

**UNITED STATES OF AMERICA  
U.S. NUCLEAR REGULATORY COMMISSION  
BEFORE THE SECRETARY**

In the Matter of:  
SOUTHERN NUCLEAR OPERATING CO.  
License Amendment Application for  
Combined License NPF-91  
Vogtle Electric Generating Plant Unit 3

Docket No. 52-025-LA-3

December 7, 2020

Date-corrected to Dec. 7 on  
page 3 line 18, page 4 line 20 and  
page 11 line 10.  
Re-filed via NRC EIE 12/10/20

**MOTION TO REOPEN PROCEEDING AND REQUEST TO AMEND  
CONTENTION 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**

In accord with 10 C.F.R. § 2.326(a) and 10 C.F.R. § 2.309, The Blue Ridge Environmental Defense League and its chapter Concerned Citizens of Shell Bluff (“BREDL” or “Petitioner”) submit the following motions to reopen the above-captioned proceeding and submit an amended contention.

**Background**

On May 11, 2020, in accord with a notice published by the Nuclear Regulatory Commission (“NRC” or “Commission”) at 85 Fed. Reg. 13944, the BREDL filed a petition seeking leave to intervene and requesting a hearing on License Amendment Request 20-001 (“LAR”) by Southern Nuclear Operating Company (“SNC” or “Company”). Also on May 11<sup>th</sup>, BREDL filed Freedom of Information Act request

number NRC-2020-000234 (“FOIA”).<sup>1</sup> Subsequently, NRC Staff and SNC filed answers and on June 12 BREDL filed its reply. The Atomic Safety and Licensing Board ordered an initial prehearing and telephonic oral arguments were held on July 1, 2020. On August 10, the ASLB issued Memorandum and Order LBP-20-08, granting standing but denying Petitioner’s intervention, dismissing the two contentions and terminating the proceeding. The NRC FOIA Office responded to Petitioner’s request with an Interim Response on September 22 and Final Response on November 6, 2020.

### **MOTION TO REOPEN**

#### **Satisfaction of 10 C.F.R. § 2.326**

In accord with 10 C.F.R. § 2.326(a), a motion to reopen must be timely, address a significant issue and demonstrate a materially different result. Herein, Petitioner’s motion to reopen meets all three criteria.

(1) This motion to reopen a closed record to consider additional evidence is timely filed, 30 days after the NRC FOIA Office transmitted its final document response on November 6, 2020. The Petitioner’s FOIA request was submitted on May 11, 2020, before the Atomic Safety and Licensing Board commenced the proceeding. Information provided just 30 days ago to Petitioner could not therefor be placed before the Atomic Safety and Licensing Board during the now-closed proceeding.

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<sup>1</sup> The FOIA Office Acknowledgment Letter stated: “We received your Freedom of Information Act (FOIA) request on May 11, 2020. Your request, which seeks access to documents, data and calculations necessary for review of the License Amendment for Vogtle Unit 3 regarding seismic gap, and any documents, data and calculations regarding the analysis performed by the NRC Audit Team members in this matter, has been assigned the following reference number that you should use in any future communications with us about your request: NRC-2020-000234. To ensure the most equitable treatment possible of all requesters, the NRC processes requests on a first-in, first-out basis, using a multiple track system based upon the estimated time it will take to process a request. Based on your description of the records you are seeking, we estimate completion of your request will be on or before June 9, 2020.”

Also, given the gravity of the safety concerns to be raised in the amended contention regarding the ability of Plant Vogtle Unit 3 to withstand a safe-shutdown earthquake (SSE), Petitioner posits an exceptionally grave issue before the presiding officer.

(2) The motion to reopen and request to amend contention address a significant safety and environmental issue, the performance of Plant Vogtle Unit 3 during a safe-shutdown earthquake. The seismic gap issue embraces whether the distance between the Nuclear Island and adjacent structures will be enough to isolate them from damaging contact during horizontal accelerations resulting from potential earthquakes of magnitude 4.1 to 7.3, historical seismic events in Georgia and neighboring South Carolina, respectively.

