November 30, 2017

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
BEFORE THE COMMISSION

In the Matter of	)	
	)	Docket No. 52-047-ESP
Tennessee Valley Authority	)	
	)	
(Clinch River Nuclear Site)	)	
	)	

INTERVENORS' RESPONSE TO TENNESSEE VALLEY AUTHORITY'S APPEAL OF LBP-17-08

I. INTRODUCTION

Pursuant to 10 C.F.R. § 2.311, Intervenors Southern Alliance for Clean Energy and Tennessee Environmental Council hereby respond to Tennessee Valley Authority's ("TVA's) appeal of LBP-17-08, the Atomic Safety and Licensing Board's ("ASLB's") Memorandum and Order granting Intervenors a hearing in this proceeding for consideration of an Early Site Permit ("ESP") for a small modular reactor ("SMR") at the Clinch River site in Tennessee. *Tennessee Valley Authority* (Clinch River, Early Site Permit), LBP-17-08, __ NRC __ (Oct. 10, 2017) ("LBP-17-08"). Contrary to TVA's arguments, the ASLB committed no errors of law in admitting the contentions. It is TVA who commits legal error, by misquoting, misinterpreting or ignoring applicable law. TVA also mischaracterizes some factual determinations as legal rulings, and fails to demonstrate that the ASLB abused its discretion in those rulings. Therefore, the Commission should deny TVA's appeal.

II. PROCEDURAL HISTORY

On June 12, 2017, Intervenors submitted a hearing request and petition to intervene on TVA's ESP application for siting of an SMR at the Clinch River Site. Petition to Intervene and

Request for Hearing ("Hearing Request"). In their Hearing Request, Intervenors presented three contentions. Contention 1 challenged the adequacy of TVA's emergency plan; Contention 2 challenged TVA's failure to address the consequences of spent fuel pool fires in its Environmental Report ("ER"); and Contention 3 challenged the ER for discussing the relative merits of SMRs and other energy alternatives, which TVA had explicitly elected to omit. The ASLB held oral argument on September 12, 2017.

In LBP-17-08, the ASLB found Intervenors had standing and admitted Contentions 2 and 3.[1] TVA appealed LBP-17-08 on November 6, 2017, by filing a notice of appeal and brief. Tennessee Valley Authority's Notice of Appeal of LBP-17-08; Tennessee Valley Authority's Petition for Review of LBP-17-08 ("TVA Brief").[2]

III. STANDARD OF REVIEW

Under NRC regulation 10 C.F.R. § 2.311(d), a decision admitting contentions may be appealed on the question of "[w]hether the request for hearing or petition to intervene should have been wholly denied." As noted by TVA, the Commission gives "substantial deference" to the ASLB in reviewing rulings on contention admissibility and "will only reverse a decision where there is an error or law or abuse of discretion." TVA Brief at 3 (citing, *inter alia, Pac. Gas & Elec. Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-16-09, 83 NRC 472, 482 (2016)). Here, TVA claims the ASLB made legal errors only. TVA Brief at 1. As discussed below, however, TVA fails to acknowledge that some of its disputes with the ASLB are factual; and therefore those rulings should be reviewed for abuse of discretion rather than legal error.

[1] The ASLB denied admission of Contention 1, which is not at issue here.

[2] TVA styled its brief as a "Petition for Review," but did not invoke 10 C.F.R. § 2.341 or address the standard for petitions for review. Therefore, the designation appears to be an error. Intervenors assume that TVA intended to file a "supporting brief" to its notice of appeal, as contemplated by 10 C.F.R. § 2.311(b).

IV. ARGUMENT

A. The ASLB Did Not Err or Abuse its Discretion in Admitting Contention 2.

1. Summary of Contention 2 and ASLB ruling

Contention 2 asserts that TVA's ER fails to satisfy the National Environmental Policy Act ("NEPA") "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." LBP-17-08, slip op. at 23. As the Board recognized, TVA must comply with *State of New York v. NRC*, 681 F.3d 471 (D.C. Cir. 2012) (*New York I*"), which held that the environmental impacts of spent fuel pool fires must be considered unless their likelihood is determined to be remote and speculative. LB-17-08, slip op. at 26. While noting that "TVA might not be able to say very much about the risk of spent fuel pool fires," the ASLB concluded that "SACE and TEC have made a plausible case that TVA must say something." *Id.* at 27. Thus, the ASLB admitted Contention 2 as "strictly a contention of omission." *Id.*

