UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Paul S. Ryerson, Chairman
Dr. Gary S. Arnold
Dr. Sue H. Abreu

In the Matter of	Docket No. 52-047-ESP
TENNESSEE VALLEY AUTHORITY	ASLBP No. 17-954-01-ESP-BD01
(Clinch River Nuclear Site Early Site Permit Application)	October 10, 2017

MEMORANDUM AND ORDER
(Ruling on Petitions for Intervention and Requests for Hearing)

Before the Board are two petitions to intervene and requests for a hearing concerning an early site permit (ESP) application by the Tennessee Valley Authority (TVA) for two or more small modular reactors to be located at the Clinch River Nuclear Site in Oak Ridge, Tennessee. The Blue Ridge Environmental Defense League (BREDL) submitted a petition proffering one contention. The Southern Alliance for Clean Energy (SACE) and the Tennessee Environmental Council (TEC) jointly submitted a second petition proffering three contentions.

TVA and the NRC Staff agree that BREDL, SACE, and TEC have demonstrated standing. But both TVA and the NRC Staff contend that every proffered contention is inadmissible on various grounds.

The Board concludes that each of the three petitioners has demonstrated standing, and that two of the three contentions proffered by SACE and TEC are admissible. BREDL's sole proffered contention is inadmissible. In accordance with 10 C.F.R. § 2.309(a), we grant the petition submitted by SACE and TEC, and admit them as parties to this proceeding. The

admitted contentions will be heard under the procedures set forth at 10 C.F.R. Part 2, Subpart L.

I. BACKGROUND

On May 12, 2016, TVA submitted an ESP application to the NRC.[1] An ESP is a "partial construction permit."[2] In contrast to a combined license (COL), which authorizes construction and operation of a nuclear power facility, an ESP relates only to site suitability.[3] Because TVA has not yet selected a design for the reactors that might be constructed at the site, its application is based on a plant parameter envelope that was developed on the basis of four different light-water small modular reactor designs currently under development in the United States.[4] Approval to construct and operate a nuclear power plant at the Clinch River site would require a separate NRC authorization and would be the subject of a separate licensing proceeding.

The NRC published notice in the Federal Register on April 4, 2017 that the NRC staff would review the application and that persons whose interests might be affected by the proposed ESP would have until June 5, 2017 to request a hearing or petition to intervene.[5] On May 5, 2017, SACE and TEC filed an unopposed[6] request for a one-week extension to file their

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[1] See Tennessee Valley Authority; Clinch River Nuclear Site, 81 Fed. Reg. 40,929, 40,929 (June 23, 2016).

[2] 10 C.F.R § 52.1(a).

[3] See Exelon Generation Co., LLC (Early Site Permit for Clinton ESP Site), CLI-07-12, 65 NRC 203, 205 (2007).

[4] Tennessee Valley Authority, Clinch River Early Site Permit Application, Part 2: Site Safety Analysis Report, Rev. 0 at 2.0-1 (May 2016) (ADAMS Accession No. ML16144A037) [hereinafter SSAR, Rev. 0].

[5] Tennessee Valley Authority; Clinch River Nuclear Site Early Site Permit Application and Associated Order Imposing Procedures for Access to Sensitive Unclassified Non-Safeguards Information and Safeguards Information, 82 Fed. Reg. 16,436, 16,437–38 (Apr. 4, 2017).

[6] TVA authorized SACE/TEC to state that it did not oppose their time extension motion, and the NRC Staff did not file a response. Request by Southern Alliance for Clean Energy and

petition, as well as a one-week extension to reply to answers to their petition.[7] The Secretary of the Commission (SECY) granted both of these requests, extending the filing period to June 12, 2017 for petitions, and to July 21, 2017 for replies.[8]

On June 12, 2017, SACE and TEC timely filed their petition, which proffers one safety-related contention concerning TVA's request for exemptions from the NRC's emergency planning requirements, and two contentions challenging the application's Environmental Report. One of these contentions alleges that the Environmental Report fails to consider the possibility of a spent fuel pool fire, and the other objects to language in the Environmental Report regarding the technical characteristics of small modular reactors.[9]

BREDL also submitted a petition on June 12, 2017. Its petition contains one contention challenging the sufficiency of TVA's Environmental Report.[10]

Tennessee Environmental Council for Extension of Time Periods for Submitting Hearing Request and Reply to Responses at 1 (May 5, 2017) [hereinafter SACE/TEC Request for Extension].

[7] SACE/TEC Request for Extension at 2.

[8] Order of the Secretary at 1–2 (June 2, 2017) [hereinafter SECY Order].

[9] Southern Alliance for Clean Energy and Tennessee Environmental Council Petition to Intervene and Request for Hearing at 5–24 (June 12, 2017) [hereinafter SACE/TEC Pet.].

[10] Hearing Request and Petition to Intervene by Blue Ridge Environmental Defense League at 6–13 (June 12, 2017) [hereinafter BREDL Pet.].

On July 7, 2017, TVA and the NRC Staff filed answers to the petitions, in which they opposed the admission of all contentions and also argued that BREDL's petition was late.[11] SACE and TEC filed a reply on July 21, 2017.[12] BREDL did not file a reply.

The Board heard oral argument on September 12, 2017.

II. ANALYSIS

To intervene as a party in an adjudicatory proceeding, a petitioner must (1) establish it has standing; and (2) proffer at least one admissible contention.[13] Before analyzing standing and contention admissibility, we first address the timeliness of BREDL's petition.

A. Timeliness

Following SACE and TEC's request for a one-week extension of time, which neither TVA nor the NRC Staff opposed, SECY granted the request by order issued June 2, 2017. SECY's order stated: "Petitioners now have until June 12, 2017, to file hearing petitions on TVA's license application."[14]

Because BREDL did not formally join in the unopposed request for a one-week extension, however, both TVA and the NRC Staff contend BREDL should have filed by the

[11] [TVA]'s Answer Opposing Petitions for Intervention and Requests for Hearing by [SACE] and [TEC], and [BREDL] (July 7, 2017) [hereinafter TVA Answer]; NRC Staff Answer to [SACE] and [TEC]'s Petition to Intervene and Request for Hearing (July 7, 2017) [hereinafter NRC Staff Answer to SACE/TEC Pet.]; NRC Staff Answer Opposing Petition to Intervene and Request for Hearing by [BREDL] (July 7, 2017) [hereinafter NRC Staff Answer to BREDL Pet.].

[12] [SACE]'s and [TEC]'s Reply to Oppositions to Petition to Intervene and Request for Hearing (July 21, 2017) [hereinafter SACE/TEC Reply].

[13] 10 C.F.R. § 2.309(a).

[14] SECY Order at 1.

original deadline.[15] BREDL also did not volunteer good cause for filing late; therefore, TVA and the Staff contend the Board should dismiss BREDL's hearing petition for this reason alone.[16]

The Board agrees that BREDL should have taken steps to clarify whether SECY's June 2, 2017 order applied to it as well as to SACE and TEC. That would have been the more prudent and responsible course. We decline, however, to reject BREDL's hearing petition on this ground.

First, as BREDL's non-lawyer representative stated during oral argument, when he received SECY's order through the NRC's Electronic Information Exchange,[17] he believed in good faith that the order granted a one-week extension to all petitioners.[18]

Second, BREDL's representation is credible. SECY's order is at least arguably ambiguous. It states: "Petitioners now have until June 12, 2017, to file hearing petitions on TVA's license application."[19] Although the order defines the capitalized form of "Petitioners" to refer to SACE and TEC, it does not use that term consistently and also refers to them as "petitioners."[20] In any event, because "Petitioners" is the first word in the critical sentence (and would be capitalized regardless),[21] one cannot tell whether it is intended to refer to "Petitioners" as defined (that is, SACE and TEC) or to any petitioners. Moreover, although SACE and TEC

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[15] TVA Answer at 30; NRC Staff Answer to BREDL Pet. at 11.