(3). Had the newly proffered evidence been considered initially, in time to present the evidentiary trail at the ASLB pre-hearing conference, Petitioner contends that the ASLB would not have approved the LAR due to the lack of data, an incomplete application, or a lack of substantial analyses regarding the unstable Nuclear Island basemat foundation at Vogtle Unit 3. Petitioner has submitted with this motion an affidavit which sets forth the factual, technical bases in support of these criteria. *See* Gundersen Declaration of December 7, 2020.

In accord with 10 C.F.R. § 2.326(b), this motion is accompanied by an affidavit which sets forth the factual and technical bases for the movant's claim that the criteria of this rule have been satisfied.

### **CAUSE TO FILE AMENDED CONTENTION**

#### **Satisfaction of 10 C.F.R. § 2.309(c)**

Pursuant to 10 C.F.R. § 2.309(c), motions for leave to file amended contentions after the deadline must demonstrate good cause to the presiding officer that relevant information was not previously available, that the information is materially different from previously available and that the new filing is submitted in a timely fashion. Herein, Petitioner demonstrates good cause.

- (i) The information upon which this motion and amended contention are based was not available to Petitioner or the public until November 6, 2020 in response to a FOIA request filed by the Petitioner on May 11, 2020. In fact, the FOIA request was prompted by a specific lack of availability of key information regarding approval of a license amendment, information held and viewed exclusively in an Electronic Reading Room maintained by the licensee.
- (ii) The information upon which this motion and amended contention are based is materially different because it includes emails and other documents communicating concerns regarding safety issues, information which was not available in the NRC ADAMS database, Public Document Room or other means open to Petitioner.<sup>2</sup> A Declaration analyzing this difference by Arnold Gundersen is submitted with this motion by Petitioner (“Gundersen Declaration of December 7, 2020”).

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<sup>2</sup> “[T]he licensee made the documents and calculations you request available to the staff in an electronic reading room as part of an audit. The staff does not have possession of the documents and calculations that were identified in the audit plan.” Email C. Santos to L. Zeller, May 8, 2020.

(iii) The motions to reopen and for leave to file an amended contention are filed within 30 days of the date the NRC FOIA Office fulfilled the Petitioner's request for the information.

BREDL opposes the granting of license amendment LAR-20-001. Petitioner hereby sets forth our interests in this proceeding, the reasons this intervention should be granted, and the specific contention we seek to have addressed. As demonstrated below, Blue Ridge Environmental Defense League has representational standing, through its members, to make this request.

### **Description of the Proceeding**

On February 9, 2012, the Nuclear Regulatory Commission approved Southern Nuclear Operating Company's application for a license to construct and operate two additional Westinghouse AP1000 reactor units at Plant Vogtle, located on the banks of the Savannah River in Shell Bluff, Georgia. Vogtle Electric Generating Plant Units 3 and 4 are now under construction.

On February 7, 2020, the Company submitted a request seeking a license amendment and exemption for Vogtle Electric Generating plant ("VEGP") Unit 3 proposing to depart from the Updated Final Safety Analysis Report ("UFSAR") Tier 2 and Tier 2 information.<sup>3</sup> The request involves related changes to VEGP Unit 3 plant-specific Tier 1 information, with corresponding changes to the associated VEGP Unit 3 COL Appendix C.

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<sup>3</sup> Request for License Amendment and Exemption LAR-20-001, 7 February 2020

The requested license amendment proposed changes to VEGP Unit 3 ITAAC (Inspections, Tests, Analyses and Acceptance Criteria); specifically, to modify the north-south minimum seismic gap requirements above grade between the nuclear island and the annex building west of Column Line I from elevation 141 feet to 154 feet to accommodate as-built nonconformances in the construction of Unit 3. See Figure 1 at right. Figure 1 Plan View Shows Area of Non-conformance<sup>4</sup>

