UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD PANEL

Before the Licensing Board:

G. Paul Bollwerk, III, Chairman Nicholas G. Trikouros Dr. James F. Jackson

In the Matter of SOUTHERN NUCLEAR OPERATING CO. Vogtle Electric Generating Plant Units 3 and 4 Docket Nos. 52-025-COL and 52-026-COL ASLBP No. 10-903-01-COL-BD02

September 22, 2010

Joint Intervenors' Reply to SNC and NRC Staff Answers

The Blue Ridge Environmental Defense League, Georgia Women's Action for New Directions¹ and the Center for a Sustainable Coast ("Joint Intervenors") hereby submit their reply to Southern Nuclear Operating Company's Answer to Proposed New Contention by Certain Former Joint Intervenors, August 23, 2010 ("SNC Answer") and NRC Staff's Answer to Petition, September 2, 2010 ("NRC Staff Answer") in the above-captioned matter.

The Joint Intervenors greatly appreciate the Atomic Safety and Licensing Board's ("ALSB") granting of an opportunity to make this reply. The significant and exceptionally grave issue raised in this contention demands that it be resolved by the ASLB on the merits rather than on procedural grounds. The failures of our former legal counsel in this case are regrettable, but not incurable.

¹ Georgia Women's Action for New Directions, formerly Atlanta Women's Action for New Directions, is the proper name for this party. Joint Intervenors August 12, 2010 Proposed New Contention incorrectly added the words "for Clean Energy" to their name.

Therefore, in the interest of public health and safety, the Joint Intervenors respectfully request that the ALSB admit Contention SAFETY–2. As demonstrated in their Proposed New Contention by Joint Intervenors Regarding the Inadequacy of Applicant's Containment/Coating Inspection Program, August 12, 2010 ("Proposed New Contention"), and the accompanying Declaration of Arnold Gundersen ("Gundersen Declaration"), the Joint Intervenors have done due diligence in bringing a critical matter before the Commission. The generic nature of the AP1000 Design Control Document, now on Revision 18, is well understood by the Joint Intervenors and not disputed. In fact, we believe this understanding was the basis for Arnold Gundersen's presentation of the physical flaws in the design before the Advisory Committee on Reactor Safeguards ("ACRS") on June 25, 2010. What the Joint Intervenors and other members of the public learned from that meeting prompted the Joint Intervenors to put forward the new Contention SAFETY–2 before the ASLB in the Vogtle COLA proceeding.

REPLY TO ANSWERS OF NRC STAFF AND SOUTHERN NUCLEAR COMPANY

In general the procedural issues raised in the NRC Staff Answer included standing, timeliness and admissibility. The procedural issues raised in the SNC Answer included the standards for standing, timeliness, standards for reopening, materiality to the proceeding and significance of the issues. Standing will be addressed separately and the remaining overlapping issues will be addressed below together:

1. Standing.

Standing for the three Joint Intervenors in the extant proceeding has existed continuously since the initial filings in 2008. Each organization has maintained a

continuing relationship with the standing declaration affiants, and continues to represent the interests of their members and at the behest of their members. This standing was recognized by the ASLB at the same site and for the same license application. The parties bringing New Contention SAFETY–2 are three of the five intervenors whose standing was earlier recognized by the ASLB. Without conceding that a new demonstration of standing is required in the extant matter, the Joint Intervenors are submitting affidavits from the principal officers of each of the three parties—Blue Ridge Environmental Defense League, Georgia WAND and the Center for a Sustainable Coast—reflecting their continuing relationship with and support from individuals who submitted standing declarations in the Vogtle COL proceeding. There is no question that the Joint Intervenors had standing to raise contentions in 2008 and that their standing has continued to the present.

2. Timeliness and Admissibility

The criteria for filing a late contention under 10 C.F.R. § 2.309 and for reopening a proceeding with new information under § 2.326 are overlapping and will be addressed together.² The principal considerations of both are the timeliness of the new information

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 $^{^2}$ $\,$ 10 CFR $\,$ 2.309 Hearing requests, petitions to intervene, requirements for standing, and contentions.

