

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

VIRGINIA ELECTRIC AND POWER COMPANY

(North Anna Power Station, Units 1 and 2)

Docket Nos. 50-338-SLR-2 and
50-339-SLR-2

**NRC STAFF ANSWER IN OPPOSITION TO PETITION FOR LEAVE TO INTERVENE
FILED BY BEYOND NUCLEAR INC. AND SIERRA CLUB, INC.**

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May 6, 2024

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INTRODUCTION

In accordance with 10 C.F.R. § 2.309(i), the staff of the U.S. Nuclear Regulatory Commission (NRC Staff) hereby files this Answer¹ in opposition to the hearing request and petition to intervene filed by Beyond Nuclear, Inc. and the Sierra Club, Inc. (the Petitioners) on March 28, 2024, as corrected on April 8, 2024, and amended on April 11, 2024.² In their

¹ This Answer is filed in accordance with the Briefing Schedule set forth in the Atomic Safety and Licensing Board's (Board) Memorandum and Order (Initial Prehearing Order (amended)) (Apr. 15, 2024), at 2. To assist the Board and parties in their review of the Petition and the Staff's Answer, the Staff is filing herewith a "Compare Document" in which the wording of the December 2023 Draft Environmental Impact Statement (DEIS) is compared to the wording of the August 2021 Draft Supplemental EIS (DSEIS) in redline/ strikeout format, for those portions of the DEIS and DSEIS that are relevant to the Petitioners' contentions. See "**Attachment 1**" ("Partial Comparison of (1) NRC Staff's December 2023 Site-Specific Draft Environmental Impact Statement (DEIS) to (2) NRC Staff's August 2021 Draft Supplemental Environmental Impact Statement (DSEIS) for Subsequent License Renewal of North Anna Units 1 and 2") (May 6, 2024).

² See (1) Hearing Request and Petition to Intervene by Beyond Nuclear and the Sierra Club (Mar. 28, 2024) (Petition) (ADAMS Accession No. ML20349D952); (2) Hearing Request and Petition to Intervene by Beyond Nuclear and the Sierra Club (Mar. 28, 2024, corrected Apr. 8, 2024) (Corrected Petition) (ML20349D952); and (3) Motion by Beyond Nuclear and the Sierra Club to Amend Their Contention 3 Regarding Failure to Consider Environmental Impacts of Climate Change (Apr. 11, 2024) (Amended Contention) (ML20349D952).

Petition, as corrected and amended, the Petitioners present three contentions that challenge Virginia Electric and Power Company's (Dominion or Applicant) application for subsequent license renewal (SLR) of North Anna Power Station, Units 1 and 2 (North Anna), as supplemented in September 2022.³ More specifically, the Petitioners' contentions purport to challenge the accident analyses discussed in the Staff's evaluation of environmental impacts set forth in the Staff's December 2023 site-specific Draft Environmental Impact Statement (DEIS) for North Anna SLR.⁴

For the reasons set forth below, the Staff submits that while the Petitioners have established their representational standing to intervene, they fail to demonstrate that at least one of their contentions is admissible for litigation in this proceeding, which the Commission directed in CLI-22-3 is "limited to contentions based on new information in the site-specific environmental impact statement."⁵ Specifically, the Petitioners' contentions (a) fail to contest the new information presented in the Staff's December 2023 DEIS, and are therefore beyond the limited scope of this proceeding, and (b) fail to satisfy the criteria governing the admissibility of contentions set forth in 10 C.F.R. § 2.309(f)(2). Accordingly, the Petition should be denied.

³ North Anna Power Station Units 1 and 2, Application for Subsequent License Renewal (August 2020) (ML20246G696) (SLRA). The SLRA included an environmental report that relied, in part, on the generic determinations for "Category 1" issues identified in 10 C.F.R. Part 51, Appendix B, Table B-1, and NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants," Rev. 1 (June 2013) (2013 GEIS) (ML13107A023) (ADAMS Package). See "Appendix E, Applicant's Environmental Report, Subsequent Operating License Renewal Stage, North Anna Power Station Units 1 and 2" (ML20246G698) (2020 ER). On September 28, 2022, following the Commission's issuance of CLI-22-3, the Applicant submitted a site-specific Environmental Report (ER) (ML22272A041), replacing its previous ER.

⁴ NUREG-1437, Supplement 7a, Second Renewal, "Site Specific Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 7a, Second Renewal, Regarding Subsequent License Renewal for North Anna Power Station Units 1 and 2, Draft Report for Comment" (Dec. 2023) (DEIS) (ML23339A047).

⁵ *Duke Energy Carolinas, LLC* (Oconee Nuclear Station, Units 1, 2 and 3), *Exelon Generation Co. LLC* (Peach Bottom Atomic Power Station, Units 1 and 2), *Florida Power & Light Co.* (Turkey Point Nuclear Generating Units 3 and 4), *NextEra Energy Point Beach, LLC* (Point Beach Nuclear Plant, Units 1 and 2), *Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), CLI-22-3, 95 NRC 40, 42 (2022).

In the following discussion, the Staff (1) briefly summarizes the background of this proceeding; (2) discusses the legal principles governing standing and analyzes the Petitioners' standing to intervene; (3) discusses the Commission's decision in CLI-22-3, and the legal principles governing contention admissibility; and (4) demonstrates that all three of the Petitioners' contentions should be rejected.

BACKGROUND

This proceeding concerns the application submitted by Dominion in August 2020 for the subsequent license renewal of Renewed Facility Operating License Nos. NPF-4 and NPF-7, to permit an additional 20 years of operation of North Anna Units 1 and 2 until April 1, 2058, and August 21, 2060, respectively.⁶ North Anna Units 1 and 2 are located on an 1,803-acre (730-hectare) site in Louisa County, Virginia, adjacent to Lake Anna in the northeastern portion of Virginia.⁷ The North Anna site is approximately 40 miles (64 km) northwest of Richmond, Virginia, and approximately seven miles (11 km) northeast of the town of Mineral, Virginia.⁸

Commencement of the North Anna SLR Proceeding

The NRC published a notice of receipt of the North Anna SLRA on September 21, 2020.⁹ On October 15, 2020, the NRC determined that the application was acceptable for docketing, and published a notice of opportunity to request a hearing and to petition for leave to intervene.¹⁰ On December 14, 2020, the Petitioners filed a timely request for hearing and

⁶ See SLRA at 1-7. The current renewed operating licenses for Units 1 and 2 were issued in March 2003 and expire at midnight on April 1, 2038, and August 21, 2040, respectively. See North Anna Power Station, Unit No. 1, Renewed Facility Operating License No. NPF-4 at 9 (ML052990145); North Anna Power Station, Unit No. 2, Renewed Facility Operating License No. NPF-7 (ML052990147); see also SLRA at 1-2.

⁷ ER at E-3-1. A portion of the site extends into Spotsylvania County, VA. *Id.*

⁸ *Id.* at E-3-1, E-3-2.

⁹ North Anna Power Station, Units 1 and 2, 85 Fed. Reg. 59,334 (Sep. 21, 2020).

¹⁰ North Anna Power Station, Units 1 and 2, 85 Fed. Reg. 65,438 (Oct. 15, 2020).

petition for leave to intervene, in which they proffered a single contention challenging the Environmental Report's (ER) failure to consider the environmental significance of a beyond-design-basis magnitude 5.8 earthquake that took place in Mineral, Virginia on August 23, 2011;¹¹ in addition, they filed a petition for waiver of certain rules in 10 C.F.R. Part 51 to allow them to challenge the NRC's generic determinations on "Category 1" environmental issues.¹²

An Atomic Safety and Licensing Board was established on December 21, 2020, to preside over the North Anna SLR proceeding.¹³ On January 8, 2021, the Applicant and Staff filed responses to the petitions to intervene and for a waiver,¹⁴ to which the Petitioners replied.¹⁵ Oral argument on the petitions and the admissibility of the Petitioners' contentions was held on February 4, 2021.¹⁶ On March 29, 2021, the Board issued LBP-21-4, in which it denied the Petitioners' intervention and waiver petitions and terminated the proceeding.¹⁷

The Petitioners then filed a petition for Commission review of the Board's decision,¹⁸ to which

¹¹ Petition at 13-14. For a summary of the North Anna design-basis earthquake and the NRC's oversight activities related to seismic conditions at North Anna following the 2011 Mineral Earthquake, see Staff Answer (Jan. 8, 2021) at 8-13. See also *Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), LBP-21-4, 93 NRC 179 (2021), *dismissed without prejudice*, CLI-22-3, 95 NRC 40 (2022).

¹² Hearing Request and Petition to Intervene by Beyond Nuclear, Sierra Club, and Alliance for Progressive Virginia and Petition for Waiver of 10 C.F.R. §§ 51.53(c)(3)(i), 51.71(d), and 51.95(c)(1), to Allow Consideration of Category 1 NEPA Issues" (Dec. 20, 2020) (ML20349D952).

