAR-19-005) (Mar. 29, 2019) (ADAMS Accession No. ML19088A274); Safety Evaluation Report, Vogtle Electric Generating Plant, Units 3 and 4, Amendment 167/165 (LAR-19-005) (Nov. 15, 2019) (ADAMS Accession No. ML19164A271).

structural reconciliation ITAAC verify that the nuclear island is designed and constructed to withstand design basis loads without loss of structural integrity and safety-related functions.⁹⁹ Pursuant to the ITAAC submittal process, SNC will submit ITAAC closure notifications, which will be reviewed by the NRC, to validate that the ITAAC have been met.¹⁰⁰ In tandem with these ITAAC submittals, the NRC has also been inspecting structural and civil aspects of the nuclear island since the beginning of construction.¹⁰¹ Additionally, the Vogtle Unit 3 COL requires as-built reconciliation of seismic analyses prior to initial fuel load.¹⁰²

As described above, the LAR is fully consistent with these settlement and structural integrity requirements envisioned by the AP1000 certified design and Vogtle licensing basis. The LAR is not proposing to change the settlement monitoring program, construction sequence, or settlement limits, and the changes do not affect the facility's ability to remain within the acceptable settlement limits of UFSAR Table 2.5-1.¹⁰³ Nor does the LAR affect the structural integrity of the nuclear island.¹⁰⁴ The LAR does not modify any structural reconciliation ITAAC, and SNC will still be required to close, and the NRC will be required to verify closure of, the ITAAC that provide assurance of the nuclear island's structural integrity.

Proposed Contention Two ultimately amounts to an improper challenge to the settlement and structural integrity requirements reviewed and approved by the NRC and incorporated into

⁹⁹ See Vogtle COL, Appendix C, Table 3.3-6, ITAAC 761 through 769.

¹⁰⁰ See 10 C.F.R. § 52.103(c),(e).

¹⁰¹ See generally IMC 2503; see e.g., Vogtle Electric Generating Plant, Units 3 and 4 – NRC Integrated Inspection Reports 05200025/2020001, 05200026/2020001 at 22–23 (May 7, 2020) (ADAMS Accession No. ML20042E292); Vogtle Electric Generating Plant, Units 3 and 4 – NRC Integrated Inspection Reports 05200025/2019003, 05200026/2019003 at 18–19 (Nov. 4, 2019) (ADAMS Accession No. ML19309D596); Vogtle Electric Generating Plant, Units 3 and 4 – NRC Integrated Inspection Reports 05200025/2019001, 05200026/2019001 at 17–18 (May 15, 2019) (ADAMS Accession No. ML19135A691).

¹⁰² See Vogtle COL, 2.D.(12)(g).1.

¹⁰³ See LAR, Encl. 1 at 8.

¹⁰⁴ See *id.* at 11.

the AP1000 certified design and Vogtle COL. Moreover, Petitioner's request that SNC perform structural evaluations and analysis is an attempt to impose additional requirements on the AP1000 design. Such contentions are expressly prohibited.¹⁰⁵ Therefore, Petitioner's arguments are beyond the scope of this proceeding and must be dismissed for failure to satisfy 10 C.F.R. § 2.309(f)(1)(iii).

c. To the extent Proposed Contention Two is an attempted ITAAC challenge, it is beyond the scope of this proceeding and barred because Petitioner missed the deadline to challenge ITAAC and proffered no late filed contention

Petitioner concludes Proposed Contention Two with a vague assertion that the LAR shows the acceptance criteria in the COL are not capable of being met.¹⁰⁶ While unclear, if this is meant to be an ITAAC challenge, it fully fails to satisfy 10 C.F.R. § 2.309(f)(1)(iii) because it is outside the scope of this proceeding and, in any event, fundamentally fails to meet the requirements for an ITAAC contention or late filed contention.

To the extent Petitioner desires to raise any ITAAC challenges, those challenges are subject to the requirements in the AEA, 10 C.F.R. § 52.103 and the NRC's *Federal Register* Notice providing an opportunity for hearing on the Vogtle Unit 3 ITAAC (the "ITAAC Notice").¹⁰⁷ The ITAAC Notice was published on February 12, 2020 and set an April 13, 2020 deadline for all hearing requests.¹⁰⁸ To be granted such a hearing, a petitioner must make a *prima facie* showing that specific acceptance criteria have not or will not be met and the consequences of that nonconformance is inconsistent with providing reasonable assurance of

¹⁰⁵ See 10 C.F.R. § 52.63.

¹⁰⁶ Petition at 16.

¹⁰⁷ See 42 U.S.C. § 2239(a)(1)(B)(ii); 10 C.F.R. § 52.103(b); Vogtle Electric Generating Plant, Unit 3; Hearing Opportunity Associated with Inspections, Tests, Analyses, and Acceptance Criteria, 85 Fed. Reg. 8030 (Feb. 12, 2020).

