October 27, 2017

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of	)	
	)	Docket No. 52-047-ESP
Tennessee Valley Authority	)	
	)	
Clinch River, Early Site Permit	)	ASLBP No. 17-954-01-ESP-BD01
	)	

TENNESSEE VALLEY AUTHORITY'S RESPONSE OPPOSING INTERVENORS' MOTION FOR PARTIAL RECONSIDERATION OF LBP-17-08

I. INTRODUCTION

Pursuant to 10 CFR § 2.323(e), the Tennessee Valley Authority ("TVA") respectfully submits this response opposing the Southern Alliance for Clean Energy and the Tennessee Environmental Council's (collectively, "Intervenors") motion for partial reconsideration of LBP-17-08 ("Motion"), dated October 20, 2017. There was no clear and material error in the Order's[1] rejection of Contention 1. Intervenors' Motion continues to misunderstand TVA's exemption requests submitted in the early site permit application ("ESPA"), which have two parts: (1) replace the deterministic 10-mile plume exposure pathway ("PEP") emergency planning zone ("EPZ") with a dose-based EPZ that ensures the protection of public health and safety using the dose-based methodology in Section 13.3 of the Site Safety Analysis Report ("SSAR")[2] ("Section 13.3 methodology"), which takes into account credible accidents (both design basis and beyond design basis),[3] to be calculated at the combined license ("COL") stage based on a design-specific

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[1] LBP-17-08, Memorandum and Order ("Order").

[2] *See* SSAR, Section 13.3.3 at 13.3-6 – 13.3-14.

[3] *Id.*, Section 13.3.3.1.4 at 13.3-13, which includes "[a]pplicable fuel handling accidents and spent fuel pool accidents."; *see also id.* Section 13.3.3.1, *et seq.*

analysis[4] and (2) to determine that the major features emergency plans in Part 5A and Part 5B are adequate ***if*** the Section 13.3 methodology results in either a site boundary ("SB") EPZ (Part 5A) or a 2-mile EPZ (Part 5B) using the exemptions from the emergency planning regulations contained in Part 6, Table 1-1 and Table 1-2 (SB EPZ) or Table 1-3 (2-mi EPZ), respectively.[5] The Part 5A or Part 5B major features emergency plan could be incorporated by reference at the COL stage ***if and only if*** the Section 13.3 methodology at the COL stage results in a SB EPZ or a 2-mile (or less) EPZ.[6]

TVA is not requesting the Nuclear Regulatory Commission ("NRC") Staff to finalize a particular EPZ size in this proceeding, but is, *inter alia*, requesting to use the dose-based Section 13.3 methodology, which could result in a smaller than 10-mile EPZ or a larger than 10-mile EPZ depending on the design-specific dose calculations at the COL stage.[7] Intervenors also misunderstand TVA's response to a Request for Additional Information initiated by the NRC Staff,[8] which did not change the exemptions requested in the ESPA.[9] There is no error in the Order or any prejudice to Intervenors, much less manifest injustice. The Motion should, therefore, be denied.

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[4] *Id.*, Section 13.3.3.1.4.

[5] *See* Part 6, Section 1.1 at 1 ("The requested exemptions allow for the development and implementation of emergency plans that are commensurate with the significantly reduced risk associated with SMR technology."); *see also* Part 6, Section 1.2 ("The two distinct Emergency Plans and the two sets of exemptions are based on the distance at which the selected SMR reactor technology is able to demonstrate that it meets the criteria set forth in Site Safety Analysis Report (SSAR) Section 13.3. The applicability of ***any exemption would be based on the SMR design selected for the COLA falling within the parameters set forth in SSAR Section 13.3***.") (emphasis added).

[6] *See id.*, Section 1.3.3.1.4 at 13.3-13 – 13.3-4; *see also* Part 6, Section 1.1 at 1 ("The requested exemptions would require the SMR design selected for the Combined License Application (COLA) to meet the established criteria at the selected EPZ boundary.").

[7] Part 6, Section 1.2 at 2 ("The selected EPZ size will be determined based upon the SMR design selected in the preparation of the COLA.").

[8] Letter from TVA to NRC Document Control Desk, re: Response to Request for Additional Information Related to Emergency Planning Exemption Requests in Support of Early Site Permit application for Clinch River Nuclear Site (Aug. 24, 2017) (ADAMS Accession No. ML17237A175) ("RAI Response").