¹³ *Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), Establishment of Atomic Safety and Licensing Board (Dec. 21, 2020) (ML20356A175).

¹⁴ See Applicant's Answer Opposing Request for Hearing, Petition to Intervene, and Petition for Waiver Submitted by Beyond Nuclear, Sierra Club, and Alliance for Progressive Virginia, (Jan. 8, 2021) NRC Staff Answer to Hearing Request, Petition to Intervene, and Petition for Waiver Filed by Beyond Nuclear, Sierra Club, and Alliance for Progressive Virginia (Jan. 8, 2021) (Staff Answer). Neither the Applicant nor the Staff opposed the Petitioners' standing to intervene.

¹⁵ Reply by Beyond Nuclear, Sierra Club, and Alliance for Progressive Virginia to Oppositions to Hearing Request and Waiver Petition, (Jan. 15, 2021).

¹⁶ See *Virginia Elec. & Power Co.* (North Anna Power Station, Units 1 and 2), Official Transcript of Proceedings, at 1-98 (Feb. 4, 2021); see also Licensing Board Memorandum and Order (adopting Transcript Corrections for Initial Prehearing Conference) (Feb. 25, 2021) (unpublished).

¹⁷ *North Anna*, LBP-21-4, 93 NRC 179 (2021).

¹⁸ Brief on Appeal of LBP-21-4 by Beyond Nuclear, Sierra Club, and Alliance for Progressive Virginia (Apr. 23, 2021).

the Applicant and Staff responded;¹⁹ the Petitioners later filed a motion to reopen the proceeding and to amend the contention that was rejected in LBP-21-4, to challenge the August 2021 Draft SEIS.²⁰

Issuance of the Commission's February 2022 Decisions

On February 24, 2022, the Commission issued two seminal decisions regarding the environmental impacts of subsequent license renewal. First, in the *Turkey Point* proceeding, the Commission issued CLI-22-2.²¹ In that decision, the Commission reversed its previous decision in CLI-20-3,²² and held that 10 C.F.R. § 51.53(c)(3) does not apply to SLR applications; that the 2013 GEIS and Table B-1 to 10 C.F.R. Part 51, Appendix B, did not address SLR; and that the Staff's environmental evaluation of the Turkey Point SLR application was therefore incomplete.²³

¹⁹ Applicants' Brief in Opposition to Appeal of LBP-21-4 by Beyond Nuclear, Sierra Club, and Alliance for Progressive Virginia (May 18, 2021) (ML21138A894); NRC Staff's Brief in Response to Beyond Nuclear, Sierra Club, and Alliance for Progressive Virginia's Appeal of LBP-21-4 (May 18, 2021) (ML21138A942). On May 25, 2021, the Petitioners filed a motion for leave to reply to the Applicant's and Staff's briefs on appeal; the Staff and Applicant filed answers in opposition to that motion on May 28 and June 1, 2021, respectively.

²⁰ Motion to Amend Contention Out of Time and Motion to Re-Open the Record by Beyond Nuclear, Sierra Club, and Alliance for Progressive Virginia (Sept. 29, 2021)

²¹ *Florida Power & Light Co.* (Turkey Point Nuclear Generating Units 3 and 4), CLI-22-2, 95 NRC 26 (2022) (majority decision). Recognizing that the Staff had already issued the subsequent renewed licenses for Turkey Point, which had become immediately effective upon issuance, the Commission left the licenses in place, "but with shortened terms to match the end dates of the previous licenses . . . until completion of the NEPA analysis." Commissioner Wright dissented from the majority's decision, except with respect to "the status of the licenses and the path forward to resolve the purported NEPA deficiency." *Id.* at 38.

²² *Florida Power & Light Co.* (Turkey Point Nuclear Generating Units 3 and 4), CLI-20-3, 91 NRC 133 (2020), *rev'd*, CLI-22-2, 95 NRC 26 (2022). In CLI-20-3, the Commission held that (1) the environmental impacts of SLR were addressed by the 2013 GEIS and 10 CFR Part 51, Appendix B, Table B-1, and that the Staff may rely on the 2013 GEIS and Appendix B, Table B-1, when evaluating the environmental impacts of Category 1 issues for SLR, absent new and significant information that would change those conclusions, and (2) any challenge to Category 1 issues would require the filing of a rule waiver petition. Commissioner Baran dissented from the decision. *See id.* at 159-65.

²³ *Turkey Point*, CLI-22-2, 95 NRC at 27, 31.

Second, the Commission issued CLI-22-3 in the *North Anna, Oconee, Peach Bottom, Point Beach, and Turkey Point* SLR proceedings.²⁴ In CLI-22-3, the Commission (a) stated that it will not issue any further licenses for an SLR term until the Staff has completed “an adequate NEPA review for each application;”²⁵ (b) directed the Staff “to review and update the 2013 GEIS so that it covers operation during the subsequent license renewal period;” (c) directed the Staff to evaluate Category 1 impacts on a site-specific basis in its EISs, pending the issuance of a revised GEIS; and (d) dismissed the environmental contentions, motions and appeals that were pending in those proceedings.²⁶

In CLI-22-3, the Commission provided two possible paths forward for the North Anna and other SLR proceedings. The Commission observed that “the most efficient way to proceed is to direct the Staff to review and update the 2013 GEIS,” and to then update the plants’ EISs to ensure that the environmental impacts of SLR are considered. But the Commission also provided an alternative to waiting for the update of the 2013 GEIS: it afforded applicants an opportunity to submit a revised environmental report providing information on the site-specific environmental impacts of SLR for their plants and stated that “[a]fter each site-specific review is complete, a new notice of opportunity for hearing, limited to

²⁴ *Duke Energy Carolinas, LLC* (Oconee Nuclear Station, Units 1, 2, and 3), *Exelon Generation Co., LLC* (Peach Bottom Atomic Power Station, Units 2 and 3), *Florida Power & Light Co.* (Turkey Point Nuclear Generating Units 3 and 4), *NextEra Energy Point Beach, LLC* (Point Beach Nuclear Plant, Units 1 and 2), *Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), CLI-22-3, 95 NRC 40 (2022).

²⁵ *Id.*, 95 NRC at 41. In addition to issuing CLI-22-2 and CLI-22-3, the Commission issued CLI-22-4 in which it ruled on certain matters in the Peach Bottom SLR proceeding. *Exelon Generation Co., LLC* (Peach Bottom Atomic Power Station, Units 2 and 3), CLI-22-4, 95 NRC 44 (2022). Finally, the Commission issued a Staff Requirements Memorandum (SRM), instructing the Staff to submit a rulemaking plan to update 10 C.F.R. Part 51 and the 2013 LR GEIS, to address the environmental impacts of subsequent license renewal. Staff Requirements--SECY-21-0066 —“Rulemaking Plan for Renewing Nuclear Power Plant Operating Licenses – Environmental Review (RIN 3150-AK32; NRC-2018-0296)” (Feb. 24, 2022) (ML22053A308).

²⁶ The Commission observed that “because the NRC will be updating the GEIS and site-specific environmental analyses, it would be inefficient to continue litigating any of the pending environmental contentions based on environmental information that may change.” *Id.*, 95 NRC at 42 n.6.

contentions based on new information in the site-specific environmental impact statement, will be issued.²⁷

The NRC Staff's Environmental Evaluations

On August 25, 2021, while the petition for review of LBP-21-4 was pending before the Commission, the Staff published a Notice in the *Federal Register*,²⁸ informing members of the public that it had issued for comment a draft supplement (Draft SEIS) to the 2013 GEIS,²⁹ evaluating the environmental impacts of SLR for North Anna Units 1 and 2.³⁰ Consistent with the Staff's prior practice, the Draft SEIS relied upon the determinations for Category 1 generic issues contained in the 2013 GEIS, evaluated any new and significant information that was identified on Category 1 issues, and evaluated the site-specific ("Category 2") impacts of SLR for North Anna.

As discussed above, the Commission issued CLI-22-2 and CLI-22-3 on February 24, 2022. On September 28, 2022, the Applicant submitted a site-specific ER, replacing its previous ER for North Anna SLR.³¹ In accordance with CLI-22-3, the Staff reviewed the Applicant's site-specific ER and other relevant information and, upon completing that review, published a site-specific Draft Environmental Impact Statement (DEIS) for public

²⁷ *Id.*, 95 NRC at 42 (emphasis added).

²⁸ Virginia Electric and Power Company; Dominion Energy Virginia; North Anna Power Station, Unit Nos. 1 and 2, Draft Supplemental Environmental Impact Statement; Request for Comment, 86 Fed. Reg. 47,525 (Aug. 25, 2021).

²⁹ NUREG-1437, Rev. 1, Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Final Report, (June 2013) (2013 GEIS) (ML13107A023) (ADAMS Package). The 2013 GEIS revised the previous GEIS, issued in 1996. See NUREG-1437, Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Main Report, Final Report (May 1996) (1996 GEIS) (ML040690705, ML040690738).