¹⁰⁸ See ITAAC Notice.

public health and safety.¹⁰⁹ Additionally, all ITAAC challenges are subject to the NRC's pleading requirements in 10 C.F.R. § 2.309. This requires a petitioner to point to a "specific portion" of the ITAAC notification that the petitioner contends is inaccurate, incorrect or incomplete.¹¹⁰

Petitioner has not met any of these requirements. First, Petitioner has missed the deadline for requesting an ITAAC hearing by nearly a month, and fails to even attempt to satisfy the "good cause" late filed contention requirements.¹¹¹ Second, even if such a challenge was timely, Petitioner completely fails to meet ITAAC contention admissibility requirements because Petitioner does not even identify any ITAAC as being in question, much less provide any details on why SNC will not be able to meet any acceptance criteria or discuss the consequences of nonconformance. Finally, and most importantly, the request for an ITAAC hearing is well beyond the scope of this proceeding, which is solely focused on the changes proposed in the LAR.

For the foregoing reasons, Proposed Contention Two should be denied for failure to satisfy 10 C.F.R. § 2.309(f)(1).

¹⁰⁹ See 42 U.S.C. § 2239(a)(1)(B)(ii); 10 C.F.R. § 52.103(b).

¹¹⁰ See 10 C.F.R. § 2.309(f)(1)(vii).

¹¹¹ 10 C.F.R. § 2.309(c) requires good cause for late filed contentions, which includes showing that: (1) the information upon which the filing was made is new, (2) the new information is materially different from previously available information, and (3) the filing has been submitted in a timely fashion based on the availability of the new information. Petitioner has not attempted to make any of these showings, nor could it because the LAR is not new information. It was available more than thirty days prior to the ITAAC contention deadline.

IV. PETITIONER HAS NOT ESTABLISHED STANDING

The Petition fails to provide any basis for standing. Petitioner claims to have “proximity standing” on behalf of its members.¹¹² However, Petitioner has not established that the change to the minimum gap requirements proposed by the LAR presents an obvious potential for offsite consequences. Nor has Petitioner satisfied traditional elements of standing. Thus, the Petition fails to satisfy 2.309(d) and, therefore, should be denied.

The standing requirements in 10 C.F.R. § 2.309(d)(1) require a petitioner to establish: (1) the nature of the petitioner’s right under the AEA 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 effects of any decision or order that may be issued in the proceeding on the petitioner’s interest.¹¹³ To determine whether a Petitioner meets these standards, the Commission typically applies judicial concepts of standing, which requires a petitioner to show: (1) a concrete and particularized injury that is (2) fairly traceable to the challenged action and (3) is likely to be redressed by a favorable decision.¹¹⁴

In certain proceedings, the “proximity presumption” allows petitioners to establish standing by simply showing geographical proximity to a reactor. However, this presumption is limited to proceedings for “construction permits, operating licenses, or *significant amendments* thereto such as the expansion of the capacity of a spent fuel pool.”¹¹⁵ For less-significant license amendments, petitioners cannot rely on proximity to establish standing absent a showing of an

¹¹² See Petition at 5.

¹¹³ 10 C.F.R. § 2.309(d).

¹¹⁴ See *Yankee Atomic Elec. Co.* (Yankee Nuclear Power Station), CLI-96-1, 43 N.R.C. 1, 6 (1996).

¹¹⁵ *St. Lucie*, CLI-89-21, 30 N.R.C. at 329 (citation omitted) (emphasis added); see also *Peach Bottom*, CLI-05-26, 62 N.R.C. at 580-91.

“obvious potential for offsite consequences.”¹¹⁶ A petitioner bears the burden of proving an “obvious potential for offsite consequences” by identifying a credible threat of injury.¹¹⁷ Where the proximity presumption does not apply, a petitioner can meet the traditional elements of standing by providing a “plausible chain of causation” explaining how the amendment would result in a “distinct new harm or threat” beyond that posed by the license facility itself.¹¹⁸

Petitioner attempts to establish that its members have proximity standing by submitting declarations of four individuals stating that they live within 50 miles of Vogtle Units 3 and 4.¹¹⁹ However, Petitioner incorrectly assumes the proximity presumption applies without even attempting to explain how the change to the minimum gap requirements presents an “obvious potential for offsite consequences” or otherwise shows that the proximity presumption should apply.¹²⁰ Instead, the Petition and Standing Declarations note the general risk of earthquakes and releases of radioactive material but fail to explain how the LAR increases the risk of either one

¹¹⁶ See *St. Lucie*, CLI-89-21, 30 N.R.C. at 329-30; *Peach Bottom*, CLI-05-26, 62 N.R.C. at 580-81; *Zion*, CLI-99-04, 49 N.R.C. at 191.

