# UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

LBP-23-06

# ATOMIC SAFETY AND LICENSING BOARD PANEL

Before the Licensing Board:

G. Paul Bollwerk, III, Chair Dr. Gary S. Arnold Dr. Sue H. Abreu

In the Matter of

VISTRA OPERATIONS COMPANY, LLC

(Comanche Peak Nuclear Power Plant, Units 1 and 2)

Docket Nos. 50-445-LR 50-446-LR

ASLBP No. 23-978-01-LR-BD01

June 7, 2023

# MEMORANDUM AND ORDER

(Denying Intervention Petition and

Terminating Proceeding)

Among the last of the existing large commercial power reactors to receive Nuclear Regulatory Commission (NRC) authorization under the 10 C.F.R. Part 50 construction permit/operating licensing regime, Comanche Peak Nuclear Power Plant, Units 1 and 2 (Comanche Peak) also are among the last of those facilities eligible for an initial twenty-year license renewal under Part 54. To that end, on October 3, 2022 Vistra Operations Company, LLC (Vistra) applied to renew its Part 50 operating licenses for each of the Comanche Peak units to extend their operating authority until February 8, 2050, and February 2, 2053, respectively.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> <u>See</u> Letter from Steven K. Sewell, Senior Director, Vistra, to Document Control Desk, NRC at 1–2 (Oct. 3, 2022) (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22276A082). As it is contained in the agency's ADAMS document

That Comanche Peak license renewal application is now before this Licensing Board as a result of the January 30, 2023 hearing request of Citizens for Fair Utility Regulation (CFUR), as amended on March 1, 2023, challenging certain aspects of the Vistra application.<sup>2</sup> Specifically, in its four contentions CFUR contests, respectively, the sufficiency of Vistra's analysis of (1) radiation releases and exposures to the public, facility workers, and terrestrial and aquatic organisms; (2) seismic risks; (3) reactor cooling water availability in light of climate change; and (4) climate change impacts generally, including greenhouse gas emissions from facility operations. <u>See</u> CFUR Amended Petition at 11–31. While Vistra and the NRC Staff have not contested CFUR's standing to intervene in this proceeding under 10 C.F.R. § 2.309(d), both assert that CFUR has failed to proffer an admissible contention under the governing standards of section 2.309(f)(1).<sup>3</sup>

For the reasons set forth below, the Board concludes that while CFUR has established representational standing, none of its four contentions meets the admissibility standards of section 2.309(f)(1). As a result, CFUR's hearing request must be denied and this proceeding terminated.

repository, the Comanche Peak renewal request consists of nearly 2300 pages that encompass the license renewal application and five appendices. Most relevant to this decision, however, are the license renewal application and its final appendix, the environment report (ER). <u>See id.</u> encl. 1 ([Comanche Peak] License Renewal Application (rev. 0 Oct. 2022)) [hereinafter License Renewal Application]; License Renewal Application app. E ([Vistra ER], Operating License Renewal Stage, Comanche Peak Nuclear Power Plant, Units 1 and 2 (Oct. 2022)) [hereinafter ER].

<sup>&</sup>lt;sup>2</sup> <u>See</u> Petition for Leave to Intervene and Request for Hearing of [CFUR] (Jan. 30, 2023) at 9; Amended Petition for Leave to Intervene and Request for Hearing of [CFUR] (Mar. 1, 2023) at 11 [hereinafter CFUR Amended Petition]. Because CFUR's March 1, 2023 amended petition essentially superseded its January 30 filing, all references in this ruling to CFUR's hearing request will be to the amended petition.

<sup>&</sup>lt;sup>3</sup> <u>See</u> [Vistra's] Answer Opposing the Petition for Leave to Intervene and Request for Hearing of [CFUR] (Mar. 27, 2023) at 1–2 & n.7 [hereinafter Vistra Answer]; NRC Staff's Answer Opposing [CFUR's] Hearing Request (Mar. 27, 2023) at 2 [hereinafter NRC Staff Answer].

#### I. BACKGROUND

## A. Procedural Background

The NRC published in the <u>Federal Register</u> a December 1, 2022 notice regarding Vistra's initial license renewal request for Comanche Peak that established a January 30, 2023 deadline for any hearing requests challenging the Vistra application.<sup>4</sup> On January 30, 2023, the same day a CFUR hearing petition was filed with the agency, <u>see supra</u> note 2 and accompanying text, the Secretary of the Commission issued an order in response to several requests to extend the time for submitting a hearing petition. That order postponed the hearing request filing deadline until March 1, 2023, for five individuals.<sup>5</sup> A February 6, 2023 order from the Secretary then expanded that extension to encompass all potential intervention petition filers.<sup>6</sup>

That same day, the Secretary also referred the CFUR hearing petition to the Chief Administrative Judge for further action.<sup>7</sup> Two days later, the Chief Administrative Judge assigned the petition to this Licensing Board to rule on standing and contention admissibility matters and to preside at any hearing.<sup>8</sup>

<sup>&</sup>lt;sup>4</sup> <u>See</u> [Vistra]; Comanche Peak Nuclear Power Plant, Units 1 and 2, 87 Fed. Reg. 73,798 (Dec. 1, 2022).

<sup>&</sup>lt;sup>5</sup> <u>See</u> Order of the Secretary (Jan. 30, 2023) at 2 (unpublished).

<sup>&</sup>lt;sup>6</sup> <u>See</u> Order of the Secretary (Feb. 6, 2023) at 2 (unpublished); <u>see also</u> In the Matter of [Vistra] (Comanche Peak Nuclear Power Plant, Units 1 and 2); Order, 88 Fed. Reg. 8481 (Feb. 9, 2023).

<sup>&</sup>lt;sup>7</sup> <u>See</u> Memorandum from Brooke P. Clark, Secretary of the Commission, to E. Roy Hawkens, Chief Administrative Judge (Feb. 6, 2023).

<sup>&</sup>lt;sup>8</sup> <u>See</u> Establishment of Atomic Safety and Licensing Board; [Vistra], 88 Fed. Reg. 9543 (Feb. 14, 2023).

While noting the extended date for filing timely intervention petitions regarding the Vistra license renewal application, in its February 8, 2023 initial prehearing order the Board advised the participants that the usual 10 C.F.R. § 2.309(i) briefing schedule would govern the submission of Vistra/NRC Staff answers and any CFUR reply pleading, absent a request for an alternative briefing schedule.<sup>9</sup> Thereafter, in response to a February 10, 2023 Vistra/CFUR joint motion,<sup>10</sup> the Board in a February 13, 2023 memorandum and order outlined two different briefing schedules that would be applicable based on whether any new or amended hearing petitions were submitted by March 1, 2023.<sup>11</sup>

Although no additional hearing requests were lodged by March 1, 2023, CFUR timely filed an amended hearing petition on that date, thereby triggering the normal section 2.309(i) briefing schedule.<sup>12</sup> In accordance with that schedule, Vistra and NRC Staff filed answers on March 27, 2023, and CFUR filed a reply to those answers on April 3, 2023.<sup>13</sup>

Thereafter, the Board issued a series of orders outlining the schedule and procedures governing the initial prehearing conference that would provide an opportunity to hear oral

<sup>&</sup>lt;sup>9</sup> <u>See</u> Licensing Board Memorandum and Order (Initial Prehearing Order) (Feb. 8, 2023) at 2–3 (unpublished).

<sup>&</sup>lt;sup>10</sup> <u>See</u> Joint Unopposed Motion of [Vistra] and [CFUR] to Adjust Briefing Schedule (Feb. 10, 2023). The NRC Staff indicated that while it did not join in the motion, it also did not oppose that request. <u>See id.</u> at 1 n.3.

<sup>&</sup>lt;sup>11</sup> <u>See</u> Licensing Board Memorandum and Order (Granting in Part and Denying in Part Joint Motion to Adjust Briefing Schedule) (Feb. 13, 2023) at 2–5 (unpublished).

<sup>&</sup>lt;sup>12</sup> <u>See</u> Licensing Board Memorandum and Order (Initial Prehearing Order Supplement) (Mar. 6, 2023) at 2 (unpublished). Although technical issues resulted in CFUR's amended petition not being served on the other participants until the early morning of March 2, 2023, the circumstances involved provided no basis for any plausible assertion that the CFUR amended petition was untimely filed or that any of the participants suffered appreciable prejudice as a result of the service delay. <u>See id.</u> at 2 n.3.

<sup>&</sup>lt;sup>13</sup> <u>See supra</u> note 3; [CFUR's] Reply in Support of Petition for Leave to Intervene and Request for Adjudicatory Hearing (Apr. 3, 2023) [hereinafter CFUR Reply].

presentations by participants' counsel concerning three questions posed by the Board regarding

the admissibility of CFUR's four proposed contentions under the standards of

section 2.309(f)(1).<sup>14</sup> That conference was conducted virtually on April 19, 2023.<sup>15</sup>

- B. 10 C.F.R. Part 50 Operating License Renewal Application and Associated Review Process
  - 1. Operating License Renewal Application

An application for a twenty-year initial renewal of the 10 C.F.R. Part 50 operating license

for a nuclear power plant is governed by the provisions of 10 C.F.R. Part 54. Consistent with

10 C.F.R. § 54.21, the Atomic Energy Act (AEA) safety-related provisions of the application

must include, among other things, (1) an integrated plant assessment that demonstrates facility

systems and components requiring aging management review have been identified and will be

maintained at an acceptable level of safety over the two-decade period of extended operation;<sup>16</sup>

<sup>15</sup> <u>See Tr. at 1–78.</u>

<sup>&</sup>lt;sup>14</sup> <u>See</u> Licensing Board Memorandum and Order (Scheduling Initial Prehearing Conference) (Apr. 6, 2023) at 4–6 (unpublished) [hereinafter Licensing Board Conference Scheduling Order]; Licensing Board Memorandum (Information Regarding Telephone Listen-Only Access for the Public to the Initial Prehearing Conference) (Apr.10, 2023) (unpublished).

As part of its April 6 issuance, the Licensing Board indicated that in responding to the Board's three questions the participants generally should rely on materials cited in their pleadings and should not attempt to introduce new information. <u>See</u> Licensing Board Conference Scheduling Order at 3. The Board did, however, create one exception for question two concerning CFUR Contention 2 on seismic risk for which the participants were allowed "to reference material not previously cited in this proceeding or to specific uncited portions of otherwise previously cited material (such as the Vistra license renewal application)" so long as they advised the Board and the other participants of those references in a filing submitted by April 14, 2023. <u>See id.</u> at 5 n.5. Each of the participants made a filing on April 14. <u>See</u> [Vistra] Advisement of Supplemental References]; Additional Citations for Reference in NRC Staff's Oral Argument on April 19, 2023 (Apr. 14, 2023) [hereinafter NRC Staff Supplemental References for Initial Prehearing Conference (Apr. 14, 2023) [hereinafter CFUR's] Notice of Supplemental References for Initial Prehearing Conference (Apr. 14, 2023) [hereinafter CFUR Supplemental References].

<sup>&</sup>lt;sup>16</sup> In describing an integrated program assessment, the Commission has observed that

(2) a list of time-limited aging analyses conducted for those facility systems, structures, and components whose ability to operate safely was assumed to be limited to the initial forty-year operating license term that demonstrate they retain the capability to perform their intended functions during the extended operation period;<sup>17</sup> and (3) a final safety analysis report (FSAR) supplement that summarizes the facility's programs and activities intended to manage aging effects during the extended operation period. <u>See</u> 10 C.F.R. § 54.21(a), (c)–(d); <u>see also</u> License Renewal Application at 1-10 to -12. Additionally, section 54.23 describes the renewal

Fla. Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 & 4), CLI-01-17, 54 NRC 3, 8 (2001) (citations omitted).

<sup>17</sup> Regarding time-limited aging analyses, the Commission has noted:

[S]ome safety reviews or analyses made during the original term of the license may have been based upon a particular time period, such as, perhaps, an assumed service life of a specific number of years or some period of operation defined by the original license term, i.e., 40 years. Before the NRC will grant any license renewal application, an applicant must reassess these "time-limited aging analyses," and (1) show that the earlier analysis will remain valid for the extended operation period; or (2) modify and extend the analysis to apply to a longer term, such as 60 years; or (3) otherwise demonstrate that the effects of aging will be adequately managed in the renewal term.

Id. (citations omitted).

Part 54 requires renewal applicants to demonstrate how their programs will be effective in managing the effects of aging during the proposed period of extended operation. This is a detailed [integrated program] assessment, conducted at "a component and structure level," rather than at a more generalized "system level." License renewal applicants must demonstrate that all "important systems, structures, and components will continue to perform their intended function in the period of extended operation." Applicants must identify any additional actions, i.e., maintenance, replacement of parts, etc., that will need to be taken to manage adequately the detrimental effects of aging. Adverse aging effects generally are gradual and thus can be detected by programs that ensure sufficient inspections and testing.

application's required National Environmental Policy Act (NEPA) environmental-related contents as including "a supplement to the [ER] that complies with the requirements of subpart A of 10 CFR Part 51." 10 C.F.R § 54.23; see also License Renewal Application at 1-12. Of importance to this ER supplement is Appendix B to subpart A, which provides the results of the agency's generic assessment of the environment impacts associated with license renewal. See 10 C.F.R. pt. 51, subpart A, app. B. And more specifically, in outlining the pertinent information for such an ER supplement, section 51.53(c) provides in paragraphs (3)(i) and (ii) that while "[t]he [ER] for the operating license renewal stage is not required to contain analyses of the environmental impacts of the license renewal issues identified as Category 1 issues in Appendix B to subpart A of this part," that supplement "must contain analyses of the environmental impacts . . . for those issues identified as Category 2 issues." Id. § 51.53(c)(3)(i)–(ii). Moreover, other Part 51 provisions require the same treatment for Category 1 and 2 issues in the NRC Staff's plant-specific draft and final supplements to the agency's generic environmental impact statement (GEIS) for license renewal. See id. §§ 51.71(d), 51.95(c)(1), (4).