³⁰ NUREG-1437, Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Draft Supplement 7, Second Renewal, Draft Report for Comment (Draft SEIS) (ML21228A084).

³¹ See note 2, *supra*.

comment in December 2023³² and a notice of opportunity for hearing in accordance with CLI-22-3.³³ The December 2023 DEIS presented a site-specific evaluation of all environmental issues that had been treated as generic “Category 1” issues in the 2013 GEIS, as the Commission had directed. In addition, in the interest of consolidating all of the Staff’s site-specific evaluations of North Anna SLR issues in a single document, the DEIS also included the Staff’s previous evaluations of “Category 2” issues that had previously appeared in the 2021 DSEIS, and the Staff updated its previous evaluations on a site-specific basis (including responses to public comments on the August 2021 DSEIS).³⁴

DISCUSSION

Under the Commission’s rules of practice, any person whose interest may be affected by a proceeding and who desires to participate as a party must file a written request for a hearing. This request must include the contentions that the person seeks to have litigated in the hearing.³⁵ The presiding officer will grant the hearing request if they determine that the requestor has standing under 10 C.F.R. § 2.309(d) and has proposed at least one admissible

³² NUREG-1437, Supplement 7a, Second Renewal, “Site Specific Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 7a, Second Renewal, Regarding Subsequent License Renewal for North Anna Power Station Units 1 and 2, Draft Report for Comment” (Dec. 2023) (DEIS) (ML23339A047).

³³ The Commission subsequently upheld the Staff’s determination to publish the notice of opportunity for hearing upon issuing the draft site-specific EIS. The Commission found that the Staff’s view that issuance of the draft EIS marked “the point of completion of its site-specific review,” was a “reasonable interpretation of the Commission’s direction in CLI-22-3,” that “[a]fter each site-specific review is complete, a new notice of opportunity for hearing--limited to contentions based on new information in the site-specific environmental impact statement--will be issued.” *Florida Power & Light Co.* (Turkey Point Nuclear Generating Units 3 and 4), CLI-24-1, 99 NRC ____, ____ (slip op. at 2) (Mar. 7, 2024); *accord*, *Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), Order of the Secretary (Mar. 13, 2024) (denying Petitioners’ motions to withdraw the notice of opportunity for hearing and suspend the deadline for filing petitions to intervene).

³⁴ The revisions made to the 2021 DSEIS, as relevant to the Petitioners’ contentions, are reflected in the redline/strikeout revisions shown in Attachment 1 hereto. While the December 2023 DEIS reproduced the previous site-specific evaluations from the August 2021 DSEIS, those evaluations do not constitute “new information” in the DEIS, and therefore do not fall within the limited scope of this proceeding established in CLI-22-3.

³⁵ 10 C.F.R. § 2.309(a).

contention that meets the requirements in 10 C.F.R. § 2.309(f).³⁶ As discussed below, the Petitioners have demonstrated standing to intervene but have not proposed at least one admissible contention. Therefore, their hearing request and petition to intervene should be denied.

I. Standing to Intervene

A. Applicable Legal Requirements

Under the general standing requirements set forth in 10 C.F.R. § 2.309(d)(1), a petitioner must state:

- (i) The name, address, and telephone number of the petitioner;
- (ii) The nature of the petitioner's right under the Act to be made a party to the proceeding;
- (iii) The nature and extent of the petitioner's property, financial, or other interest in the proceeding; and
- (iv) The possible effect of any decision or order that may be issued in the proceeding on the petitioner's interest.³⁷

In ruling on a petition, the presiding officer "must determine, among other things, whether the petitioner has an interest affected by the proceeding considering the factors enumerated in" § 2.309(d)(1).³⁸

As the Commission has observed, the NRC has "long applied contemporaneous 'judicial concepts of standing,'" which require "an actual or threatened injury that is fairly traceable to the challenged action, is likely to be redressed by a favorable decision, and arguably falls within the

³⁶ Id.

³⁷ 10 C.F.R. § 2.309(d)(1).

³⁸ 10 C.F.R. § 2.309(d)(2). The presiding officer may also consider a request for discretionary intervention when a petitioner is determined to lack standing to intervene as a matter of right, where a sufficient showing is made with respect to the factors enumerated in 10 C.F.R. § 2.309(e).

‘zone of interests’ protected by the Atomic Energy Act of 1954, as amended.”³⁹ The “injury ‘must be both concrete and particularized, not conjectural, or hypothetical.’”⁴⁰ Further, at “the heart of the standing inquiry is whether the petitioner has ‘alleged such a personal stake in the outcome of the controversy’ as to demonstrate that a concrete adverseness exists [that] will sharpen the presentation of issues.”⁴¹

While the Commission generally requires the elements of standing to be pled with specificity, standing to intervene has been found to exist in construction permit and operating license proceedings based upon a “proximity” presumption.⁴² In such proceedings, standing is presumed for persons who reside in, or have frequent contact with, the zone of possible harm around the nuclear reactor.⁴³ In practice, the Commission has found standing based on the proximity presumption for persons who reside within approximately 50 miles (80 km) of the facility.⁴⁴ As the Commission noted, licensing boards have employed the proximity presumption to establish standing to intervene in reactor operating license renewal proceedings.⁴⁵

An organization seeking to intervene “must satisfy the same standing requirements as an individual seeking to intervene.”⁴⁶ The organization may establish standing based on organizational standing (showing that its own organizational interests could be adversely

³⁹ *El Paso Electric Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-20-7, 91 NRC 225, 230 (2020) (quoting *Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Servs., LLC* (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-09-20, 70 NRC 911, 915 (2009)).

⁴⁰ *Palo Verde*, CLI-20-7, 91 NRC at 230 (quoting *Sequoyah Fuels Corp. and General Atomics (Gore, Oklahoma Site)*, CLI-94-12, 40 NRC 64, 72 (1994)).

⁴¹ *Gore, Oklahoma Site*, CLI-94-12, 40 NRC at 71 (citing *Duke Power Co. v. Carolina Environmental Study Group, Inc.*, 438 U.S. 59, 72 (1978) and quoting *Baker v. Carr*, 369 U.S. 186, 204 (1962)).

⁴² See, e.g., *Calvert Cliffs*, CLI-09-20, 70 NRC at 915-17 (quoting *Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Unit 1), CLI-93-21, 38 NRC 87, 92 (1993)).

⁴³ *Calvert Cliffs*, CLI-09-20, 70 NRC at 915.

⁴⁴ *Id.* at 915-16.

⁴⁵ *Id.*, at 915 n.15 (noting that the Board in *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 150, *aff'd on other grounds*, CLI-01-17, 54 NRC 3 (2001) was “applying [the] proximity presumption in [a] reactor operating license renewal proceeding”).

⁴⁶ *Palo Verde*, CLI-20-7, 91 NRC at 231.

affected by the proceeding), or representational standing (based on the standing of its members). Where an organization seeks to establish representational standing, the organization must demonstrate that “at least one of its members may be affected” by the proceeding and these members, who must be identified by name, have authorized the organization to represent them and to request a hearing on their behalf.⁴⁷ Further, the “member seeking representation must qualify for standing in [their] own right; the interests that the representative organization seeks to protect must be germane to its purpose; and neither the asserted claim nor the requested relief must require an individual member to participate in the organization’s legal action.”⁴⁸

B. The Petitioners Have Established Representational Standing to Intervene.

In their Petition, Petitioner Beyond Nuclear states, in part, that it is a nonprofit membership organization that aims to educate and activate the public about the connections between nuclear power and nuclear weapons and the need to abolish both to protect the public health and safety, prevent environmental harms, and safeguard the future.⁴⁹ It further states that for more than 15 years, it has worked toward its mission by regularly intervening in NRC licensing, relicensing, and other proceedings related to nuclear safety matters.⁵⁰ Similarly, the Sierra Club states, in part, that it is a national environmental organization with more than 3.8 million members, whose purposes are to explore, enjoy and protect the wild places of the earth; to practice and promote the responsible uses of the earth’s ecosystems and resources; to

⁴⁷ *FirstEnergy Nuclear Operating Co. and FirstEnergy Nuclear Generation, LLC* (Beaver Valley Power Station, Units 1 and 2; Davis-Besse Nuclear Power Station, Unit 1; Perry Nuclear Power Plant, Unit 1), CLI-20-5, 91 NRC 214, 220 (2020); *Consumers Energy Co.* (Palisades Nuclear Power Plant), CLI-07-18, 65 NRC 399, 409-10 (2007).

⁴⁸ *Beaver Valley*, CLI-20-5, 91 NRC at 220 (citing *Entergy Nuclear Operations, Inc. and Entergy Nuclear Palisades, LLC* (Palisades Nuclear Plant), CLI-08-19, 68 NRC 251, 258 (2008); *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 323 (1999).