[9] *See* RAI Response at E1-10.

II. FACTUAL BACKGROUND

Intervenors' Contention 1 is premised on the misunderstanding that TVA is seeking to have a particular EPZ size finalized for the Clinch River Nuclear ("CRN") Site in this proceeding.[10] This misunderstanding is also present in the Motion and is the basis for Intervenors' claim of error.[11] TVA does not seek to finalize a particular EPZ size in this proceeding, but to use the dose-based approach of the Section 13.3 methodology at the COL stage, which may result in a less than 10-mile EPZ or a greater than 10-mile EPZ.[12]

Part 6 also requests that the NRC determine that the proposed exemptions in ESPA, Part 6, Table 1-1 and Table 1-2 are sufficient to enable the NRC to determine that the major features emergency plan contained in Part 5A is adequate ***if the analysis at the COL stage***, using the Section 13.3 methodology, determines that there is adequate protection of public health and safety using a SB EPZ,[13] such that the approved ESPA, Part 5A major features emergency plan could be incorporated by reference into the complete emergency plan at the COL stage. Likewise, ESPA, Part 6 requests that the NRC determine that the proposed exemptions in ESPA, Part 6, Table 1-3 are sufficient to enable the NRC to determine that the major features emergency plan contained in ESPA, Part 5B is adequate ***if the analysis at the COL stage***, using

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[10] Intervenors' "Petition to Intervene and Request for Hearing," dated June 12, 2017 ("Petition to Intervene") at 1-2 ("Contention 1 challenges TVA's application for an exemption from NRC's emergency planning requirements with respect to the establishment of a ten-mile emergency planning zone ("EPZ"). As demonstrated in the contention, TVA has failed to justify its proposal to reduce the size of the EPZ to the site boundary, or in the alternative a two-mile radius.").

[11] *See, e.g.*, Motion at 5 ("[B]ecause TVA has asked the NRC to "review and approve" the proposed reduced EPZ sizes, it is unlikely that Intervenors will be able to challenge the outcome of a review at the COL stage if the information and analyses are largely the same.").

[12] Part 6, Section 1.2 at 2 ("The selected EPZ size will be determined based upon the SMR design selected in the preparation of the COLA."). *See also* SSAR, Section 13.3.3.1.4 ("The COLA will apply the methodology in Subsection 13.3.3.1.1 for EPA PAG and Subsection 13.3.3.1.2 for Substantial Reduction in Early Health Effects to the selected SMR reactor technology to determine an acceptable PEP EPZ."); Part 6, Section 1.3 at 3 ("During preparation of a COLA, when TVA has selected a reactor design, the appropriate EPZ will be selected based on the SMR design that conforms to the criteria established in SSAR Section 13.3.").

[13] *See* Note 5, *supra*.

the Section 13.3 methodology, determines that there is adequate protection of public health and safety using a 2-mile EPZ,[14] such that the approved Part 5B major features emergency plan could be incorporated by reference into the complete emergency plan at the COL stage.

Granting the exemptions in Part 6 does not result in the approval of either a SB EPZ or a 2-mile EPZ in this proceeding. The size of the EPZ will be determined, using the Section 13.3 methodology, at the COL stage.[15] If the design-specific analysis at the COL stage does not demonstrate that there is adequate protection of public health and safety using the Section 13.3 methodology, ***neither*** major features emergency plan approved at the ESP stage would be incorporated by reference into the final emergency plan at the COL stage. Under those circumstances, a new emergency plan would accompany the COL application.[16]

On July 28, 2017, the NRC Staff submitted to TVA an RAI,[17] wherein the NRC requested that TVA answer a series of questions regarding the exemption requests in Part 6 and asked, *inter alia*, TVA to provide additional information and to demonstrate that "potential reactor facilities that would be encompassed within the surrogate design and PPE," could meet "the proposed accident consequence criteria … at a given EPZ boundary distance ...."[18] The RAI Response clearly states that the analysis is an example "[t]o demonstrate that the proposed accident consequence technical criteria presented in CRN Site ESPA SSAR Section 13.3 can be met by a design contemplated by the PPE."[19] The RAI Response further clarifies: "Because the purpose of the analysis is to demonstrate that a vendor technology contemplated by the PPE can

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[14] *See* Note 5, *supra*.

[15] *See* Note 12, *supra*.

[16] SSAR, Section 13.3.3.1.4 at 13.3-13.