# 2. License Renewal Application Safety Review

The contents of a license renewal application as specified in Part 54 reflect the scope of review necessary to support an agency determination whether to grant such an application. In that regard, in promulgating and interpreting Part 54 the Commission has made it clear that the AEA-associated safety aspect of "[t]he license renewal review is not intended to duplicate the NRC's ongoing oversight of operating reactors," but rather is "to ensure that the licensee can successfully manage the detrimental effects of aging."<sup>18</sup> Thus, section 54.29(a) indicates that

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<sup>&</sup>lt;sup>18</sup> <u>Entergy Nuclear Operations, Inc</u>. (Indian Point, Units 2 & 3), CLI-15-6, 81 NRC 340, 347 (2015).

the Commission may grant a license renewal if it finds that "[a]ctions have been or will be taken with respect to . . . (1) managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review [by conducting an integrated program assessment] under § 54.21(a)(1);" and "(2) time-limited aging analyses that have been identified to require review under § 54.21(c)," such that "there is reasonable assurance that activities authorized by the renewed license will continue to be conducted in accordance with the [facility's current licensing basis] and that any changes to the plant's [current licensing basis]" are in accordance with the AEA and agency regulations.<sup>19</sup> Id.

§ 54.29(a)(1)–(2).

The upshot of the Part 54 regulatory approach, according to the Commission, is to place the "focus on whether the licensee can manage the effects of aging on certain long-lived, passive components that are important to safety." <u>Indian Point</u>, CLI-15-6, 81 NRC at 347 (citations omitted). By the same token, the Commission deems "unnecessary and wasteful"

Turkey Point, CLI-01-17, 54 NRC at 9 (citations omitted).

<sup>&</sup>lt;sup>19</sup> Section 54.3 defines the "Current licensing basis" as "the set of NRC requirements applicable to a specific plant and a licensee's written commitments for ensuring compliance with and operation within applicable NRC requirements and the plant-specific design basis (including all modifications and additions to such commitments over the life of the license) that are docketed and in effect . . . ." 10 C.F.R. § 54.3. As the Commission has further explained:

The current licensing basis consists of the license requirements, including license conditions and technical specifications. It also includes the plant-specific design basis information documented in the plant's most recent [FSAR], and any orders, exemptions, and licensee commitments that are part of the docket for the plant's license, i.e., responses to NRC bulletins, generic letters, and enforcement actions, and other licensee commitments documented in NRC safety evaluations or licensee event reports. The current licensing basis additionally includes all of the regulatory requirements found in Parts 2, 19, 20, 21, 30, 40, 50, 55, 72, 73, and 100 with which the particular applicant must comply.

contentions that challenge the plant's current licensing basis because the NRC already has in place "ongoing agency oversight, review, and enforcement" processes associated with operational issues. <u>Turkey Point</u>, CLI-01-17, 54 NRC at 7, 9. Accordingly, a challenge concerning safety issues associated with a plant's current licensing basis, including the facility's FSAR and other information reflecting the licensee's commitments to ensuring compliance with applicable agency regulatory requirements, is beyond the permissible scope of a license renewal proceeding and so cannot be the subject of a license renewal adjudicatory hearing in the absence of a 10 C.F.R. § 2.335 waiver petition. <u>See id.</u> at 10.

#### 3. License Renewal Application Environmental Review

Abbreviated as well is the permissible scope of the environmental review for a power plant license renewal. As Appendix B to subpart A of Part 51 makes clear, "[t]he Commission has assessed the environmental impacts associated with granting a renewed operating license for a nuclear power plant . . . [and] Table B-1 summarizes the Commission's findings on the scope and magnitude of environmental impacts" that NEPA requires to be addressed. 10 C.F.R. pt. 51, subpart A, app. B. Table B-1, in turn, indicates that the "[d]ata supporting this table are contained in NUREG-1437, Revision 1, '[GEIS] for License Renewal of Nuclear Plants (June 2013)'" and that for Category 1 items, "[t]he generic analysis of the issue may be adopted in each plant-specific review."<sup>20</sup> <u>Id.</u> tbl. B-1 nn.1–2. Commission caselaw establishes that an adjudicatory challenge based on an applicant's alleged failure to deal appropriately with a

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<sup>&</sup>lt;sup>20</sup> The generic analysis supporting the Table B-1 summary impact findings referenced in Part 51 is the 2013 update of the analysis originally promulgated in 1996. <u>See</u> 1 Office of Nuclear Reactor Regulation (NRR), NRC, NUREG-1437, [GEIS] for License Renewal of Nuclear Plants, Main Report, Final Report (rev. 1 June 2013) (ADAMS Accession No. ML13106A241) [hereinafter 2013 Revised GEIS]; <u>see also</u> 1 Office of Nuclear Regulatory Research (RES), NRC, NUREG-1437, [GEIS] for License Renewal of Nuclear Plants, Main Report, Final Report (May 1996) (ADAMS Accession No. ML040690705).

Category 1 item constitutes an attack on an agency rule, making a section 2.335(b) waiver the sole vehicle for raising such an issue in an adjudication.<sup>21</sup>

Among its listings that are pertinent here, Table B-1 specifically identifies summary environmental impact findings relating to "Human Health," including "Radiation exposures to the public" and "Radiation exposures to plant workers." <u>Id.</u> pt. 51, subpart A, app. B., tbl. B-1. Table B-1 classifies both public and worker radiation exposures as Category 1 items having an impact finding designated as SMALL,"<sup>22</sup> because the radiation doses associated with continued facility operations and license renewal-associated refurbishment are expected to be "well below regulatory limits." <u>Id.</u>; <u>see</u> 2013 Revised GEIS at S-16, 3-136. In addition, Table B-1 includes summary environmental findings relating to "Terrestrial Resources" and "Aquatic Resources" that include, respectively, "Exposure of terrestrial organisms to radionuclides." 10 C.F.R. pt. 51, subpart A, app. B., tbl. B-1. These generic environmental categories also are designated as Category 1 items having "SMALL" impacts, with license renewal-associated doses from continued facility operations and refurbishment "expected to be well below exposure guidelines developed to protect" these terrestrial and aquatic organisms. <u>Id.</u>; <u>see</u> 2013 Revised GEIS at 4-63 to -64, 4-106 to -107.

10 C.F.R. pt. 51, subpart A, app. B., tbl. B-1 n.3.

<sup>&</sup>lt;sup>21</sup> <u>See Entergy Nuclear Vt. Yankee, LLC</u> (Vermont Yankee Nuclear Power Station), CLI-07-3, 65 NRC 13, 20 (2007) (citing <u>Turkey Point</u>, CLI-01-17, 54 NRC at 11–13).

<sup>&</sup>lt;sup>22</sup> Table B-1 defines the significance level of a "SMALL" impacts designation as

<sup>[</sup>f]or the issue, environmental effects are not detectable or are so minor that they will neither destabilize nor noticeably alter any important attribute of the resource. For the purposes of assessing radiological impacts, the Commission has concluded that those impacts that do not exceed permissible levels in the Commission's regulations are considered small as the term is used in this table.

Seismic risk evaluation generally falls within the ambit of the current licensing basis safety issues. <u>See</u> 2013 Revised GEIS at 3-51 (indicating "[s]ite-specific design bases for seismic protection are prescribed by a nuclear plant's [FSAR] and by applicable technical specifications"). Generally such an analysis would be largely beyond challenge in a license renewal proceeding absent a section 2.335 waiver. <u>See supra section 1.B.2</u>. But because a seismic event-triggered accident could have environmental consequences, Table B-1's summary environmental impact findings regarding "Postulated Accidents" specifically encompasses the impacts resulting from significant earthquake-related facility accident sequences. 10 C.F.R. pt. 51, subpart A, app. B., tbl. B-1.

The first of these is the design-basis accident,<sup>23</sup> classified as a Category 1 item with a Table B-1 impact finding designated as "SMALL" based on the NRC Staff's conclusion "that the environmental impacts of design basis accidents are of small significance to all plants" given their low probability of occurrence. Id. & n.3 (noting that "[f]or issues where probability is a key consideration (i.e., accident consequences), probability is a factor in determining significance"); see 2013 Revised GEIS at 2-26, S-17. In contrast, severe accidents, i.e., "beyond design-basis accidents . . . that could result in substantial damage to the reactor core," 2013 Revised GEIS at 1-27, along with the severe accident mitigation alternatives (SAMA) analysis associated with such accidents in the NEPA context, are classified under Category 2 in Table B-1 designating those items for which "the analysis reported in the [GEIS] has shown that . . . additional plant-specific review is required." 10 C.F.R. pt. 51, subpart A, app. B., tbl. B-1 n.2. Table B-1 designates such accidents as having a "SMALL" impact based on "[t]he probability-weighted

<sup>&</sup>lt;sup>23</sup> A design-basis accident is "[a] postulated accident that a nuclear facility must be designed and built to withstand without loss to the systems, structures, and components necessary to ensure public health and safety." 2013 Revised GEIS at 7-15.

consequences of atmospheric releases, fallout onto open bodies of water, releases to groundwater, and societal and economic impacts from severe accidents." <u>Id.</u> pt. 51, subpart A, app. B., tbl. B-1; <u>see</u> 2013 Revised GEIS at S-17. Table B-1 does indicate, however, that alternatives to mitigate severe accidents must be considered for plants that previously have not considered such alternatives. <u>See</u> 10 C.F.R. pt. 51, subpart A, app. B., tbl. B-1; 2013 Revised GEIS at S-17 to -18. Hence the listing as Category 2, rather than Category 1. Nonetheless, in instances such as here in which a facility-specific SAMA analysis already has been considered in an environmental impact statement (EIS),<sup>24</sup> under section 51.53(c)(3)(ii)(L) a license renewal contention regarding the adequacy of a previously considered SAMA cannot be litigated absent a section 2.335 waiver.<sup>25</sup>

On the issue of climate change, the statement of considerations regarding the 2013 final rule that revised Part 51, including Table B-1, and supported the 2013 update to the 1996 GEIS, observed that in a 2009 adjudicatory ruling regarding two 10 C.F.R. Part 52 combined license applications, the Commission provided guidance to the NRC Staff to "include consideration of carbon dioxide and other greenhouse gas emissions in its environmental reviews for major licensing actions under [NEPA]."<sup>26</sup> Because "[p]resently, insufficient data exists to support an

<sup>&</sup>lt;sup>24</sup> See Environmental Review of Renewal of Nuclear Power Plant Operating Licenses, 61 Fed. Reg. 28,467, 28,481 (June 5, 1996) ("NRC staff considerations of [SAMAs] have already been completed and included in an EIS or supplemental EIS for Limerick, Comanche Peak, and Watts Bar. Therefore, [SAMAs] need not be reconsidered for these plants for license renewal.") [hereinafter 1996 GEIS Rule]; see also ER at 4-47 to -48 (indicating that because Comanche Peak qualifies for the SAMA "Category 1" exception, Vistra's review of severe accident impacts was limited to whether there is "new and significant" information).

<sup>&</sup>lt;sup>25</sup> <u>Exelon Generation Co., LLC</u> (Limerick Generating Stations, Units 1 and 2), CLI-13-7, 78 NRC 199, 211–12 (2013) (indicating section 51.53(c)(3)(ii)(L) affords the "functional equivalent" of the Category 1 issue preclusion established by section 51.53(c)(3)(i)), <u>petition for</u> <u>review denied sub nom.</u>, <u>NRDC v. NRC</u>, 823 F.3d 641 (D.C. Cir. 2016)).

<sup>&</sup>lt;sup>26</sup> Revisions to Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 78 Fed. Reg. 37,282, 37,290 (June 20, 2013) (quoting <u>Duke Energy Carolinas, LLC</u>

impact level on a generic basis," the statement of considerations indicated that "[t]he [2013] final rule was not revised to include any reference to [greenhouse gas] emissions or climate change." 2013 Revised GEIS Rule, 78 Fed. Reg. at 37,290, 37,291. Nonetheless, the statement of considerations also indicated that to comply with the 2009 Commission adjudicatory guidance (1) a new provision, section 4.12.3, was being added to the 2013 GEIS revision summarizing the potential cumulative impacts of greenhouse gas emissions and global climate change; and (2) each supplemental EIS with a particular license renewal application would include a plant-specific analysis of any "impacts caused by [greenhouse gas] emissions over the course of the license renewal term as well as any impacts caused by potential climate change upon the affected resources during the license renewal term."<sup>27</sup>

With this background in mind, we turn to an analysis of the substance of CFUR's hearing petition, including its standing to intervene and the admissibility of its four contentions.