⁽c) Nontimely filings. (1) Nontimely requests and/or petitions and contentions will not be entertained absent a determination by the Commission, the presiding officer or the Atomic Safety and Licensing Board designated to rule on the request and/or petition and contentions that the request and/or petition should be granted and/or the contentions should be admitted based upon a balancing of the following factors to the extent that they apply to the particular nontimely filing:

⁽i) Good cause, if any, for the failure to file on time;

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

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

⁽iv) The possible effect of any order that may be entered in the proceeding on the requestor's/petitioner's interest:

⁽v) The availability of other means whereby the requestor's/petitioner's interest will be protected;

or analysis, the significance of the issue raised in the new contention and the severity of the public safety impact if the issue is not addressed on the merits.

The criteria for admitting new contentions and a motion to reopen contain many of the same criteria, although the most important of these is whether *good cause* exists. Although a presiding officer must assess all criteria in determining whether to admit a late-filed contention, all the factors need not be given equal weight. In this connection, considerable importance generally has been attributed to factor one - "good cause" for late filing - in that a failure to meet this factor enhances considerably the burden of justifying the other factors. See *Long Island Lighting Co.* (Shoreham Nuclear Power

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⁽vi) The extent to which the requestor's/petitioner's interests will be represented by existing parties;

⁽vii) The extent to which the requestor's/petitioner's participation will broaden the issues or delay the proceeding; and

⁽viii) The extent to which the requestor's/petitioner's participation may reasonably be expected to assist in developing a sound record.

¹⁰ CFR § 2.309 (f)(2) Contentions must be based on documents or other information available at the time the petition is to be filed, such as the application, supporting safety analysis report, environmental report or other supporting document filed by an applicant or licensee, or otherwise available to a petitioner. On issues arising under the National Environmental Policy Act, the petitioner shall file contentions based on the applicant's environmental report. The petitioner may amend those contentions or file new contentions if there are data or conclusions in the NRC draft or final environmental impact statement, environmental assessment, or any supplements relating thereto, that differ significantly from the data or conclusions in the applicant's documents. Otherwise, contentions may be amended or new contentions filed after the initial filing only with leave of the presiding officer upon a showing that--

⁽i) The information upon which the amended or new contention is based was not previously available;

⁽ii) The information upon which the amended or new contention is based is materially different than information previously available; and

⁽iii) The amended or new contention has been submitted in a timely fashion based on the availability of the subsequent information.

¹⁰ CFR § 2.326 Motions to reopen.

⁽a) A motion to reopen a closed record to consider additional evidence will not be granted unless the following criteria are satisfied:

⁽¹⁾ The motion must be timely. However, an exceptionally grave issue may be considered in the discretion of the presiding officer even if untimely presented;

⁽²⁾ The motion must address a significant safety or environmental issue; and

⁽³⁾ The motion must demonstrate that a materially different result would be or would have been likely had the newly proffered evidence been considered initially.

⁽b) The motion must be accompanied by affidavits that for the movant's claim that the criteria of paragraph (a) of this section have been satisfied. Affidavits must be given by competent

⁽iii) The amended or new contention has been submitted in a timely fashion based on the availability of the subsequent information.

Station, Unit 1). ALAB-743. 18 NRC 387. 397 (1983); *Houston Lighting and Power Co*. (South Texas Project, Units 1 and 2). LBP-82-91. 16 NRC 1364, 1367 (1982); see also *Florida Power & Light Co*. (St. Luck Nuclear Power Plant, Unit 2). ALAB-420.6 NRC 8, 22 (1977) (when good cause is demonstrated, other factors are given less weight). The most significant of the late-filed contention criteria is the first — "[g]ood cause, if any, for failure to file on time." 10 C.F.R. § 2.714(a)(1)(i). See *Private Fuel Storage*, *L.L.C*. (Independent Spent Fuel Storage Installation), LBP-01-20, 53 NRC 565, 570 (2001).