⁴⁹ Corrected Petition at 4.

⁵⁰ *Id.*

protect and restore the quality of the natural and human environment; and to use all lawful means to carry out these objectives.⁵¹

Beyond Nuclear and the Sierra Club seek to establish representational standing to intervene, based on the individual standing of their respective members. In support of the Petition, Beyond Nuclear submitted the Declarations of three of its members (Glen Besa, Erica Gray, and Jerry Rosenthal),⁵² while the Sierra Club submitted the Declarations of four members (Barbara Cruickshank, John Cruickshank, Diana Johnson, and William J. Johnson).⁵³ In their Declarations, the Declarants provided their home addresses, and stated that they live within the North Anna 50-mile emergency planning Ingestion Pathway Zone. Further, they stated their belief that continued operations of North Anna for 20 years beyond the current license expiration dates could result in a severe nuclear accident, causing death, injury, illness, dislocation, and economic damage to the Declarants and their families, as well as devastating environmental damage. The Declarants also stated that they are members of their respective organizations and that they each authorize their respective organizations to represent their interests in this proceeding.⁵⁴

Based upon its review of the Petitioners' Declarations, the Staff is satisfied that Beyond Nuclear and the Sierra Club have established representational standing to intervene in this proceeding. Each Petitioner provided the name and address of at least one of its members, who stated that they are concerned about the environmental impacts of continued operations of North Anna Units 1 and 2. The Declarations demonstrate that these members reside within 50 miles of the facility, and that they authorize their respective organizations to represent their interests in this proceeding. As such, each of the Petitioners has shown that at least one of its

⁵¹ *Id.*

⁵² Petition, Attachments 2A, 2B and 2C.

⁵³ Petition, Attachments 2D, 2E, 2F, and 2G.

⁵⁴ Petition, Attachments 2A – 2G.

members would have standing to intervene in their own right, based on the proximity presumption, and that those members have authorized their organizations to represent their interests here. Accordingly, each of the Petitioners has satisfactorily established its representational standing to intervene in the proceeding under the proximity presumption.⁵⁵

II. The Petitioners' Contentions Do Not Challenge New Information in the 2023 DEIS and Are Therefore Beyond the Limited Scope of This Proceeding.

As discussed above,⁵⁶ this second proceeding for the subsequent license renewal of North Anna Units 1 and 2 was initiated by the Staff's publication of a Notice in the *Federal Register* on January 8, 2024, stating that the Staff had issued a draft site-specific EIS (DEIS) for comment,⁵⁷ and offering members of the public a limited opportunity to request a hearing. The Notice stated that the DEIS "supersedes" the draft supplemental EIS (DSEIS) that was published in August 2021 as a supplement to the GEIS,⁵⁸ and observed that the DEIS:

. . . includes the NRC staff's site-specific evaluation of the environmental impacts of subsequent license renewal (SLR) for North Anna for each of the environmental issues that were previously dispositioned as Category 1 issues (generic to all or a distinct subset of nuclear power plants) in the August 2021 DSEIS consistent with the list of Category 1 issues in [10 C.F.R. Part 51, Appendix B, Table B-1, and the 2013 GEIS]. The DEIS also considers whether there is significant new information that would change the NRC staff's conclusions concerning Category 2 issues (specific to individual nuclear power plants) in the August 2021 DSEIS.⁵⁹

⁵⁵ The Board in the prior North Anna SLR proceeding similarly found that the Petitioners had established representational standing to intervene. See LBP-21-4, 93 NRC at 197. Cf. *Palo Verde*, CLI-20-07, 91 NRC at 231-32; see also, *Calvert Cliffs*, CLI-09-20, 70 NRC at 915.

⁵⁶ See discussion *supra* at 4-5.

⁵⁷ NUREG-1437, Supplement 7a, Second Renewal, "Site Specific Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 7a, Second Renewal, Regarding Subsequent License Renewal for North Anna Power Station Units 1 and 2, Draft Report for Comment" (Dec. 2023) (DEIS) (ML23339A047).

⁵⁸ *Id.* at 961.

⁵⁹ *Id.* (emphasis added).

Further, the Notice stated that the Staff had prepared the DEIS in accordance with the Commission's decisions in CLI-22-2 and CLI-22-3, and offered members of the public a limited opportunity to request a hearing, stating as follows:

As the Commission directed in CLI-22-03, a new notice of opportunity to request a hearing and petition for leave to intervene—limited to contentions based on new information discussed in the DEIS—is being issued.⁶⁰

Consistent with the Commission's instructions in CLI-22-3, the *Federal Register* Notice provided an opportunity for hearing that was limited to "new information discussed in the DEIS"; the Notice did not provide an opportunity for hearing on any previously available information or any evaluations that were contained in the previous (August 2021) DSEIS.

Indeed, the Petitioners recognize that the current opportunity to request a hearing is limited to new information contained in the December 2023 DEIS. In this regard, they state that they request "a hearing on new information discussed in the Draft Supplemental [sic] Environmental Impact Statement ("Draft SEIS" [sic]) – citing the December 2023 DEIS.⁶¹ However, the Petitioners fail to recognize that the analyses and conclusions they seek to challenge were actually presented in the August 2021 DSEIS as part of the Staff's site-specific analyses of severe accident mitigation alternatives (SAMAs), and those discussions were then reproduced in the 2023 DEIS in the interest of collecting, in a single document, all of the Staff's site-specific evaluations of the impacts of SLR for North Anna. This is readily apparent by comparing the 2021 DSEIS with the 2023 DEIS.⁶² Thus, the matters raised in the Petitioners' contentions do not constitute "new information discussed in the DEIS" and are therefore beyond the limited scope of this proceeding. Accordingly, the Petitioners' contentions should be

⁶⁰ *Id.* at 961-62 (emphasis added).

⁶¹ Corrected Petition at 1 (emphasis added).

⁶² See, e.g., Attachment 1 hereto, *passim*.

rejected as beyond the permissible scope of contentions in this proceeding as set forth in the January 2024 *Federal Register* Notice and CLI-22-3.⁶³

III. The Petitioners Have Failed to Present at Least One Admissible Contention as Required by 10 C.F.R. §§ 2.309(a) and (f)(1).

A. Requirements for Contention Admissibility

The requirements governing the admissibility of contentions are set forth in 10 C.F.R. § 2.309(f)(1)-(2). Specifically, a petitioner must “set forth with particularity” the contentions that the petitioner seeks to raise and, for each contention, the petitioner must:

- (i) Provide a specific statement of the issue of law or fact to be raised or controverted;
- (ii) Provide a brief explanation of the basis for the contention;⁶⁴
- (iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;⁶⁵
- (iv) Demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action involved in the proceeding;⁶⁶

⁶³ The Staff notes that the Board in *Florida Power & Light Co. (Turkey Point Nuclear Generating Units 3 and 4)*, LBP-24-03, 99 NRC ___ (slip op. at 14-15) (Mar. 7, 2024) recently ruled that a petitioner’s proposed contentions were within the scope of the second *Turkey Point* SLR proceeding, despite having referenced pre-existing information and having repeated its arguments made in the first SLR proceeding, since “in both form and substance” the contentions were based on the Draft EIS, and the petitioner made clear that “it remains unsatisfied with the Staff’s treatment of these issues in the Draft SEIS.” The Staff submits that the Board’s decision in LBP-24-03 was erroneous, in that the Commission had clearly ruled in CLI-22-3 that the scope of a second SLR proceeding is to be “limited” to new information presented in the Staff’s EIS. Further, even if the *Turkey Point* Board’s ruling on scope was correct, its ruling is inapplicable here, where the Petitioners make only generalized claims and do not challenge any particular information or analysis presented in the December 2023 site-specific DEIS.

⁶⁴ Contentions cannot be based on speculation and must have “some reasonably specific factual or legal basis.” *Entergy Nuclear Vt. Yankee, LLC and Entergy Nuclear Operations, Inc.*, (Vermont Yankee Nuclear Power Station), CLI-15-20, 82 NRC 211, 221 (2015).

⁶⁵ The scope of the proceeding is defined by the Commission in its initial hearing notice and order referring the proceeding to the licensing board. See *Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4)*, CLI-00-23, 52 NRC 327, 329 (2000). As a consequence, any contention that falls outside the specified scope of the proceeding must be rejected. See *Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2)*, CLI-11-11, 74 NRC 427, 435-36 (2011).

⁶⁶ “A dispute at issue is material if its resolution would make a difference in the outcome of the licensing proceeding.” *Holtec International (Hi-STORE Consolidated Interim Storage Facility)*, CLI-20-4, 91 NRC 167, 190 (2020) (internal quotations omitted).