[16] TVA Answer at 29; NRC Staff Answer to BREDL Pet. at 11.

[17] See Tr. at 50–51.

[18] Tr. at 51.

[19] SECY Order at 1.

[20] Compare id. (referring to SACE and TEC together as "Petitioners"), with id. ("I am granting petitioners' request.").

[21] Id. at 1 ("Petitioners now have until June 12, 2017, to file hearing petitions on TVA's license application.").

asked for an extra week to file a single joint "hearing request,"[22] SECY's order extended the time to file "hearing petitions."[23] If SECY intended for the one-week extension to apply only to SACE and TEC, it could have said so more clearly.

Third, the reason SACE and TEC gave for requesting a one-week extension of the time for hearing requests[24]—"multiple novel and complex issues relating to the approval of the first-ever application for an ESP for a Small Modular Reactor"[25]—would seem to apply with equal force to BREDL or to any other potential petitioner. Nothing about the justification for their unopposed request would appear unique to SACE or to TEC. Presumably, if BREDL also had asked for consent to a one-week extension, BREDL would have received it, just as SACE and TEC did.

Fourth, neither TVA nor the NRC Staff has claimed that it was prejudiced in any way as a result of BREDL's having filed its hearing request on the same day as SACE and TEC, rather than a week earlier.

Fifth, although BREDL has considerable experience in NRC adjudications, it relies in this proceeding on a non-lawyer representative and thus qualifies as a pro se litigant. As the Commission has directed, we afford such parties some degree of leniency.[26]

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[22] SACE/TEC Request for Extension at 1–2.

[23] SECY Order at 1–2.

[24] Their request for an additional week to file a reply was based, additionally, on the schedules of their experts. SACE/TEC Request for Extension at 2.

[25] SACE/TEC Request for Extension at 2.

[26] Fla. Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 & 4), CLI-15-25, 82 NRC 389, 394 (2015) (stating that pro se petitioners are not held to the same "standards of clarity and precision to which a lawyer might reasonably be expected to adhere" (quoting Pub. Serv. Elec. & Gas Co. (Salem Nuclear Generating Station, Units 1 & 2), ALAB-136, 6 AEC 487, 489 (1973))); cf. Shieldalloy Metallurgical Corp. (Cambridge, Ohio Facility) CLI-99-12, 49 NRC 347, 354 (1999) ("[P]etitioners represented by counsel are generally held to a higher standard than pro se litigants.").

Finally, we do not agree with the Staff that the result in this case should be controlled by the result in another case, Watts Bar 2, in which BREDL was among several petitioners then represented by counsel.[27] The NRC Staff claims Watts Bar 2 involved "similar" and "analogous circumstances."[28] But that is not so.

In Watts Bar 2, BREDL was among four organizations that knew of the pertinent filing deadline but delayed seeking an extension of time because they had not yet decided whether to join in a petition to intervene.[29] The licensing board ruled that "[s]uch indecision does not constitute good cause for failure to file a timely petition."[30] Moreover, all four of the organizations were represented by counsel, who "overlooked" the need to request an extension on their behalf.[31]

In affirming the licensing board's unwillingness to forgive a two-week filing delay in those circumstances, the Commission held that the board's ruling was neither an abuse of discretion nor founded on an error of law.[32] The Commission cited the importance and adherence to procedural rules "especially [by] those who . . . are cognizant of those rules and represented by counsel."[33]

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[27] Tenn. Valley Auth. (Watts Bar Nuclear Plant, Unit 2), LBP-09-26, 70 NRC 939 (2009); aff'd, Tenn. Valley Auth. (Watts Bar Nuclear Plant, Unit 2), CLI-10-12, 71 NRC 319 (2010).

[28] Tr. at 42–43.

[29] Watts Bar 2, LBP-09-26, 70 NRC at 950.

[30] Id.

[31] Id.

[32] Watts Bar 2, CLI-10-12, 71 NRC at 327.

[33] Id.

In this case, in contrast, BREDL's reasonable and undisputed representation is that it did not understand the one-week extension to apply only to SACE and TEC, and BREDL is not represented by counsel.

For all these reasons, we find good cause in accordance with 10 C.F.R. § 2.307(a). We do not reject BREDL's hearing petition out of hand merely because BREDL understood the one-week extension to apply to it as well as to SACE and TEC.

B. Standing

BREDL, SACE, and TEC assert they each have standing to intervene as representatives of their members living in the vicinity of the Clinch River site.[34] An organization may represent the interests of its members using representational standing if it can: (1) show that the interests it seeks to protect are germane to its own purpose; (2) identify at least one member who qualifies for standing in his or her own right; (3) show that it is authorized by that member to request a hearing on his or her behalf; and (4) show that neither the claim asserted nor the relief requested requires an individual member's participation in the organization's legal action.[35]

As to whether an individual member of a petitioning organization qualifies for standing in his or her own right, traditional judicial standing concepts require a showing that the individual has suffered or might suffer a concrete and particularized injury that is: (1) fairly traceable to the challenged action; (2) likely redressable by a favorable decision; and (3) arguably within the zone of interests protected by the governing statutes[36]—here the Atomic Energy Act and the

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[34] BREDL Pet. at 3–5; SACE/TEC Pet. at 3–4.

[35] See Consumers Energy Co. (Palisades Nuclear Plant), CLI-07-18, 65 NRC 399, 409 (2007); see also Friends of the Earth, Inc. v. Laidlaw Envtl. Servs. (TOC) Inc., 528 U.S. 167, 181 (2000) ("An association has standing to bring suit on behalf of its members when its members would otherwise have standing to sue in their own right, the interests at stake are germane to the organization's purpose, and neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit." (citing Hunt v. Wash. State Apple Advert. Comm'n, 432 U.S. 333, 343 (1977))).

[36] Calvert Cliffs 3 Nuclear Project, LLC (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-09-20, 70 NRC 911, 915 (2009) (citing Cleveland Elec. Illuminating Co. (Perry Nuclear Power Plant,

National Environmental Policy Act.[37] Although the NRC applies these traditional standing concepts, in proceedings such as this it presumes that an individual has standing to intervene without the need to address them upon a showing that he or she lives within, or otherwise has frequent contacts with, a geographic zone of potential harm.[38] The pertinent zone in power reactor construction and operating license proceedings is the area within a 50-mile radius of the site.[39] The Commission also directs us to "construe the petition in favor of the petitioner" when determining whether a petitioner has demonstrated standing.[40]

Although neither TVA nor the NRC Staff objects to the representational standing of BREDL, SACE, and TEC,[41] we have an independent obligation to determine whether they have adequately demonstrated standing.[42]

Unit 1), CLI-93-21, 38 NRC 87, 92 (1993) (internal quotation marks omitted); see also Ga. Inst. of Tech. (Ga. Tech. Research Reactor), CLI-95-12, 42 NRC 111, 115 (1995) (citing Lujan v. Defs. of Wildlife, 504 U.S. 555, 559–61 (1992)).

[37] 42 U.S.C. §§ 2011–2297; id. §§ 4321–4347.

[38] Commonwealth Edison Co. (Zion Nuclear Power Station, Units 1 & 2), CLI-99-4, 49 NRC 185, 191 (1999) (explaining that the presumption applies if the proposed action "quite 'obvious[ly]' entails an increased potential for offsite consequences" (alteration in original) (quoting Fla. Power & Light Co. (St. Lucie, Units 1 & 2), CLI-89-21, 30 NRC 325, 329–30 (1989))).

[39] Calvert Cliffs, CLI-09-20, 70 NRC at 917 (explaining that the rationale for the presumption is "that persons living within the roughly 50-mile radius of the facility face a realistic threat of harm if a release from the facility of radioactive material were to occur" (internal quotation marks and footnote omitted)).

[40] Ga. Tech., CLI-95-12, 42 NRC at 115.