2. Response to TVA's appeal

TVA claims the ASLB "committed a clear error of law" by admitting Contention 2 (TVA Brief at 5), but the "errors" TVA cites did not occur. Contrary to TVA's assertion, the ASLB did *not* "require TVA to . . . show that the risk of a spent fuel pool fire at an SMR site is 'necessarily encompassed' by other possible SMR accidents." TVA Brief at 5. Nor did the ASLB require TVA to perform a "specific technical analysis" with "design information that is not currently available and is not required in an ESP application." *Id. See also id.* at 13 (incorrectly asserting that the ASLB required TVA "to assess the risk of a spent fuel pool fire using design-specific information."). The ASLB simply ruled that if TVA cannot demonstrate that a pool fire is a remote and speculative event, NEPA requires that it must provide whatever information it has in

its possession about the environmental impacts of a pool fire. LBP-17-08, slip op. at 26-27.[3] The ASLB's ruling is fully consistent with *New York I.*

Similarly, TVA accuses the ASLB of "implicitly assum[ing] that spent fuel pool fires are not bounded by the severe accident analysis in TVA's ER." TVA Brief at 6. The ASLB made no such assumption. It merely found that TVA failed to address spent fuel pool fires *at all,* and therefore the ER is deficient. Notably, the word "pool" does not even appear in Chapter 7 of TVA's ER, which contains TVA's analyses for design basis accidents and severe accidents. No evidence can be found that TVA gave the slightest thought to spent fuel pool fires in the ER.[4]

TVA also attacks a key factual determination by the ASLB, but fails to show that the ASLB abused its discretion. *See Pac. Gas & Elec. Co.,* CLI-16-09, 83 NRC at 482. While TVA claims that it relied on the 2013 License Renewal Generic Environmental Impact Statement ("GEIS")[5] for its analysis of spent fuel pool fire impacts, the Board found as a factual matter that TVA's ER "cites the License Renewal GEIS concerning entirely different subjects," *i.e.*, the impacts of the uranium fuel cycle. LBP-17-08, slip op. at 25. TVA gives the Commission no reason to disturb the ASLB's sound discretion in ruling that "the mere mention of the License Renewal GEIS in

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[3] In arguing that Contention 2 impermissibly seeks a detailed design analysis, TVA repeats its prior attempt to confuse the environmental issues legitimately raised by Contention 2 with design-related safety issues whose consideration is postponed until the combined license ("COL") stage. *See* TVA Brief at 5 and note 18. But the ASLB rejected this ploy in LBP-17-08, concluding that safety-related design issues have "no bearing" on Contention 2. *Id.* at 24-25.

[4] TVA's lawyers now state that TVA selected a "[design basis accident] envelope based on an operating reactor Loss of Coolant Accident ("LOCA"), which sufficiently bounds any risk of a spent fuel pool fire." TVA Brief at 6. But TVA may not lawfully backfill a deficient ER with *post hoc* unsupported assertions by non-expert attorneys. *See Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Units 1 and 2), LBP-84-55, 20 NRC 1646, 1651 (1984). (NRC accords no evidentiary weight to non-expert testimony). TVA's lengthy quotations from the ER regarding its reactor accident analyses (TVA Brief at 7-9) are similarly unavailing, because the quoted language contains no mention of pool fires.

[5] NUREG-1437, Generic Environmental Impact Statement for License Renewal of Nuclear Plants," Rev. 1 (June 2013).

the Environmental Report for a completely different purpose is not sufficient" and "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." *Id.*

TVA also claims that it did not have to address spent fuel pool fire risks in the ER, because "the fundamental NEPA question during the ESP stage" is "whether there is an obviously superior alternative site." TVA Brief at 6 (citing 10 C.F.R. §§ 51.50(b)(2) and 52.17(a)(2)). Section 51.50(b)(2) provides that an ER:

> *may address* one or more of the environmental effects of construction and operation of a reactor, or reactors, which have design characteristics that fall within the site characteristics and design parameters for the early site permit application, provided however, that the environmental report *must address* all environmental effects of construction and operation necessary to determine whether there is any obviously superior alternative to the site proposed.