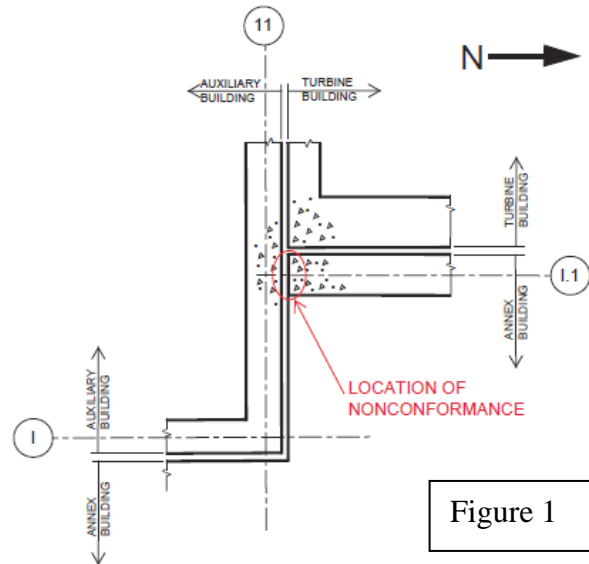


Figure 1

### Description of the Petitioners

Blue Ridge Environmental Defense League is a regional, community-based non-profit environmental organization working in Virginia, North Carolina, South Carolina, Tennessee, Alabama and Georgia. BREDL's founding principles are earth stewardship, environmental democracy, social justice, and community empowerment. BREDL encourages government agencies and citizens to take responsibility for conserving and protecting our natural resources and protecting public health. BREDL also functions as a "watchdog" of the environment, monitoring issues and holding government officials accountable for their actions. BREDL is a league of community groups called "chapters." BREDL and its chapters are unitary, with a common incorporation, financial

<sup>4</sup> Request for License Amendment, LAR-20-001, 7 Feb 2020 "Location of Nonconforming Gap between End of Annex Building Wall I.1 and the Auxiliary Building," Enclosure 1, Page 4, Figure 1,

structure, board of directors and executive officer. BREDL chapter Concerned Citizens of Shell Bluff was founded March 6, 2010 to advocate for environmental justice in Georgia.

### **Standing 10 CFR § 2.309(d)**

Under 10 CFR § 2.309(d), a request for hearing or petition for leave to intervene must address 1) name and address of petitioner, 2) the nature of the petitioner's right under the Atomic Energy Act to be made a party to the proceeding, 3) the nature and extent of the petitioner's property, financial, or other interest in the proceeding, and 4) the possible effect of any order that may be entered in the proceeding on the petitioner's interest. Other standing requirements are found in NRC case law. See *Pacific Gas & Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), LBP-02-23, 56 NRC 413, 426 (2002).<sup>5</sup>

As demonstrated by the declarations of standing filed with this motion, Petitioner's members live near Vogtle. Representational standing has been granted to an

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<sup>5</sup> In determining whether a petitioner has sufficient interest to intervene in a proceeding, the Commission has traditionally applied judicial concepts of standing. See *Metropolitan Edison Co.* (Three Mile Island Nuclear station, Unit 1), CLI-83-25, 18 NRC 327, 332 (1983) (citing *Portland General Electric Co.* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610 (1976)). Contemporaneous judicial standards for standing require a petitioner to demonstrate that (1) it has suffered or will suffer a distinct and palpable harm that constitutes injury-in-fact within the zone of interests arguably protected by the governing statutes (e.g., the Atomic Energy Act of 1954 (AEA), the National Environmental Policy Act of 1969 (NEPA)); (2) the injury can be fairly traced to the challenged action; and (3) the injury is likely to be redressed by a favorable decision. See *Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plants), LBP-99-25, 50 NRC 25, 29 (1999). An organization that wishes to intervene in a proceeding may do so either in its own right by demonstrating harm to its organizational interests, or in a representational capacity by demonstrating harm to its members. See *Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), LBP-98-9, 47 NRC 261, 271 (1998). To intervene in a representational capacity, an organization must show not only that at least one of its members would fulfill the standing requirements, but also that he or she has authorized the organization to represent his or her interests. See *Private Fuel Storage, L.L.C.* (Independent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 168, *aff'd on other grounds*, CLI-98-13, 48 NRC 26 (1998).

organization with members within 15 miles of a plant. *See* Entergy Nuclear Vermont Yankee, L.L.C. and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station), LBP-04-28, 60 NRC 548, 553-54.

Further, as in *Vermont Yankee*, the LAR is an action with obvious potential for offsite consequences. A catastrophic earthquake affecting Vogtle Unit 3 could reasonably create a distinct and palpable harm that constitutes injury-in-fact within the zone of interests arguably protected by the governing statutes. The injury could be fairly traced to the conditions permitted by granting the LAR and the injury could be redressed by a denial or modification of the LAR.