[41] TVA Answer at 2–3; NRC Staff Answer to SACE/TEC Pet. at 9–10, NRC Staff Answer to BREDL Pet. at 9–10.

[42] 10 C.F.R. § 2.309(d)(2); see also Va. Elec. & Power Co. (N. Anna Power Station, Unit 3), LBP-08-15, 68 NRC 294, 303 (2008)) (stating that although "[n]either the Applicant nor the NRC Staff challenges [the petitioner's] standing," the board must "make [its] own determination whether [the petitioner] has satisfied standing requirements").

1. BREDL Has Demonstrated Representational Standing.

BREDL describes itself as "a regional, community-based non-profit environmental education organization whose founding principles are earth stewardship, environmental democracy, social justice, and community empowerment."[43]

BREDL alleges that "[t]he issuance of an ESP could have an adverse effect on [its members'] health and safety by paving the way for an unsafe, experimental nuclear operation."[44] To demonstrate this injury, BREDL has submitted a sworn declaration of one of its members living within two miles of the Clinch River site.[45] The declaration authorizes BREDL to represent his interests and expresses the concern that "construction of one or more new nuclear reactors so close to my home could pose a grave risk to my health and safety."[46]

BREDL's declarant has established standing to intervene in his own right and has authorized BREDL to represent his interests. Accordingly, BREDL has demonstrated representational standing.

2. SACE and TEC Have Demonstrated Representational Standing.

SACE asserts it is "a nonprofit, nonpartisan membership organization that promotes responsible energy choices that solve global warming problems and ensure clean, safe and healthy communities throughout the Southeast."[47] TEC asserts it is "a nonprofit organization

[43] BREDL Pet. at 2.

[44] Id. at 5.

[45] See Decl. of Jake Almond (dated and submitted June 12, 2017).

[46] Id.

[47] SACE/TEC Pet. at 2.

that seeks to educate and advocate for the conservation and improvement of Tennessee's environment, public health and communities."[48]

SACE and TEC allege that their members, and in the case of SACE, its staff, "would be adversely affected by an accident at the proposed [small modular reactor]."[49] The organizations have submitted sworn declarations from five SACE members[50] and three TEC members[51] stating their home addresses are within 50 miles of the Clinch River site and authorizing the organizations to represent them. These declarations express SACE and TEC members' concern that the "health and safety and quality of [their] environment could be affected by accidents, including a spent fuel pool fire."[52] In addition, SACE submitted a declaration of its chief financial officer stating that SACE employs five staff members at its Knoxville, Tennessee office, located within 50 miles of the Clinch River site.[53] The declaration alleges harm to SACE as an organization in the event of an accident at the proposed facility.[54]

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[48] Id. at 3.

[49] Id. at 4.

[50] Standing Decl. of Louise Gorenflo (dated June 1, 2017; submitted June 12, 2017); Standing Decl. of Jennifer Stachowski (dated May 31, 2017; submitted June 12, 2017); Standing Decl. of Ralph Hutchison (dated May 31, 2017; submitted June 12, 2017); Standing Decl. of Daniel W. Stephenson (dated June 9, 2017; submitted June 12, 2017) (attesting to membership in both SACE and TEC); Standing Decl. for Stephen A. Smith for the Southern Alliance for Clean Energy (June 12, 2017) [collectively, hereinafter SACE Decls.].

[51] Standing Decl. of Daniel W. Stephenson (dated June 9, 2017; submitted June 12, 2017) (attesting to membership in both SACE and TEC); Standing Decl. of Ralph Hutchison (dated June 7, 2017; submitted June 12, 2017); Standing Decl. of Adam Hughes (dated June 8, 2017; submitted June 12, 2017) [collectively, hereinafter TEC Decls.].

[52] SACE Decls.; TEC Decls.

[53] Standing Decl. of James Fall for [SACE] (dated May 31, 2017; submitted June 12, 2017).

[54] Id.; see also SACE/TEC Pet. at 4.

Because the individual declarants of SACE and TEC have established standing to intervene in their own right and have authorized their respective organizations to represent their interests, each organization has demonstrated representational standing.

C. Contention Admissibility

An admissible contention must: (1) state the specific legal or factual issue to be raised or controverted; (2) provide a brief explanation for the basis of the contention; (3) demonstrate that the issue raised is within the proceeding's scope; (4) demonstrate that the issue raised is material to the findings the NRC must make to support the action that is involved in the proceeding; (5) concisely state the alleged facts or expert opinions that support the petitioner's position and on which the petitioner intends to rely at the hearing, including references to the specific sources and documents on which the petitioner intends to rely; and (6) show that a genuine dispute exists on a material issue of law or fact by referring to specific portions of the application that the petitioner disputes or, if the application is alleged to be deficient, by identifying such deficiencies and the supporting reasons for this allegation.[55]

The Commission's regulations permit admission of a contention only if it meets these requirements because the Agency "should not have to expend resources to support the hearing process unless there is an issue that is appropriate for, and susceptible to, resolution in an NRC hearing."[56] The NRC's contention admissibility criteria are the result of, among other things, a major rule change that sought to "toughen" the Commission's rules "in a conscious effort to raise the threshold bar for an admissible contention."[57]

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[55] 10 C.F.R. § 2.309(f)(i)–(vi).

[56] Changes to Adjudicatory Process, 69 Fed. Reg. 2182, 2202 (Jan. 14, 2004).

[57] Duke Energy Co. (Oconee Nuclear Station, Units 1, 2, & 3), CLI-99-11, 49 NRC 328, 334 (1999).

As the Commission explained in Oconee, in an earlier era "boards had admitted and litigated numerous contentions that appeared to be based on little more than speculation."[58] Intervenors "often had negligible knowledge of nuclear power issues and, in fact, no direct case to present, but instead attempted to unearth a case through cross-examination."[59] The Commission's intent in revising the contention admissibility requirements was not to put up a "fortress to deny intervention,"[60] but rather to "ensure that full adjudicatory hearings are triggered only by those able to proffer at least some minimal factual and legal foundation in support of their contentions."[61]

Although the NRC's contention admissibility rules are therefore "strict by design"[62] and "[m]ere 'notice pleading' is insufficient,"[63] a petitioner does not have to prove its contentions at the admissibility stage.[64] At this juncture, we do not adjudicate disputed facts.[65] The factual support required "need not be in affidavit or formal evidentiary form and need not be of the quality necessary to withstand a summary disposition motion."[66] What is required is "a minimal

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[58] Id.

[59] Id.

[60] Id. at 335 (quoting Phila. Elec. Co. (Peach Bottom Atomic Power Station, Units 2 & 3), ALAB-216, 8 AEC 13, 21 (1974)).

[61] Oconee, CLI-99-11, 49 NRC at 334.

[62] Dominion Nuclear Conn., Inc. (Millstone Nuclear Power Station, Units 2 & 3), CLI-01-24, 54 NRC 349, 358 (2001), pet. for reconsideration denied, CLI-02-01, 55 NRC 1 (2002).

[63] Fansteel, Inc. (Muskogee, Okla. Site), CLI-03-13, 58 NRC 195, 203 (2003).

[64] Private Fuel Storage, L.L.C. (Indep. Spent Fuel Storage Installation), CLI-04-22, 60 NRC 125, 139 (2004).

[65] Amergen Energy Co. (Oyster Creek Nuclear Generating Station), LBP-06-22, 64 NRC 229, 244 (2006) (citing Miss. Power & Light Co. (Grand Gulf Nuclear Station, Units 1 & 2), ALAB-130, 6 AEC 423, 426 (1973)).

