

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Kristine L. Svinicki, Chairman  
Jeff Baran  
Stephen G. Burns

In the Matter of

SOUTHERN NUCLEAR OPERATING  
COMPANY, INC.

(Vogtle Electric Generating Plant,  
Units 3 and 4)

Docket Nos. 52-025-LA-2  
52-026-LA-2

**CLI-17-02**

**MEMORANDUM AND ORDER**

Petitioner, Blue Ridge Environmental Defense League, with its chapter Concerned Citizens of Shell Bluff (BREDL) appeals the Atomic Safety and Licensing Board's decision denying it a hearing in this license amendment matter.<sup>1</sup> For the reasons given by the Board and as explained below, we affirm the Board's decision.

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<sup>1</sup> *Notice of Appeal from ASLB's Denial of Petitioner's Request for Intervention and a Brief Supporting Notice of Appeal* (Oct. 11, 2016) (Appeal); see LBP-16-10, 84 NRC 17 (2016).

## I. BACKGROUND

The NRC issued combined licenses to Southern Nuclear Operating Company, Inc., for the construction and operation of Vogtle Electric Generating Plant, Units 3 and 4, in 2012.<sup>2</sup> The units, which are Westinghouse Advanced Passive 1000 (AP1000) pressurized water reactors, are currently under construction. The AP1000 is a certified reactor design.<sup>3</sup>

The AP1000 design includes a containment hydrogen control system with a hydrogen ignition subsystem; the system as a whole is intended to limit the concentrations of hydrogen in containment following a severe accident.<sup>4</sup> NRC regulations at 10 C.F.R. § 50.44 and 10 C.F.R. Part 50, Appendix A, General Design Criterion (GDC) 41, require limiting concentrations of combustible gas, such as hydrogen, to ensure containment integrity. Specifically, water-cooled reactors licensed after October 16, 2003 (such as Vogtle Units 3 and 4) must: (1) be able to maintain a mixed atmosphere during significant beyond-design-basis accidents, (2) have an inerted atmosphere, or limit hydrogen concentrations in containment to less than ten percent by volume during and following an accident that releases an equivalent amount of hydrogen as would be generated from a 100 percent fuel clad-coolant reaction, (3) demonstrate the ability to “establish and maintain safe shutdown and containment structural integrity with systems and components capable of performing their functions” in environmental conditions that would be

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<sup>2</sup> See *generally* Combined License Vogtle Electric Generating Plant Unit 3, Southern Nuclear Operating Company, Inc., License No. NPF-91 (Feb. 10, 2012) (ADAMS Accession No. ML14100A106), Combined License Vogtle Electric Generating Plant Unit 4, Southern Nuclear Operating Company, Inc., License No. NPF-92 (Feb. 10, 2012) (ML14100A135).

<sup>3</sup> See 10 C.F.R. pt. 52, app. D.

<sup>4</sup> AP1000 Design Control Document, Rev. 19, ch. 6, Engineered Safety Features, Tier 2 Material, § 6.2.4.2.3 (June 11, 2011), at 6.2-38 (ML11171A458) (AP1000 DCD).

created by the burning of hydrogen in an amount equivalent to that generated by a 100 percent fuel clad-coolant reaction, and (4) have equipment to monitor hydrogen.<sup>5</sup> Further, a license applicant must perform an analysis that demonstrates containment structural integrity including in an accident “that releases hydrogen generated by a 100 percent fuel clad-coolant reaction accompanied by burning.”<sup>6</sup> When the AP1000 design was certified, the Staff found that the hydrogen control system met the requirements of 10 C.F.R. § 50.44 and GDC 41.<sup>7</sup>

The hydrogen ignition subsystem of the AP1000 design, as certified, consists of sixty-four igniters distributed throughout the containment and located “in major regions or compartments where hydrogen may be released, through which it may flow, or where it may accumulate.”<sup>8</sup> The certified design includes general igniter location criteria, including a requirement that igniters be placed “[i]n locations where the potential hydrogen release location can be defined, i.e.[,] above the [In-containment Refueling Water Storage Tank (IRWST)] spargers, at IRWST vents, etc[., such that] igniter coverage is provided as close to the source as feasible.”<sup>9</sup> After the AP1000 design was certified, Westinghouse performed a design review

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<sup>5</sup> 10 C.F.R. § 50.44(c); see LBP-16-10, 84 NRC at 38-40. GDC 41, “Containment Atmosphere Clean-up” provides, as relevant here, “Systems to control . . . hydrogen . . . shall be provided as necessary . . . to control the concentration of . . . hydrogen . . . in the containment following postulated accidents to assure that containment integrity is maintained.” 10 C.F.R. pt. 50, app. A, GDC 41.