Also, there is authority indicating that to establish injury-in-fact it is not necessary to proffer radiation impacts that amount to a regulatory violation. *See Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-01-35, 54 NRC 403, 417 (2001) (citing *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 247-48 (1996)).

Finally, a May 5, 2020 decision expanded previous holdings regarding associational representation. The Court held that an organization had standing to sue on behalf of people associated with the organization who were the “functional equivalent” of members. *See Flyers Rights Educ. Fund v. USDOT*, No. 19-1071 (D.C. Cir. 5-5-2020), slip op. at 3-6.

In light of the above, standing to participate in this proceeding is demonstrated by the declarations of the following members of the Blue Ridge Environmental Defense League and Concerned Citizens of Shell Bluff who have authorized Petitioners to represent their interests in a motion to reopen the proceeding.



1. Richard Colclough, Hephzibah, GA
2. Claude Howard, Waynesboro, GA
3. Melvin Stewart, Augusta, GA
4. Rev. Charles N. Utley, Augusta, GA

These individuals who signed declarations of standing live well within 25 miles of Plant Vogtle; in fact, some are within 5 miles. *Locus standi* is based on three requirements: injury, causation and redressability. Petitioners hereby renew their request to be made a party to the proceeding because: 1) Granting of the LAR would present a tangible and particular risk of harm to the health and well-being of its members, 2) The NRC has granted a license amendment which directly affects its members, and 3) The Commission is the sole agency with the power to modify a license to construct and operate a commercial nuclear power plant. The Petitioners' members seek to protect their health and lives by opposing the license amendment.

#### **Petitioner's Analysis was Hindered by Lack of Available Data**

From the beginning, BREDL's review and analysis were seriously hampered by the lack of complete engineering analyses and information necessary for its review and petition to intervene. The NRC held Petitioner at arm's length from the information obtained through its FOIA.

As I indicated in my e-mailed response this morning, May 8, 2020, at 9:05 a.m., the licensee made the documents and calculations you request available to the staff in an electronic reading room as part of an audit. The staff does not have possession of the documents and calculations that were identified in the audit plan. The NRC staff's safety review of License Amendment Request 20-001 will rely on information placed on the docket by the licensee. You also request "documents, notes or calculations" the NRC staff audit team made in carrying

out the audit. As stated in the audit plan, the staff will prepare an audit summary report that will be entered as an official agency record in ADAMS.<sup>6</sup>

The NRC continues this pattern of non-response to requests for information with its invocation of the ERR, Electronic Reading Room, as seen above. It is tantamount to needing a secret decoder ring to get to the treasure map. Under the Rules of Evidence, all documents taken for the record must be open to examination by all parties. 10 CFR 13.34(h).

Finally, the two-stage FOIA response to our request presents a potential timeliness loophole. In the interest of reliance on complete information and the husbanding of resources for both NRC and the Petitioner, BREDL forwent the filing of the extant motion to reopen and amend contention based solely on the Interim Reply. The Final Reply was made available on November 6, 2020. Surely the Commission would not countenance such unfair tactics on the part of NRC Staff.

### **Overview of the Amended Contention to be Raised**

Sometime in 2014, Southern Nuclear Operating Company commenced construction of the foundation for the Auxiliary and Annex Buildings, portions of which are considered part of the Nuclear Island (NI). Walls were constructed and concrete poured shortly afterward, certainly by sometime in 2015.<sup>7</sup>

Five years later, after the foundation and walls were already completed, SNC notified the NRC on February 7, 2020 that it was seeking a License Amendment due to

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<sup>6</sup> Email from Cayetano Santos, NRC Project Manager, to Louis Zeller, Executive Director of the Blue Ridge Environmental Defense League, dated May 8, 2020

<sup>7</sup> SNC has determined that the Vogtle construction schedule is “Proprietary” and the NRC has concurred so it is impossible for experts representing Non-Governmental Organizations such as BREDL to determine the exact construction dates from NRC documentation.

the discovery that walls and the entire foundation of the Auxiliary Building have inexplicably moved, sunk and become distorted. Now, the Company has proposed to modify what it calls the “seismic gap” between the walls of the NI and the Annex building.