### II. STANDING

## A. Standards Governing Standing under 10 C.F.R. § 2.309(d)

While CFUR's standing has not been contested,<sup>28</sup> a licensing board must determine

independently whether a petitioner has fulfilled the requirements to establish standing to

<sup>28</sup> <u>See supra</u> note 3 and accompanying text. While not opposing CFUR's representational standing assertion, Vistra suggests that if the Board concludes CFUR has not provided an admissible contention, any Board determination concerning CFUR's standing "is

<sup>(</sup>William States Lee III Nuclear Station, Units 1 and 2), CLI-09-21, 70 NRC 927, 931 (2009)) [hereinafter 2013 Revised GEIS Rule].

<sup>&</sup>lt;sup>27</sup> <u>Id.</u> at 37,291; <u>see</u> 2013 Revised GEIS at 4-229 to -243; <u>see also</u> RES, NRC, Regulatory Guide 4.2, Supp. 1, Preparation of Environmental Reports for Nuclear Power Plant License Renewal Applications at 15, 48–49 (rev. 1 June 2013) (indicating operating license renewal applicant's ER should include emissions data on greenhouse gases and a cumulative impacts analysis that includes a discussion of contributing factors, such a global climate change) (ADAMS Accession No. ML13067A354) [hereinafter Regulatory Guide 4.2].

intervene in this proceeding.<sup>29</sup> To establish standing, CFUR invokes its status as representing

several individuals who oppose the renewal of the Comanche Peak operating licenses. See

CFUR Amended Petition at 2. An organization's standing to participate in an NRC proceeding

based on its representation of interests of one or more individuals depends, in turn, on the

standing of the individuals being represented and on the organization's ability to establish its

standing in a representational capacity.<sup>30</sup>

In this regard, the Commission has noted that to establish representational standing

under section 2.309(d)(1)

the hearing request must state (1) the name, address, and telephone number of the petitioner; (2) the nature of the petitioner's right under the AEA to be made a party to the proceeding; (3) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (4) the possible effect of any decision or order that may be issued in the proceeding on the petitioner's interest. In addition, an organization seeking to represent its members must show that at least one member has standing and has authorized the organization to represent [them] and to request a hearing on [their] behalf. Further, the interests that the representative organization seeks to protect must be germane to its own purpose, and neither the asserted claim nor requested relief must require an individual member to participate in the organization's legal action.<sup>31</sup>

<sup>29</sup> <u>See</u> 10 C.F.R. § 2.309(d)(2); <u>see also Exelon Generation Co., LLC</u> (Peach Bottom Atomic Power Station, Units 2 and 3), LBP-19-5, 89 NRC 483, 491 (2019), <u>aff'd on other grounds</u>, CLI-20-11, 92 NRC 335 (2020).

<sup>30</sup> <u>See Private Fuel Storage, L.L.C.</u>, (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 323 (1999); <u>see also Entergy Nuclear Operations, Inc. and Entergy</u> <u>Nuclear Palisades, LLC</u> (Palisades Nuclear Plant), CLI-08-19, 68 NRC 251, 263–65 (2008) (finding that unions are not inherently representative, therefore union seeking to intervene in license transfer proceeding must satisfy representational standing criteria).

<sup>31</sup> <u>S. Nuclear Operating Co., Inc.</u> (Vogtle Electric Generating Plant, Unit 3), CLI-20-6, 91 NRC 225, 237–38 & n.83 (2020) (footnote omitted) (citing <u>Fla. Power & Light Co.</u> (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-15-25, 82 NRC 389, 394 (2015)).

immaterial." Vistra Answer at 2 n.7. To whatever extent that may be true if such a Board contention inadmissibility finding is the subject of an affirmative Commission appellate ruling, we nonetheless consider it appropriate to address CFUR's standing as a matter of administrative efficiency.

The Commission also has explained that "[w]hile we will construe the hearing request in the petitioner's favor, the petitioner has the burden of demonstrating that the standing requirements are met." <u>Vogtle</u>, CLI-20-6, 91 NRC at 238.

Traditional judicial standing requires that a petitioner show (1) an actual or threatened, concrete and particularized injury (injury in fact); (2) that is fairly traceable to the challenged action (causation); (3) that falls within the zone of interest protected by the statutes that govern the agency's proceedings (such as the AEA or NEPA) (zone of interest); and (4) that is likely to be redressed by a favorable decision (redressability).<sup>32</sup> In certain proceedings, including initial and subsequent license renewal proceedings, an organization's representational standing can be established using the proximity presumption based on a showing that at least one individual who designates the group as their representative lives within fifty miles of the facility that is the subject of the proceeding.<sup>33</sup> The proximity presumption, which relieves a petitioner of the need to satisfy the traditional standing elements of injury in fact, causation, and redressability, "rests on the presumption that an accident associated with the nuclear facility could adversely affect the health and safety of people working or living offsite but within a certain distance of that facility."<sup>34</sup>

<sup>&</sup>lt;sup>32</sup> See Yankee Atomic Elec. Co. (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1, 6 (1995); see also Calvert Cliffs 3 Nuclear Project, LLC (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-09-20, 70 NRC 911, 915–16 (2009).

<sup>&</sup>lt;sup>33</sup> <u>See, e.g., Fla. Power & Light Co.</u> (Turkey Point Nuclear Generating Units 3 and 4), LBP-19-3, 89 NRC 245, 258–59 (2019) (subsequent license renewal), <u>appeal dismissed and</u> <u>referred ruling aff'd</u>, CLI-20-3, 91 NRC 133 (2020), <u>rev'd on reconsideration</u>, CLI-22-2, 95 NRC 26 (2022).

<sup>&</sup>lt;sup>34</sup> <u>See Exelon Generation Co., LLC & PSEG Nuclear LLC</u> (Peach Bottom Atomic Power Station, Units 2 and 3), CLI-05-26, 62 NRC 577, 580 (2005).

# B. Analysis of CFUR's Representational Standing

In support of its representational standing claim, CFUR proffers the declarations of ten individuals,<sup>35</sup> each of whom it asserts meets the requirements to establish standing as an individual. <u>See</u> CFUR Amended Petition at 9–11. These include affidavits from (1) six individuals who declare they are CFUR members living at addresses between thirty and forty miles from the Comanche Peak facility;<sup>36</sup> (2) one CFUR member who owns a family farm that is located seven to eight miles from the Comanche Peak plant and on which his elderly father resides;<sup>37</sup> (3) one CFUR member who owns retirement property ten miles from the Comanche Peak units;<sup>38</sup> (4) one CFUR member who, although she lives at an address significantly beyond a fifty-mile radius of Comanche Peak, asserts she frequently travels to locations within fifty miles of the facility to attend events and visit friends;<sup>39</sup> and (5) one individual who, while not a CFUR

<sup>37</sup> <u>See</u> Supporting Declarations, unnumbered attach. at 1 (Decl. of Terry McIntire in Support of Leave to Intervene in [Comanche Peak] License Renewal Application Proceeding (Jan. 30, 2023)); <u>see also</u> CFUR Amended Petition at 4.

<sup>38</sup> <u>See</u> Supporting Declarations, unnumbered attach. at 1 (Decl. of Anita Smith in Support of Leave to Intervene in [Comanche Peak] License Renewal Application Proceeding (Jan. 30, 2023)); <u>see also</u> CFUR Amended Petition at 5.

<sup>39</sup> <u>See</u> Supporting Declarations, unnumbered attach. at 1 (Decl. of Karen Hadden in Support of Leave to Intervene in [Comanche Peak] License Renewal Application Proceeding

<sup>&</sup>lt;sup>35</sup> <u>See</u> Declarations in Support of the Petition of [CFUR] for Leave to Intervene (Mar. 1, 2023) [hereinafter Supporting Declarations].

<sup>&</sup>lt;sup>36</sup> <u>See id.</u> unnumbered attach. at 1 (Decl. of Lon Burnam in Support of Leave to Intervene in [Comanche Peak] License Renewal Application Proceeding (Jan. 30, 2023)); <u>id.</u> unnumbered attach. at 1 (Decl. of Janet Mattern in Support of Leave to Intervene in [Comanche Peak] License Renewal Application Proceeding (Jan. 30, 2023)); <u>id.</u> unnumbered attach. at 1 (Decl. of Suzanne Mabe in Support of Leave to Intervene in [Comanche Peak] License Renewal Application Proceeding (Jan. 30, 2023)); <u>id.</u> unnumbered attach. at 1 (Decl. of Linda Hanratty in Support of Leave to Intervene in [Comanche Peak] License Renewal Application Proceeding (Feb. 27, 2023)); <u>id.</u> unnumbered attach. at 1 (Decl. of Reed Bilz in Support of Leave to Intervene in [Comanche Peak] License Renewal Application Proceeding (Feb. 8, 2023)); <u>id.</u> unnumbered attach. at 1 (Decl. of John MacFarlane in Support of Leave to Intervene in [Comanche Peak] License Renewal Application Proceeding (Feb. 28, 2023)); <u>id.</u> Amended Petition at 3–7.

member, states she has a second home ten miles from the plant and authorizes CFUR to represent her in this litigation.<sup>40</sup> Additionally, CFUR provides a declaration from a CFUR authorized officer submitted on behalf of CFUR in support of its representational standing stating that CFUR opposes Comanche Peak's relicensing and intends, on its members' behalf, to ensure that all associated health and safety and environmental issues are considered in this proceeding.<sup>41</sup>

Based on the ten individual affidavits authorizing CFUR to provide representation in this proceeding, the proximity presumption clearly would afford one or more of these declarants with individual standing to intervene in this proceeding. Moreover, the CFUR declaration establishes that the interests it seeks to protect in this proceeding are germane to its purpose. CFUR's asserted claims or requested relief also would not require an individual member to participate. Consequently, CFUR has established its representational standing in this proceeding.

## III. CONTENTION ADMISSIBILITY

# A. Contention Admissibility Standards under 10 C.F.R. § 2.309(f)(1)

A contention submitted by a hearing requestor such as CFUR must satisfy the six admissibility factors set forth in section 2.309(f)(1)(i)–(vi). As the Commission recently observed relative to each of these elements:

To be admissible, a contention must provide a specific statement of the issue of law or fact to be raised or controverted and provide

<sup>(</sup>Jan. 30, 2023)); see also CFUR Amended Petition at 6.

<sup>&</sup>lt;sup>40</sup> <u>See</u> Supporting Declarations, unnumbered attach. at 1 (Decl. of Margaret DeMoss in Support of Leave to Intervene in [Comanche Peak] License Renewal Application Proceeding (Jan. 30, 2023)); <u>see also</u> CFUR Amended Petition at 5.

<sup>&</sup>lt;sup>41</sup> <u>See</u> Supporting Declarations, unnumbered attach. at 1 (Decl. of Authorized Officer of [CFUR] in Support of Leave to Intervene in [Comanche Peak] License Renewal Application Proceeding (Jan. 30, 2023)); <u>see also</u> CFUR Amended Petition at 3–4.

a brief explanation of its basis. The contention must also raise issues within the scope of the proceeding and material to the findings that the NRC must make. And it must include a concise statement of the alleged facts or expert opinions supporting the contention and sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. These contention admissibility requirements are intended to ensure that adjudicatory hearings are triggered only by substantive safety or environmental issues that raise a supported dispute with the application on a matter material to the NRC's decision on the challenged action.<sup>42</sup>

The petitioner bears the burden to satisfy each of the six criteria;<sup>43</sup> a failure to comply

with any of these requirements constitutes grounds for rejecting a proposed contention.44

Moreover, when a petitioner neglects to provide the requisite support for its contentions, the

licensing board may not cure the deficiency by supplying that information.<sup>45</sup>

- B. CFUR Contentions
  - 1. CFUR Contention 1

Contention 1 - The License Renewal Application ("LRA") Lacks Adequate Data and Analysis Regarding Radiological Releases and Emissions and Potential Health Impacts.

CFUR Amended Petition at 11.

<sup>44</sup> <u>See</u> Changes to Adjudicatory Process, 69 Fed. Reg. 2182, 2221 (Jan. 14, 2004); <u>Private Fuel Storage</u>, CLI-99-10, 49 NRC at 325.

<sup>&</sup>lt;sup>42</sup> <u>Susquehanna Nuclear, LLC</u> (Susquehanna Steam Electric Station, Units 1 and 2), CLI-23-1, 97 NRC \_\_, \_\_ (slip op. at 4) (Mar. 17, 2023) (footnotes omitted).

<sup>&</sup>lt;sup>43</sup> <u>See Entergy Nuclear Operations, Inc.</u> (Palisades Nuclear Plant), CLI-15-23, 82 NRC 321, 329 (2015) ("[I]t is Petitioners' responsibility, not the Board's, to formulate contentions and to provide 'the necessary information to satisfy the basis requirement' for admission." (quoting Statement of Policy on Conduct of Adjudicatory Proceedings, CLI-98-12, 48 NRC 18, 22 (1998)).

<sup>&</sup>lt;sup>45</sup> <u>See Ariz. Pub. Serv. Co.</u> (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155 (1991) (indicating licensing board cannot supply missing information supporting a contention).

DISCUSSION: <u>Id.</u> at 11–16; Vistra Answer at 9–17; NRC Staff Answer at 13–22; CFUR Reply at 1–6; Tr. at 10–35.