[17] US NRC Request for Additional Information No. 7, eRAl-8885, ESPA Application Section: Part 6 - Exemptions and Departures, EP Exemptions, dated July 28, 2017 (ADAMS Accession No. ML17209A401) ("RAI").

[18] RAI at 4.

[19] RAI Response at E1-7.

meet ESPA SSAR Section 13.3 acceptance criteria, it was performed for a specific technology and ***not the surrogate plant developed in the PPE***."[20]

III. LEGAL STANDARD

Under 10 C.F.R. § 2.323(e), Intervenors must show "compelling circumstances, such as the existence of a clear and material error in a decision, which could not have reasonably been anticipated, that renders the decision invalid." Reconsideration is an extraordinary action and requires a showing of manifest injustice in the absence of reconsideration.[21] Motions to reconsider must establish an error in the earlier decision, based on the arguments made initially, the identification of an overlooked controlling decision or a factual clarification. *See Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-04-27, 61 NRC 145, 153 (2004); *Dominion Nuclear Connecticut, Inc*. (Millstone Nuclear Power Station, Unit 2), CLI-03-18, 58 NRC 433, 434 (2003).

IV. ARGUMENT

A. The ASLB Did Not Err in Concluding that Intervenors Would Not Be Prejudiced by the Dismissal of Contention 1

1. The ASLB Did Not Overlook Language in SSAR Chapter 13

Intervenors' incorrectly cite language in SSAR Chapter 13 as supposedly "key" to assert (incorrectly) that TVA is seeking in this proceeding a "reduced EPZ size."[22] These quotes are all from a single page that describes the background for TVA's dose-based Section 13.3 methodology. In other words, TVA believes that the actual design at COL will have significantly lower dose consequences than current reactors and TVA is, therefore, requesting approval of the Section 13.3 methodology. As discussed in Section II*, supra*, the ESPA clearly

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[20] *Id*. (emphasis added).
[21] 69 Fed. Reg. 2,182, 2,207 (Jan. 14, 2004).
[22] Motion at 6-7.

indicates in multiple places that the particular EPZ size will be finalized at the COL stage using the Section 13.3 methodology and Intervenors' assertion is incorrect.[23] Moreover, this language was available to Intervenors since the ESPA was placed in ADAMS. Intervenors do not make any argument why they could not have brought this language to the ASLB's attention in their Petition to Intervene or their Reply,[24] which did not cite SSAR, Chapter 13. A motion for reconsideration is not for making arguments that the Intervenors could have, but did, not make.[25]

2. TVA's RAI Response Does Not Contradict LBB-17-08

Intervenors either misunderstand or try to conflate the surrogate design referenced in Section 13.3 with the example analysis in the RAI Response,[26] when the two things are not the same. A surrogate plant, as described in the ESPA, Section 1.1 is defined in NEI 10-01, *Industry Guideline for Developing a Plant Parameter Envelope in Support of an Early Site Permit*.[27] TVA expressly states in the RAI Response that it ***is not*** conducting an analysis using the surrogate plant, but using one technology as an example.[28] The "representative analysis" uses information available for the NuScale design,[29] it is not an analysis of the surrogate plant. Thus, the premise of Intervenors' request for partial reconsideration is incorrect.

Likewise, Intervenors assertion that the RAI Response shows that TVA is seeking a

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[23] *See, e.g.*, Note 15, *supra*.

[24] Southern Alliance for Clean Energy's and Tennessee Environmental Council's Reply to Oppositions to Petition to Intervene and Request for Hearing, dated July 21, 2017 ("Reply").

[25] An argument raised for the first time in a motion to reconsider does not serve as a basis for reconsideration of admission of a contention. *Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), CLI-93-12, 37 NRC 355, 359–60 (1993).

[26] *See, e.g.*, Motion at 7 ("TVA's RAI Response shows that TVA is applying the methodology now, in this ESP proceeding, to the "surrogate" design described in the ESP application.").

[27] "The PPE is used to define what is in effect a 'surrogate plant' that can bound two or more technologies. This surrogate plant is used as an input for the analyses needed to support the development of the ESP application." NEI 10-01, Section 3.4 at 15.

[28] RAI Response at E1-7 ("Because the purpose of the analysis is to demonstrate that a vendor technology contemplated by the PPE can meet ESPA SSAR Section 13.3 acceptance criteria, it was performed for a specific technology and not the surrogate plant developed in the PPE.").