<sup>6</sup> 10 C.F.R. § 50.44(c)(5).

<sup>7</sup> Final Safety Evaluation Report Related to Certification of the AP1000 Standard Design, Vol. 1, chs. 1-9, NUREG-1793, at 6-71 (Sept. 30, 2004) (AP1000 FSER) (ML043450354).

<sup>8</sup> AP1000 DCD, at 6.2-42; see also *id.* at 6.2-113 (Table 6.2.4-6, “Igniter Location”).

<sup>9</sup> *Id.* at 6.2-113 (Table 6.2.4-6).

and recommended adding two hydrogen igniters above the IRWST roof vents.<sup>10</sup> This recommendation was made to better satisfy the certified igniter location criteria.<sup>11</sup>

In accordance with Westinghouse's recommendation, Southern's license amendment request sought to add two hydrogen igniters immediately above the IRWST roof vents.<sup>12</sup> As discussed in the request, the certified design calls for igniters inside the IRWST and at each of the four IRWST hooded vents along the containment wall, but hydrogen is expected to

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<sup>10</sup> See Letter from Wesley Sparkman, Southern Nuclear Operating Company, Inc., to NRC Document Control Desk, Response to Request for Additional Information, Request for License Amendment and Exemption: Containment Hydrogen Igniter Changes (LAR-15-003), encl. 5 at 2 (Sept. 15, 2015) (ML15258A555); see also Safety Evaluation by the Office of New Reactors Related to Exemption and Amendment No. 61 to the Combined License Nos. NPF-91 and NPF-92, Southern Nuclear Operating Company, Inc., Vogtle Electric Generating Plant Units 3 and 4, § 3.2.1, at 5 (ML16096A449) (License Amendment Safety Evaluation).

<sup>11</sup> License Amendment Safety Evaluation, § 3.2.1, at 5.

<sup>12</sup> See Letter from B.H. Whitley, Southern Nuclear Operating Company, Inc., to NRC Document Control Desk, "Vogtle Electric Generating Plant Units 3 and 4 Request for License Amendment and Exemption: Containment Hydrogen Igniter Changes (LAR-15-003)" (Feb. 6, 2015), encl. 1 at 3 (ML15037A715) (LAR-15-003). Southern also requested a related exemption from 10 C.F.R. Part 52, Appendix D, Section III.B for corresponding portions of the certified information in Tier 1 of the AP1000 design certification document. See LAR-15-003, encl. 2, Exemption Request. The request included other changes not at issue here. In particular, Southern also proposed to remove control of the hydrogen igniters from the protection and safety monitoring system, clarify the controls available for hydrogen igniters at the remote shutdown workstation, and make changes to certain design aspects of the igniters to maintain consistency within various licensing documents.

The Staff has now approved the license amendments. See Letter from C. Patel, NRC, to B.H. Whitley, Southern Nuclear Operating Company, Inc., "Vogtle Electric Generating Plant Units 3 & 4—Issuance of Amendment No. 61 and Granting of Exemption re: Containment Hydrogen Igniter Changes (LAR-15-003) (CAC No. RP9506)" (Dec. 22, 2016) (ML16096A345) (package); *Notification of Issuance of License Amendment* (Jan. 5, 2017); see also *Commission Notification of Significant Licensing Action* (Dec. 13, 2016) (notifying us of the Staff's intent to issue the amendments and final no significant hazards consideration determination).

preferentially escape from the roof vents located away from the containment shell.<sup>13</sup> The nearest igniters outside the roof vents are located thirty feet above these roof vents. “[M]ixing in the volume above the IRWST where the plume is released from the IRWST vent is too complex to be accurately modeled to either quantitatively confirm the need for additional igniters or confirm that the current design . . . could control the local hydrogen releases from the roof vents.”<sup>14</sup> Southern stated that the position of the two proposed new igniters was determined using criteria set forth in Table 6.2.4-6 of the Updated Final Safety Analysis Report (UFSAR), which incorporates a requirement from the AP1000 Design Control Document (DCD) that igniters be placed as close to a potential hydrogen source as “feasible.”<sup>15</sup> This criterion is intended to ensure that hydrogen is burned as soon as it mixes with oxygen and prevents formation of “localized mixtures that could be susceptible to flame acceleration.”<sup>16</sup>