As to the timeliness of the contention and the timeliness of reopening of the proceeding, no one could have known what the opinion of the expert ACRS members would be prior to their meeting of June 25, 2010 regarding the issues of corrosion, coatings, inspection and maintenance issues initially raised in generic terms by Mr. Gundersen. After a careful examination of the transcript of the ARCS meeting, Mr. Gundersen then analyzed the specific ramifications of the containment/coating inspection program as it related to the application for the Vogtle Plant. SNC's recitation of Mr. Gundersen's sources of information notwithstanding, SNC Answer at 15, the timeliness of Contention SAFETY-2 hinges on the publication on July 13, 2010, of new information in the transcript of the ACRS meeting and the subsequent specific analysis of the program flaws demonstrated in the Gundersen Declaration that provides the basis for Contention SAFETY-2. That is the first acknowledgement on the record of the issues raised in the Proposed New Contention; that is, that there are issues regarding the AP1000 reactor that will not be addressed in the Design Control Document but that would necessarily be addressed in the review and hearing on the application for the Combined Operating License ("COL"). Regarding AP1000 nuclear reactor containment

issues, Chairman Ray stated, "[T]hat will be taken up as part of the COL. So if you don't see it being discussed in the context of the DCD, it's because it's there and not any other place." ACRS Chairman Ray's statement was unequivocal and pointed to the availability of the only means by which the Joint Intervenor's interest would be protected. See 2.309(c)(v).

Further, the finding of good cause regarding an assessment of whether an issue is new information may be based upon a constellation of factors.

Generally a "good cause" finding based on "new information" can be resolved by a straightforward inquiry into when the information at issue was available to the petitioner. In some instances, however, the answer to the "good cause" factor may involve more than looking at the dates on the various documents submitted by the petitioners. Instead, the inquiry turns on a more complex determination about when, as a cumulative matter, the separate pieces of the new information "puzzle" were sufficiently in place to make the particular concerns espoused reasonably apparent.

See *Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Unit I), ALAB-868, 25 NRC 912, 926 (1987). As demonstrated by the Gundersen Declaration, the new contention concerning the flaws in the Vogtle containment/coating inspection program could not have take place without preliminary analysis by Mr. Gundersen on containment flaws in the AP1000 reactors, the discussion of the issue with the members of the ACRS and the subsequent specific analysis of the Vogtle program, the cumulative putting together the pieces of the "puzzle."

Contentions play a vital role in agency licensing adjudications by framing the issues for consideration. See *Texas Utilities Generating Co*. (Comanche Peak Steam Electric Station, Units 1 and 2). LBP-81-25. 14 NRC 241,243 (1981). The new Contention SAFETY-2 is clearly framed and brings to the ASLB a grave issue that has significant ramifications for public health and safety. The new contention also meets the

requirements of §2.326(b) in that Mr. Gundersen is an expert "in the disciplines appropriate to the issues raised" for both the contention itself and the §2.326(a) requirements. See Curriculum Vitae, Exhibit 2 to Gundersen Declaration. In contrast, most of the opposing parties' objections to the merits of the new contention are simply disputation of the Gundersen Declaration, and simply bald statements by counsel without any expert support. The uncontroverted facts, and resulting conclusions, in the Gundersen Declaration provide the fundamental support for the new contention.

The Gundersen Declaration also sets "forth the factual and/or technical bases" for the contention, and specifically for the showing of reopening a proceeding, demonstrates, among other issues, that the flaws in the Vogtle Containment/Coating Inspection Programs will have a significant impact on public health and safety. Among his other conclusions, Mr. Gundersen warns that:

The Vogtle AP1000 nuclear plant design is directly and significantly impacted by the nuclear industry's experience of through wall cracks, liner failures and through-wall rust holes. Gundersen Affidavit, ¶ 29.