[29] *Id.* (" [A] representative analysis has been performed by one SMR vendor (NuScale).").

finalized, particular EPZ size in this proceeding[30] is also not accurate. The RAI Response was submitted, *inter alia*, to demonstrate that "potential reactor facilities that would be encompassed within the surrogate design and PPE," could meet "the proposed accident consequence criteria … at a given EPZ boundary distance ...."[31] The RAI Response states that it is being provided to show that "the proposed accident consequence technical criteria presented in CRN Site ESPA SSAR Section 13.3 can be met by a design contemplated by the PPE …."[32] Likewise, the RAI Response states that TVA will conduct a new, design-specific analysis at the COL stage.[33]

Intervenors do not explain why they believe that TVA's "application of the ten-hour criterion for spent fuel pool fire risks,"[34] supports Intervenors' request for reconsideration. The Section 13.3 methodology requires evaluation of spent fuel accidents,[35] which were determined to not be credible by the NuScale-developed probabilistic risk assessment ("PRA").[36] This information in the RAI Response is also not inconsistent with statements of TVA's counsel, as Intervenors assert.[37] The RAI Response does not contain an analysis of the surrogate plant, as discussed in Section II*, supra*, and in this Section; the RAI Response further states that TVA will submit a design-specific analysis, based on the design selected, at the COL stage.[38]

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[30] Motion at 7 ("TVA's RAI Response shows that TVA is applying the methodology now, in this ESP proceeding, to the "surrogate" design described in the ESP application.").

[31] RAI at 4.

[32] RAI Response at E1-7.

[33] *See, e.g.*, RAI Response at E1-2 ("At COLA, the selected SMR design must conform to these criteria."); *id.* at E1-11 ("The COLA will apply the methodology in SSAR Subsection 13.3.3.1.1 for EPA PAG and SSAR Subsection 13.3.3.1.2 for Substantial Reduction in Early Health Effects to the selected SMR reactor technology to determine an acceptable EPZ.").

[34] Motion at 7.

[35] Intervenors assertion that this somehow is contradictory to a statement that the actual design-specific review will occur at the COL proceeding (Motion at 4) is likewise not correct. TVA will conduct the design-specific analysis at the COL stage.

[36] RAI Response at E1-9.

[37] Motion at 7-8.

[38] *See, e.g.*, RAI Response at E1-2 ("At COLA, the selected SMR design must conform to these criteria."); *id.* at E1-11 ("The COLA will apply the methodology in SSAR Subsection 13.3.3.1.1 for EPA PAG and SSAR Subsection

Intervenors provide no citation for their assertions that the "COL proceeding will be merely confirmatory, with the possibility of revisions,"[39] or what that means. As the ASLB recognized, TVA's exemption requests in Part 6 are for the NRC to evaluate TVA's proposed major features emergency plans in Part 5A and Part 5B using the exemptions requested in Part 6 based on a SB EPZ and a 2-mile EPZ to determine whether those major features emergency plans would be acceptable for those ***potential*** EPZ sizes.[40] Whether one of those major features emergency plans would be able to be incorporated by reference into a final emergency plan at the COL stage depends on whether TVA can demonstrate that it qualifies for a SB EPZ or a 2-mile EPZ using the Section 13.3 methodology.[41]

Intervenors apparently do not distinguish between (1) a determination by the NRC that the major features emergency plans would be adequate if the SSAR, Section 13.3 criteria are met at the COL stage and (2) absolute approval of a reduced EPZ size in this ESP proceeding. The ASLB correctly recognized the distinction when the it stated, "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."[42] TVA's request for the NRC to review the major features emergency plans in the ESP proceeding for adequacy in light of the exemptions requested in Part 6, Tables 1-1 through 1-3, does not mean that the EPZ size at the COL stage

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13.3.3.1.2 for Substantial Reduction in Early Health Effects to the selected SMR reactor technology to determine an acceptable EPZ.").

[39] Motion at 8.

[40] This approach was also specifically addressed by TVA at oral argument: "What we're asking for is if we demonstrate at COLA that we have the site boundary EPZ this emergency plan is acceptable. If we demonstrate at COLA a 2-mile EPZ a second emergency plan is acceptable. If we are to a 10-mile EPZ we will submit a new emergency plan with the 10-mile EPZ ***at COLA***." Tr. at 86 (Nelson) (emphasis added).