[66] Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168, 33,171 (Aug. 11, 1989).

showing that material facts are in dispute, thereby demonstrating that an 'inquiry in depth' is appropriate."[67]

1. BREDL Contention

BREDL's sole contention states: "TVA's Environmental Report fails to provide complete and accurate information on alternatives, including the no-build option."[68]

Purportedly in support of this contention, BREDL sets forth a far-ranging discussion of multiple topics.[69] It quotes or paraphrases a variety of statutory and regulatory requirements. It questions whether usage of small modular reactors would impact global warming in light of trends in the federal government's use of energy.[70] It discusses whether Executive Order 13514 provides TVA with justification for experimenting with small modular reactors.[71] BREDL also questions whether small modular reactors can achieve cybersecurity safety goals that are addressed in Executive Order 13636.[72]

BREDL apparently fails to grasp, however, that TVA's application is limited to an ESP. As such, TVA's Environmental Report need not assess "the economic, technical, or other benefits (for example, need for power) and costs of the proposed action or an evaluation of alternative energy sources."[73] Some of BREDL's expressed concerns, if pled in accordance

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[67] Gulf States Utils. Co. (River Bend Station, Unit 1), CLI-94-10, 40 NRC 43, 51 (1994) (citing Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, 54 Fed. Reg. at 33,171 (quoting Conn. Bankers Ass'n v. Bd. of Governors, 627 F.2d 245, 251 (D.C. Cir. 1980))).

[68] BREDL Pet. at 6.

[69] Id. at 6–13.

[70] Id. at 9–11.

[71] Id. at 9–10.

[72] Id. at 12–13.

[73] 10 C.F.R. § 51.50(b)(2).

with 10 C.F.R. § 2.309(f)(1), perhaps might be the subject of admissible contentions at the COL stage. But none raises a material dispute with TVA's application for an ESP.

Specifically, save for the no-action alternative, BREDL does not address or criticize in any way the discussions of specific alternatives that actually are in TVA's Environmental Report. Nor does BREDL offer any support whatsoever for its criticism of the discussion of the no-action alternative. Section 9.1 of its Environmental Report sets forth TVA's no-action alternative analysis, which essentially says that the no-action alternative would maintain the status quo.[74] BREDL has not argued otherwise. Although BREDL apparently prefers the no-action alternative, it never explains what it thinks is wrong with TVA's analysis of the no-action alternative in the Environmental Report.

Because it fails to raise a genuine dispute on a material issue in accordance with 10 C.F.R. § 2.309(f)(1), we cannot admit BREDL's contention.

2. SACE/TEC Contention 1

Understanding SACE and TEC's Contention 1 requires some background.

An ESP applicant may (but need not) submit as part of its application either "complete and integrated" emergency plans or "major features" of its emergency plans.[75] If an applicant submits neither, its emergency plans are not evaluated by the NRC until the COL stage.[76] Because TVA has chosen to submit "major features" of its emergency plans,[77] however, the NRC evaluates those features now.

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[74] TVA, Clinch River Early Site Permit Application, Part 3: Environmental Report, Rev. 0, at 9.1-1 (May 2016) (ADAMS Accession No. ML16144A133) [hereinafter ER, Rev. 0].

[75] 10 C.F.R. § 50.47(a)(1)(iii)–(iv); see also id. § 52.17(b)(2)(i)–(ii).

[76] Id. § 50.47(a)(1)(i)–(iv); see also id. § 50.33(g).

[77] Tr. at 87–88.

But TVA does not want the NRC to evaluate its emergency plans under the NRC's existing regulations. It has asked for exemptions.

Although exemption requests themselves do not ordinarily confer hearing rights upon interested third parties, exemption requests that are "a direct part of an initial licensing or licensing amendment action" do.[78] If properly pled, a contention challenging TVA's regulatory exemption request in connection with its ESP application may therefore be admissible.

SACE and TEC's Contention 1 concerns TVA's request for an exemption from the NRC's requirement for establishing a ten-mile emergency planning zone.[79] Instead, TVA wants to use a methodology that it believes would likely justify a much smaller emergency planning zone: that is, either one limited to the boundary of the Clinch River site itself or, alternatively, to a two-mile radius.[80] SACE and TEC contend that TVA has failed to justify this departure from the NRC's existing regulatory requirements.[81]

Specifically, Contention 1 states, in part: "The Emergency Plan in the ESP application for the Clinch River [small modular reactor] is inadequate to satisfy 10 C.F.R. § 52.17(b)(2) because the size of the proposed plume exposure Emergency Planning Zone ('EPZ') is less than the minimum ten-mile radius required by 10 C.F.R. § 50.47(c)(2) for most nuclear power reactors."[82] Contention 1 asserts that, while TVA claims to qualify under 10 C.F.R.

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[78] Private Fuel Storage, L.L.C. (Indep. Spent Fuel Storage Installation), CLI-01-12, 53 NRC 459, 470 (2001).

[79] The NRC's regulations generally require a plume exposure emergency planning zone with a radius of "about" ten miles, to be modified only by factors related to "local emergency response needs and capabilities as they are affected by such conditions as demography, topography, land characteristics, access routes, and jurisdictional boundaries." 10 C.F.R. § 50.47(c)(2).

[80] See SSAR, Rev. 0, at 13.3-8 to 13.3-9; see also TVA, Clinch River Early Site Permit Application, Part 6: Exemptions and Departures, Rev. 0, at 2 (May 2016) (ADAMS Accession No. ML16144A151) [hereinafter Application Exemptions and Departures, Rev. 0].

[81] SACE/TEC Pet. at 6–7.

[82] Id. at 5.

§ 50.12(a)(2)(ii) for an exemption from 10 C.F.R. § 50.47(c)(2) "'due to the decreased potential consequences associated with such a facility' (ESP Application, Part 6 at 1), TVA has not demonstrated that it satisfies the NRC Staff's criterion for such an exemption with respect to the potential for a spent fuel storage pool fire."[83]

Citing to an NRC guidance document that they allege has been consistently applied to exemptions from emergency planning requirements for decommissioned reactors,[84] SACE and TEC contend that the NRC staff will not approve an exemption from offsite emergency planning requirements unless an applicant for decommissioning can demonstrate that the time between uncovering of spent fuel and initiation of a zirconium fire in the spent fuel storage pool is ten hours or more.[85] For consistency, therefore, SACE and TEC argue that, to qualify for an exemption from the ten-mile emergency planning zone requirement, "TVA should have to demonstrate for the spent fuel storage pool(s) to be located at the proposed site that in the event of a loss of cooling and adiabatic heating conditions (i.e., conditions in which a range of factors may prevent heat from leaving individual fuel assemblies or spent fuel racks), at least ten hours would elapse before a zirconium fire would be initiated."[86]

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[83] Id.

[84] SACE/TEC Pet. at 5 (citing Draft Regulatory Basis Document, "Regulatory Improvements for Reactors Transitioning to Decommissioning" (Mar. 2017) (ADAMS Accession No. ML17047A413)); see also Commission Voting Record, Request by Duke Energy Florida, Inc., for Exemptions from Certain Emergency Planning Requirements, VR-SECY-14-0118 (Dec. 30, 2014) (ADAMS Accession No. ML14364A214) (recording Commission's approval for a licensee's exemption request from emergency preparedness requirements); Commission Voting Record, Request by Dominion Energy Kewaunee, Inc. for Exemptions from Certain Emergency Planning Requirements, VR-SECY-14-0066 (Aug. 7, 2014) (ADAMS Accession No. ML14220A046) (same).

[85] SACE/TEC Pet. at 5.

[86] Id. at 5–6.