RULING: An overarching issue concerning Contention 1's admissibility is CFUR's failure to present a concern that falls within the permissible scope of this proceeding or to raise a genuine issue with the Vistra license renewal application, as required by section 2.309(f)(1)(iii) and (vi).

As categorized in CFUR's reply,<sup>46</sup> the first four of the six claims proffered by CFUR in support of its contention assert that Vistra neither included updated information on releases of tritium and other radionuclides nor considered their potential impacts to humans, the environment, and surrounding farms, crops, wildlife, and vegetation. But these four claims challenge Table B-1 Category 1 issues that were resolved in the 2013 GEIS. <u>See supra</u> section I.B.3. Contentions that challenge a Table B-1 Category 1 determination are outside the scope of a license renewal proceeding unless a petitioner seeks and is granted a 10 C.F.R. § 2.335 waiver. <u>See supra</u> note 21 and accompanying text. Because CFUR has not requested

CFUR Reply at 1–2 (citing CFUR Amended Petition at 11–12).

<sup>&</sup>lt;sup>46</sup> In its reply, CFUR specifies that those six claims are as follows:

<sup>[</sup>T]he Application a.) failed to include updated information on the release of tritium and other radionuclides; b.) failed to analyze cumulative radiological impacts and resulting health risks of operating [Comanche Peak] for an additional 20 years; c.) failed to fully analyze the hazards that would result from 20 more years of discharge of water that contains radioactive particulates and tritium into [Comanche] Creek Reservoir; d.) failed to provide analysis of an additional 20 years of gamma emitters and the cumulative impacts of that on farms, crops, wildlife, and vegetation; [e].) failed to analyze the financial consequences of 20 more years of radiological releases and the potential cost of remediation in the future; and [f].) failed to provide analysis and omitted necessary information on the potential for pipe leaks that could occur in the future and related radiation release increase that could result in aging nuclear reactors.

a waiver, CFUR cannot challenge these Category 1 issues. Moreover, CFUR's assertion that the potential impacts of releases of tritium and other radionuclides were not analyzed in the ER fails to raise a genuine issue regarding the Vistra application given Vistra incorporated by reference the generic analysis from the GEIS into its ER. <u>See</u> ER at 4-2, 4-6 to -7. Because these CFUR claims run afoul of the section 2.309(f)(1)(iii) and (vi) admissibility standards, they do not support Contention 1's admissibility.

Nor does CFUR's assertion that "cumulative impacts" were not properly considered fare any better as grounds for admitting Contention 1. CFUR Amended Petition at 11, 12–13. At the April 2023 oral argument, the Board provided the participants an opportunity to address a question regarding the basis for CFUR's second and fourth claims supporting Contention 1 that the "cumulative impacts" of an additional twenty years of radiological releases on health risks and farms, crops, wildlife, and vegetation had not been adequately addressed. <u>See</u> Licensing Board Conference Scheduling Order at 4–5. Under the Council on Environmental Quality's (CEQ) definition of "cumulative impacts" incorporated into the NRC's Part 51 environmental protection regulations,<sup>47</sup> CFUR's claimed "cumulative impacts" appear to be encompassed by the Table B-1 Category 1 findings discussed above. Moreover, to the extent CFUR takes issue with any Table B-1 Category 2 site-specific "cumulative impacts," these impacts are analyzed in

<sup>&</sup>lt;sup>47</sup> According to the CEQ, a "cumulative impact" is

the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

<sup>40</sup> C.F.R. § 1508.7. As the Staff acknowledges, Part 51 picks up the crux of this CEQ definition by requiring that a license renewal applicant provide information about "other past, present, and reasonably foreseeable future actions occurring in the vicinity of the nuclear plant that may result in a cumulative effect." NRC Staff Answer at 17 (quoting 10 C.F.R. § 51.53(c)(3)(ii)(O)).

Vistra's ER section 4.12. CFUR not only fails to engage with that ER provision in its amended petition, but its claims lack specificity and fail to raise a section 2.309(f)(1)(vi) genuine dispute.<sup>48</sup>

Also in support of this contention, CFUR argues that Vistra's renewal application should include the data from its 2021 Annual Radiological Environmental Operating Report (AREOR) in addition to the data from the 2020 AREOR and some of its predecessors.<sup>49</sup> CFUR, however, cites no regulation that would require Vistra to include this additional data. Moreover, Vistra explained that the absence of the data from the 2021 AREOR was a matter of timing relative to the publication of its ER. <u>See</u> Vistra Answer at 11 n.55. Nor has CFUR made any showing that the 2021 report's data is different to any significant extent from that in the 2020 and prior year

<sup>&</sup>lt;sup>48</sup> <u>See</u> Tr. at 26–27 (Licon) (contrasting CFUR's claim regarding radiological "cumulative impacts" arising solely from continued Comanche Peak facility operation with potentially admissible claim regarding "cumulative impacts" of Comanche Peak facility radioactive releases in conjunction with releases from radiological sources at Department of Energy or other facilities in the vicinity of the Comanche Peak plant).

We observe as well that at the April 19 oral argument, relying on four studies CFUR referenced in its April 14 supplemental notice, CFUR indicated that it was now challenging the plant-specific Category 2 cumulative impacts assessment in ER section 4.12 as failing to analyze particulate-bound radionuclides associated with other area pollution sources. See Tr. at 12–16 (Griggs); see also CFUR Supplemental References at 1. As presented by CFUR at this juncture in the proceeding, this argument, along with the supplemental materials CFUR seeks to rely upon to establish its validity, cannot be the basis for an admissible contention. In its April 6 order, the Board allowed the participants to submit supplemental references to address a specific question regarding CFUR's Contention 2 claims concerning seismic risks. See supra note 14. Because the Board did not allow the participants to submit supplemental material supporting any other contention, the references in CFUR's April 14 supplement provided as additional support for Contention 2 are precluded by the Board's directive. See Licensing Board Conference Scheduling Order at 5 n.5; cf. La. Energy Servs., LP (National Enrichment Facility), CLI-04-25, 60 NRC 223, 224 (indicating petitioner cannot use reply brief to "reinvigorate thinly supported contentions" by presenting entirely new arguments), reconsideration denied, CLI-04-35, 60 NRC 619 (2004).

<sup>&</sup>lt;sup>49</sup> <u>See</u> CFUR Amended Petition at 12–13 (citing Letter from Jack C. Hicks, Regulatory Affairs Manager, Vistra, to NRC Document Control Desk, encl. (Apr. 28, 2022) (Luminant Generation Co., LLC (Luminant), Comanche Peak Nuclear Power Plant, [AREOR], January 1, 2021, through December 31, 2021 (Apr. 12, 2022)) (ADAMS Accession No. ML22118A088) [hereinafter 2021 AREOR]).

reports analyzed in the Vistra renewal application. <u>See</u> ER at 10-3, 10-10, 10-24 to -25. As a consequence, this CFUR assertion constitutes the type of NEPA "flyspecking" the Commission has recognized as inappropriate absent some showing of materiality so as to frame a genuine dispute regarding the renewal application.<sup>50</sup> <u>See</u> 10 C.F.R. § 2.309(f)(1)(vi).

Thus, CFUR's first four claims concerning deficiencies in the license application fail to satisfy at least two of the six admissibility criteria in 10 C.F.R. § 2.309(f)(1) necessary to establish an adequate basis for its contention. <u>See</u> 10 C.F.R. § 2.309(f)(1)(iii), (vi).

CFUR's fifth claim, that the application does not include the potential cost of twenty additional years of radiological releases and future remediation, <u>see</u> CFUR Amended Petition at 12, also does not provide the framework for an admissible contention. In support of this claim, CFUR does not cite to an NRC regulation requiring such an analysis relative to either normal operations or post-accident-condition remediation, the latter being covered generally by Vistra's SAMA analysis about which CFUR also has not raised a dispute. <u>See</u> ER at 4-46 to -70. Without a citation to a specific deficiency in the application, this CFUR argument fails to support an admissible contention because it does not raise a genuine dispute with the application.<sup>51</sup> Thus, CFUR's fifth argument does not support an admissible contention either. <u>See</u> 10 C.F.R. § 2.309(f)(1)(vi).

<sup>&</sup>lt;sup>50</sup> <u>See Holtec Int'I</u> (HI-STORE Consolidated Interim Storage Facility), CLI-20-4, 91 NRC 167, 190–91 (2020) (noting contention must frame a dispute as to a material issue and not "flyspeck" an EIS).

<sup>&</sup>lt;sup>51</sup> Insofar as CFUR's challenge regarding Vistra's "future remediation" might be considered a challenge to Vistra's post-operational decommissioning, this issue has already been addressed in the 2013 GEIS as a Table B-1 Category 1 issue. <u>See</u> 2013 Revised GEIS at 2-4 to -6, 4-5. As is the case with CFUR's first four claims, <u>see supra pp. 19–20</u>, a challenge to a Category 1 issue without a section 2.335 waiver is a matter outside the scope of this proceeding, <u>see</u> 10 C.F.R. § 2.309(f)(1)(iii).

CFUR's sixth claim asserts that the Vistra application does not include an analysis of future age-related pipe leaks and breakage akin to Vistra's ER section 3.6.4.2.1 discussion of past radiation releases. See CFUR Amended Petition at 12. Again, however, CFUR's assertion fails to include sufficient supporting information to establish a genuine dispute on a material issue. See 10 C.F.R. § 2.309(f)(1)(vi). Consistent with agency regulations and guidance, ER section 3.6.4.2.1 provides for a historical, environmental baseline approach to radioactive releases. See id. § 51.53(c)(2); Regulatory Guide 4.2, at 18-21. While CFUR apparently would prefer a forward-looking, predictive analysis regarding age-related pipe leaks and breakage, it fails to provide a legal basis, regulatory or otherwise, for requiring such an analysis. Further, CFUR does not acknowledge, much less challenge, ER section 4.5.5 that, consistent with 10 C.F.R. § 51.53(c)(3)(ii)(P), addresses the impacts of inadvertent radiological releases that may occur during the license renewal term. See ER at 4-13 to -15. Nor does CFUR acknowledge, much less challenge, ER section 3.6.4 that addresses the Vistra groundwater monitoring program. As part of the facility's current licensing basis, this program is outside the permissible scope of this proceeding absent a section 2.335 waiver. See supra section I.B.2. Moreover, as Vistra's ER notes, that groundwater monitoring program (1) resulted in the 2013 and 2015 detection and repair of pipe leaks that released tritium at levels below state drinking water limits; and (2) confirmed that no radionuclides were detected in Vistra's groundwater sampling during 2016-2020. See id. at 3-101 to -104.

Additionally, the specific sources CFUR proffers in support of its Contention 1 fail in that regard. CFUR cites a Centers for Disease Control and Prevention website about the dangers of exposure to lodine-131 and refers to the data on gross beta activity from airborne lodine-131

emissions in the 2021 AREOR report,<sup>52</sup> but fails to show how this website information creates a genuine dispute with the Vistra ER. CFUR also cites to a <u>Scientific American</u> article discussing tritium levels at a different nuclear plant,<sup>53</sup> but without explaining how this reactor facility or the study relate to Comanche Peak. So too, in referencing a 2009 article and table showing tritium concentrations in nearby Lake Granbury,<sup>54</sup> CFUR does not account for or otherwise controvert the one-way flow of water from Lake Granbury into the Comanche Creek Reservoir.<sup>55</sup> <u>See id.</u> at 3-139. Additionally, CFUR refers to the efforts of Colorado and California to set lower goals for tritium in drinking water than those established by the Environmental Protection Agency's standard. <u>See</u> CFUR Amended Petition at 16. This not only raises a matter beyond the permissible scope of this proceeding but lacks any explanation about how lowering such standards in those states relates in any way to the renewal of the operating licenses for the Comanche Peak facility in Texas. Certainly, CFUR has not shown that such standard setting is somehow in contravention of Part 51 or any other NRC regulation, and so has failed to establish a genuine dispute. <u>See</u> 10 C.F.R. § 2.309(f)(1)(iii), (vi).

<sup>&</sup>lt;sup>52</sup> <u>See</u> CFUR Amended Petition at 13–14 (referencing Centers for Disease Control and Prevention, Radioisotope Brief: Iodine-131 (I-131) (Apr. 4, 2018), https://www.cdc.gov/nceh/radiation/emergencies/isotopes/iodine.htm; 2021 AREOR at 17).

<sup>&</sup>lt;sup>53</sup> <u>See id.</u> at 14–15 (citing David Biello, Is Radioactive Hydrogen in Drinking Water a Cancer Threat, Sci. Am. (Feb. 7, 2014), https://www.scientificamerican.com/article/is-radioactive-hydrogen-in-drinking-water-a-cancer-threat/).

<sup>&</sup>lt;sup>54</sup> <u>See id.</u> at 15–16, (citing Annie Makhijani & Arjun Makhijani, Radioactive Rivers and Rain/Retiring Reference Man, 16 Sci. for Democratic Action (Aug. 1, 2009), https://ieer.org/article/science-for-democratic-action/volume-16-number-1/).

<sup>&</sup>lt;sup>55</sup> Although this reservoir is referenced by its prior name in the participants' pleadings, <u>see, e.g.</u>, NRC Staff Answer at 13, in this decision we will refer to the reservoir by its current United States Board of Geographic Names-recognized designation, <u>see</u> https://edits.nationalmap.gov/apps/gaz-domestic/public/summary/1863319 (last visited June 5, 2023).