Following a notice of opportunity to request a hearing, BREDL sought to intervene and proposed two interrelated contentions.<sup>17</sup> In its Contention One, BREDL claimed that the request

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<sup>13</sup> LAR-15-003, encl. 1 at 11. The license amendment request explained that the igniters inside the IRWST may not effectively burn the hydrogen due to the lack of oxygen within the IRWST. *Id.*

<sup>14</sup> *Id.* at 4

<sup>15</sup> *Id.* at 4; see also AP1000 DCD, Table 6.2.4-6, at 6.2-113.

<sup>16</sup> LAR-15-003, encl. 1 at 4. The request stated that even without the proposed igniters, “[c]ontainment integrity is not challenged” and explained, therefore, that the addition of two igniters “provides additional conservatism to a design [that] is already capable of meeting the design requirements for hydrogen control.” *Id.* at 12. The request further indicated that the new igniters will be located “sufficiently away from the containment wall such that the hydrogen burn’s zone of influence would not present a challenge to the containment wall.” *Id.* at 4.

<sup>17</sup> *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 Containment Hydrogen Igniter Changes, LAR-15-003* (May 2, 2016) (Petition); see *Southern Nuclear*

was improperly based on “engineering judgment instead of rigorous testing and analysis.”<sup>18</sup> BREDL argued that Southern had failed to analyze the possibility that a flame sparked by one of the igniters could “backflow,” or “blow back through the IRWST roof vents . . . into the sub-compartment [of the containment] causing a serious detonation” in an area where excess hydrogen has accumulated.<sup>19</sup> In proposed Contention Two, BREDL asserted that the license amendment request (1) failed to consider “historical precedents of hydrogen explosions” (including the events at Fukushima) and (2) made erroneous assumptions about the formation and diffusion of hydrogen within the reactor containment.<sup>20</sup> In this contention BREDL also claimed that in conducting a new analysis Southern must consider a number of factors, such as sources of hydrogen other than that generated by an interaction between the fuel cladding and water and whether the hydrogen is likely to “stratify,” or separate into layers of concentration.<sup>21</sup> Contention Two reiterated the “backflow” theory and the claim that Southern improperly relied

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*Operating Company’s Answer Opposing Petition to Intervene and Request for Hearing (May 27, 2016); NRC Staff Answer to Petition for Leave to Intervene and Request for Hearing (May 27, 2016) (Staff Answer); Reply of Blue Ridge Environmental Defense League and its Chapter Concerned Citizens of Shell Bluff to Answers of Nuclear Regulatory Commission and Southern Nuclear Operating Company, LAR-15-003 (June 3, 2016) (BREDL Reply); see also Vogtle Electric Generating Plant, Units 3 and 4, 81 Fed. Reg. 10,920 (Mar. 2, 2016) (providing, among other things, an opportunity to comment, request a hearing, and petition for leave to intervene).*

<sup>18</sup> Petition at 7-10. In support of its petition, BREDL attached the affidavit of Arnold Gundersen. *Declaration of Arnold Gundersen to Support the Petition for Leave to Intervene and Request for Hearing by the Blue Ridge Environmental Defense League Regarding Southern Nuclear Operating Company’s Vogtle Electric Generating Plant Units 3 and 4 Request for License Amendment and Exemption: Containment Hydrogen Igniter Changes (LAR-15-003) (May 2, 2016) (Gundersen Declaration).*

<sup>19</sup> See Petition at 10; Gundersen Declaration at 7-8.

<sup>20</sup> See Petition at 10-12.