The Petitioner hereby seeks to amend a contention centered on both the seismic gap and the information gap which are at the core of SNC’s license amendment request: Basemat, Foundation and Construction Factors Create Unacceptable Operational Risk to Public Health and Safety.

Petitioner’s requests to reopen, to amend and for leave to intervene are supported by a new affidavit, Gundersen Declaration of December 7, 2020 (Attachment A). (Mr. Gundersen also provided an expert declaration in support of BREDL’s May 11, 2020 petition to intervene, which Petitioner includes by reference.)

**AMENDED CONTENTION: Basemat, Foundation and Construction Factors Create Unacceptable Operational Risk to Public Health and Safety.**

**New Information**

The recently provided NRC response to the May 11, 2020 BREDL FOIA request shows that the NRC staff knew of the information supporting BREDL’s Contention 2 prior to the ASLB pre-hearing conference. It appears that NRC staff withheld that information not only from BREDL but also from the ASLB.

SNC portrayed its LAR request for a change in the seismic gap requirements as a static dimension change. SNC suggested that the gap was a simple construction error. The FOIA response information clearly shows that the wall in question continues to move due to the unanticipated and unmeasured sinking of the Vogtle Unit 3 foundation.

If this FOIA information, which was known to the NRC but not included in the ASLB record, had been provided to BREDL's expert witness and the ASLB, Petitioner believes that the ASLB would have admitted BREDL's contention for evidentiary hearings and the LAR would not have been approved .

Finally, in the process of responding to BREDL's FOIA request, the NRC has redacted its conclusions to its safety analysis, apparently to avoid disclosure to BREDL, the ASLB, and the public record.

### **Relevant Documents Obtained After ASLB Proceeding Closed<sup>8</sup>**

- FOIA 168: A two sentence cover letter from Amitava Ghosh to Joseph Colaccino dated Thu, 23 Apr 2020 21:22:27 +0000
- FOIA 169-170: A two page management briefing PowerPoint presentation from April 23, 2020 entitled Management Briefing DEX 4-23-20 Revised Clean. The document received by BREDL is heavily redacted. The management briefing was entitled "LAR 20-001, Seismic GAP Between Annex Building and Nuclear Island, Vogtle 3"
- FOIA 171: A two sentence cover letter from Amitava Ghosh to Joseph Colaccino dated Thu, 23 Apr 2020 21:10:22 +0000. This document was sent five minutes earlier than item 1 above and contained an earlier rough draft of item 2 above.
- FOIA 172-174: A three-page draft management briefing with marginal notes of the second revision of PowerPoint presentation from April 23, 2020 entitled Management Briefing DEX 4-23-20 Revised.docx. The document received by BREDL is heavily

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<sup>8</sup> The numbering system here employed is based on the numerical page order of the FOIA response.

redacted. There was no first revision of this document provided in the FOIA response by the NRC.

These documents reveal evidence that Southern Company's LAR 20-001 makes the site and the reactor under construction patently unsafe to operate and therefore should have been unequivocally rejected by the ASLB. For example:

- a) "the staff could not determine the seismic gap predicted in future" however this quote was eliminated in the formal presentation to NRC management and this information was not provided to the ASLB during the pre-hearing conference.
- b) "A margin of 1/ 16" between a Cat I structure (NI) and a non-safety structure (Annex Building) in the North-South direction can reduce further due to continued settlement."
- c) "There is no settlement data between these two structures in the North-South direction..."
- d) "the predicted settlement is significantly different than (sic) what has been observed in the licensee document."
- e) "The seismic gap between Cat 1 and Cat II (Annex Building) structure is small. Potential Safety significance occurs if the gap between Cat 1 and Cat II closes to zero because there is no analysis presented showing that a zero gap will not affect the structural integrity of the CAT I structure by the Licensee."
- f) "...the ESEA staff noted that the margin is extremely small (only 1/16)"
- g) "SNC needs either (1) to provide a realistically predicted settlement affecting the seismic gap in the North-South direction from the remaining loadings of the completed structures or (2) to address that the zero gap is acceptable based on an analysis

demonstrating that a Cat II structure (Annex Building) will not affect the structural integrity of the Cat 1 Nuclear Island during an SSE.”

h) “... **[the conclusion is redacted]**... *Therefore the staff has another issue of using predicted settlement to assess the seismic gap during a Safe Shutdown Earthquake*”

Whatever this second new issue is remains unknown to BREDL, to me, and possibly the ASLB. **[Emphasis and statement added to describe redactions in document]**

In short, the Nuclear Island at Vogtle Unit 3 is unstable, is dishing at an alarming rate, and it will sink further in the future, jeopardizing Safety Related systems and structures.