¹¹⁷ See *Energy Solutions, LLC Radioactive Waste Import/Export Licenses*, CLI-11-03, 73 N.R.C. 613, 622 (2011); see also *No Gas Pipeline v. FERC*, 756 F.3d 764, 767 (D.C. Cir. 2014) (“A ‘conjectural or hypothetical’ injury is not sufficient [to establish standing].” (citing *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560 (1992))); *Commonwealth Edison Co. (Zion Nuclear Power Station, Units 1 & 2)*, CLI-00-05, 51 N.R.C. 90, 98 (2000) (“[B]road and conclusory statements are insufficient to establish standing.”). Licensing boards need not “uncritically accept such assertions, but may weigh those informational claims and exercise its judgment about whether the standing element at issue has been satisfied.” *Strata Energy, Inc. (Ross In Situ Recovery Uranium Project)*, LBP-12-3, 75 N.R.C. 164, 177 (citing *PPL Bell Bend LLC (Bell Bend Nuclear Power Plant)*, CLI-10-7, 71 N.R.C. 133, 139 (2010)).

¹¹⁸ *Zion*, CLI-99-04, 49 N.R.C. at 192 (1999).

¹¹⁹ See BREDL, *Declarations of Standing* (May 11, 2020) (ADAMS Accession No. ML20132D320) (“Standing Declarations”).

¹²⁰ See, e.g., *Zion*, CLI-99-04, 49 N.R.C. at 192 (“[A] petitioner cannot base his or her standing simply upon a residence or visits near the plant, unless the proposed action quite ‘obvious[ly] entails an increased potential for offsite consequences.’”). Petitioner’s failure to adequately explain why the proximity presumption applies is exacerbated by the fact the Petition fails to challenge SNC’s conclusion that the changes proposed by the LAR maintain the margin necessary to ensure there will be no interaction between the nuclear island and annex building and do not impact safety functions. See LAR, Encl. 1 at 9.

of these events.¹²¹ The Petition and Standing Declarations are mere conclusory statements.¹²²

As explained in more detail above, Petitioner also focuses on aspects of the Vogtle Unit 3 facility that are not impacted by the LAR, like the structural integrity of the basemat and settlement.

Petitioner's focus on these elements is, in and of itself, fatal to its claim of standing.¹²³ Likewise, Petitioner's assertions entirely fail to support any "plausible chain of causation" explaining how the LAR would result in a "distinct new harm or threat" as required to be shown under a traditional standing analysis.

Petitioner has not established that its members have standing in this license amendment proceeding because its conclusory assertions do not demonstrate or allege an injury caused by the license amendment. The Petition should be dismissed for failure to satisfy 10 C.F.R. § 2.309(d).

V. CONCLUSION

The Petition should be denied because Petitioner has not satisfied the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1) nor established standing. Petitioner's inaccurate, unsupported assertions inappropriately focus on the timing and purpose of the LAR and fail to challenge the modification proposed by the LAR itself. Instead, Petitioner raises issues afforded finality in the AP1000 certified design and Vogtle licensing basis, and provides

¹²¹ See Petition at 4 ("A catastrophic earthquake affecting Vogtle Unit 3 could reasonably create a distinct and palpable harm..."); *id.* at 5 ("Granting of the LAR would present a tangible and particular risk of harm to the health and well-being of our members."); see Standing Declarations at 1 ("I believe that these facilities are inherently dangerous and the proposed amendment would increase the risk to my health and safety. In particular, I am 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.").

¹²² To establish proximity standing, a petitioner must provide "fact-specific allegations, not conclusory assertions." *Palisades*, CLI-07-18, 65 N.R.C. at 410.

¹²³ See *Zion*, CLI-99-04, 49 N.R.C. at 188 ("[A] petitioner seeking to intervene in a license amendment proceeding must assert an injury-in-fact associated with the challenged license amendment, not simply a general objection to the facility.") (emphasis in original); see also *Ne. Nuclear Energy Co.* (Millstone Nuclear Power Station, Unit 3), LBP-98-22, 48 N.R.C. 149, 155 (1998), *aff'd* CLI-98-20, 48 N.R.C. 183, 184 (1998) (finding standing was not established because the petition was "not focused, as it should be, on...the subject of the license amendment").

no explanation or support showing that the LAR is inconsistent with these requirements. Petitioner ultimately raises issues and requests actions that are beyond the scope of this proceeding. Accordingly, the Petition must be denied.

Respectfully submitted,

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

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June 5, 2020

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
)	
SOUTHERN NUCLEAR OPERATING COMPANY, INC.)	Docket No. 52-025-LA3
)	
License Amendment Application for Combined License NPF-91 (Vogtle Electric Generating Plant, Unit 3))	June 5, 2020

CERTIFICATE OF SERVICE

Pursuant to 10 C.F.R. § 2.305, I certify that on this date copies of the foregoing Answer Opposing Petition to Intervene and Request for Hearing were served upon the Electronic Information Exchange (the NRC’s E-Filing System) in the above captioned matter.

Signed electronically by

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