<sup>21</sup> *Id.* at 11-12; Gundersen Declaration at 7.

on the “personal ‘engineering judgment’ of its engineers”—rather than “analysis”—to support the license amendment request.<sup>22</sup>

The Board denied BREDL’s hearing request on the ground that BREDL did not submit an admissible contention.<sup>23</sup> The Board observed that the hydrogen control system of the AP1000 design, including the hydrogen igniters, was reviewed against the combustible gas control requirements during the design certification process.<sup>24</sup> The Board noted that during the AP1000 design certification process, both the locations of the sixty-four existing hydrogen igniters and the location criteria, including the criterion that they be placed as close to the hydrogen source as “feasible,” were reviewed and found to meet the requirements of 10 C.F.R. § 50.44.<sup>25</sup>

The Board explained that 10 C.F.R. § 52.63 provides finality to a certified design, such that new requirements cannot be imposed on a certified design absent special circumstances.<sup>26</sup> And the Board observed that challenges to our regulations (including a design certification) in

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<sup>22</sup> Petition at 11.

<sup>23</sup> LBP-16-10, 84 NRC at 22, 36-49. The Board found that BREDL had demonstrated standing to intervene in the proceeding. *See id.* at 24-36. The Board’s standing determination is not at issue on appeal; we therefore do not discuss it further here.

<sup>24</sup> *Id.* at 38-40; *see also* AP1000 FSER at 6-71.

<sup>25</sup> LBP-16-10, 84 NRC at 38-40 (citing AP1000 FSER at 6-68, 6-71); *see also* 10 C.F.R. pt. 50, app. B, GDC 41.

<sup>26</sup> LBP-16-10, 84 NRC at 40; *see* 10 C.F.R. § 52.63(a)(1). Section 52.63(a)(1) provides that, “while a standard design certification rule is in effect,” the Commission may not “impose new requirements on the certification information, whether on its own motion, or in response to a petition from any person” unless the Commission makes certain findings enumerated in the rule (and not at issue here).

adjudicatory proceedings are prohibited in the absence of a waiver of that regulation.<sup>27</sup>

Therefore, it found that BREDL could only challenge the two new proposed igniters with respect to issues specific to those two igniters; BREDL could not challenge the AP1000 design by arguing that further testing and analysis is necessary with respect to existing design criteria.<sup>28</sup>

The Board went on to hold that Contention One largely raised issues that had been analyzed during the rulemaking for the AP1000 certified design and that were not changed by the addition of two new igniters. The Board found that Southern had followed the design criteria in the AP1000 design control document to locate the hydrogen igniters as close to the source as “feasible.”<sup>29</sup> The Board reasoned that because the two proposed igniters conform to the previously approved criteria, requiring Southern to perform additional analyses would amount to imposing a new requirement on the certified design, in conflict with 10 C.F.R.

§ 52.63(a)(1).<sup>30</sup> The Board also found that BREDL’s “backflow” argument did not raise a genuine dispute with the application because BREDL did not explain either how the proposed hydrogen igniters could cause a flame to “blow back” into the containment and cause an explosion or why that risk would be unique to the two proposed igniters.<sup>31</sup>

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<sup>27</sup> LBP-16-10, 84 NRC at 40-41 (citing 10 C.F.R. § 2.335). BREDL did not seek a waiver. *Id.* at 41.

<sup>28</sup> *Id.* at 41.

<sup>29</sup> *Id.* at 42 (citing AP1000 DCD at 6.2-113, UFSAR at 6.2-104). The Board observed that BREDL did not claim that the proposed igniters could be located any closer to the hydrogen source. *Id.*

<sup>30</sup> *Id.* at 43.

<sup>31</sup> *Id.* at 47-49 (citing 10 C.F.R. § 2.309(f)(1)(iii), (vi)).



The Board held that Contention Two likewise raised matters that have been previously determined and thus fall outside the scope of the license amendment request. It rejected BREDL's argument that Southern should consider other potential sources of hydrogen because 10 C.F.R. § 50.44(c) does not require reactor license applicants to analyze sources of hydrogen other than that generated by a 100 percent fuel cladding-coolant reaction.<sup>32</sup> With respect to the argument that the license amendment request's technical analysis failed to account for Fukushima, the Board observed that the NRC has chosen to address the lessons learned from Fukushima related to hydrogen control generically through the rulemaking process.<sup>33</sup> Thus, it held that BREDL was "prohibited by 10 C.F.R. § 52.63(a)(2) from challenging the certified design, [and] its allegations regarding Fukushima [were] also outside the scope of [the] proceeding because the Commission [had] decided to handle" post-Fukushima issues generically.<sup>34</sup> BREDL's appeal followed.<sup>35</sup>

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<sup>32</sup> *Id.* at 44; *see also* Staff Answer at 4-7 (discussion of 2003 revision of 10 C.F.R. § 50.44, Combustible Gas Control in Containment (Final Rule), 68 Fed. Reg. 54,123 (Sept. 16, 2003)).