Finally, although it is unclear if CFUR is posing this claim as a possible safety contention, if that is the case its concern regarding age-related pipe leaks and breakage fails to refer to any specific provision of Vistra's license application, including Vistra's review of its aging management-related program and planned actions to address age-related degradation as required under 10 C.F.R. §§ 54.21, 54.29. CFUR offers no explanation why the existing regulatory activities and requirements associated with Vistra's age-related pipe leaks and breaks are insufficient to manage any aging effects during the requested twenty-year operating license renewal for Comanche Peak. Accordingly, CFUR's assertions lack the requisite factual and legal foundation to establish a genuine dispute regarding a material issue. <u>See id.</u>

§ 2.309(f)(1)(vi).

Thus, because CFUR has failed to satisfy the admissibility criteria in 10 C.F.R. 2.309(f)(1)(iii) or (vi) as to each of the claims it provides in support of Contention 1, that contention is not admissible.

2. CFUR's Contention 2

Contention 2 - Seismic Analysis is Inadequate; Lack of Complete Data Could Result in Seismic Risks.

CFUR Amended Petition at 17.

DISCUSSION: <u>Id.</u> at 17–22; Vistra Answer at 17–27; NRC Staff Answer at 22–28; CFUR Reply at 7–10; Tr. at 35–54. RULING: To assess the somewhat amorphous nature of CFUR's Contention 2 seismic risk claims, both in terms of their relationship to the Vistra application and to the NRC's regulatory requirements associated with license renewal requests, we look at each of CFUR's four claims provided in support of this contention as they are summarized in its reply.<sup>56</sup>

The four claims described by CFUR each has a different factual predicate. Putting aside for the moment the adequacy of their factual foundations under section 2.309(f)(1)'s admissibility criteria, as we explain below, whether viewed as safety or environmental concerns, all of Contention 2's four supporting claims fail because they are outside the permissible scope of this renewal proceeding.

Consistent with Criterion 2 to 10 C.F.R. Part 50, Appendix A, the Comanche Peak facility's FSAR provides an extensive seismic analysis of the site and the surrounding region that encompasses (1) the available historical data, including the most severe historical earthquake for the site; and (2) a seismic design for facility structures that, based on an assessment of the accumulated historical data's accuracy, quantity, and duration, provides a sufficient safety margin.<sup>57</sup> Moreover, as part of its post-Fukushima review of the adequacy of

CFUR Reply at 7 (citing CFUR Amended Petition at 17–22).

<sup>57</sup> <u>See</u> Vistra, [Comanche Peak FSAR], amend. 111, at 2.5-1 to -89 (Feb. 2022)

<sup>&</sup>lt;sup>56</sup> In its reply, CFUR describes the supporting claims for its Contention 2 as

the Application a.) fails to provide an adequate analysis of the magnitude of seismic activity nea[r] the [Comanche Peak facility] and specifically that the Application omits reference to earthquakes of less than 3.0 magnitude; b.) fails to account for the effects of earthquakes within or near the karst zone adjacent to [the Comanche Peak facility]; c.) fails to account for the effect earthquakes could have on cracking of plant piping, structural supports, concrete, and foundations[;] and d.) fails to consider the effects of seismic activity on the Squaw Creek Reservoir (now called Comanche Creek Reservoir).

the Comanche Peak units' seismic design basis,<sup>58</sup> this design-basis analysis was confirmed by

the NRC Staff.59

(analyzing geology and seismology associated with the Comanche Peak facility) (ADAMS Accession No. ML22277A825) [hereinafter 2022 FSAR]; <u>id.</u> at 3.7N-1 to -21 (analyzing design of equipment and equipment supports to withstand abnormal loading conditions associated with earthquakes); <u>id.</u> at 3.7B-1 to -30 (analyzing seismic design response spectra indicating structure response to significant nearby earthquake ground motion). As Vistra's 2022 FSAR indicates, seismic loads were considered for earthquakes of two magnitudes: (1) the safe shutdown earthquake (SSE), which encompasses the maximum vibratory ground motion at the plant site that can reasonably be predicted from geologic and seismic evidence; and (2) the operating basis earthquake (OBE), which is defined as the earthquake that, considering the local geology and seismology, can be reasonably expected to occur during the plant's life. <u>See id.</u> at 3.7N-1.

<sup>58</sup> In the wake of the March 2011 earthquake and tsunami that severely compromised the Fukushima Dai-ichi nuclear power plant, the NRC required that all licensees, including Vistra's corporate predecessor Luminant, perform an evaluation of seismic risk and flooding at their nuclear facilities. See 3 NRR, NRC, NUREG-1437, [GEIS] for License Renewal of Nuclear Plants, Appendices, Final Report at B-29 to -30 (rev. 1 June 2013) (ADAMS Accession No. ML13106A244); 2013 Revised GEIS at 1-16. In the June 2013 statement of considerations accompanying the Commission's final rule updating the regulatory framework for the 1996 GEIS, although acknowledging that "no additional analyses have been performed in the revised GEIS as a result of the Fukushima events," the Commission indicated that if "the NRC identifies information from the Fukushima events that constitutes new and significant information with respect to the environmental impacts of license renewal, the NRC will discuss that information in its site-specific [supplemental EISs] to the GEIS, as it does with all such new and significant information." 2013 Revised GEIS Rule, 78 Fed. Reg. at 37,292; see also 2013 Revised GEIS at 1-34. To this end, the Vistra ER's discussion of severe accidents includes its analysis of the possible existence of "new and significant information" regarding such accidents and SAMAs. See ER at 4-46 to -55. Indicating that Comanche Peak "is located in an area with low seismic activity," Vistra stated that "[i]n its response to post-Fukushima Near Term Task Force recommendation 2.1, CPNPP re-evaluated its seismic risk" and concluded "that the seismic hazard at [Comanche Peak] is low ....." Id. at 4-50. Further, stating that it had considered developments in a number of areas, including "risk-beneficial" plant changes "implemented at the site in response to Fukushima Dai-ichi Near-Term Task Force recommendations and other plant-specific programs," Vistra indicated that "no new and significant information was identified" regarding seismic risk or other severe accident consequences issues. See id. at 4-55. Thus, contrary to CFUR's suggestion that "reliance on the outdated 2013 GEIS is not prudent," see CFUR Amended Petition at 21, Vistra has provided an analysis of "new and significant information" relative to the 2013 GEIS.

<sup>59</sup> <u>See</u> Letter from Frankie Vega, Project Manager, NRR, NRC, to Rafael Flores, Senior Vice President and Chief Nuclear Officer, Luminant, encl. at 9 (Jan. 22, 2016) (Staff Assessment by [NRR] Related to Seismic Hazard and Screening Report, Comanche Peak Nuclear Power Plant, Units 1 And 2, Docket Nos. 50-445 and 50-446) (ADAMS Accession

As we have noted previously, <u>see supra</u> section I.B.2, the scope of this renewal proceeding regarding safety issues is limited to the effects of age-related degradation on facility systems and structures and the adequacy of a licensee's efforts to assess and address those effects. Thus, to the degree CFUR would require a reanalysis of seismic safety, such a claim clearly is beyond the permissible scope of this proceeding absent a section 2.335 waiver.

Nor does such a claim fall within the permissible scope of the environmental issues that may be challenged in this proceeding. Environmental impacts associated with postulated accidents, including design-basis or severe accidents caused by seismic events, are Category 1 issues that have been determined generically to have a "SMALL" impact. <u>See supra</u> section I.B.3. As the Commission has made clear, this regulatory finding cannot be challenged here (relative to either the applicant's ER or the NRC Staff's supplemental EIS) absent a waiver, which CFUR has not requested in this proceeding. <u>See supra</u> note 21 and accompanying text.

Thus, each of CFUR's four claims fails to satisfy the section 2.309(f)(1) admissibility criterion because they fall outside the permissible scope of this license renewal proceeding. See 10 C.F.R. § 2.309(f)(1)(iii).

Additionally, these claims fail because they lack adequate support to raise a material dispute with the applicant. CFUR criticizes Vistra's ER for failing to reference earthquakes less than 3.0 magnitude on the Richter scale, but fails to explain how listing these earthquakes would be material to the NRC Staff's findings, particularly considering that such an analysis is not considered necessary under the Staff's environmental and safety regulatory guidance associated with seismic risk assessment.<sup>60</sup> Moreover, Vistra's ER does recognize and analyze

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<sup>&</sup>lt;sup>60</sup> <u>See</u> 10 C.F.R. § 51.53(c)(2); Regulatory Guide 4.2, at 12, 16; Office of Standards Development, NRC, Regulatory Guide 1.70, Standard Format and Content of Safety Analysis

historical seismic events in the vicinity of the Comanche Peak facility (going back to the late 1800s), as well as seismic events in the area that ranged in magnitude from 3.0 to 4.5 for the years 1970 to 2022,<sup>61</sup> all of which fall within the Comanche Peak facility's seismic design basis.<sup>62</sup> CFUR's assertion that below 3.0 magnitude events also need to be reported and

<sup>62</sup> As the Vistra ER notes, earthquake severity is described by the modified Mercalli (MM) intensity scale and the Richter magnitude scale. See ER at 3-57. The MM intensity is a subjective measure of observed damage at a particular location caused by an earthquake, while the Richter magnitude scale estimates the total amount of energy released by an earthquake. Id. According to the ER, the highest intensity earthquake within 200 miles of the Comanche Peak site was an 1882 MM VII intensity earthquake. CFUR references a discussion of this earthquake in the 2014 Luminant response to the NRC's post-Fukushima request for additional seismic analysis as evidencing the possibility that another event of this magnitude could cause "meaningful damage" to the facility. CFUR Amended Petition at 20 (citing Letter from Rafael Flores, Senior Vice President and Chief Nuclear Officer, Luminant, to NRC Document Control Desk, attach. at 2 (Mar. 27, 2014) (Comanche Peak Nuclear Power Plant Seismic Hazard and Screening Report) (ADAMS Accession No. ML14099A197) [hereinafter Flores Letter Attachment]). As Vistra notes in its answer, however, the next sentence indicates that while historical records suggest the resulting ground accelerations would be no more than 0.10 g, the peak ground acceleration for the design basis SSE for the facility is 20 percent higher at 0.12 g, Vistra Answer at 21 n.99 (citing Flores Letter Attachment at 2); see also 2022 FSAR at 2.5-54, 2.5-56 (indicating Maximum Potential Earthquake equal to 1882 MM VII would produce horizonal ground motion of no more than 0.10 g; SSE horizontal ground acceleration of 0.12 g selected for design). Nothing provided by CFUR suggests that at a Richter scale magnitude of 4.5 or less, the more recent earthquakes outlined in the ER would exceed the facility's design basis earthquake.

Reports for Nuclear Power Plants, [Light-Water Reactor] Edition, at 2-26 to -27 (rev. 2 Sept. 1975) (ADAMS Accession No. ML010610289)); NRR, NRC, NUREG-1555, Standard Review Plans for Environmental Reviews for Nuclear Power Plants, Supp. 1: Operating License Renewal, Final Report at 3.3-1 to -3 (rev. 1 June 2013) (ADAMS Accession No. ML13106A246).

<sup>&</sup>lt;sup>61</sup> <u>See</u> ER at 3-57; <u>see also id.</u> at 3-69 to -77 (Table 3.5-2, Historic Earthquakes > 3.0 MB, 1970-2022). We note as well that in line with the guidance cited above, <u>see supra</u> note 60, ER Table 3.5-2 does not appear to be inconsistent with exhibit A to the CFUR amended petition. That exhibit purports to show earthquakes between 2000 and 2012 with magnitudes between 2.0 and 3.3, while earthquakes above 3.0 magnitude shown in that exhibit are listed in the ER table. In addition, relative to CFUR's related assertion that more than one dozen earthquakes occurred between 2009 and 2012, <u>see</u> CFUR Amended Petition at 17, this likewise fails to provide support for this contention in that (1) the ER reflects this information when it acknowledges that 133 of the 168 earthquakes reported since 1970 occurred after 2009 with magnitudes that were relatively low, <u>see</u> ER at 3-57; and (2) CFUR does not acknowledge or dispute this ER discussion.

analyzed is again the type of NEPA "flyspecking" the Commission has recognized is inappropriate absent some showing of that issue's materiality.<sup>63</sup>

Faring no better in this regard is CFUR's claim that earthquakes of such a reduced magnitude nonetheless can lead to cracking of pipes, structural supports, and concrete in various plant structures, with the inference that such cracking would have some significance in terms of safety or environmental impacts. In support of this proposition, referencing portions of the Vistra application, CFUR asserts the application "documents" component cracking.<sup>64</sup> The cited portions of the application, however, discuss not what has been observed at the Comanche Peak facility, but rather describe Vistra's aging management strategies for identifying, evaluating, and correcting cracking over the renewal period, the substance of which CFUR does not challenge. An apparent misconception about the meaning of provisions in the Vistra renewal application, coupled with a failure to proffer any challenge to the substance of

<sup>&</sup>lt;sup>63</sup> <u>See Holtec Int'I</u>, CLI-20-4, 91 NRC at 190–91. By the same token, the map provided by CFUR as Attachment A to its amended hearing petition, <u>see</u> CFUR Amended Petition, attach. A (Closest Earthquakes to Comanche Peak Reactor Site), showing earthquakes of 3.3 magnitude or less does not establish the requisite material issue.