#### **Satisfaction of 10 CFR § 2.309(f)**

*(i) Specific issue of law or fact to be raised*

New nuclear power plant construction must be conducted in accordance with the combined license (COL) current licensing basis (CLB), the Atomic Energy Act, and the applicable regulations. The change process for the COL is set forth in 10 CFR 52.98.

Any modification to, addition to, or deletion from the terms and conditions of a combined license, including any modification to, addition to, or deletion from the inspections, tests, analyses, or related acceptance criteria contained in the license is a proposed amendment to the license.

Any responsible officer of a firm constructing...any facility or activity which is licensed...pursuant to the Atomic Energy Act of 1954 as amended...who obtains information reasonably indicating that such facility...contains a defect which could create

a substantial safety hazard...shall immediately notify the Commission of such failure...to comply. 42 USC 5846 Sec. 206.

*(ii) Brief explanation of the contention*

SNC notified the NRC on February 7, 2020 that it was seeking a License Amendment due to the discovery that walls and the entire foundation of the Auxiliary Building have inexplicably moved, sunk and become distorted. The Company proposed to modify what it calls the “seismic gap” between the walls of the Nuclear Island and the Annex building, ignoring the critical underlying safety conditions that caused the gap to narrow. Construction of Vogtle Unit 3 should be halted until Southern Nuclear Operating Company: 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.

*(iii) Contention is within the scope of the proceeding*

New nuclear power plant construction must be conducted in accordance with the combined license (COL) current licensing basis (CLB)<sup>9</sup> including Inspections, Tests,

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<sup>9</sup> As defined in 10 CFR 54.3 – CLB is the set of NRC requirements applicable to a specific plant and a licensee’s written commitments for ensuring compliance with and operation within applicable NRC requirements and the plant-specific design basis (including all modifications and additions to such commitments over the life of the license) that are docketed and in effect. The CLB includes the NRC regulations contained in 10 CFR Parts 2, 19, 20, 21, 26, 30, 40, 50, 51, 52, 54, 55, 70, 72, 73, 100 and appendices thereto; orders; license conditions; exemptions; and technical specifications. It also includes the plant-specific design-basis information defined in 10 CFR 50.2 as documented in the most recent final safety analysis report as required by 10 CFR 50.71 and the licensee’s commitments remaining in effect that

Analyses and Acceptance Criteria (ITAAC), the Atomic Energy Act, and the applicable regulations.

Information provided to the Commission by an applicant for a license or by a licensee or information required by statute or by the Commission's regulations, orders, or license conditions to be maintained by the applicant or the licensee shall be complete and accurate in all material respects. 10 CFR §50.9(a) Completeness and accuracy of information. Pursuant to 10 CFR 52.98, the NRC is responsible for approval of any modification, addition or deletion from the license (CLB).

Pursuant to 10 CFR 52.98, the NRC is responsible for approval of any modification, addition or deletion from the license (CLB). SNC's requested amendment proposed to depart from CLB Updated Final Safety Analysis Report (UFSAR) Tier 2\* and Tier 2 information applicable only to VEGP Unit 3 (which includes the VEGP Unit 3 plant-specific Design Control Document (DCD) Tier 2\* and Tier 2 information) and involved related changes to VEGP Unit 3 plant-specific Tier 1 information, with corresponding changes to the associated VEGP Unit 3 COL Appendix C information.

*(iv) Issue is material to the findings NRC must make*

Material issues: Are the nonconformance and exemption of the LAR inimical to public health and safety? Is the so-called seismic gap the result of foundation problems which have plagued the construction of Vogtle 3 and 4 reactors since the very beginning of construction project? For example, in 2012 construction was halted due to improperly installed rebar, and in 2013 the first concrete pour at Vogtle led to an NRC finding of

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were docketed licensing correspondence such as licensee responses to NRC bulletins, generic letters, and enforcement actions, as well as licensee commitments documented in NRC safety evaluations or licensee event reports.