SACE and TEC claim that such an analysis would depend on fuel design features and operational factors that are not specified in TVA's ESP application.[87] Accordingly, they contend, "[i]f this information is not available or not sufficiently well-defined to enable a technically sound analysis that could plausibly demonstrate the condition is met with adequate margin, TVA's exemption request should be rejected without prejudice and TVA should be advised to re-submit it at the COL stage."[88]

In response, TVA claims that SACE and TEC misunderstand its exemption request. TVA clarifies that it is merely "requesting to use an alternate methodology for determining the appropriate size of an emergency planning zone."[89] According to TVA, the NRC's existing regulations assume a large reactor, whereas TVA seeks an ESP for a facility that would use small modular reactors with different characteristics. Therefore, rather than being forced to use the NRC's deterministic ten-mile zone, TVA claims it should be allowed to demonstrate, through a design-specific analysis at the COL stage, that its facility can comply with the dose limits allowed by the U.S. Environmental Protection Agency's (EPA's) Protective Action Guides with a much smaller emergency planning zone.[90] TVA acknowledges that, if it cannot demonstrate compliance with those more flexible criteria at the COL stage, then it would still have to use a ten-mile emergency planning zone.[91] TVA also acknowledges that, at the COL stage, SACE and TEC could then "raise any objections to whether a design selected for the [Clinch River] Site complies with the [U.S. EPA Protective Action Guides]-based criteria."[92]

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[87] Id. at 6.

[88] Id.

[89] TVA Answer at 10.

[90] Id. at 14.

[91] Id.

[92] Id.

The Board agrees with TVA. Apparently based on a misunderstanding of what TVA is requesting, SACE and TEC fail to address or challenge in any way the methodology TVA seeks the NRC's permission to use.

Petitioners' confusion is understandable. In Part 6 of its application, TVA states: "In this application, TVA is proposing a dose-based, consequence-oriented approach to establish an appropriate [emergency planning zone] size consistent with [U.S. EPA Protective Action Guides] criteria."[93] But, on the next page of Part 6, TVA explains that "two sets of exemptions have been developed," and then provides two tables of marked-up rules to illustrate the exemptions requested.[94] One of these represents an emergency planning zone at the site boundary and the other at a two-mile radius. Additionally, throughout Part 6, TVA refers to exemptions in the plural. This led to possible confusion: Was TVA applying for an exemption to the methodology for establishing an emergency planning zone? Or was TVA explicitly requesting an emergency planning zone at either the site boundary or at a two-mile radius?

In the Board's opinion, however, any confusion is laid to rest by considering other portions of the application. Chapter 13 of the Site Safety Analysis Report sets out the explicit methodology by which TVA proposes to determine the emergency planning zone size at the COL stage. Chapter 13 explains that three possible results of using this methodology are: (1) a site-boundary emergency planning zone; (2) an emergency planning zone having a radius of two miles; or (3) an emergency planning zone with a radius greater than two miles.[95] Thus, it is clear that the application is only requesting permission to use an alternative methodology to select the emergency planning zone size at the COL stage. The two sets of explicit exemptions

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[93] Application Exemptions and Departures, Rev. 0, at 1.

[94] Id. at 2.

[95] SSAR, Rev. 0, at 13.3-13 to 13.3-14.

for site boundary and two-mile emergency planning zones are provided only as examples of potential results of using this methodology.

TVA's counsel confirmed this interpretation at oral argument, clarifying that "our exemption request is not for a size of an EPZ."[96] Rather, he explained, "[i]t is to use the methodology."[97]

Contention 1, therefore, incorrectly assumes that TVA is seeking an absolute reduction in the size of the emergency planning zone. Examination of the application as a whole, however, demonstrates that TVA's request for use of alternative methodology does not include a request for an unconditional reduction in the specific size of the emergency planning zone.

The application itself acknowledges that the emergency planning zone selected at the COL stage could exceed a two-mile radius:

> If the dose consequences of the selected technology exceed the [U.S. EPA Protective Action Guides] or present a substantial risk that doses at which significant early health effects may occur for the [plume exposure pathway] [emergency planning zone] boundary at a two-mile radius, then neither Emergency Plan included in Part 5 of this [ESP application] will be incorporated by reference in the [COL application] and a new Emergency Plan will be included in the [COL application] for NRC review.[98]

Likewise, in its answer, TVA acknowledged that, "if the [U.S. EPA Protective Action Guides] criteria are not met at the COL stage, the 10-mile [emergency planning zone] would apply."[99] So Petitioners' claim that "the size of the proposed plume exposure Emergency Planning Zone ('EPZ') is less than the minimum ten-mile radius" is simply not correct.

The basis for Contention 1 is that a fire in the spent fuel pool could result in the release of significant radioactive material, and the potential for such a fire has not been considered in

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[96] Tr. at 61.

[97] Tr. at 61.

[98] SSAR, Rev. 0 at 13.3-13.

[99] TVA Answer at 14.

the exemption request.[100] The support for this basis is the expert opinion of Dr. Edwin S. Lyman.[101] While these might be a sufficient basis for a contention challenging an exemption request for a reduced emergency planning zone, they are not a proper basis for a contention challenging a change in methodology.[102] In Chapter 13 of the Site Safety Analysis Report, TVA's application includes an explicit calculation methodology for determining the size of the emergency planning zone. This methodology includes a list of accidents to be considered, including "applicable fuel handling accidents and spent fuel pool accidents."[103] Petitioners never address or challenge this methodology, although they had the opportunity to do so.

In summary, Contention 1 is premised on Petitioners' mistaken belief that the application requests use of an emergency planning zone that would necessarily be smaller than the currently-required ten-mile radius. No such exemption request has been made. Hence, Contention 1 is not within the scope of this proceeding and fails to raise a material factual dispute, and is therefore inadmissible for failure to satisfy 10 C.F.R. § 2.309(f)(1)(iii), (vi).

As TVA has acknowledged, however, Petitioners will still have an opportunity to challenge the application of its proposed methodology at the COL stage. As stated in Section 13.3 of TVA's application, and as noted above, at the COL stage the selected reactor design will be evaluated on the basis of criteria that include "applicable fuel handling accidents and spent fuel pool accidents."[104] Petitioners could then request and obtain a hearing if they have

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[100] SACE/TEC Pet. at 6–8.

[101] Id. at 9; id., attach. 1, Decl. of Dr. Edwin S. Lyman in Support of SACE/TEC's Contention 1 (Emergency Planning) (June 9, 2017).

[102] Petitioners could have challenged that the proposed methodology of Chapter 13 did not include the specific analysis that they desire, but they did not.

[103] SSAR, Rev. 0, at 13.3-14.

[104] Id.

adequate support for their concern that the spent fuel storage pool accident risk analysis is inadequate to substantiate the submitted complete emergency plan.

Finally, the Board recognizes that both TVA and the NRC Staff claim TVA's preferred alternative to the NRC's existing regulations is consistent with ongoing rulemaking that might eventually result in changes to those regulations.[105] The Agency recently began a rulemaking process for a new rule that recognizes that smaller reactors may have smaller accident source terms and therefore allow smaller emergency planning zones than traditional power reactors.[106]

TVA and the NRC Staff do not, however, seek to invoke the doctrine that a contention should not be admitted if it is the subject of an imminent regulation.[107] The potential new regulations to which they refer are not imminent; the NRC Staff estimates they might be about two years away.[108] It cannot be known at this time whether the Commission will ultimately promulgate any new regulations, or if it does, what form they might take.

As TVA also points out, the Commission has recognized that some regulatory exemptions might be appropriate while rulemaking is underway.[109] However, although the

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[105] TVA Answer at 11–13; NRC Staff Answer to SACE/TEC Pet. at 15–16.

[106] See Draft Regulatory Basis for Rulemaking on Emergency Preparedness for Small Modular Reactors and Other New Technologies (Apr. 2017) (ADAMS Accession No. ML16309A332).

[107] See Oconee, CLI-99-11, 49 NRC at 345 ("Licensing Boards 'should not accept in individual license proceedings contentions which are (or are about to become) the subject of general rulemaking by the Commission.'" (quoting Potomac Elec. Power Co. (Douglas Point Nuclear Generating Station, Units 1 & 2), ALAB-218, 8 AEC 79, 85 (1974))).

[108] Tr. at 58.