<sup>33</sup> *See* LBP-16-10, 84 NRC at 46-47.

<sup>34</sup> *Id.* at 47 (citing *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, & 3), CLI-99-11, 49 NRC 328, 345 (1999) (when an issue is resolved generically a petitioner's remedy is through the rulemaking process rather than adjudication)).

<sup>35</sup> BREDL has not appealed its claims regarding consideration in this license amendment matter of the events at Fukushima, alternate sources of hydrogen, or hydrogen stratification. We therefore need not address them here. *Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-10-9, 71 NRC 245, 265 (2010).

## II. DISCUSSION

Our regulations allow a petitioner whose hearing request has been wholly denied to appeal as of right.<sup>36</sup> We will defer to the Board's rulings on contention admissibility unless an appeal demonstrates an error of law or abuse of discretion.<sup>37</sup>

BREDL raises two general arguments on appeal.<sup>38</sup> First, BREDL argues that the Board improperly held that the issues that it has raised in this matter are challenges to the AP1000 certified design and therefore are barred in this individual license amendment proceeding. In particular, BREDL argues that because Southern did not "seek a rule change, a change in the certified reactor design, or alteration of any generic safety factor," BREDL's claims regarding the two new igniters are not barred by the finality of the AP1000 design certification rule.<sup>39</sup> Second, BREDL argues that the Board misapplied 10 C.F.R. § 50.44(c)(5) because the license amendment request relied on "personal 'engineering judgment'" rather than on a quantitative analysis with respect to the placement of the two additional hydrogen igniters. At bottom, BREDL reiterates claims that the Board found unavailing without confronting the substance of the Board's ruling and its associated finding that the proposed contentions were

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<sup>36</sup> 10 C.F.R. § 2.311(c).

<sup>37</sup> See, e.g., *Crow Butte Resources, Inc.* (Marsland Expansion Area), CLI-14-2, 79 NRC 11, 13-14 (2014).

<sup>38</sup> Both Southern and the Staff argue that the Board's decision should be affirmed. See *Southern Nuclear Operating Company's Brief in Opposition to Appeal* (Nov. 7, 2016); *NRC Staff's Answer in Opposition to the Blue Ridge Environmental Defense League's Appeal of LBP-16-10* (Nov. 7, 2016) (Staff Brief).

<sup>39</sup> Appeal at 3.

outside the scope of the proceeding. BREDL's failure to address the Board's reasoning is dispositive of its appeal.<sup>40</sup> We address BREDL's claims below.<sup>41</sup>

**A. Finality of Issues Resolved in the AP1000 Design Certification Rule**

BREDL asserts that because Southern seeks only to modify its own licenses, rather than a rule change to modify the AP1000 certified reactor design, Southern is not protected by the finality of the design referenced in its license.<sup>42</sup> BREDL cites no support for this view. Fundamentally, BREDL's argument with reference to design finality is based on a misunderstanding of the design certification rule and how it confers finality on licensees referencing the certified design.

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<sup>40</sup> See, e.g., *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 638 (2004) (appellant's failure to challenge the Board's ruling that its proposed contention was outside the scope of the Board proceeding was sufficient justification for denying appeal); *Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-92-3, 35 NRC 63, 67 (1992) (a document that merely reiterates a party's prior position and general dissatisfaction with the outcome is no substitute for a brief that identifies and explains the claimed errors in a Board decision).

<sup>41</sup> After briefing on this appeal was completed, BREDL supplemented its arguments in a letter to then-Chairman Burns. See Letter from Louis A. Zeller, BREDL, to Stephen G. Burns, Chairman, NRC (Dec. 2, 2016) (ML16337A000). Citing portions of the transcript as support, BREDL argues that during oral argument on contention admissibility, the Board inappropriately strayed into the merits of BREDL's proposed contentions rather than focusing on their admissibility. To the extent that BREDL intends through this letter to supplement its appeal, its arguments are impermissibly late. See 10 C.F.R. § 2.311(b) (appeals due within 25 days following service of Board's order). We nonetheless have reviewed the transcript in its entirety and find no impropriety on the part of the Board. In particular, in the transcript excerpt BREDL cites, the Board appears to be trying to elicit from BREDL information supporting BREDL's contention—and particularly what type of analysis BREDL claimed would be required. The Board has reasonable authority to regulate the conduct of its proceedings; in this case, the Board sought to understand clearly the concerns underlying BREDL's contention, a proper inquiry in the context of contention admissibility determinations.