[41] SSAR, Section 13.3.3.1.4 at 13.3-13 ("If the dose consequences of the selected technology exceed the EPA PAG or present a substantial risk that doses at which significant early health effects may occur for the PEP EPZ boundary at a two-mile radius, then neither Emergency Plan included in Part 5 of this ESPA will be incorporated by reference in the COLA and a new Emergency Plan will be included in the COLA for NRC review.").

[42] Order (slip op.) at 21 (emphasis added).

will ***necessarily*** be smaller than the currently required ten-mile radius.[43]

B. The ASLB Did Not Err in Concluding that Intervenors Would Not Be Prejudiced by the Dismissal of Contention 1

NRC's regulations under 10 C.F.R. § 2.323(e) require compelling circumstances for a motion for reconsideration to be considered, which require there to be "manifest injustice" in the absence of reconsideration.[44] Intervenors' Motion does not address the manifest injustice they believe will occur in the absence of reconsideration. Intervenors do assert that they will be prejudiced at the COL stage, again, on the apparent misunderstanding that TVA is requesting a particular EPZ size for a facility to be located at the CRN Site to be finalized in the ESP proceeding.[45] Because TVA is not requesting a particular EPZ size to be finalized in this proceeding, Intervenors cannot be "prejudiced." At the COL stage, TVA will submit a design-specific analysis using the Section 13.3 criteria including evaluation of spent fuel pool accidents based on the PRA of the selected design.[46] The PRA, *inter alia*, will determine if spent fuel accidents are credible events for the selected design.[47] Despite Intervenors' assertions to the contrary, Intervenors would have the opportunity to contest any such analysis in the COL proceeding pursuant, *inter alia*, to 10 C.F.R. § 52.39(c)(i), (ii), and/or (iv), depending on the basis of the challenge asserted by Intervenors. Therefore, there can be no prejudice arising out of the RAI Response or the ESPA itself. Moreover, Intervenors do not explain why they could not have made the inapposite argument concerning the finality of major features emergency plans,

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[43] Part 6, Section 1.3.4 at 5 ("The criteria established in the ESPA require the SMR design to demonstrate in the COLA that any accident consequences are less than the EPA PAG criteria and meet specific risk reduction criteria (see SSAR Subsection 13.3.3.1.1) for the Emergency Plan and the size of the PEP EPZ in the ESPA to be used. If the SMR design selected does not meet those criteria, the smaller EPZ will not be used.")

[44] "This standard, which is a higher standard than the existing case law, is intended to permit reconsideration only where manifest injustice would occur in the absence of reconsideration, and the claim could not have been raised earlier." 69 Fed. Reg. 2,182, 2,207 (Jan. 14, 2004).

[45] Motion at 8-9.

[46] SSAR Section 13.3.3.1.4 at 13.3-13.

[47] *Id*.

and the inapposite citations to page 13.3-1 of the SSAR in their Petition to Intervene or their Reply. An argument raised for the first time in a motion for reconsideration is barred under NRC's rules. *Rancho Seco, supra*, CLI-93-12, 37 NRC at 359–60.

C. Intervenors Have Not Demonstrated Any Error, Much Less Clear and Material Error, Nor Have They Addressed Manifest Injustice

Intervenors have failed to address the high legal standards that the Commission has established for a motion for reconsideration to be considered, as addressed in Sections III and IV, *supra*, and in TVA's Response Opposing Intervenors' Motion for Leave to File a Motion for Partial Reconsideration of LBP-17-08. Moreover, Intervenors have failed to provide a basis to grant the present Motion and have impermissibly raised new, if nonetheless inapposite, arguments that could have been raised in their Petition to Intervene or their Reply and were not. Because the Order contains no errors for the reasons set forth herein, and also set forth in TVA's Response Opposing Intervenors' Motion for Leave to File a Motion for Partial Reconsideration of LBP-17-08, the Motion must be denied.

V. CONCLUSION

For the foregoing reasons, the Motion should be denied.

Respectfully submitted,
/signed (electronically) by Blake J. Nelson/

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CERTIFICATE OF SERVICE

I certify that, on October 27, 2017, a copy of "Tennessee Valley Authority's Response opposing to Intervenors' Motion for Leave to File a Motion for Reconsideration" was served electronically through the E-Filing system on the participants in the above-captioned proceedings.

/signed electronically by/
Blake J. Nelson