- (v) Provide a concise statement of the alleged facts or expert opinions that support the petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the petitioner intends to rely;⁶⁷ and
- (vi) Provide sufficient information to show that a genuine dispute exists with the applicant or licensee on a material issue of law or fact.⁶⁸

Further, "contentions must be based on documents or other information available at the time the petition is to be filed, such as the application, supporting safety analysis report, environmental report or other supporting document filed by an applicant or licensee, or otherwise available to a petitioner."⁶⁹

The NRC's regulations governing contention admissibility are intended to "focus litigation on concrete issues and result in a clearer and more focused record for decision."⁷⁰ The

⁶⁷ The petitioner is obliged to present the facts and expert opinions necessary to support its contention. See *USEC Inc. (American Centrifuge Plant)*, CLI-06-10, 63 NRC 451, 457 (2006) (it is the petitioner's responsibility to satisfy the basic contention admissibility requirements; boards should not have to search through a petition to "uncover" arguments and support for a contention, and "may not simply 'infer' unarticulated bases of contentions"); see also *Arizona Public Service Co., et. al. (Palo Verde Nuclear Generating Station, Units 1, 2 and 3)*, CLI-91-12, 34 NRC 149, 155 (1991).

⁶⁸ This information must include references to specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief. Further, to show that a genuine dispute exists the contention "must include references to specific portions of the application that the petitioner disputes and the supporting reasons for each dispute" and if the petitioner believes that the application fails to contain information on a relevant matter, then "the contention must identify each failure and the supporting reasons for the petitioner's belief." *Exelon Generation Co., LLC. (Peach Bottom Atomic Power Station, Units 2 and 3)*, CLI-20-11, 92 NRC 335, 342 (2020).

⁶⁹ 10 C.F.R. § 2.309(f)(2). As a general rule, for issues arising under the National Environmental Policy Act, "the petitioner shall file contentions based on the applicant's environmental report. *Id.* This general rule is not applicable here, as the Commission directed in CLI-22-3 that contentions are to be filed upon completion of the Staff's environmental evaluation.

⁷⁰ See, e.g., *Southern Nuclear Operating Co. Inc. (Vogtle Electric Generating Plant, Unit 3) LBP-20-8*, 92 NRC 28, 46 (2020) (quoting "Changes to Adjudicatory Process," 69 Fed. Reg. 2182, 2202 (Jan. 14, 2004)); *Crow Butte Resources, Inc. (In Situ Leach Facility, Crawford, NE)*, LBP-15-15, 81 NRC 598, 601 (2015).

Commission has explained that the contention admissibility rules are “strict by design.”⁷¹

“Failure to satisfy any of the six pleading requirements renders a contention inadmissible.”⁷² As noted above, the rules require “a clear statement as to the basis for the contentions and the submission of ... supporting information and references to specific documents and sources that establish the validity of the contention.”⁷³

Although a petitioner does not have to prove its contention at the admissibility stage,⁷⁴ the contention admissibility standards are meant to afford hearings only to those who “proffer at least some minimal factual and legal foundation in support of their contentions.”⁷⁵ The petitioner must provide some support for the contention, either in the form of facts or expert testimony,

⁷¹ *Entergy Nuclear Operations, Inc.* (Indian Point, Unit 2) CLI-16-5, 83 NRC 131, 136 (2016) (citing *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001) and *South Carolina Electric & Gas Co. and South Carolina Public Service Authority* (Virgil C. Summer Nuclear Station, Units 2 and 3), CLI-10-1, 71 NRC 1, 7 (2010)). The Commission has stated that it “should not have to expend resources to support the hearing process unless there is an issue that is appropriate for, and susceptible to, resolution in an NRC hearing.” Changes to Adjudicatory Process, 69 Fed. Reg. 2182, 2202 (Jan. 14, 2004).

⁷² *Entergy Nuclear Operations, Inc.* (Indian Point, Unit 2) CLI-16-5, 83 NRC 131, 136 (2016); *see also Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334-35 (1999) (the heightened contention admissibility rules are designed to preclude contentions “based on little more than speculation”). The requirements are intended, among other things, to ensure that a petitioner reviews the application and supporting documents prior to filing contentions; that contentions are supported by at least some facts or expert opinion known to the petitioner at the time of filing; and that there exists a genuine dispute before a contention is admitted for litigation, to avoid the practice of filing contentions that lack any factual support and seeking to flesh them out later through discovery. *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), LBP-91-35, 34 NRC 163, 167-68 (1991).

⁷³ *AmerGen Energy Co.* (Oyster Creek Nuclear Generating Station), CLI-06-24, 64 NRC 111, 118-19 (2006)

⁷⁴ *Private Fuel Storage L.L.C.* (Independent Spent Fuel Storage Installation), CLI-04-22, 60 NRC 125, 139 (2004).

⁷⁵ *Duke Energy Corporation* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334.

and failure to do so requires that the contention be rejected.⁷⁶ Any supporting material provided by the petitioner is subject to scrutiny by the presiding officer,⁷⁷ who must confirm that the proffered material provides adequate support for the contention.⁷⁸ The Commission has long held that the “basis” requirements are intended to: (1) ensure that the contention raises a matter appropriate for adjudication in a particular proceeding; (2) establish a sufficient foundation for the contention to warrant further inquiry into the assertion; and (3) put other parties sufficiently on notice of the issues to be litigated.⁷⁹

If a petitioner neglects to provide the requisite support for its contentions, then the presiding officer should not make assumptions of fact that favor the petitioner or search for or supply information that is lacking.⁸⁰ Moreover, providing any material or document as a basis for a contention without explaining its significance is grounds for the presiding officer to reject the contention.⁸¹ In sum, the information, facts, and expert opinions provided by the petitioner

⁷⁶ *Arizona Public Service Co., et. al.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155 (1991); *accord, Entergy Nuclear Operations, Inc.* (Indian Point, Unit 2) CLI-16-5, 83 NRC 131, 136 (2016). See “Rules of Practice for Domestic Licensing Proceedings—Procedural Changes in the Hearing Process,” 54 Fed. Reg. at 33,170 (“This requirement does not call upon the intervenor to make its case at this stage of the proceeding, but rather to indicate what facts or expert opinions, be it one fact or opinion or many, of which it is aware at that point in time [that] provide the basis for its contention.”).

⁷⁷ See *Vermont Yankee Nuclear Power Co.* (Vermont Yankee Nuclear Power Station), ALAB-919, 30 NRC 29, 48 (1989), *vacated in part on other grounds and remanded*, CLI-90-4, 31 NRC 333 (1990); see also *Tennessee Valley Authority* (Bellefonte Nuclear Plant, Units 1 and 2), LBP-10-7, 71 NRC 391, 421 (2010).

⁷⁸ See *Vermont Yankee Nuclear Power Corporation*, (Vermont Yankee Nuclear Power Station), ALAB-919, 30 NRC 29, 48 (1989); see also *Tennessee Valley Authority* (Bellefonte Nuclear Plant, Units 1 and 2), LBP-10-7, 71 NRC 391, 421 (2010).

⁷⁹ *Duke Energy Corporation* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 328; see also *Philadelphia Electric Co.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20-21 (1974).

⁸⁰ See *USEC Inc.* (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 457 (2006).

⁸¹ See *Fansteel, Inc.* (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 205 (2003).

are examined by the presiding officer to determine whether they provide adequate support for the proffered contentions.⁸²

The Commission has held that, absent a waiver, a contention must be rejected if it challenges applicable statutory requirements, regulations, or the basic structure of the Commission's regulatory process.⁸³ Contentions that are nothing more than a generalization regarding the petitioner's view of what applicable policies ought to be must also be rejected.⁸⁴ Further, attempts to advocate for requirements stricter than those imposed by regulation constitute collateral attacks on the NRC's rules and are therefore inadmissible.⁸⁵

B. Requirements for Environmental Review of License Renewal Applications

Section 102(2)(C) of the National Environmental Policy Act of 1969, as amended (NEPA), 42 U.S.C. § 4321 *et seq.*⁸⁶, requires federal agencies to include in any recommendation or report on proposals for legislation and other major federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on --

- (i) The reasonably foreseeable environmental impact of the proposed agency action;
- (ii) Any reasonably foreseeable adverse environmental effects which cannot be avoided should the proposal be implemented;

⁸² *American Centrifuge Plant*, CLI-06-10, 63 NRC at 457; see *Tennessee Valley Authority* (Bellefonte Nuclear Plant, Units 1 and 2), LBP-10-7, 71 NRC 391, 421 (2010).

⁸³ As set forth in 10 C.F.R. § 2.335(a), "no rule or regulation of the Commission ... is subject to attack ... in any adjudicatory proceeding," in the absence of a waiver petition granted by the Commission. Further, any contention that amounts to an attack on applicable statutory requirements or represents a challenge to the basic structure of the Commission's regulatory process must be rejected. *Dominion Nuclear Conn.* (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 58 NRC 207, 218 (2003).

⁸⁴ *Dominion Nuclear Conn.* (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 58 NRC 207, 218 (2003).