“significant breakdown in the Quality Assurance of [then contractor] CB&I.”<sup>10</sup> Is the differential downward deflection at the center of the foundation—dishing—exhibited at Vogtle being ignored in the current LAR?

One necessary component of NRC review of a license amendment application is review of the proposed amendment’s compatibility with the licensee’s existing design and licensing basis. If the NRC finds that there would be unacceptable incompatibilities, it may condition its approval of the amendment upon the licensee making necessary adjustments to the existing design and licensing basis to resolve these incompatibilities. Entergy Nuclear Vermont Yankee, L.L.C. and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station), LBP-04-28, 60 NRC 548, 565 (2004).

*(v) Expert opinion supporting Petitioner’s contention*

In seeking to minimize the underlying structural requirements approved as a baseline safety design feature for Vogtle Unit 3 for the approval of its initial construction license, SNC appears to be using a license amendment request to ignore the significant seismic and structural concerns. In this License Amendment process, SNC has ignored key factors relating to the degraded condition of the nuclear island: 1) The foundation of the Seismic Category 1 Nuclear Island has settled “more at the center and less at the perimeter”; 2) A wall has moved closer to the NI; 3) That same wall now is not level, and is leaning; 4) If the foundation of the NI has settled, “more at the center and less at the

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<sup>10</sup> Southern Nuclear Operating Company Vogtle Electric Generating Plant Units 3 and 4 Request for License Amendment: Basemat Concrete/Rebar Details (LAR-12-007) August 1, 2012

“The nuclear island structures, consisting of the containment, shield building, and auxiliary building are founded on the 6-foot-thick, cast-in-place, reinforced concrete basemat foundation. The basemat provides the interface between the nuclear island structures and the supporting soil. The basemat transfers the load of nuclear island structures to the supporting soil. The basemat transmits seismic motions from the supporting soil to the nuclear island. Resistance to sliding of the concrete basemat foundation is provided by soil friction” Enclosure 1 at 3 of 10, <https://www.nrc.gov/docs/ML1221/ML12215A084.pdf>

perimeter,” other systems and structures must also have become deformed yet have not been evaluated. SNC seeks to portray the “as-built condition” of the wall as a minor issue, less than an inch deflection from the designed value. SNC states in its License Amendment request that it seeks:

“to modify the north-south seismic gap requirement above grade between the nuclear island and the annex building west of Column Line I from El. 141’ through El. 154’ in the licensing basis to accommodate construction as-built localized nonconformances at VEGP Unit 3. Elevation 141’ is mid-span with respect to the auxiliary building and annex building.” [Emphasis Added]

This statement by SNC is incorrect. The “as-built” condition of the wall in question was correct at the time it was built. Its most recent location is not an “as-built localized nonconformance”. Without human intervention, the wall moved after it was constructed because the NI is sinking.

The structural engineering term for the differential downward deflection forming at the center of the Vogtle foundation, due to additional weight in the middle of the structure, is called ‘dishing’ or ‘cupping’ and is known to present serious structural and seismic problems beyond the leaning walls encountered at Vogtle Unit 3. The dishing being exhibited at Vogtle was never anticipated and therefore was not considered in Vogtle’s original design. Currently the serious structural and seismic risk issue at Vogtle has been ignored in the License Amendment Request. *See* Gundersen May 11, 2020 Declaration at paragraph 21.

*(vi) Information showing a genuine dispute with licensee*

The position taken by SNC is that there is an “as-built” reduction in the distance between the walls of the Nuclear Island and the Annex Building. Petitioner submits that the reduction is the result of movement of the walls and not a so-called as-built error.

Federal regulations require that information provided to the Commission must be complete and accurate in all material respects. An applicant or licensee violates this rule when information has significant implications for public health and safety or common defense and security. § 50.9 Completeness and accuracy of information. Even without scienter, “forgiving innocent mistakes puts a premium on ignorance....” Virginia Electric & Power Co., (North Anna Power Station, Units 1 and 2), CLI-76-22, 4 NRC 480, 491 (1976), *aff’d*, 571 F.2d 1289 (4th Cir. 1978).