[109] TVA Answer at 11–13; see also Memorandum from Annette L. Vietti-Cook, Secretary of the Commission, to Mark A. Satorius, Executive Director for Operations, SRM-SECY-15-0077, at 1 (Aug. 4, 2015) (ADAMS Accession No. ML15216A492) ("For any small modular reactor reviews conducted prior to the establishment of a rule, the staff should be prepared to adapt an approach to emergency planning zones for [small modular reactor]s under existing exemption processes, in parallel with its rulemaking efforts.").

Commission directed the NRC staff to consider exemption applications, it did not say that exemption applications must be granted or establish any special guidance for reviewing them.

In rejecting Contention 1 at this time, the Board therefore has not been influenced by the pending rulemaking. Of course, if the Commission were to promulgate controlling new regulations before this matter proceeds to an evidentiary hearing (which appears unlikely before the year 2020[110]), the exemption request that is the subject of Contention 1 might be moot.

3. SACE/TEC Contention 2

Contention 2 states: "The Environmental Report fails to satisfy [the National Environmental Policy Act] because it does not address the consequences of a fire in the spent fuel storage pool, nor does it demonstrate that a pool fire is remote and speculative."[111]

SACE and TEC contend the NRC has not ruled that the likelihood of spent fuel pool fires is remote and speculative. As discussed in connection with Contention 1, SACE and TEC claim "the radiological consequences of a pool fire are potentially catastrophic."[112] They point out that, in the NRC's Generic Environmental Impact Statement for License Renewal of Nuclear Plants (License Renewal GEIS), the NRC concluded that the environmental impacts of a spent fuel pool fire are "comparable to those from the reactor accidents at full power."[113] In turn, the potential for reactor accidents to have significant adverse public health effects within at least a ten-mile radius—including early and latent fatalities—is discussed in the NRC's own emergency

[110] The NRC Staff currently estimates that it will not issue a Final Environmental Impact Statement before the summer of 2019, and that its Final Safety Evaluation Report will be issued in September 2019. Tr. at 58.

[111] SACE/TEC Pet. at 9.

[112] Id. at 10.

[113] NUREG-1437, Rev. 1, Generic Environmental Impact Statement for License Renewal of Nuclear Plants: Main Report, at 1–28 (June 2013) (ADAMS Accession No. ML13106A241) [hereinafter License Renewal GEIS].

planning guidance documents.[114] Indeed, the NRC itself has suggested that radioactive fallout from a pool fire could displace as many as four million people out to 500 miles.[115]

Therefore, SACE and TEC contend, in the absence of a supported assertion that the potential for a spent fuel pool fire is remote and speculative, TVA must address the consequences of a spent fuel pool fire in its Environmental Report.[116] Otherwise, SACE and TEC assert, TVA has failed to address all reasonably foreseeable impacts of operating small modular reactors at the proposed site.[117]

Collectively, TVA and the NRC Staff advance essentially four arguments as to why Contention 2 allegedly fails to raise a genuine dispute and otherwise fails to satisfy the procedural requirements of 10 C.F.R. § 2.309(f)(1). The Board is not persuaded. SACE and TEC have, at a minimum, shown that they are entitled to an evidentiary hearing on whether TVA's Environmental Report must either demonstrate that the risk of a spent fuel pool fire at the proposed site is remote and speculative or, alternatively, address the consequences of such a fire.

First, citing 10 C.F.R. § 50.150(a)(3), TVA argues that "specific requirements for analyzing events related to spent fuel accidents do not apply until the COL stage."[118] But 10

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[114] See NUREG-0396/EPA 520/1-78-016, Planning Basis for the Development of State and Local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Plants, at 16–17 (Dec. 1978) (ADAMS Accession No. ML051390356); NUREG-0654/FEMA-REP-1, Rev.1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, at 11 & n.6, 12, 17 (Nov. 1980) (ADAMS Accession No. ML040420012).

[115] See NUREG-2161, Consequence Study of a Beyond-Design Basis Earthquake Affecting the Spent Fuel Pool for a U.S. Mark I Boiling Water Reactor at 172 (Sept. 2014) (ADAMS Accession No. ML 14255A365).

[116] SACE/TEC Pet. at 10.

[117] Id.

[118] TVA Answer at 19–20.

C.F.R. § 50.150(a)(3) is a safety regulation that requires an analysis of commercial aircraft impacts on reactors and spent fuel pools. It is not an environmental regulation, and therefore has no bearing on the question of whether TVA's Environmental Report must include an analysis of the consequences of spent pool fires. Tellingly, the NRC Staff did not oppose admission of Contention 2 on this theory, and at oral argument the NRC Staff acknowledged that it failed to "see the direct relevance" of 10 C.F.R. § 50.150(a)(3).[119]

Second, the NRC Staff argues that Contention 2 is not admissible because allegedly the information SACE and TEC claim is missing from TVA's Environmental Report actually "is present in it."[120] According to the NRC Staff, TVA's Environmental Report includes references to the License Renewal GEIS, which, in turn, allegedly discusses "the remote likelihood of spent fuel pool fires."[121]

But the Environmental Report does not cite the License Renewal GEIS concerning the risk or consequences of spent fuel pool fires. The Report cites the License Renewal GEIS concerning entirely different subjects.[122] As SACE and TEC point out in their reply,[123] the mere mention of the License Renewal GEIS in the Environmental Report for a completely different purpose is not sufficient. Those references cannot substitute for a discussion of whether and how the License Renewal GEIS addresses the risk and consequences of a spent fuel pool fire involving small modular reactors at the Clinch River site.[124]

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[119] Tr. at 100.

[120] NRC Answer to SACE/TEC Pet. at 22.

[121] Id.

[122] E.g., ER, Rev. 0, at 5.7-3 (analyzing the applicability of the License Renewal GEIS to the Environmental Report's environmental analysis of the uranium fuel cycle).

[123] SACE/TEC Reply at 11.

[124] Id.

Moreover, although Appendix E to the 2013 License Renewal GEIS refers to the lowered risk of spent fuel pool fires due to mitigative measures employed since 2001,[125] it never characterizes the risk as remote and speculative. On the contrary, in State of New York v. NRC, the United States Court of Appeals for the District of Columbia Circuit required the NRC to evaluate the consequences of spent fuel pool fires for the very reason that the Agency had not ruled them to be remote and speculative.[126]

Third, TVA argues that SACE and TEC fail to "assert that spent fuel accidents are not bounded by the design basis analysis of the severe accident analysis included in the ESP application."[127] The point of Contention 2, however, is that the Environmental Report is deficient because it contains no discussion at all concerning spent fuel pool fires. The sole subject matter of Chapter 7 of the Environmental Report consists of "accidents with substantial damage to the reactor core and degradation of containment systems."[128] As SACE and TEC contend in their reply, it is TVA's responsibility in the first instance to show that spent fuel pool fires are bounded by the severe accident analysis in its Environmental Report, and TVA has not done so.[129]

Fourth, TVA argues that, by stating the impacts of spent fuel pool fires are "comparable" to the impacts of reactor accidents, the 1996 and 2013 revisions of the License Renewal GEIS "demonstrate[ ] that the environmental impacts from a spent fuel accident are already

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[125] License Renewal GEIS, app. E at E-39.

[126] 681 F.3d 471, 483 (D.C. Cir. 2012).

[127] TVA Answer at 21.

[128] ER, Rev. 0, at 7.2-1; see also id. at 7.2-2 to 7.2-3 (listing reactor accident sequences evaluated in Chapter 7, which are limited to reactor containment failure or bypass).

[129] SACE/TEC Reply at 9.

encompassed by an analysis of other full-power reactor accidents."[130] However, the License Renewal GEIS does not address any aspect of the operation of small modular reactors. Nor has the NRC determined that the spent fuel pool analysis in the GEIS is also applicable to small modular reactors.