⁸⁵ *NextEra Energy Seabrook, LLC* (Seabrook Station, Unit 1), CLI-12-5, 75 NRC 301, 315 (2012) (citations omitted); see *Philadelphia Electric Co.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20-21 (1974) (explaining that a contention that seeks to raise an issue that is not proper for adjudication in the proceeding or that does not apply to the facility in question, or seeks to raise an issue that is not concrete or litigable must also be rejected).

⁸⁶ NEPA, Section 102(2)(C), 42 U.S.C. § 4332, as amended by the Fiscal Responsibility Act of 2023.

- (iii) A reasonable range of alternatives to the proposed agency action, including an analysis of any negative environmental impacts of not implementing the proposed agency action in the case of a no action alternative, that are technically and economically feasible, and meet the purpose and need of the proposal;
- (iv) The relationship between local short-term uses of the environment and the maintenance and enhancement of long-term productivity; and
- (v) Any irreversible and irretrievable commitments of Federal resources which would be involved in the proposed agency action should it be implemented.

In accordance with its NEPA responsibilities, the NRC is required to take a “hard look” at the environmental impacts of a proposed major federal action that could significantly affect the environment, as well as reasonable alternatives to that action.⁸⁷ This “hard look” is tempered “by a ‘rule of reason’—consideration of environmental impacts need not address ‘all theoretical possibilities,’ but rather only those that have ‘some possibility’ of occurring.”⁸⁸ An agency thus need only address impacts that are reasonably foreseeable; the “agency need not perform analyses concerning events that would be considered ‘worst case’ scenarios ... or those considered ‘remote and highly speculative.’”⁸⁹ Further, NEPA “does not call for certainty or precision, but an *estimate* of anticipated (not unduly speculative) impacts.”⁹⁰ NEPA similarly does not require review when the circumstances render review impossible.⁹¹ And NEPA gives agencies “broad discretion ‘to keep their inquiries within appropriate and manageable

⁸⁷ See *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 87-88 (1998); *Crow Butte Resources, Inc.* (Marsland Expansion Area), LBP-19-2, 89 NRC 18, 40 (2019).

⁸⁸ *Crow Butte Resources, Inc.* (Marsland Expansion Area), LBP-19-2, 89 NRC 18, 40 (quoting *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), ALAB-156, 6 AEC 831, 836 (1973)).

⁸⁹ *Holtec International* (HI-STORE Consolidated Interim Storage Facility), LBP-19-4, 89 NRC 353, 357 (2019) (quoting *Limerick Ecology Action, Inc. v. NRC*, 869 F.2d 719, 754-55 (3d Cir. 1989)).

⁹⁰ *Crow Butte Resources*, LBP-19-2, 89 NRC at 40 (quoting *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-05-20, 62 NRC 523, 536 (2005)).

⁹¹ The Supreme Court has observed that where it is not possible for an agency to analyze the environmental consequences of a proposed action or alternatives to it, requiring such analysis would have “no factual predicate” and under those circumstances an EIS is not required. *Kleppe v. Sierra Club*, 427 U.S. 390, 401-02 (1976).

boundaries.”⁹² As the Commission has observed, “NEPA requires consideration of ‘reasonable’ alternatives, not all conceivable ones.”⁹³ Further, the Staff’s EISs “need only discuss those alternatives that ... will bring about the ends of the proposed action—a principle equally applicable to Environmental Reports.”⁹⁴

C. The Petitioners’ Contentions Do Not Satisfy the Regulations Governing the Admissibility of Contentions.

In their Petition, the Petitioners contend that “the Draft SEIS [sic] fails to address [the] environmental significance of [the] 2011 Mineral Earthquake; provides incomplete, inadequate, incorrect or misleading data and analyses in support of its general conclusion that severe accident impacts are small; and fails to address the effects of climate change on accident risk.”⁹⁵ The Petitioners proffer three contentions expounding upon these claims, supported by the Declaration of Jeffrey T. Mitman.⁹⁶

Significantly, as discussed below, the Petitioners’ contentions challenge the site-specific accident analyses that were presented in other documents – including the Staff’s EIS for initial license renewal, the August 2021 DSEIS, and/or the Applicant’s site-specific ER – rather than challenge new information or analyses contained in the December 2023 DEIS. Moreover, while the Petitioners assert that various matters should have been included in the Staff’s analyses, they do not point to any specific flaws in those analyses. In addition, they fail to provide any reason to believe that consideration of the matters raised in their contentions would have any discernible effect on the outcome of the Applicant’s or Staff analyses – which had already

⁹² *Crow Butte Resources*, LBP-19-2, 89 NRC at 40 (quoting *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 103 (1998)).

⁹³ *NextEra Energy Seabrook, LLC* (Seabrook Station, Unit 1), CLI-12-5, 75 NRC 301, 338 (2012).

⁹⁴ *Id.* at 339 (footnotes and quotation marks omitted).

⁹⁵ Corrected Petition at 2.

⁹⁶ Declaration of Jeffrey T. Mitman (Mar. 27, 2024) (Mitman Declaration) (Petition, Attachment 1).

considered the effects of the 2011 Mineral, Virginia earthquake and other external event hazards, including those that may occur due to climate change.

Further, the contentions repeatedly seek to raise issues concerning the impact of seismic events or climate change on plant safety⁹⁷ – which the NRC addresses outside the scope of license renewal⁹⁸ – rather than challenge the Staff’s evaluation of the environmental impacts of an accident caused by such events.

In sum, the Petitioners fail to demonstrate (a) that the issues they raise arise from new information contained in the DEIS; (b) that the issues raised are “within the scope of the proceeding” as required by 10 C.F.R. § 2.309(f)(1)(iii); (c) that “the issue raised in the contention[s] is material to the findings the NRC must make to support the action involved in the proceeding,” as required by 10 C.F.R. § 2.309(f)(1)(iv); and (d) that they provided “sufficient information to show that a genuine dispute exists with the applicant or licensee on a material issue of law or fact,” as required by 10 C.F.R. § 2.309(f)(1)(vi). The contentions should therefore be rejected.

⁹⁷ See, e.g., Corrected Petition at 5-6 (discussing the required design basis for nuclear power plants to withstand natural phenomena such as earthquakes, tornadoes, hurricanes, floods, tsunamis, and seiches, citing 10 C.F.R. Part 50, Appendix A, General Design Criterion 2); *id.* at 8-9 (citing the Council on Environmental Quality’s advice to federal agencies to consider the “‘reasonably foreseeable effects’ of climate change on ‘infrastructure investments.’”).

⁹⁸ Importantly, the NRC considers the ability of a nuclear power plant to withstand external hazards such as seismic events and hazards resulting from climate change as part of its initial licensing reviews and continued oversight of nuclear power plant safety. See *North Anna*, LBP-21-4, 93 NRC at n.15, *dismissed*, CLI-22-3, 95 NRC 40 (2022), quoting 2013 LR GEIS at 3-52 (“Changes in potential seismic hazards are not within the scope of the license renewal environmental review, except, where appropriate, during the analysis of [SAMAs], because any such changes would not be the result of continued operation of the nuclear power plant. Seismic design issues are considered during site-specific safety reviews and, more specifically, are addressed on an ongoing basis through the reactor oversight process and other NRC safety programs, such as the Generic Issues Program, which are separate from the license renewal process. When new seismic hazard information becomes available, the NRC evaluates the new information, through the appropriate program, to determine if any changes are needed at one or more existing plants.”) See also, Final rule, “Mitigation of Beyond-Design-Basis Events.” 84 Fed. Reg. 39,684 (Aug. 9, 2019) (establishing requirements for enhancing protection against accidents resulting from natural phenomena, mitigating the consequences of such accidents, and ensuring emergency preparedness for beyond-design-basis events, following the Fukushima accident). Cf. NEI-05-01, Rev. A, “Severe Accident Mitigation Alternatives (SAMA) Analysis Guidance Document” (ML060530203); NEI-17-04, Rev. 1, Model SLR New and Significant Assessment Approach for SAMA (ML19318D216).

1. **Contention 1: Draft SEIS Fails to Address Environmental Significance of the 2011 Mineral Earthquake.**⁹⁹

In Contention 1, the Petitioners claim that the “Draft SEIS” fails to address “the environmental significance of the 2011 Mineral Earthquake, whose epicenter was a short distance from the two reactors and whose ground motion exceeded the design basis levels for both reactors.”¹⁰⁰ The Petitioners then assert a safety issue, claiming as follows:

By exceeding the reactors’ design basis, the earthquake disproved the assumption underlying the NRC’s issuance of operating licenses in 1978 (for Unit 1) and 1980 (for Unit 2) and renewal of those licenses [in] 2003, that the reactors could be operated safely and without significant adverse environmental impacts because their [structures, systems, and components] were built to a design basis of sufficient rigor to protect against likely earthquakes. This assumption can also be found in the 2013 License Renewal GEIS and the Draft SEIS for the North Anna SLR application.¹⁰¹

The Petitioners assert that “the NRC must explicitly address . . . whether the environmental impacts of operating North Anna Units 1 and 2 in noncompliance with its design basis for an additional twenty years will have significant impacts,” and they cite Mr. Mitman’s Declaration to support their claim that the Staff “fails to acknowledge [] or explain the

⁹⁹ Contention 1 raises various safety concerns regarding (a) the 2011 Mineral Virginia earthquake and the sufficiency of actions taken by the NRC in response to the March 2011 Fukushima earthquake and tsunami. See Corrected Petition at 9-11. The Staff notes that the Board addressed those matters at length in LBP-21-4. See *North Anna*, LBP-21-4, 93 NRC 179 (2021), *dismissed*, CLI-22-3, 95 NRC 40 (2022).