BREDL hereby seeks that the decision on license amendment LAR-20-001 be reopened by the Commission for resolution of the Petitioner’s contention, including the operational consequences of nonconformance with the Current Licensing Basis. SNC has not demonstrated full compliance with the Atomic Energy Act and implementing regulations. A licensee generally bears the ultimate burden of proof. Metropolitan Edison Co. (Three Mile Island Nuclear Station, Unit 1), ALAB-697, 16 NRC 1265, 1271 (1982), citing 10 C.F.R. § 2.325 (formerly § 2.732).

## **CONCLUSION**

The November 6<sup>th</sup> FOIA response material provides information that supports and amplifies the significance and accuracy of Petitioner’s amended contention; moreover, it also disproves assertions in filings and oral testimony by NRC Staff and Southern Nuclear Operating Company representatives upon which the Atomic Safety and Licensing Board judges relied for dismissal of the Contention.

The NRC Staff’s use of a private, corporate Electronic Reading Room (ERR), or “portal” placed information used in licensing LAR-20-001 off limits to the interested

public and to certain parties to licensing proceedings. NRC Rules of Evidence state: “All documents and other evidence offered or taken for the record shall be open to examination by all parties....” 10 CFR § 13.34(h). ASLB Chairman Bollwerk recognized this imbalance: “All this suggests that in preparing a hearing request challenging a license application, a petitioner such as BREDL, while arguably not entitled to access more applicant information than the Staff had before it in making its docketing determination, also would not be entitled to any less, either by virtue of the information being publicly available in the agency’s licensing docket (or otherwise publicly accessible in its ADAMS document management system) or via an appropriate protective order in the case of any docketed non-public information.” LBP-20-08.

Ultimately, all nuclear power plant construction under Part 52 must be in accord with the plant’s design and current licensing basis (CLB) as well as the applicable statutes and regulations. The process for modifying the CLB is set forth in 10 CFR 52.98(f).<sup>11</sup> A licensee that requests an amendment or exemption must perform 1) an applicability determination evaluation, 2) a safety-security interface evaluation, 3) a construction impacts evaluation and 4) a 10 CFR 50.59-like screening evaluation. *See* COL-ISG-025. If upon completion of its review the NRC finds that there would be unacceptable incompatibilities, it may condition its approval of the LAR upon the licensee making adjustments to the existing design and licensing basis. *See* Entergy Nuclear Vermont Yankee, L.L.C. and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station), LBP-04-28, 60 NRC 548, 565 (2004). The interested

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<sup>11</sup> §52.98(f): Any modification to, addition to, or deletion from the terms and conditions of a combined license, including any modification to, addition to, or deletion from the inspections, tests, analyses, or related acceptance criteria contained in the license is a proposed amendment to the license. There must be an opportunity for a hearing on the amendment.

public cannot be shut out from such proceedings.

The Company's License Amendment Request does not comply with the current licensing basis, the applicable statutes and regulations, or the process for modifying the current licensing basis for Vogtle Unit 3 as set forth in 10 CFR 52.98(f). The Nuclear Regulatory Commission should have rejected SNC's license amendment request. Our principal interests are significant safety issues, the health and safety of our members living near the plant and the general public. We hereby request that the Commission reopen LAR-20-001.

**Confer with Opposing Counsel**

Petitioner's representative has conferred with opposing counsel for NRC Staff and SNC in this matter. Neither party supports this request.

Respectfully submitted

A handwritten signature in black ink, appearing to read "Louis A. Zeller", followed by a horizontal line.

Louis A. Zeller, Executive Director  
Blue Ridge Environmental Defense League  
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Phone: (336) 982-2691  
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**UNITED STATES OF AMERICA  
U.S. NUCLEAR REGULATORY COMMISSION  
BEFORE THE SECRETARY**

In the Matter of:  
SOUTHERN NUCLEAR OPERATING CO.  
License Amendment Application for  
Combined Licenses NPF-91  
Vogtle Electric Generating Plant Unit 3

Docket No. 52-025-LA-3

**CERTIFICATE OF SERVICE**

I hereby certify that the date-corrected

**MOTION TO REOPEN PROCEEDING AND REQUEST TO AMEND  
CONTENTION 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**

has been filed through the Electronic Information Exchange system  
this 10<sup>th</sup> day of December, 2020.



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