In fact, spent fuel pools may be designed differently for small modular reactors. As SACE and TEC contend in their reply, while the License Renewal GEIS may be relied on for the general proposition that spent fuel pool fires are on a comparable scale as reactor accidents, it does not establish that the environmental impacts of a spent fuel pool fire at a site with small modular reactors are necessarily encompassed by the impacts of a small modular reactor accident.[131]

SACE/TEC Contention 2 is admitted. However, as acknowledged by counsel for SACE and TEC, Contention 2 is strictly a contention of omission.[132] TVA might not be able to say very much about the risk of spent fuel pool fires, at this early stage, but SACE and TEC have made a plausible case that TVA must say something.[133] Should TVA choose to do so, Contention 2 would be moot. The sufficiency of whatever TVA might say would have to be tested by a new contention.

4. SACE/TEC Contention 3

SACE/TEC Contention 3 states:

> The ESP application violates the National Environmental Policy Act . . . , 42 U.S.C. § 4321-4370f, and NRC implementing regulations because it contains

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[130] TVA Answer at 22.

[131] SACE/TEC Reply at 10.

[132] Tr. at 118.

[133] As the Commission has observed, at the ESP stage, incomplete information is not a flaw in an environmental document provided the drafter sets forth and evaluates such information as does exist. Dominion Nuclear N. Anna, LLC (Early Site Permit for N. Anna ESP Site), CLI-07-27, 66 NRC 215, 235–36 (2007) (citing Council on Environmental Quality guidance).

> impermissible language comparing the proposed [small modular reactor] to other energy alternatives and discussing the economic and technical advantage of the facility. The language is impermissible because TVA has explicitly invoked 10 C.F.R. § 51.50(b)(2), which excuses it from discussing the economic, technical, or other benefits of the proposed facility such as need for power [citation and footnote omitted]. By formally choosing to exclude consideration of alternatives from its Environmental Report, TVA has effectively precluded Petitioners from submitting contentions on those subjects.
>
> Under the circumstances, TVA must restrict the content of the Environmental Report to the impacts of construction and operation and a limited evaluation of alternatives related solely to the selection of the site. Any language comparing the proposed [small modular reactor] to other energy alternatives, or purporting to justify the need for the [small modular reactor], should be stricken from the Environmental Report.
>
> Furthermore, such language should not be included in the NRC's Environmental Impact Statement . . . for the proposed ESP. Such an [Environmental Impact Statement] would end up becoming an advertisement for [small modular reactor]s rather than the rigorous, unbiased and independent scientific study required by [the National Environmental Policy Act] [citations omitted].
>
> In the alternative TVA may elect to address energy alternatives and need for power in the Environmental Report. In that case, fairness requires that Petitioners must be provided a reasonable opportunity to submit contentions on the new alternatives analysis.[134]

TVA has explicitly invoked 10 C.F.R. § 51.50(b)(2) to defer, until the COL stage, consideration of the economic, technical, or other benefits of the proposed facility. SACE and TEC therefore object to any language in TVA's Environmental Report that sets forth "claims that [small modular reactor] technology is preferable to other energy technology on a host of issues, including safety, security, reliability, carbon reduction, water use, and economies of scale."[135]

For example, SACE and TEC object to statements that objectives of the Clinch River site include demonstrating: (1) "that [small modular reactor] technology is capable of supplying

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[134] SACE/TEC Pet. at 11–12.

[135] Id. at 16.

reliable power that is less vulnerable to disruption from intentional destructive acts and natural phenomena;"[136] (2) the design advantages of small modular reactors where larger units may be impractical due to "transmission system constraints, limited space or water availability, or constraints on the availability of capital for construction and operation;"[137] (3) the possibility that small modular reactors "could address national security needs by providing reliable electric power in the event of a major grid disruption;"[138] and (4) the safety advantages of small modular reactors, including "underground containment and inherent safe-shutdown features," which "efficiently provide[ ] the same or better protection against the threats larger reactors must consider."[139]

TVA and the NRC Staff claim that Contention 3 does not satisfy 10 C.F.R. § 2.309(f)(1) because, they allege, it is outside the scope of this proceeding and fails to raise a material issue or a genuine dispute.[140] The Board disagrees. Contention 3 correctly challenges, at the earliest opportunity available, whether it would be lawful for language similar to that in TVA's Environmental Report ultimately to be included in the NRC's Environmental Impact Statement.

The Commission has established prerequisites for challenging an Environmental Impact Statement. All contentions "must be based on documents or other information available at the time the petition is to be filed."[141] Petitioners have an "ironclad obligation" to raise issues in

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[136] SACE/TEC Pet. at 17–18 (quoting ER, Rev. 0, at 1-3); see also ER, Rev. 0, at 9.3-2.

[137] SACE/TEC Pet. at 17 (quoting ER, Rev. 0, at 1-1); see also ER, Rev. 0, at 1-4.

[138] SACE/TEC Pet. at 17 (quoting ER, Rev. 0, at 1-2); see also ER, Rev. 0, at 9.3-1.

[139] SACE/TEC Pet. at 18 (quoting ER, Rev. 0, at 1-3); see also ER, Rev. 0, at 9.3-2.

[140] TVA Answer at 25–28; NRC Staff Answer to SACE/TEC Pet. at 27–29.

[141] 10 C.F.R. § 2.309(f)(2).

licensing proceedings as soon as the information becomes available to them.[142] In the case of environmental contentions in particular, "participants shall file contentions based on the applicant's environmental report."[143]

The purpose of the NRC's requirement is to try to resolve environmental issues at the earliest possible time, even before the Agency issues an Environmental Impact Statement.[144] Accordingly, if a petitioner tries belatedly to challenge a defect in an Environmental Impact Statement that should have been apparent from the applicant's Environmental Report, it generally will not be allowed to do so.[145] The challenge will be too late.

As the Commission has stated: "[T]he Commission expects that the filing of an environmental concern based on the [Environmental Report] will not be deferred because the staff may provide a different analysis in its [Environmental Impact Statement]."[146] If, when it issues the Environmental Impact Statement, the NRC Staff purports to address a petitioner's claimed deficiencies in the Environmental Report, the Commission contemplates that there will then "be ample opportunity to either amend or dispose of the contention."[147]

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[142] Duke Power Co. (Catawba Nuclear Station, Units 1 & 2), ALAB-687, 16 NRC 460, 468 (1982), vacated in part on other grounds, CLI-83-19, 17 NRC 1041 (1983).

[143] 10 C.F.R. § 2.309(f)(2).

[144] See Duke Power Co. (Catawba Nuclear Station, Units 1 & 2), CLI-83-19, 17 NRC at 1049, 1053 (1983).

[145] See Powertech (USA), Inc. (Dewey-Burdock In Situ Uranium Recovery Facility) CLI-16-20, 84 NRC 219, 231 (2016) ("Insofar as it could be interpreted as implying that the Tribe was premature in filing its environmental contentions on the application, the Board's decision was incorrect. . . . [O]ur regulations require that intervenors file environmental contentions on the applicant's environmental report."); see also Private Fuel Storage, L.L.C. (Indep. Spent Fuel Storage Installation), CLI-04-04, 59 NRC 31, 45 (2004) (affirming the licensing board's decision to "refuse[ ] to allow Utah to bring up old grievances late in the hearing process").

[146] Catawba, CLI-83-19, 17 NRC at 1049.

[147] Id.

By claiming Contention 3 is premature,[148] TVA and the NRC Staff in effect ask the Board to carve out a special exception to the Commission's requirement that any problematic issue that can be discerned from the applicant's Environmental Report must be raised at the outset. We decline to do so. In our opinion, the fundamental purpose of the Commission's requirement is not served by creating an exception in this case.

We recognize that Contention 3 is not a typical environmental contention. Rather than alleging an omission or error in TVA's Environmental Report, Contention 3 claims that TVA's report says too much.