<sup>&</sup>lt;sup>64</sup> CFUR Amended Petition at 18 (citing License Renewal Application at 3.1-91 (Table 3.1.2-2 Reactor Vessel Internals – Summary of Aging Management Evaluation), 3.5-37, 3.5-49 to -50, 3.5-52 (Table 3.5-1 Summary of Aging Management Programs for Containment Building and Internal Structural Components)).

those provisions,<sup>65</sup> does not provide the information necessary to establish a material dispute with the application as required by section 2.309(f)(1)(vi).<sup>66</sup>

Likewise insufficient as grounds for admitting Contention 2 is CFUR's claim that Vistra failed to consider karst zone earthquake effects as they may be impacted by fracking. As support for this claim, CFUR provides as Attachment B to its amended petition a map of the Comanche Peak facility area that purports to show a "Projected karst zone" running through the facility site. This map includes notations indicating that (1) the map contours were "reinterpreted by Jerry Bartz 01/09/2023"; (2) "[h]igh pressure injected water in karst [is] strongly associated with activating dormant fracture systems and earthquakes in the [Dallas/Fort Worth] area"; and (3) "[five] 2012 earthquakes are within or proximal to the projected karst zone." <u>See</u> CFUR Amended Petition, attach. B (Projected zone of karst collapsed features (cave) in the Ellenburger Group). In contrast, as reflected in its 2022 FSAR, Vistra's investigation has ruled out karst terrain in the region of the site.<sup>67</sup>

<sup>66</sup> <u>See Ga. Inst. of Tech.</u> (Georgia Tech Research Reactor, Atlanta, Georgia), LBP-95-6, 41 NRC 281, 300 (1995) (indicating petitioner's "imprecise reading" of a supporting document cannot generate a litigable issue).

<sup>67</sup> <u>See</u> 2022 FSAR at 1.2-1 ("With regard to the stability of subsurface materials, there is no evidence in the site region indicating actual or potential uplift or subsidence, cavernous or

<sup>&</sup>lt;sup>65</sup> In its reply, CFUR asserts that the reason it did not mount such a challenge to the adequacy of Vistra's aging management program was that it "did not have meaningful access to this material." CFUR Reply at 9. Regarding this claim, as one of the three questions for discussion at the April 19 oral argument, the Board asked whether CFUR was provided such access and gave the participants the opportunity to submit additional references to material concerning this issue, including material not previously cited. <u>See</u> Licensing Board Conference Scheduling Order at 5. Both Vistra and the NRC Staff made submissions referencing publicly available portions of the license renewal application concerning the Vistra aging management program, including some specifically directed to cracking due to earthquakes. <u>See</u> Vistra Supplemental References at 1–2; NRC Staff Supplemental References at 1–2 (citing, among others, License Renewal Application at 3.5-23 regarding aging management of piping and other containment liner penetrations due to cracking associated with "startups, shutdowns, or any earthquakes."). Given these publicly available application materials, we find CFUR's lack of meaningful access assertion unpersuasive.

The Board is not to supply information to support a contention. <u>See supra</u> note 45 and accompanying text. Nor can the Board admit a contention based on a document or an expert opinion that merely states a conclusion "without providing a reasoned basis or explanation for that conclusion" or accept "bare assertions or speculation," even by experts, as providing the requisite support for a proposed contention.<sup>68</sup> CFUR does not provide any explanation about how this map was prepared or who prepared the map, much less provide information about the individual's expertise in geology and/or seismology, and does not explain how the map refutes in any way the discussion of such geological features (including the absence of karst terrain) in Vistra's 2022 FSAR. Thus, as presented, CFUR's map does not establish there is the required material dispute of law or fact needed to make this contention admissible. <u>See</u> 10 C.F.R.

§ 2.309(f)(1)(vi).

Finally, CFUR claims that, given the Vistra license renewal application's reference to "[I]oss of material[,] loss of form due to erosion, settlement, sedimentation" on dams and other earthen water control structures, Vistra has failed to consider the effects of an earthquake on Comanche Creek Reservoir and its associated dam.<sup>69</sup> As a general matter, however, dam safety is subject to Texas state regulation and monitoring, <u>see</u> 30 Tex. Admin. Code

karst terrain, tectonic warping or deformational zones pertinent to the site."), 2.5-1 (same), 2.5-21 ("Study of topographic maps and [arial] photography and examination of rock cores shows no indication of karst formation or other solution activity in the area. In addition, detailed onsite reconnaissance has failed to find any evidence of sink holes or solution cavities. The absence of such features was confirmed in interviews with federal civil construction agencies.").

<sup>&</sup>lt;sup>68</sup> <u>USEC, Inc.</u> (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 472 (2006); <u>Fansteel, Inc.</u> (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 203 (2003) (quoting <u>GPU</u> <u>Nuclear, Inc.</u> (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 208 (2000)).

<sup>&</sup>lt;sup>69</sup> CFUR Amended Petition at 19 (quoting License Renewal Application at 3.5-57 (Table 3.5-1 Summary of Aging Management Programs for Containment Building and Internal Structural Components)).

§§ 299.42–.43, placing that subject outside the permissible scope of this proceeding. <u>See</u> 10 C.F.R. § 2.309(f)(1)(iii). Further, as was the case with the previously noted Vistra application references to "cracking," <u>see supra</u> notes 64–66 and accompanying text, CFUR's references to "loss of material" and "loss of form" in the application are misdirected references to the application's discussion about aging management programs that CFUR has not challenged, thereby failing to establish a material dispute with the application needed for an admissible contention. <u>See</u> 10 C.F.R. § 2.309(f)(1)(vi).

In addition, because the Comanche Creek Reservoir dam is not a safety-related component of the facility, concerns about its failure in a seismic event would not be within the permissible scope of this proceeding. Certainly, a Comanche Creek Reservoir dam failure would produce significant impacts for those near and downstream from the reservoir. Nonetheless, as the Vistra renewal application states, given both the dam's distance from the facility and the lack of interaction with nuclear safety-related components, a failure of the Comanche Creek Reservoir dam would not significantly affect the safe operation of the Comanche Peak facility.<sup>70</sup> The Comanche Peak facility has an impoundment dam, which was designed and constructed as a Seismic Category I structure to withstand the most severe postulated natural phenomena and forms a secondary reservoir separate from the main Comanche Creek Reservoir to hold a water supply for normal and emergency cooling use for up to thirty-days without the addition of outside makeup water. <u>See</u> License Renewal Application

<sup>&</sup>lt;sup>70</sup> <u>See</u> License Renewal Application at 2.2-8, tbl. 2.2-3 at n.6 (Plant Level Scoping Results: Containments, Structures and Component Supports); <u>see also</u> NRR, NRC, NUREG-0797, Safety Evaluation Report Related to the Operation of Comanche Peak Steam Electric Station, Units 1 and 2, at 2-34 (July 1981) (indicating Comanche Creek Reservoir dam is "not required for the safe shutdown of the plant") (ADAMS Accession No. ML20009F815); 2022 FSAR at 9.2-29 ("If, as a result of an earthquake, the [Comanche Creek Reservoir] dam fails, [the plant will remain safe because] the equalization channel invert maintains the water level in the [safe shutdown impoundment]").

at 2.3-119, 2.4-21. Further, the components associated with both the safe shutdown impoundment and the dam are subject to an aging management plan. <u>See id.</u> at 3.5-10. Given CFUR's seismic risk concern regarding a "catastrophic" reservoir breach is not a challenge to the adequacy of this safe shutdown impoundment and its associated dam, CFUR has not framed a material dispute with the application. <u>See</u> 10 C.F.R. § 2.309(f)(1)(vi).

Accordingly, for the reasons set forth above we find that CFUR's Contention 2 is not admissible.

3. CFUR's Contention 3

Contention 3 - The LRA fails to fully analyze predicted climate changes that could affect the ability of the Comanche Peak Nuclear Power Plant to have cooling water available at temperatures consistent with operational requirements.

CFUR Amended Petition at 22.

DISCUSSION: Id. at 22–24; Vistra Answer at 27–31; NRC Staff Answer at 29–42;

CFUR Reply at 10–12.

RULING: In considering the two supporting claims for this contention as encapsulated in

CFUR's reply brief, <sup>71</sup> we note initially that we agree with CFUR's assertion in support of this

contention that the public should have the "right to adjudicate its concerns in a fair and

CFUR Reply at 10; see CFUR Amended Petition at 22, 23.

<sup>&</sup>lt;sup>71</sup> In its reply, CFUR describes these claims as follows:

a.) Vistra's [license renewal application] fails to fully analyze increases in ambient water temperatures that could affect the capacity of the Squaw Creek Reservoir (a/k/a Comanche Peak Reservoir) to maintain water temperatures consistent with [Comanche Peak's] operational requirements, and b.) the [license renewal application] omits discussion of predictions regarding increasing ambient water temperatures in the future, which could cause the nuclear units to decrease power outright or cease operations altogether.

accessible hearing process." CFUR Reply at 11. But in reaching a decision on the admissibility of this and CFUR's other contentions, this Licensing Board must apply the Commission's contention admissibility standards that, while "strict by design,"<sup>72</sup> are intended to "properly 'reserve our hearing process for genuine, material controversies between knowledgeable litigants."<sup>73</sup>

During the April 19 oral argument, stating that "[t]he impacts of climate change on environmental resources are location specific, and cannot be evaluated generically," Tr. at 57 (Griggs), CFUR argued that current and projected drought conditions in Texas remain unaccounted for in the current Comanche Peak facility environmental review, <u>see</u> Tr. at 58–59 (Griggs). However, as was the case with Contentions 1 and 2, this argument regarding the availability of water for facility operation does not account for the relevant findings in the 2013 GEIS. As reflected in Table B-1 under the heading "Surface Water Resources," for facilities like Comanche Peak that employ once-through cooling systems, the impact of surface water availability and conflicts over its use is a Category 1 issue has been categorized as "SMALL." 10 C.F.R. pt. 51, subpart A, app. B., tbl. B-1; <u>see</u> 2013 Revised GEIS at S-10, 4-40. Because CFUR did not file a petition to waive this Category 1 finding, CFUR's cooling water availability

<sup>&</sup>lt;sup>72</sup> <u>AmerGen Energy Co., LLC</u> (Oyster Creek Nuclear Generating Station), CLI-06-24, 64 NRC 111, 118 (2006) (quoting <u>Dominion Nuclear Conn., Inc.</u> (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 544 NRC 349, 353 (2001), <u>pet. for reconsideration denied</u>, CLI-02-11, 55 NRC 1 (2002)).

<sup>&</sup>lt;sup>73</sup> <u>FirstEnergy Nuclear Operating Co.</u> (Davis-Besse Nuclear Power Station, Unit 1), CLI-12-8, 75 NRC 393, 396 (2012) (quoting <u>Dominion Nuclear Conn., Inc.</u> (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 50 NRC 207, 219 (2003)). Also in this regard, in its reply, CFUR cites several pre-1989 cases as support for the admissibility of its contentions. <u>See, e.g.,</u> CFUR Reply at 4 n.6, 13 n.29 (as support for the proposition that a petitioner need only "state the reasons for its concerns" to have an admissible contention, citing <u>Pub. Serv. Co. of N.H.</u> (Seabrook Station, Units 1 and 2), LBP-82-106, 16 NRC 1649, 1654 (1982)). Given the toughened contention pleading standards in the Commission's 1989 rulemaking, <u>see Millstone</u>, CLI-01-24, 54 NRC at 358, we question the continuing relevance of the contention admissibility holdings in these cases.

claim falls outside the permissible scope of this proceeding. See supra note 21 and accompanying text.

In addition, CFUR has failed to reference any portion of Vistra's application and/or provide support for its assertion that the application omits the information in question, as is required by section 2.309(f)(1)(vi). In this regard, section 4.12.4.3 of the ER's cumulative impacts analysis addresses climate change impacts on surface water resources. See ER at 4-39 to -40. This ER discussion recognizes that with climate change, both water availably and water/ambient air temperatures will be impacted, with potentially decreasing water availability and rising temperatures bringing into play operational limits based on cooling water discharge permit conditions. See id. Regarding water availability, the ER indicates that the exclusive availability of Comanche Creek Reservoir as a cooling water source, the facility's once-through cooling system's reduced demand for water resources, and the availability of supplemental water from Lake Granbury and other sources would make Comanche Peak's water availability cumulative impacts contribution "SMALL." Id. at 4-40. Further, addressing the potential impacts of water availability limitations and air temperature increases, the ER states that with the Comanche Creek Reservoir's primary function to act as a cooling water reservoir for the facility, no changes were "reasonably foreseeable," but noted that if such changes did occur, continued facility operation would remain within permitted conditions. See id.

Thus, CFUR's claim that, as an environmental concern, climate impacts on surface water availability and temperature are unaccounted for is inadmissible as it (1) involves a challenge to a Table B-1 Category 1 issue without an accompanying section 2.335 waiver petition and thereby falls outside the permissible scope of this proceeding; and (2) fails to

reference specific portions of the application that address climate change issues or explain why such a discussion is insufficient.<sup>74</sup> See 10 C.F.R. § 2.309(f)(1)(iii), (vi).

