

**UNITED STATES OF AMERICA  
U.S. NUCLEAR REGULATORY COMMISSION**

**BEFORE THE ATOMIC SAFETY AND LICENSING BOARD**

In the Matter of:  
SOUTHERN NUCLEAR OPERATING CO.  
License Amendment Application for  
Combined Licenses NPF-91 and NPF-92  
Vogtle Electric Generating Plant Units 3 and 4  
Docket Nos. 52-025-LA-2 and 52-026-LA-2  
NRC-2008-0252-0057

June 3, 2016

**REPLY OF THE 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**

As provided in 10 C.F.R. § 2.309(i)(2), Blue Ridge Environmental Defense League and its chapter Concerned Citizens of Shell Bluff (õBREDLö or õPetitionersö) hereby submit a reply to the answers filed on May 27, 2016 by Southern Nuclear Operating Company (õSNOCö or õCompanyö) and Nuclear Regulatory Commission Staff (õNRC Staffö) in the above-captioned matter.

In its May 27<sup>th</sup> answer, the Company asserts that both of the contentions raised by Petitioners are beyond the scope of the extant license amendment proceeding because the issues have been resolved in the plant design certification, the combined operating license, the Commission's rulemakings or the Fukushima Near-Term Task Force's recommendations. SNOC Answer at 8. Much of their 30-page brief attempts to paint Petitioner's arguments as impermissible disputes to settled decisions, labeling them õde facto challengesö to rules and licenses. However, the BREDL's petition was carefully drawn to address the immediate problems raised by the Company's request; i.e., the

Company's February 6, 2015 request for a license amendment and exemption for the installation of hydrogen igniters at Vogtle Units 3 and 4.

For example, in its answer, the Company supports its claim of *de facto* challenge by directing one to the section of the request which states that the modification sought was the product of "engineering judgement." See SNOC Answer at 8, f.n. 2, LAR-15-003, Encl. 1, at 4. The Company's Answer states:

In reality, Petitioner's arguments are aimed at the rulemaking certifying the AP1000 design. During design certification, the NRC reviewed and approved the DCD's criteria for locating igniters in containment and the underlying hydrogen analysis. As stated in the LAR, the two IRWST roof vent igniters are consistent with the igniter location criteria in the DCD and do not change the underlying hydrogen analysis.<sup>24</sup> Neither the Petition nor the Declaration of Arnold Gundersen ... contest this fact. The Petitioner's challenges to the analysis supporting the LAR, therefore, are challenges to approved portions of the AP1000 DCD that are not changed by the LAR and are afforded finality pursuant to 10 CFR § 52.63(a) and Part 52, Appendix D.

(parenthetical omitted)

The NRC Staff Answer also misrepresents Petitioner's stated objective of raising contentions centered on the danger presented by the poorly conceived modifications posed by the Company's request.

To the extent that BREDL challenges the placement of the proposed hydrogen igniters solely on the generic basis that the igniters are near a source of hydrogen, that claim is outside the scope of this proceeding pursuant to 10 C.F.R. § 2.309(f)(1)(iii) because it ultimately seeks to challenge the underlying licensing basis for VEGP Units 3 and 4 with respect to the use of hydrogen igniters generally and the criteria for hydrogen igniter placement.<sup>98</sup>

The NRC Staff Answer notes: "Petitioner does not challenge the choice of hydrogen igniters to mitigate this potential scenario but instead challenges the use of hydrogen igniters for hydrogen control generally." NRC Staff Answer at 18 and f.n. 98.

The assertions by both Southern Nuclear Operating Company and NRC Staff are specious. Petitioners' contentions challenge neither the initial location of 64 hydrogen igniters nor the AP1000 rulemaking; they are based on the proposed addition of two hydrogen igniters directly outside the In-containment Refueling Water Storage Tank and the Company's reliance on engineering judgement in lieu of a thoroughgoing analysis. Under 10 CFR 50.44(c)(5), *Combustible gas control for nuclear power reactors*, such an analysis is required.<sup>1</sup> None has been done in this specific case. So-called engineering judgement is not analysis.

The Company admits there is an unaddressed risk of hydrogen explosion and damage to the Vogtle reactors now under construction. In a convoluted style, the Company's license amendment request reveals: "Design reviews in 2011 identified a credible scenario in which the applicable plant damage state meets the core damage frequency cutoff to be considered as part of the severe accident analysis." LAR at Enclosure 1 at 4 of 19.

In fact, rather than challenging existing rules, Petitioners are holding NRC Staff and SNO's feet to the fire, calling for functional reliability of the proposed altered hydrogen igniter system at Plant Vogtle, and strict implementation of and adherence to federal regulations.

The combined operating license for Vogtle Electric Generating Plant Units 3 and 4 incorporated the AP1000 design control document without departures or exemptions.

---

<sup>1</sup> 10 CFR §50.44(c)(5) *Structural analysis*. An applicant must perform an analysis that demonstrates containment structural integrity. This demonstration must use an analytical technique that is accepted by the NRC and include sufficient supporting justification to show that the technique describes the containment response to the structural loads involved. The analysis must address an accident that releases hydrogen generated from 100 percent fuel clad-coolant reaction accompanied by hydrogen burning. Systems necessary to ensure containment integrity must also be demonstrated to perform their function under these conditions.

The DCD is subject to challenge through a license amendment, altering the current licensing basis. Under 10 CFR 52.98, an opportunity for hearing is required to modify the CLB.<sup>2</sup>

Further, a technical specification is a license condition. A license request to change that condition constitutes a request to amend the license and therefore creates adjudicatory hearing rights under AEA § 189.a., 42 U.S.C. § 2239(a). *See* Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Unit 1), CLI-93-21, 38 NRC 87, 91 n.6, 93 (1993); General Public Utilities Nuclear Corp. (Oyster Creek Nuclear Generating Station), LBP-96-23, 44 NRC 143, 150 n.6 (1996).

Finally, the Petition points to the explosions which destroyed Fukushima to illustrate the complexity of hydrogen gas control, not to compare the Westinghouse AP1000 to Fukushima Daiichi; i.e., that at the deflagration appears to have propagated from the top of Daichi Unit 1 and from the bottom at Daichi Unit 3.

### **Conclusion**

For the foregoing reasons, the contentions are admissible and should be admitted for a hearing.

Respectfully submitted

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

Louis A. Zeller, Executive Director  
Blue Ridge Environmental Defense League  
PO Box 88 Glendale Springs, NC 28629  
Phone: (336) 982-2691  
Email: BREDL@skybest.com

---

<sup>2</sup> 10 CFR §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.

**UNITED STATES OF AMERICA  
U.S. NUCLEAR REGULATORY COMMISSION  
ATOMIC SAFETY AND LICENSING BOARD**

In the Matter of:  
SOUTHERN NUCLEAR OPERATING CO  
Vogtle Electric Generating Plant  
Units 3 and 4  
License Amendment Application  
Docket Nos. 52-025-LA-2 and 52-026-LA-2  
NRC-2008-0252-0057

**CERTIFICATE OF SERVICE**

I hereby certify that the  
**REPLY OF THE 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**  
has been filed through the Electronic Information Exchange system  
this 3<sup>rd</sup> day of June, 2016.



---

Louis A. Zeller  
Blue Ridge Environmental Defense League  
PO Box 88  
Glendale Springs, NC 28629  
(336) 982-2691  
[BREDL@skybest.com](mailto:BREDL@skybest.com)