The Staff addressed those matters at length in its response to the Petitioners’ previous petition to intervene. See NRC Staff Answer to Hearing Request, Petition to Intervene, and Petition for Waiver Filed by Beyond Nuclear, Sierra Club, and Alliance For Progressive Virginia (Jan. 8, 2020), at 8-13. In that Answer, the Staff, in part, described (1) North Anna’s Design Basis Earthquake; (2) the 2011 Mineral Earthquake and its significance for North Anna; (3) the NRC’s approval of North Anna’s Seismic Probabilistic Risk Assessment in April 2019 (which concluded that the results and risk insights provided by the Seismic Probabilistic Risk Assessment support the NRC’s determination that no further response or regulatory actions are required,” and the Applicant’s “actions and experience gained after the 2011 Mineral Earthquake provide additional assurance regarding North Anna’s ability to handle a beyond design basis seismic event”); and (4) the NRC’s actions in response to the 2011 Fukushima earthquake and tsunami. The Staff incorporates that discussion by reference herein.

¹⁰⁰ Corrected Petition at 9.

¹⁰¹ *Id.* at 9-10.

fundamental difference between a finding of no significant or small impact that is based on a deterministic analysis and a finding of no significant impact that is based on a probabilistic analysis.”¹⁰² They further cite Mr. Mitman’s opinion that a deterministic analysis is more conservative than a probabilistic analysis in assessing plant safety; that the Staff should “explain the difference and how its assessment of risk has changed as a result of the Mineral Earthquake”; and that the Staff should explain “what it has done to evaluate the potential that safety systems, which are assumed to survive a beyond-design-basis earthquake only once will be able to perform their safety functions when the next earthquake occurs.”¹⁰³ Finally, the Petitioners claim that the “Draft SEIS” [sic] does not address or reconcile a disparity between the results of the seismic risk analyses performed by the NRC for North Anna Unit 3, which resulted in a requirement for “seismic upgrades,” versus its analyses for Units 1 and 2, which resulted in no requirements for seismic upgrades other than “a set of nonpedigree commercial-grade ‘FLEX’ components with significantly lower reliability.”¹⁰⁴

Contention 1 should be rejected, in that it seeks to raise issues concerning the safety of continued operation of North Anna Units 1 and 2, rather than present a challenge to the Staff’s evaluation of the environmental impacts of a beyond-design-basis earthquake. Significantly, nowhere does Contention 1 challenge the Staff’s evaluation of the environmental impacts of either a design-basis earthquake or a beyond-design-basis earthquake such as the 2011 Mineral Earthquake. Rather, it repeatedly seeks to challenge the Staff’s safety determinations – which were made concerning the safety of continued operation of the facility and which are

¹⁰² *Id.* at 10.

¹⁰³ *Id.* at 10-11.

¹⁰⁴ *Id.* at 11.

wholly beyond the scope of subsequent license renewal¹⁰⁵ – and fails to confront the Staff's December 2023 DEIS evaluation of new and significant information that could affect its previous determinations regarding accidents that might occur due to either design-basis or beyond-design basis events.

Nor is this the first time that the Petitioners have sought to challenge the safety of North Anna's continued operation in light of the 2011 Mineral Earthquake. In their previous petition to intervene, which the Board rejected in LBP-21-4, the Petitioners claimed that the Applicant's ER failed to address the environmental significance of the Mineral Earthquake. The Petitioners argued, in part – just as they argue here, in Contention 1 – that because the Mineral Earthquake exceeded North Anna's design basis, the assumption that those reactors could be operated safely and without significant adverse environmental impacts was disproved; and they asserted that the Applicant must analyze the probability and consequences of reactor accidents due to

¹⁰⁵ The safety standards for license renewal are set forth in 10 C.F.R. § 54.29 (Standards for issuance of a renewed license); these include requirements for (1) managing the effects of aging, and (2) time-limited aging analyses. Issues concerning the safety of continued operation of a nuclear power plant, that are not unique to license renewal, are addressed as part of the NRC's oversight of operating reactors and are beyond the scope of this proceeding. *See generally*, Final rule; Nuclear Power Plant License Renewal; Revisions, 88 Fed. Reg. 22,461, 22,464-65 (May 8, 1995). As stated by the Commission:

In developing the previous license renewal rule, the Commission concluded that issues material to the renewal of a nuclear power plant operating license are to be confined to those issues that the Commission determines are uniquely relevant to protecting the public health and safety and preserving common defense and security during the period of extended operation. Other issues would, by definition, have a relevance to the safety and security of the public during current plant operation. Given the Commission's ongoing obligation to oversee the safety and security of operating reactors, issues that are relevant to current plant operation will be addressed by the existing regulatory process within the present license term rather than deferred until the time of license renewal. . . . [W]ith the exception of age-related degradation unique to license renewal and possibly a few other issues related to safety only during the period of extended operation of nuclear power plants, the regulatory process is adequate to ensure that the licensing bases of all currently operating plants provides and maintains an acceptable level of safety so that operation will not be inimical to public health and safety or common defense and security. . . .

Id. Cf. *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 637-38 (2004); *Turkey Point*, CLI-20-3, 91 NRC at 151 (2020), *rev'd on other grounds*, CLI-22-2, 95 NRC 26 (2022).

earthquakes in the SLR term.¹⁰⁶ The Board rejected this contention in LBP-21-4, finding, in part, that the Petitioners' claims lacked support and failed to demonstrate a genuine dispute of material fact, in that the Applicant's ER relied, in part, on a seismic probabilistic risk assessment (PRA) that took into account the 2011 Mineral earthquake.¹⁰⁷ Contention 1 should be rejected for this reason, as well.

While Contention 1, itself, does not point to any alleged deficiencies in the Staff's DEIS, the contention cites and relies upon Sections B and C.1 of Mr. Mitman's Declaration,¹⁰⁸ in which Mr. Mitman provides details regarding his concerns for the seismic safety of North Anna Units 1 and 2. In addition, Mr. Mitman states that he reviewed the "Draft SEIS [sic] with particular attention to Section 3.11.6.9 and Appendix F";¹⁰⁹ and he asserts that the "Draft SEIS" conclusion "that the environmental impacts of reactor accidents at [North Anna] during an SLR term are 'SMALL' lacks adequate supporting factual data and/or qualitative information and does not reflect the use of sufficiently rigorous or up-to-date analytical methods with respect to . . . the environmental significance of the 2011 Mineral Earthquake" ¹¹⁰

Upon examination of Mr. Mitman's claims, it is difficult to discern any specific deficiencies that he has identified in the DEIS. Rather, his claims are general in nature, without reference to any specific assumption, input, calculation, or methodology that he believes to be inadequate in the DEIS. Nor does he provide any specific assumption, input, calculation or

¹⁰⁶ See 2020 Petition at 13.

¹⁰⁷ *North Anna*, LBP-21-4, 93 NRC 179 (2021), *dismissed*, CLI-22-3, 95 NRC 40 (2022). The Board held, in pertinent part, that "the Petitioners' generalized claims of missing or inadequate discussion, unsupported by any relevant technical analysis, fails to cross the threshold of providing sufficient factual or expert opinion support or of establishing a material dispute with the application, as required by section 2.309(f)(1)(v)–(vi)." *Id.* at 211-12.

¹⁰⁸ Corrected Petition at 11; See Mitman Declaration, §§ B and C.1 (¶¶ 8-30), at 3-8.

¹⁰⁹ Mitman Declaration ¶ 23, at 7. In support of his Declaration, Mr. Mitman cites and relies, in part, upon a technical report attached to his Declaration. See "Technical Review of [NRC's] Draft Site-Specific Environmental Impact Statement for Subsequent License Renewal of North Anna Power Station Units 1 and 2 With Respect to Accident Analysis Submitted by Jeffrey T. Mitman to the [NRC] on behalf of Beyond Nuclear, Inc." (Feb. 22, 2024) (Mitman Report).