<sup>42</sup> Appeal at 3.

The Board correctly observed that the holder of a combined license that references a certified design is protected by the finality of the design.<sup>43</sup> Even where, as here, a combined license holder seeks to modify a design, the elements of the design that are not to be changed remain final.<sup>44</sup> Here, the location of the hydrogen igniters was determined on the basis of the igniter placement criteria identified in Table 6.2.4-6 of the DCD. The applicable design elements, therefore, are not changed by the license amendment request.<sup>45</sup> The original sixty-four igniters were located according to these criteria, and the two proposed igniters will conform to the same criteria. Moreover, as the Board found, BREDL did not provide any reason why the proposed new hydrogen igniters would pose a unique risk that the original igniters did not.

BREDL has not demonstrated any error in the Board's analysis of this issue. Because the criteria for placing igniters were established in the certified design, BREDL's challenge to the igniters' placement must focus on whether the proposed igniters satisfy those criteria. As the Board found, BREDL did not claim that the two new igniters would not be as close to the source as feasible. Instead, BREDL argued that placing hydrogen igniters close to sources of hydrogen is potentially hazardous.<sup>46</sup> Requiring Southern to perform additional analyses, as

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<sup>43</sup> LBP-16-10, 84 NRC at 37, 40-41.

<sup>44</sup> See 10 C.F.R. § 52.83(a) (where an application for a combined license references a certified design, the scope of matters resolved for the subsequent combined license is governed by the relevant provisions addressing finality, including 10 C.F.R. §§ 52.39, 52.63, 52.98, 52.145, and 52.171).

<sup>45</sup> LBP-16-10, 84 NRC at 39 (citing LAR-15-003, encl. 3, at 11).

<sup>46</sup> See, e.g., Petition at 8 ("the proposed solution introduces a new threat . . . by placing Vogtle Units 3 and 4 hydrogen igniters possibly near the location of excess concentrations of hydrogen"), 9 ("Experience in Japan is illustrative of the unanticipated problems created by . . . placing hydrogen igniters near a source of hydrogen[.]").

BREDL seeks, would effectively impose new requirements on the certified AP1000 design.<sup>47</sup> Thus, the challenge is barred, and BREDL has not demonstrated that the Board erred in so finding.<sup>48</sup>

**B. Southern's Use of "Engineering Judgment"**

BREDL next reiterates its argument before the Board that 10 C.F.R. § 50.44(c)(5) requires Southern to perform an "analysis that demonstrates containment structural integrity" before adding two new igniters to its hydrogen control system. It argues that the Board's ruling has allowed Southern to instead substitute "engineering judgment" for that requirement.

The Board found that the location of the igniters was not based only on "engineering judgment." The AP1000 DCD analyzed the placement of the hydrogen igniters. As the Board explained, the requirements of 10 C.F.R. § 50.44 and GDC 41 were met in the design certification.<sup>49</sup> The AP1000 DCD requires the igniters to be placed as close to the hydrogen source as feasible, and BREDL did not argue that the igniters could have been placed closer to the hydrogen source.<sup>50</sup> BREDL fails to address the Board's explanation of why a challenge to the hydrogen igniter location criteria is outside the scope of the proceeding.<sup>51</sup> BREDL likewise

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<sup>47</sup> See LBP-16-10, 84 NRC at 43.

<sup>48</sup> BREDL has not made clear the nature of the analysis that it would have the licensee perform. See Petition at 9 (a "root cause analysis"), 10 ("an applicability determination," "safety-security interface evaluation," "construction impacts evaluation," "10 CFR 50.59-like screening evaluation"), 11 (a "gaseous diffusion and flame propagation analysis"); BREDL Reply at 3 and Appeal at 2 (a "structural analysis" pursuant to 10 C.F.R. § 50.44(c)(5)). Nevertheless, BREDL did not present to the Board, or to us, a regulatory requirement for any additional analyses.

<sup>49</sup> See LBP-16-10, 84 NRC at 38-39, 41.

<sup>50</sup> *Id.* at 42.