Furthermore, as a safety issue this claim runs contrary to the established tenet that a safety review in a license renewal proceeding is limited to issues related to aging and age-related management. <u>See supra section I.B.2.</u> CFUR fails to demonstrate how facility operational conditions that might be impacted by its claimed climate-induced conditions would fall into the category of aging management concerns. Nor does CFUR account for the fact that, as part of the facility's current licensing basis, Vistra's FSAR addresses the facility's design capability via its safe shutdown impoundment to operate safely under extreme climate conditions and that the impact of such conditions on plant operability are the subject of ongoing regulatory oversight.<sup>75</sup> Thus, as a safety contention, Contention 3 is inadmissible because it is

<sup>75</sup> As part of the agency's regulatory process for monitoring and addressing issues at an operating facility associated with maintaining an adequate cooling water supply at an appropriate temperature, among other things, in accordance with 10 C.F.R. § 50.36, included in Comanche Peak current licensing basis are the facility operating licenses' technical specifications with limiting conditions regarding (1) the cooling water level and temperatures that must be maintained in the safe shutdown impoundment to avoid a reactor shut down or allow other technical specification-permitted remedial measures until the conditions are met; and (2) monitoring requirements to ensure the limiting conditions are met. See 10 C.F.R. §§ 50.36(b), (c)(2)–(3); see also id. § 54.3 (including technical specifications in definition of "Current licensing basis"). Vistra's ER and FSAR indicate that the Comanche Peak facility is capable of operating under extreme conditions because its safe shutdown impoundment is designed and constructed to provide a body of cooling water sufficient to allow post-severe accident cooling for a period of thirty days without makeup water from the Comanche Creek Reservoir, notwithstanding extreme meteorological conditions impacting water temperature and

<sup>&</sup>lt;sup>74</sup> CFUR references an August 2022 newspaper article and an EPA website in support of this claim as providing the basis for an admissible contention. <u>See</u> CFUR Amended Petition at 22–23, 24 (citing Maria Mendez, Texas Is Facing Its Worse Drought Since 2011. Here's What You Need to Know, The Texas Tribune (Aug. 19, 2022),

https://www.texastribune.org/2022/08/19/texas-drought-water-conservation/; EPA, Climate Impacts on Energy, https://19january2017snapshot.epa.gov/climate-impacts/climate-impacts-energy\_.html (last visited June 5, 2023)). But to whatever extent these materials have relevance, as presented they are not inconsistent with the analysis provided in ER section 4.12.4.3.

outside the permissible scope of this license renewal proceeding as well as immaterial to the findings that NRC must make to support this license renewal and failing to raise a genuine dispute as to a material issue of law or fact. See 10 C.F.R. 2.309(f)(1)(iii)–(iv), (iv).

Finally, CFUR claims that the ER has the effect of "overstating the advantages of nuclear power and understating [its] environmental impacts." CFUR Amended Petition at 23–24. Because a license renewal ER need not include a "discussion of need for power or the economic costs and economic benefits of the proposed action or of alternatives to the proposed action," 10 C.F.R. § 51.53(c)(2), any discussion of the economic costs and benefits of facility operation is outside the permissible scope of a license renewal proceeding and thus inadmissible under section 2.309(f)(1)(iii). Further, CFUR's conclusory assertion that the Vistra ER understates the environmental impacts of nuclear power fails to provide the supporting information to formulate a material dispute with the application as required under section 2.309(f)(1)(vi). See supra note 68 and accompanying text.

Based on the above, we find Contention 3 inadmissible.

4. CFUR's Contention 4

Contention 4 - The LRA fails to consider Greenhouse Gas emissions as required by the [CEQ's NEPA] Guidance.

CFUR Amended Petition at 24.

DISCUSSION: <u>Id.</u> at 24–31; Vistra Answer at 31–35; NRC Staff Answer at 42–53; CFUR Reply at 12–14.

evaporation rates and a postulated 100-year drought condition. See ER at 2-6; 2022 FSAR at 2.3-8 to -9, 2.4-28 to -30, 9.2-27 to -30.

RULING: Each of CFUR's four distinct claims for its Contention 4, as recapitulated in its reply pleading,<sup>76</sup> are inadequate to form the basis of an admissible contention. CFUR initially claims that the Vistra ER fails to consider greenhouse gas emissions as required by the CEQ's recently adopted interim NEPA guidance in that the ER does not address "the required quantification of reasonably foreseeable [greenhouse gas] emissions."<sup>77</sup> Yet, CFUR fails to account for (1) the "Affected Environment" discussion in the ER under the "Meteorology and Air Quality" subheading, section 3.3.4, titled "Greenhouse Gas Emissions," <u>see</u> ER at 3-29; (2) the "Annual Greenhouse Gas Emissions Inventory Summary" presented in table 3.3-11, <u>see id.</u> at 3-42; and (3) various resource area "Climate Change" subsections covered in the "Cumulative Impacts" analysis presented in ER section 4.12, <u>see id.</u> at 4-38 to -42.<sup>78</sup> Additionally, the ER addresses greenhouse gas emissions for the base-load replacement alternatives for Comanche Peak, including an advanced light-water reactor, small modular reactors, natural gas-fired generation, and a combination of renewables and natural gas

CFUR Reply at 12–13; see CFUR Amended Petition at 25, 26, 29, 30.

<sup>77</sup> CFUR Amended Petition at 24, 25 (citing [NEPA] Guidance on Consideration of Greenhouse Gas Emissions and Climate Change, 88 Fed. Reg. 1196 (Jan. 9, 2023)).

<sup>&</sup>lt;sup>76</sup> According to CFUR's reply, these "four points" constitute the grounds for Contention 4:

a.) the [Vistra ER] fails to comply with the [C]EQ Guidance; b.) the Application fails to consider climate impacts on Comanche Peak reactors and reactor safety; c.) the Application fails to consider anticipated water shortages; and d.) the Application fails to consider increases in extreme weather in Texas.

<sup>&</sup>lt;sup>78</sup> Instead, without further explanation, CFUR declares that any greenhouse gas emission discussion "should" have been included in ER section 7.2, entitled "Energy Alternatives that Meet System Generating Needs," and section 8.0, labeled "Comparison of the Environmental Impact of License Renewal with the Alternatives," which includes a series of tables that provide an environmental impacts comparison summary. <u>See</u> CFUR Amended Petition at 25–26. This assertion, which is provided with no explanation about why such a discussion should be lodged in these provisions, is clearly inadequate to support Contention 4. <u>See supra</u> note 66 and accompanying text.

generation. <u>See</u> ER at 7-9 to -45, 8-9 (Table 8.0-3 Environmental Impacts Comparison Detail). Having failed to even refer to these ER analyses, much less dispute their adequacy, CFUR has not shown the requisite genuine dispute with the applicant regarding a material factual or legal issue. See 10 C.F.R. § 2.309(f)(vi).

But even putting aside whether these ER discussions would be considered sufficient under the CEQ interim guidance, CFUR has failed to explain why Vistra is required by law to follow this guidance. As an administrative matter, because the October 3, 2022 submittal of Vistra's license renewal application preceded the CEQ interim guidance, Vistra could not be expected to incorporate guidance that did not exist when its application was filed. More importantly, however, absent adoption by notice and comment rulemaking into 10 C.F.R. Part 51, which CFUR acknowledges the Commission has not done here,<sup>79</sup> the NRC is not bound by CEQ's NEPA regulations or guidance.<sup>80</sup>

Thus, in stating its general disagreement with Vistra's approach to considering greenhouse gas impacts in light of the interim CEQ guidance, CFUR's attempt to advocate for requirements stricter than or in addition to those imposed by regulation constitutes a collateral attack on the Commission's rules that requires a section 2.335 waiver,<sup>81</sup> which CFUR has not

<sup>&</sup>lt;sup>79</sup> <u>See</u> CFUR Reply at 13 ("Apparently . . . the NRC is not bound by CEQ's NEPA regulations or guidance unless the Commission adopts them by rulemaking. This may be true, but why wouldn't the Applicant not want to address this Guidance in an amended [license application], given the current climate crisis and the public concerns that could be generated by its failure to do so?").

<sup>&</sup>lt;sup>80</sup> See Pac. Gas & Elec. Co. (Diablo Canyon Nuclear Power Plan, Units 1 and 2) CLI-11-11, 74 NRC 427, 443–44 (2011) (stating that while the Commission looks to CEQ regulations for guidance, its longstanding policy is that, as an independent regulatory agency, the NRC is not bound by those portions of the CEQ regulations that have a substantive impact on the way the Commission performs its regulatory functions); see also 10 C.F.R. § 51.10(a) (indicating NEPA implementing regulations in Part 51, subpart A reflect Commission policy to take into account CEQ regulations voluntarily, subject to certain conditions).

<sup>&</sup>lt;sup>81</sup> See Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), CLI-87-12,

sought. This renders CFUR's claim outside the permissible scope of this proceeding, as well as insufficient to show a genuine dispute on a material issue of law or fact. <u>See</u> 10 C.F.R.

# § 2.309(f)(1)(iii), (vi).

CFUR's second claim that the Vistra ER fails to consider "the impact of a changing climate on the safety and operations of the reactor," including drought, torrential rains, and increased cooling water temperatures, is, like Contention 3, focused on concerns about "this possibility or the safety or economic consequences if Comanche Peak were unable to run due to lack of cool water" given that "several nuclear reactors across the country have had to shut down when there was not enough cool water." CFUR Amended Petition at 27. Nonetheless, given the extent to which the Vistra ER has addressed these matters, all without challenge by CFUR, this general assertion fails to demonstrate that a genuine dispute exists with the applicant on a material issue of law or fact as is mandated by section 2.309(f)(1)(vi).<sup>82</sup> See supra pp. 35–36.

Also, as was the case with Contention 3, this claim will not support a safety-based

contention. Cooling water sufficiency concerns for the Comanche Peak facility, whether climate

<sup>26</sup> NRC 383, 394–95 & n.19 (1987) (finding that, in the absence of a waiver request showing "special circumstances," intervenor contention asserting emergency planning zone should be extended beyond ten miles from a facility impermissibly challenges rule establishing planning zone size of "about 10 miles in radius"); <u>see also PPL Susquehanna LLC</u> (Susquehanna Steam Electric Station, Units 1 and 2), LBP-07-10, 66 NRC 1, 22 (2007) (citing cases).

<sup>&</sup>lt;sup>82</sup> In support of its claim regarding a lack of consideration of climate change-related weather impacts, CFUR proffered a Nuclear Energy Agency (NEA) report table as providing "examples of power plant critical incidents caused by drought." CFUR Amended Petition at 27–28 (referencing NEA, Organisation for Economic Co-operation and Development, Climate Change: Assessment of the Vulnerability of Nuclear Power Plants and Approaches for Their Adaptation at 67 (2021) (Table 4.4, Examples of Recent Power Plant Critical Incidents Caused by Drought, United States 2000-2012), https://www.oecd-nea.org/jcms/pl\_61802/climate-change-assessment-of-the-vulnerability-of-fnuclear-power-plants-and-approaches-for-their-adaptation?details=true). To whatever extent it is relevant here, however, as presented it is not inconsistent with Vistra's analysis of weather-related climate change impacts provided in the ER.

change-related or otherwise, have been analyzed as an operating concern in the Vistra FSAR and related documents that are part of the current licensing basis as well as being the subject of ongoing regulatory oversight. <u>See supra pp. 36–37</u>. Again, because NRC's Part 54 license renewal safety review generally focuses on "plant systems, structures, and components for which current [regulatory] activities and requirements <u>may not</u> be sufficient to manage the effects of aging in the period of extended operation," a challenge to safety issues associated with a plant's current licensing basis is, in the absence of a section 2.335 waiver, beyond the permissible scope of a license renewal proceeding and thus insufficient to support an admissible contention. <u>Turkey Point</u>, CLI-01-17, 54 NRC at 9–10 (quoting 60 Fed. Reg. at 22,469); <u>see</u> 10 C.F.R. § 2.309(f)(1)(iii).

Likewise inadmissible is CFUR's third and closely related claim that the Vistra renewal application fails to consider anticipated water shortages. As this assertion references the CEQ interim guidance for support, for the reasons we noted above, concerns about compliance with CEQ's guidance cannot support an admissible contention because such claims are outside the permissible scope of this proceeding and fail to establish a genuine dispute about a material issue of law or fact. See supra pp. 39–40. And as we also explained above, CFUR's general assertions about anticipated water shortages affecting cooling water availability are inadequate to establish the basis for either an admissible environmental or safety contention because those claims are outside the permissible scope of the proceeding and fail to establish a genuine dispute about a genuine dispute regarding a material issue.<sup>83</sup> See supra pp. 40–41.