(emphasis added).[6] As permitted by the first part of Section 51.50(b)(2), TVA's ER includes accident analyses for design basis accidents and severe accidents that purport to be complete. The introduction to Chapter 7 of the ER, presents an analysis whose scope appears comprehensive:

> This chapter *assesses the environmental impacts of postulated accidents* involving radioactive materials at the Clinch River Nuclear (CRN) Site. The chapter is divided into four sections that address design basis accidents, severe accidents, severe accident mitigation design alternatives, and transportation accidents.
>
> - Design Basis Accidents (Section 7.1)
> - Severe Accidents (Section 7.2)
> - Severe Accident Mitigation Design Alternatives (Section 7.3)
> - Transportation Accidents (Section 7.4)

ER at 7.0-1 (emphasis added). Chapter 7 contains no proviso stating or even hinting that the phrase "the environmental impacts of postulated accidents" is meant to describe an incomplete

[6] Section 52.17(a)(2) merely cross-references Section 51.50(b).

set of accident impacts. Nor does it say that consideration of some accident scenarios has been postponed. Given that the ER's accident analysis purports to be complete, the omission from Chapter 7 of any mention of spent fuel pool fire risks gives rise to an admissible contention.[7]

B. The ASLB Did Not Err or Abuse its Discretion in Admitting Contention 3.

1. Summary of Contention 3 and ASLB ruling

In Contention 3, Intervenors assert that TVA's ER violates NEPA and NRC implementing regulations because it contains impermissible language comparing the proposed SMR to other energy alternatives and discussing the economic and technical advantages of the facility. The language is impermissible because TVA has explicitly invoked 10 C.F.R. § 51.50(b)(2), which excuses an ESP applicant from discussing the "economic, technical or other benefits (for example, need for power) and costs of the proposed action or an evaluation of alternative energy sources" in an ER; and which thereby effectively precludes Intervenors from raising those issues in the adjudicatory hearing. Hearing Request at 11-12.

Contention 3 also asserts that the language in the ER comparing TVA's proposed SMR with other energy alternatives should not be included in the Environmental Impact Statement ("EIS") for the proposed ESP. Hearing Request at 12 and Southern Alliance for Clean Energy's and

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[7] The Commission should completely disregard TVA's additional argument that *State of New York v. NRC*, 824 F.3d 1012 (D.C. Cir. 2016) ("*New York II*") supports denial of Contention 2, because the argument is based on an imaginary quotation from that decision. Contrary to TVA's assertion, the Court of Appeals did *not* "specifically [hold] that the License Renewal GEIS was 'thorough and comprehensive' enough to bound the risks of spent fuel pool fires as *'essentially common for all operating reactors.'*" TVA Brief at 12 (purporting to quote 824 F.3d at 1019) (emphasis added). The phrase "operating reactors" does not appear anywhere in *New York II* -- because the subject of that case was spent fuel storage at decommissioning or decommissioned "plants" (824 F.3d at 1019) during the time period "*beyond* the life of operating reactors." *Id.* at 1016. The GEIS reviewed in *New York II* was the 2014 Continued Spent Fuel Storage GEIS, not the 2013 License Renewal GEIS. As TVA stated in its brief, "analysis of risks at a decommissioned reactor is immaterial to this ESP proceeding." TVA Brief at 15 (citing 2013 License Renewal GEIS at E-34 to E-35).

Tennessee Environmental Council's Reply to Oppositions to Petition to Intervene and Request for Hearing at 13 (July 21, 2017) (citing 10 C.F.R. § 51.75(b)).

In admitting Contention 3, the ASLB noted that while 10 C.F.R. § 51.50(b)(2) does not explicitly prohibit an applicant who has elected not to address energy alternatives in an ER from discussing them anyway, 10 C.F.R. § 51.75(b) expressly prohibits the NRC Staff from discussing energy alternatives in the EIS where an applicant has invoked 10 C.F.R. § 51.50(b)(2). On that basis, the ASLB concluded that language in the ER comparing SMRs to other energy sources "would at least arguably violate 10 C.F.R. § 51.75(b)" if it were included in the EIS. *Id.* at 31. The ASLB further found that by filing Contention 3 based on the ER, that Intervenors satisfied the NRC's "ironclad obligation" to "raise issues in licensing proceedings as soon as the information becomes available to them." *Id.* (quoting *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).