<sup>51</sup> See *id.* at 44, 48-49.

does not address the Board's determination that the engineering analyses required with respect to combustible gas control were performed at the certified design stage.<sup>52</sup>

And as the Staff observes, BREDL has not argued that the igniters can be placed closer to the IRWST vents; as such, the Board correctly held that BREDL did not identify a genuine dispute with the license amendment request.<sup>53</sup> Moreover, BREDL's petition does not dispute Southern's determination that hydrogen would be likely to flow through the IRWST roof vents in a beyond design basis event.<sup>54</sup> Therefore, the Board did not err in finding that BREDL's arguments regarding engineering judgment raised issues outside the scope of the license amendment proceeding and failed to show a genuine dispute with the application.

### III. CONCLUSION

For the foregoing reasons, we *affirm* the Board's decision in LBP-16-10.

IT IS SO ORDERED.

For the Commission

**NRC SEAL**

/RA/

Annette L. Vietti-Cook  
Secretary of the Commission

Dated at Rockville, Maryland,  
this 16th day of February, 2017.

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<sup>52</sup> *Id.* at 38-39, 48.

<sup>53</sup> Staff Brief at 13; see LBP-16-10, 84 NRC at 42-43.

<sup>54</sup> Petition at 8, 9; Gundersen Declaration at 8, 14.

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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing "**MEMORANDUM AND ORDER CLI-17-02**" have been served upon the following persons by the Electronic Information Exchange.

U.S. Nuclear Regulatory Commission  
Office of Commission Appellate Adjudication  
Mail Stop: O-7H4  
Washington, DC 20555-0001  
[ocaamail@nrc.gov](mailto:ocaamail@nrc.gov)

U.S. Nuclear Regulatory Commission  
Office of the Secretary of the Commission  
Mail Stop: O-4F00  
Washington, DC 20555-0001  
Hearing Docket  
[hearingdocket@nrc.gov](mailto:hearingdocket@nrc.gov)

U.S. Nuclear Regulatory Commission  
Atomic Safety and Licensing Board Panel  
Mail Stop: T-3F23  
Washington, DC 20555-0001

U.S. Nuclear Regulatory Commission  
Office of the General Counsel  
Mail Stop: O-14A44  
Washington, DC 20555-0001

Ronald M. Spritzer, Chair  
[ronald.spritzer@nrc.gov](mailto:ronald.spritzer@nrc.gov)

Patrick Moulding, Esq.  
[patrick.moulding@nrc.gov](mailto:patrick.moulding@nrc.gov)

Nicholas G. Trikouros  
[nicholas.trikouros@nrc.gov](mailto:nicholas.trikouros@nrc.gov)

Marcia Carpentier, Esq.  
[marcia.carpentier@nrc.gov](mailto:marcia.carpentier@nrc.gov)

Dr. Gary S. Arnold  
[gary.arnold@nrc.gov](mailto:gary.arnold@nrc.gov)

Anita Ghosh, Esq.  
[anita.ghosh@nrc.gov](mailto:anita.ghosh@nrc.gov)

Cooper J Strickland, Law Clerk  
[cooper.strickland@nrc.gov](mailto:cooper.strickland@nrc.gov)

Olivia J. Mikula, Esq.  
[olivia.mikula@nrc.gov](mailto:olivia.mikula@nrc.gov)

Ian Irvin, Esq.  
[ian.irvin@nrc.gov](mailto:ian.irvin@nrc.gov)

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**MEMORANDUM AND ORDER CLI-17-02**

Blue Ridge Environmental Defense League,  
Inc. (BREDL)  
P.O. Box 88  
Glendale Springs, NC 28629

Louis A. Zeller, Administrator and  
Science Director  
[bredl@skybest.com](mailto:bredl@skybest.com)

Counsel for Licensee:

Balch and Bingham LLP  
1901 Sixth Avenue North  
Suite 1500  
Birmingham, AL 35203

M. Stanford Blanton, Esq.  
[sblanton@balch.com](mailto:sblanton@balch.com)

Peter D. LeJeune, Esq.  
[plejeune@balch.com](mailto:plejeune@balch.com)

Millicent Ronnlund, Esq.  
[mronnlund@balch.com](mailto:mronnlund@balch.com)

Alan Lovett, Esq.  
[alovett@balch.com](mailto:alovett@balch.com)

[Original signed by Brian Newell \_\_\_\_\_]  
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