<sup>&</sup>lt;sup>83</sup> In arguing that "[s]ince the Comanche Peak license renewal would extend operations until 2050 and 2053, data regarding water availability must be included and analyzed in the License Renewal Application, especially considering the new [CEQ] guidance," CFUR includes as support a graph from a December 2022 Texas state comptroller publication predicting increasing climate change-related water shortages between 2020 and 2070. <u>Id.</u> at 29 (citing Jess Donald & Spencer Grubbs, Fiscal Notes, Drought in Texas, How Rain Scarcity Affects

Finally, the same rationale applies to CFUR's more general fourth claim that the Vistra application fails to consider increases in extreme weather in Texas, which it supports by providing a portion of a document prepared by the Office of the State Climatologist assessing historic and future extreme weather trends in Texas from 1900 to 2036.<sup>84</sup> <u>See</u> CFUR Amended Petition at 30. Emphasizing the report's finding that "[i]ncreasing temperatures, rainfall variability and other factors will in balance decrease water availability," CFUR states that the "Comanche Peak reactors are set to retire in 2030 and 2033, so the predictions of drought and high temperatures fall within the currently licensed operation timeframe." <u>Id.</u> at 30–31. But CFUR does not explain what relevance this publication has to this license renewal proceeding, given that, as CFUR expressly acknowledges, the report covers the time frame in which the Comanche Peak units will be operating under their existing licenses. Thus, this claim likewise cannot be the source of an admissible contention in that it fails to demonstrate that a genuine dispute exists with the applicant on a material issue of law or fact. <u>See</u> 10 C.F.R.

§ 2.309(f)(1)(vi).

Based on the foregoing analysis, the Board finds that Contention 4 is inadmissible.

Texans and the Economy, ex. 2 (Dec. 2022) (Texas Municipal Water Demand, Supply and Need (Acre-Feet/Year)), https://comptroller.texas.gov/economy/fiscalnotes/2022/dec/drought.php). Again, however, to whatever extent this data is relevant here, as presented it does not contradict Vistra's analysis of weather-related climate change impacts provided in the ER.

<sup>&</sup>lt;sup>84</sup> <u>See id.</u> at 30–31 (citing Office of the Texas State Climatologist, Texas A&M Univ., Assessment of Historic and Future Trends of Extreme Weather in Texas, 1900-2036 (Oct. 7, 2021), https://climatexas.tamu.edu/files/ClimateReport-1900to2036-2021Update; Office of the Texas State Climatologist, Texas A&M Univ., Assessment of Historic and Future Trends of Extreme Weather in Texas, 1900-2036, Executive Summary (Oct. 7, 2021), https://climatexas.tamu.edu/files/2021UPDATE\_Climate-ExecutiveSummary-Flyer.pdf#climatexas.tamu.edu:%20/files/2021UPDATE\_Climate-ExecutiveSummary-Flyer.pdf)).

## IV. CONCLUSION

For the reasons set forth above in section II.B, CFUR has provided an adequate

showing to establish its representational standing in this initial license renewal proceeding

regarding Vistra's Comanche Peak facility. For the reasons described in section III.B above,

however, we find that under the applicable standards of 10 C.F.R. § 2.309(f)(1) CFUR has failed

to establish the grounds for admitting any of its four contentions.85

Accordingly, CFUR's hearing request is denied.

For the foregoing reasons, it is this seventh day of June 2023, ORDERED, that:

1. The March 1, 2023 amended hearing request of petitioner Citizens for Fair Utility

Regulation is <u>denied</u> and this proceeding is <u>terminated</u>.

<sup>&</sup>lt;sup>85</sup> In its answer, the NRC Staff also noted that on March 3, 2023, the agency published in the Federal Register a proposed rule that would provide a periodic update to the GEIS. See NRC Staff Answer at 11 n.54 (citing Renewing Nuclear Power Plant Operating Licenses-Environmental Review, 88 Fed. Reg. 13,329 (Mar. 3, 2023)). While indicating that the Staff's views on the admissibility of CFUR's contentions was based on the 2013 Revised GEIS and would not change if the GEIS update was adopted as proposed, the Staff also observed that "the Commission has previously stated that 'it has long been agency policy that 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.""" Id. (quoting Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 345 (1999)). As a consequence, according to the Staff, "to the extent Proposed Contentions 1 and 3 challenge findings that are the subject of the 2023 license renewal GEIS rulemaking, the Board should reject these contentions based on this Commission policy as well." Id.; see Tr. at 64-65 (Licon) (indicating at the April 2023 oral argument that in the NRC Staff's view Contention 4 would be a candidate for rejection under this Commission policy as well). Given our determination above that the section 2.309(f)(1) contention admissibility standards clearly preclude accepting any of CFUR's contentions as litigable issues, see supra section III.B, we consider it unnecessary to reach the issue whether the Commission's policy regarding the pendency of a "general rulemaking" is grounds for finding any of CFUR's contentions inadmissible.

2. In accordance with the provisions of 10 C.F.R. § 2.311, as this memorandum and order rules upon an intervention petition, any appeal to the Commission from this memorandum and order must be taken within twenty-five days after this issuance is served.

THE ATOMIC SAFETY AND LICENSING BOARD

### /RA/

G. Paul Bollwerk, III, Chair ADMINISTRATIVE JUDGE

### /RA/

Dr. Gary S. Arnold ADMINISTRATIVE JUDGE

#### /RA/

Dr. Sue H. Abreu ADMINISTRATIVE JUDGE

Rockville, Maryland

June 7, 2023

## ADDITIONAL VIEWS OF BOLLWERK, A.J.,

While I agree fully with the Licensing Board's conclusions regarding petitioner Citizens for Fair Utility Regulation's (CFUR) standing to intervene and the admissibility of its four contentions, I nonetheless write separately concerning the applicability of the Commission policy referenced in footnote 85 of the Board's decision regarding the effect of a possible or pending "general rulemaking" on the admissibility of a petitioner's contention associated with the subject matter of that rulemaking.

In connection with the 2013 Generic Environmental Impact Statement (GEIS) and 10 C.F.R. Part 51's Table B-1, on March 3, 2023, the agency published in the Federal Register a proposed rule that would provide a periodic update to the GEIS. See Renewing Nuclear Power Plant Operating Licenses—Environmental Review, 88 Fed. Reg. 13,329, 13,332 (Mar. 3, 2023). As it might be relevant to the issues in this proceeding, that proposed rule would continue the Table B-1 Category 1 listing for "Design-basis accidents" and change "Severe accidents" from a Category 2 to a Category 1 listing because all reactor facilities seeking an initial or subsequent operating license renewal would now have a completed severe accident mitigation alternatives (SAMA) analysis. See id. at 13,344, 13,355. Also under the proposed rule, the Table B-1 Category 1 listings for "Radiation exposures to plant workers," "Radiation exposures to the public," "Exposure of terrestrial organisms to radionuclides," and "Exposure of aquatic organisms to radionuclides" would remain unchanged. See id. at 13,337, 13,341, 13,344, 13,353, 13,354, 13,355. And regarding climate change-associated impacts, the Table B-1 Category 1 listing for "Surface water use conflicts (plants with once-through cooling systems)" would not change either. See id. at 13,336. The proposed rule would, however, incorporate into Table B-1 two new issues, one for "Greenhouse gas impacts on climate change" and one for "Climate change impacts on environmental resources," which would be Category 1 and Category 2 listings, respectively. See id. at 13,345, 13,356 (indicating NRC's post-2013 evaluation of climate change supports finding that greenhouse gas emission impacts

from continued facility operation during both an initial and subsequent license renewal term would be SMALL for all nuclear power plants, warranting a Category 1 listing, while the impacts of climate change on environmental resource conditions (e.g., precipitation, water availability, air and water temperature, sea level rise) that could also be affected by continued nuclear power plant operations require a Category 2 site-specific impact assessment); <u>see also id.</u> at 13,346, 13,351 (indicating that consistent with new Table B–1 Category 2 issue, proposed rule adds a new section 51.53(c)(3)(ii)(Q) requiring that a license renewal environmental report (ER) include an assessment of the effects of any changes in climate on environmental resource areas and plant operating mitigation measures designed to address climate change impacts).

As the Board observed in footnote 85, in its answer the NRC Staff noted that "the Commission has previously stated that 'it has long been agency policy that 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."" NRC Staff Answer at 11 n.54 (quoting <u>Duke Energy Corp.</u> (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 345 (1999)). The Staff also indicated that "[w]hile the Staff's views concerning the admissibility of the proffered contentions are based on the 2013 GEIS, to the extent Proposed Contentions 1 and 3 challenge findings that are the subject of the 2023 license renewal GEIS rulemaking, the Board should reject these contentions based on this Commission policy as well." <u>Id.</u> Subsequently, at the April 19, 2023 oral argument the Staff stated that Contention 4 would be a candidate for dismissal under this policy as well. <u>See</u> Tr. at 64–65 (Licon).

In light of the above description of the 2023 proposed rule's Table B-1 revisions, the most likely candidate for dismissal under the Staff-referenced Commission "general rulemaking" policy would be the portion of CFUR's Contention 4 that asserts, consistent with recently-released Council on Environmental Quality guidance, that the Vistra ER should include a discussion of the impacts of facility greenhouse gas emissions. <u>See</u> Amended Petition for Leave to Intervene and Request for Hearing of [CFUR] at 25 (Mar. 1, 2023). Although, as the

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Board described in section I.B.3 of its decision, while current Commission policy provides for such a plant-specific ER discussion, under the 2023 proposed rule this subject would become a Category 1 item such that no ER plant-specific discussion would be required and any adjudicatory challenge to an ER (or supplemental environmental impact statement) based on the need for further analysis of this subject would be precluded absent a timely filed section 2.335 waiver petition.

Looking at the cases cited by the Commission in its Oconee decision quoted by the Staff, it appears that the genesis of this "general rulemaking" policy goes back to a series of Atomic Safety and Licensing Appeal Board rulings in the early 1970s that culminated in the 1974 Douglas Point decision. See Potomac Elec. Power Co. (Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-218, 8 AEC 79 (1974). In Douglas Point, in considering the degree to which contentions regarding the environmental impacts of the uranium fuel cycle were precluded by an agency rulemaking that sought to address those impacts generically, the Appeal Board declared that a Commission determination about whether to entertain such a contention in the face of an ongoing rulemaking was no more than the application of the recognized administrative law principle that "the choice made between proceeding by general rule or by individual, ad hoc litigation is one that lies primarily within the informed discretion of the administrative agency." Id. at 84 (quoting NLRB v. Bell Aerospace Co., 416 U.S. 267, 294 (1974)). According to the Appeal Board, this left to the Commission "the flexibility to defer broad across-the-board issues presented in a multitude of individual adjudicatory proceedings and to consolidate them for consideration in a single rulemaking proceeding, while continuing in the interim to rely on individual adjudications to resolve remaining questions." Id.

In applying the Appeal Board's stated rational for this "general rulemaking" policy, the license renewal GEIS and Table B-1, as they currently exist and as they are proposed for revision, certainly constitute an agency determination to address "broad across-the-board"

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environment issues relating to 10 C.F.R. Part 54 license renewal applications so as to avoid a "multitude of individual adjudicatory proceedings." <u>Id.; see Calvert Cliffs 3 Nuclear Project, LLC, and Unistar Nuclear Operating Services, LLC</u> (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-14-8, 80 NRC 71, 79 & n.27 (2014) (ruling that because continued spent fuel storage GEIS was the subject of extensive public participation in the rulemaking process, generic environmental impact determinations regarding continued storage are excluded from litigation in individual adjudications). Nonetheless, the imposition of this "general rulemaking" policy in an instance like this also seems particularly fraught with procedural questions. For example, if under a proposed rule an issue such as whether an applicant needs a site-specific environmental greenhouse gas emissions analysis would become a Table B-1 Category 1 item, how and when would a petitioner be able to interpose a timely challenge regarding the need for such an analysis, including the proper procedure and timing for filing a section 2.335 waiver petition? <u>See</u> Tr. at 65–68 (Bollwerk/Licon).

With the Licensing Board's determination that the section 2.309(f)(1) contention admissibility standards clearly preclude accepting any of CFUR's contentions as litigable issues (including several instances in which CFUR failed to seek a section 2.335 waiver when challenging a Table B-1 Category 1 issue), it is unnecessary for the Board to consider or resolve this and other potentially troubling questions associated with the application of the Commission's "general rulemaking" policy as the grounds for finding any of CFUR's contentions inadmissible. Nonetheless, in light of the apparently indeterminate reach of this policy, the Commission may wish to offer some guidance on whether that policy remains viable and, if so, whether that policy should be subject to any constraints, particularly in instances when its application may present a petitioner with a quandary about how to submit a timely contention and an associated section 2.335 waiver petition.

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## UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

In the Matter of

VISTRA OPERATIONS COMPANY, LLC

(Comanche Peak Nuclear Power Plant, Units 1 and 2)

Docket Nos. 50-445-LR 50-446-LR

# CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing **MEMORANDUM AND ORDER (Denying Intervention Petition and Terminating Proceeding) (LBP-23-06)** have been served upon the following persons by Electronic Information Exchange.

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U.S. Nuclear Regulatory Commission Atomic Safety and Licensing Board Panel Mail Stop: T-3F23 Washington, DC 20555-0001 G. Paul Bollwerk. Chairman Dr. Sue H. Abreu, Administrative Judge Dr. Gary S. Arnold, Administrative Judge Noel M. Johnson, Law Clerk Emily G. Newman, Law Clerk Allison R. Wood, Law Clerk E-mail: Paul.Bollwerk@nrc.gov Sue.Abreu@nrc.gov Gary.Arnold@nrc.gov Noel.Johnson@nrc.gov Emily.Newman@nrc.gov Allison.Wood@nrc.gov

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Office of the Secretary of the Commission

Dated at Rockville, Maryland, this 7<sup>th</sup> day of June 2023.