In this context, what NRC regulations say about the content of TVA's Environmental Report and what the regulations say about the content of the Agency's Environmental Impact Statement are not the same. An Environmental Report for an ESP application "need not" include "an assessment of the economic, technical, or other benefits (for example, need for power) and costs of the proposed action or an evaluation of alternative energy sources."[149] The NRC's Environmental Impact Statement for an ESP, in contrast, "must not" include those very same subjects, unless the applicant has elected to address them at the ESP stage.[150]

Regardless of whether the presence of the challenged language in TVA's Environmental Report in itself gives rise to an actionable claim,[151] its eventual inclusion in the NRC's Environmental Impact Statement would at least arguably violate 10 C.F.R. § 51.75(b). The NRC Staff has virtually admitted as much.[152] Yet, if and when this matter proceeds to an

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[148] TVA Answer at 25; NRC Staff Answer to SACE/TEC Pet. at 27–29.

[149] 10 C.F.R. § 51.50(b)(2).

[150] Id. § 51.75(b).

[151] Both TVA and NRC Staff argue that no legal authority prohibits an applicant from making positive statements about a project or technology in its Environmental Report. TVA Answer at 24, 26; NRC Staff Answer to SACE/TEC Pet. at 28.

[152] See NRC Staff Answer to SACE/TEC Pet. at 31. At oral argument, the NRC Staff assured the Board of the Staff's intent to comply with NRC regulations, and declined to speculate

evidentiary hearing, under the migration doctrine[153] the subject of the hearing will not be TVA's Environmental Report, but rather the NRC's Environmental Impact Statement.

In these circumstances, the Board fails to see the utility in rejecting Contention 3 as premature. Would the Staff prefer not to be alerted to SACE and TEC's concerns before it prepares the NRC's Environmental Impact Statement?

The NRC Staff's response seems to be: "Trust us." Recognizing that "Petitioners are concerned that the NRC will repeat the [Environmental Report's] information in the NRC Staff's not-yet-written [Environmental Impact Statement]," the Staff tries to assure the Board and the parties that it will do no such thing.[154] The Staff states: "The NRC Staff will follow the Commission[']s regulations as set forth in 10 C.F.R. § 51.75(b) and those rules do not allow the NRC Staff to include such information in an [Environmental Impact Statement] where the applicant chooses not to address it in the application."[155]

If in fact the Environmental Impact Statement is scrubbed of any discussion that could violate 10 C.F.R. § 51.75(b), the NRC Staff may move for summary disposition under 10 C.F.R. § 2.710. But the Staff's assurances are not a proper basis for rejecting Contention 3 at this time. In Catawba, the Commission explicitly contemplated such a scenario, and concluded there would be "ample opportunity to either amend or dispose of the contention" after the NRC

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whether incorporating all the challenged language in the Staff's EIS "would or would not be a violation of 10 C.F.R. § 51.75(b)." Tr. at 124. We take the Staff's refusal to speculate as an indication that such a violation would be at least plausible. Otherwise, the Staff could simply have opined that it would not be a violation.

[153] Under the "migration tenet," when the information in the NRC Staff's environmental review document is "sufficiently similar" to the applicant's Environmental Report, an existing contention based on the Environmental Report can "migrate" to apply to the Staff's review document as it applied to the Environmental Report. Strata Energy, Inc., (Ross In Situ Recovery Uranium Project), CLI-16-13, 83 NRC 566, 570 n.17 (2016) (citing Strata Energy, Inc., (Ross In Situ Recovery Uranium Project), LBP-13-10, 78 NRC 117, 132–33 (2013)).

[154] NRC Staff Answer at 31.

[155] Id.

Staff issues its Environmental Impact Statement.[156] Meanwhile, the contention remains pending.

SACE/TEC Contention 3 is admitted.[157]

D. Ruling on Petitions

As set forth above, BREDL, SACE, and TEC have all demonstrated standing in accordance with 10 C.F.R. § 2.309(d). Only SACE and TEC have proffered admissible contentions meeting the requirements of 10 C.F.R. § 2.309(f)(1). Therefore, in accordance with 10 C.F.R. § 2.309(a), the Board denies BREDL's request for hearing and petition for leave to intervene, and grants the request for hearing and petition for leave to intervene by SACE and TEC. SACE and TEC are admitted as parties to this proceeding.

E. Hearing Procedure

Upon admission of a contention the Board must identify the specific hearing procedures to be used.[158] Section 2.310(d) of 10 C.F.R. provides that, in most licensing matters, the procedures in Subpart G of 10 C.F.R. Part 2 will be used only if a contention "necessitates resolution of issues of material fact relating to the occurrence of a past activity, where the

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[156] Catawba, CLI-83-19, 17 NRC at 1049.

[157] In admitting Contention 3, the Board gives no weight to the supporting affidavit of Dr. M.V. Ramana. Regardless of Dr. Ramana's qualifications, he opines only that the factual assertions in Contention 3 are true, and that the opinions expressed therein are based on his best professional judgment. SACE/TEC Pet., attach. 2, Declaration of Dr. M.V. Ramana In Support of Petitioners' Contention 3 (Impermissible Discussion of Energy Alterenatives [sic] and Technical Advantages) at 1–2 (June 8, 2017). The Board does not understand any of the underlying facts to be in dispute, and we neither seek nor can we accept alleged expert opinion testimony on the requirements of federal law—most especially on the requirements of National Environmental Policy Act or of the NRC's implementing regulations. See, e.g., U.S. v. McIver, 470 F.3d 550, 561–62 (4th Cir. 2006) ("[O]pinion testimony that states a legal standard or draws a legal conclusion by applying law to the facts is generally inadmissible."); cf. Nieves-Villanueva v. Soto-Rivera, 133 F.3d 92, 99–100 (1st Cir. 1997) (recognizing that the "well-recognized exception" to excluding expert testimony on purely legal issues is for questions of foreign law).

[158] 10 C.F.R. § 2.310(a).

credibility of an eyewitness may reasonably be expected to be at issue, and/or issues of motive or intent of the party or eyewitness material to the resolution of the contested matter."[159] Unless the Board determines that Section 2.310(d) or other relevant regulations require otherwise,[160] a proceeding may be conducted under the procedures of Subpart L of 10 C.F.R. Part 2.[161]

No participant addressed the selection of hearing procedures in its pleadings. In the absence of any assertion that Subpart G procedures should be used, the Subpart L hearing procedures will be used to adjudicate each admitted contention.

III. ORDER

For the foregoing reasons:

A. BREDL's petition is denied. BREDL's sole proffered contention is not admitted.

B. The petition of SACE and TEC is granted. SACE/TEC Contention 1 is not admitted. SACE/TEC Contention 2 and SACE/TEC Contention 3 are admitted.

C. The admitted contentions will be adjudicated under the procedures set forth at 10 C.F.R. Part 2, Subpart L.

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[159] Id. § 2.310(d).

[160] See, e.g., Id. § 2.310(b)–(c) (providing that, unless the parties agree otherwise, enforcement matters and licensing of uranium facility construction and operation must be conducted under Subpart G).

[161] Id. § 2.310(a).

Any appeal of this decision to the Commission shall be filed in conformity with 10 C.F.R. § 2.311.

It is so ORDERED.

THE ATOMIC SAFETY
AND LICENSING BOARD

/RA/

Paul S. Ryerson, Chairman
ADMINISTRATIVE JUDGE

/RA/

Dr. Gary S. Arnold
ADMINISTRATIVE JUDGE

/RA/

Dr. Sue H. Abreu
ADMINISTRATIVE JUDGE

Rockville, Maryland
October 10, 2017

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
TENNESSEE VALLEY AUTHORITY	)	Docket No. 52-047-ESP
	)	
(Early Site Permit Application for Clinch River Nuclear Site)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing **MEMORANDUM AND ORDER (LBP-17-08) (Ruling on Petitions for Intervention and Requests for Hearing)** have been served upon the following persons by Electronic Information Exchange.

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Dated at Rockville, Maryland,
this th day of August, 2017

[Original signed by Brian Newell]
Office of the Secretary of the Commission