2. Response to TVA's appeal

On appeal, TVA makes three claims, none of which meet the NRC's standard for reversal. TVA's first argues that the statements whose lawfulness is disputed in Contention 3 "are neither a substantive discussion of energy alternatives nor a cost-benefit analysis." TVA Brief at 16.[8] TVA characterizes the ASLB's alleged error as legal; but the question of what constitutes a substantive discussion of energy alternatives is fundamentally factual. TVA has presented no grounds for disturbing the ASLB's discretionary determination that TVA's assertions about the relative merits of SMRs as an energy source "would at least arguably violate

[8] Neither 10 C.F.R. § 51.50(b)(2) nor 10 C.F.R. § 51.75(b) explicitly mentions the term "cost-benefit analysis" cited in TVA's brief at 16, nor does LBP-17-08. Thus, TVA's argument about that phrase is irrelevant.

10 C.F.R. § 51.75(b)." LBP-17-08, slip op. at 31. Indeed, as the ASLB noted, the NRC Staff "has virtually admitted as much." *Id*.[9]

TVA also contends that the ASLB erred because its decision "was based solely on an assumption that the NRC Staff's future EIS might violate the law, even though Intervenors are free to challenge the EIS when it is published." TVA Brief at 16. This argument amounts to a frontal assault on the NRC's well-established rule that environmental contentions must be submitted as soon as actionable information becomes available, *i.e.*, is published in the ER. The ASLB found no reason to make an exception to that doctrine (LBP-17-08, slip op. at 31-32), and TVA has offered no new or compelling rationale.

The NRC has held repeatedly that if an ER includes information that would violate the law if it were included in an EIS, it provides sufficient basis for an admissible contention; and indeed, petitioners who wait until the publication of the EIS are uniformly held to be untimely. *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-00-21, 52 NRC 261, 264 n.6 (2000) (citing *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-97-2, 45 NRC 3, 4 (1997); *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-05-20, 62 NRC 523, 526, 533 (2005); *Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), LBP-93-23, 38 NRC 200, 251 (1993).

The NRC's requirement that contentions must be filed as soon as relevant information becomes available is not a "general policy argument," as characterized by TVA (TVA Brief at 16

[9] TVA also contends that its discussion of energy alternatives is not "ripe for assessment" as the subject of a contention because it is not systematic, comprehensive, confirmable, or responsive to forecasting uncertainty. TVA Brief at 17 (citing *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 6 & 7), LBP-11-6, 73 NRC 148, 219 (2011)). But this argument merely serves to confirm the fundamental unfairness that would result if TVA could go unchallenged for its half-baked claims about the superiority of SMRs as an energy source, while Intervenors are effectively precluded from challenging those claims by 10 C.F.R. § 51.50(b)(2).

(emphasis added)) but a well-established and consistently applied legal doctrine. As the Commission has explained:

> It is . . . settled that the NRC has the burden of complying with NEPA. Thus, the adequacy of the NRC's environmental review as reflected in the adequacy of a [Draft EIS] or [Final EIS] is an appropriate issue for litigation in a licensing proceeding. Because the adequacy of those documents cannot be determined before they are prepared, contentions regarding their adequacy cannot be expected to be proffered at an earlier stage of the proceeding before the documents are available. But this does not mean that no environmental contentions can be formulated before the Staff issues a [Draft EIS or Final EIS]. While all environmental contentions may, in a general sense, ultimately be challenges to the NRC's compliance with NEPA, *factual aspects of particular issues* can be raised before the [Draft EIS] is prepared. As a practical matter, much of the information in an Applicant's ER is used in the [Draft EIS]. Just as the submission of a safety-related contention based on the [Final Safety Analysis Report] is not to be deferred because the staff may issue a safety evaluation report] requiring a change in a safety matter, so too, the Commission expects that the filing of an environmental concern based on the ER will not be deferred because the Staff may provide a different analysis in its [Draft EIS].

Duke Power Co. (Catawba Nuclear Station, Units 1 & 2), CLI-83-19, 17 NRC 1041, 1049 (1983) (emphasis added). Notably, in *Catawba* the Commission focused on the ER as a source of *factual* information that might later be disputed if it were included in the EIS. That is the case here, where the ER contains factual information that may be permissible under NRC regulations for ERs, but which may not be included in the EIS. Under the reasoning in *Catawba*, Contention 3 would be ruled untimely if Intervenors waited to file it until the issuance of the EIS, because the factual information at issue in the contention has already appeared in the ER.

V. CONCLUSION

For the foregoing reasons, the Commission should deny TVA's appeal of LBP-17-08.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I certify that on November 30, 2017, I posted copies of the foregoing INTERVENORS' RESPONSE TO TENNESSEE VALLEY AUTHORITY'S APPEAL OF LBP-17-08 on the NRC's Electronic Information Exchange System.

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