Neither the NRC nor the applicant SNC have evaluated the likelihood of a through-wall containment leak at Vogtle that could lead to greater-than-design-basis isotopic leakage in the event of an accident. Gundersen Affidavit, ¶ 34.

As demonstrated by the in new Contention SAFETY-2 and supported by the specific analysis by Mr. Gundersen, the Vogtle Containment/Coating Inspection Program is flawed. If so, the matter meets the standards for admissibility of contentions in COL proceedings. Inspection and maintenance procedures are clearly within the province of the license application; "[e]very applicant for a combined license under part 52 of this chapter is required by the provisions of § 52.79 of this chapter to include in its final safety analysis report a description of the quality assurance applied to the design, and to

be applied to the fabrication, construction, and testing of the structures, systems, and components of the facility and to the managerial and administrative controls to be used to assure safe operation." See Appendix B to Part 50--Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants.

Climate, weather and other physical conditions vary with the location of a reactor so that issues of the impacts of heat, humidity, salinity and human factors on plant safety are site specific issues—not generic—and the licensee must develop specific procedures to maintain the integrity of the reactor containment structure. *This is the heart of this matter; the isolation of this specific nuclear reactor from the outside environment and the ability of the reactor containment to provide protection to the public under any and all adverse circumstances*. As demonstrated in the Gundersen Declaration, specific to the COL for the Vogtle Plant are that the field application of protective coatings is problematic; the contractor for the Vogtle Plant has a record of ignoring problems with field application of protective coatings; the visual inspections at Vogtle will not be frequent enough or adequate enough to assure complete coverage; the COL application does not state whether Vogtle will seek exemptions from the American Society of Mechanical Engineers ("ASME") for limited exams in hard to access areas; and Vogtle's interpretation of the ASME code requirements.³

The standard under the 10 C.F.R. §2.326(a) to reopen a proceeding is slightly different in that although the motion must be timely, "an exceptionally grave issue may

³ Generic flaws with the AP1000 design would be issues that the single hulled design is not failure proof; the containment is subject to rust and corrosion; the containment is difficult to inspect; the chimney effect during an accident when there is a crack or hole through the containment is unique to the AP1000; and the . erroneous SAMDA assumption that the accident scenario described by Mr. Gundersen is a zero probability event.

be considered in the discretion of the presiding officer even if untimely presented."

§2.326(a)(1). The significance and weight of the grave issue presented in the contention and accompanying Gundersen Declaration demonstrate overwhelmingly the need for the ASLB to consider the new contention. The exceptionally grave issue presented in the Gundersen Declaration also addresses the other two requirements for reopening a proceeding; the proposed contention "addresses a significant safety or environmental issue" under §2.326(a)(2), and "a materially different result would be or would have been likely had the newly proffered evidence been considered initially" under §2.326(a)(3). Given that the accident scenario described in the Gundersen Declaration shows a strong possibility of an extraordinary release of radiation if there is a failure of the Vogtle Containment/Coating Inspection Program, this is an exceptionally grave and significant safety and environmental issue. If the opinions of the ASLB members, as well as the Vogtle site-specific analysis performed by Mr. Gundersen, had been available earlier, the ASLB would have in all likelihood have had hearings on the merits and concluded that the COL should not be granted.

CONCLUSION

Given the specific flaws in the Vogtle Containment/Coating Inspection Programs and the significant and grave consequences if they are not addressed on the merits, the Joint Intervenors move that the ASLB admit the new Contention SAFETY-2 and hold a hearing on the merits. Other than this ASLB Panel, there is no other proper venue for the consideration of these significant safety issues regarding the licensing of proposed Vogtle Units 3 and 4.

⁴ Note that the ALSB is the "presiding officer" in the extant matter.

Respectfully submitted this the 22nd day of September 2010.

/signed (electronically) by/
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