¹¹⁰ Mitman Declaration ¶ 24, at 7-8.

methodology of his own, which he believes would lead to a result different from the DEIS conclusions, or any analysis showing that the Staff erred in concluding (a) that the environmental impacts of design basis accidents are SMALL;¹¹¹ (b) that the probability-weighted consequences of severe accidents are SMALL;¹¹² and (c) that there are no additional SAMAs that warrant imposition.¹¹³ Moreover, as discussed in response to Contention 2, *infra*, the Petitioners and Mr. Mitman do not challenge any new information or analysis contained in the DEIS discussion of accident consequences; rather, their claims appear to pertain to the analyses and conclusions contained in (a) the 1996 GEIS, (b) the Staff's EIS for initial license renewal at North Anna,¹¹⁴ and (c) the Applicant's supplemental ER for North Anna SLR – none of which are addressed in Contention 1 or Mr. Mitman's Declaration. Thus, Contention 1 and Sections B and C.1 of Mr. Mitman's Declaration fail to provide a specific basis, with supporting documents or sources, to show a genuine dispute with the applicant or licensee on a material issue of law or fact within the scope of this proceeding, as required by 10 C.F.R. § 2.309(f)(1)(v) and (vi).¹¹⁵

Further, wholly apart from the issues discussed above, there is no basis for the Petitioners' claim that Contention 1 "falls within the scope of 'new information' as described in the hearing notice."¹¹⁶ The Petitioners base this claim on their view that the information "concerns a new reactor-specific accident analysis in the Draft SEIS [sic] that takes the place of a previous environmental analysis for which the NRC had unlawfully relied on the 2013 License

¹¹¹ Attachment 1 at F-5.

¹¹² *Id.* at F-19 – F-20.

¹¹³ *Id.* at F-26 - F-27.

¹¹⁴ NUREG-1437, Supp. 7, Generic Environmental Impact Statement for License Renewal of Nuclear Plants Regarding North Anna, Units 1 and 2, Final Report (Nov. 2002) (ML023380542 and ML023380567) (hereafter 2002 North Anna LR EIS), at 5-4.

¹¹⁵ See Mitman Declaration, *passim*.

¹¹⁶ Corrected Petition at 12.

Renewal Generic Environmental Impact Statement ('GEIS')."¹¹⁷ In fact, however, although the impacts of design basis accidents were addressed in the 2013 GEIS and the 2021 DSEIS as a generic "Category 1" issue, the December 2023 DEIS evaluated design-basis accidents on a site-specific basis;¹¹⁸ nowhere does Contention 1 address that site-specific evaluation.

Moreover, accidents caused by beyond-design-basis events are evaluated as part of the Staff's analysis of SAMAs; those analyses are discussed in Appendix F of the August 2021 DSEIS, as republished in the December 2023 DEIS. Mr. Mitman's Declaration does not establish any basis for disputing the Staff's conclusion that the probability-weighted consequences of severe accidents are SMALL, or that the imposition of any severe accident mitigation alternative may be warranted beyond the SAMAs that were considered by the Staff. Accordingly, Contention 1 fails to demonstrate that a genuine dispute exists with the applicant or licensee on a material issue of law or fact, as required by 10 C.F.R. § 2.309(f)(1)(vi). The contention should therefore be rejected.

2. Contention 2: Draft SEIS does not contain a complete or adequately rigorous evaluation of accident risks.¹¹⁹

In Contention 2, the Petitioners assert that the "Draft SEIS"¹²⁰ lacks "a complete or adequately rigorous evaluation of accident risks because essential data are missing and important analytical assertions are erroneous or misleading," and that the Staff therefore lacks "an adequate basis for concluding that the environmental impacts of accidents during a license

¹¹⁷ *Id.*

¹¹⁸ See DEIS at F-5.

¹¹⁹ Corrected Petition at 12-15.

¹²⁰ The Petitioners and Mr. Mitman appear to refer to the December 2023 DEIS as the "Draft SEIS." In NRC parlance, however, a "DSEIS" is a draft supplement to the Generic Environmental Impact Statement (GEIS) for license renewal. In contrast, the December 2023 DEIS is a site-specific draft EIS and is not a supplement to the license renewal GEIS.

renewal term are “SMALL.”¹²¹ Relying upon Section C.2 of Mr. Mitman’s Declaration,¹²² the

Petitioners assert that:

- The Draft SEIS is inadequate in making “broad generalizations about external event core damage frequency (“CDF”) based on extrapolations from internal event CDF values and limited actual plant-specific values for external event CDF.”
- In finding that the environmental impacts [sic]¹²³ of severe accidents are “SMALL,” the Staff ignores its own data regarding seismic and fire [CDF] that indicate these impacts are significant, and disregards the fact that the 2011 Mineral Earthquake, by itself, increased the risk of an earthquake severe enough to damage safety equipment.
- The Draft SEIS assertion at page F-26 that there has been “a substantial decrease in internal event CDF” is erroneous, and this error affects other estimates such as the estimate of population dose risk.
- The Draft SEIS fails to demonstrate consideration of external flooding risk with subsequent ingress of water into the turbine building. As demonstrated by Mr. Mitman’s Declaration, flooding poses a significant accident risk that has not been addressed in the Draft SEIS.
- The Draft SEIS makes misleading statements about the NRC’s review of Fukushima-related information relevant to North Anna and risk improvements obtained by NRC and license[e] efforts after September 2001.
- The Draft SEIS takes inappropriate credit for reductions in environmental risk that are not reflected in the PRA for NAPS.
- The Draft SEIS fails to demonstrate consideration of uncertainties with respect to the conclusion that severe accident impacts are “SMALL.”
- The Draft SEIS does not address the environmental impacts of concurrent multi-unit accidents.
- The Draft SEIS SAMA analysis is deficient in multiple respects, including failure to consider SAMAs that meet criteria for consideration, and failure to provide documentation of an NRC audit relied on to conclude that [Virginia Electric and Power Company’s] approach to its SAMA analysis was methodical and reasonable.¹²⁴

¹²¹ *Id.* at 12.

¹²² *Id.* at 12 and 14. See Mitman Declaration, § C.2 (¶¶ 31-47), at 9-14.

¹²³ The Staff did not find that the “environmental impacts of severe accidents are SMALL”; rather, the Staff found that “the probability-weighted consequences of severe accidents” are SMALL. See **Attachment 1** at F-18.

¹²⁴ Corrected Petition at 13-14.

While these assertions cite various statements in the “Draft SEIS,” which the Staff published in August 2021, it is unclear whether the Petitioners meant to refer to the December 2023 DEIS or whether they dispute any “new information” that appeared in the December 2023 DEIS. Moreover, even if they were referring to the December 2023 DEIS, the Petitioners and Mr. Mitman appear to misunderstand the analyses that support the Staff’s determination – and they altogether fail to cite or challenge those analyses in their contention and Declaration.

In this regard, the Staff notes that the NRC considered the consequences of severe accidents in developing the 1996 GEIS, and determined, on a generic basis, that the probability-weighted consequences of severe accidents are SMALL.¹²⁵ In reaching this generic determination, the GEIS specifically considered North Anna site-specific information.¹²⁶ The Staff further considered the probability-weighted offsite consequences of severe accidents at North Anna, on a site-specific basis, in its EIS for initial license renewal; there, the Staff evaluated North Anna’s offsite accident risk (including population dose risk). The Staff determined that it had not identified any significant new information with regard to the consequences from severe accidents.¹²⁷ The Staff concluded that there are no impacts of severe accidents at North Anna beyond those discussed in the GEIS, which had concluded that the probability-weighted offsite consequences of severe accidents during license renewal were SMALL.¹²⁸ In accordance with 10 CFR 51.53(c)(3)(ii)(L), the staff then reviewed SAMAs for North Anna Units 1 and 2.¹²⁹

Having conducted a SAMA analysis for North Anna in the initial license renewal EIS, the Staff was not required to conduct a completely new SAMA analysis for subsequent license

¹²⁵ 1996 GEIS at 5-114 and 5-115.

¹²⁶ 1996 GEIS at 5-21, 5-34, 5-40, 5-45, 5-47, Tables 5.3, 5.6, 5.9, 5.10, 5.11.

¹²⁷ 2002 North Anna LR EIS, at 5-4; *see id.* at 5-5 to 5-12, Table 5-4, 5-2, 5-3.

¹²⁸ *Id.* at 5-3 – 5-4.

¹²⁹ *Id.* at 5-4 – 5-28.

renewal.¹³⁰ Accordingly, the Staff's August 2021 Draft SEIS for subsequent license renewal did not repeat the previous SAMA analysis; rather, consistent with Commission regulations,¹³¹ the Draft SEIS considered whether there was any new and significant information that would warrant a different conclusion than it had reached previously, and it then reconfirmed its previous conclusion (finding that the probability-weighted consequences of severe accidents at North Anna were actually considerably lower than had been predicted previously).¹³² In December 2023, the Staff's DEIS reproduced the August 2021 DSEIS evaluation, which the Staff updated to consider any new and significant information that had arisen since the DSEIS was published.¹³³

Significantly, the Staff's analysis in the 2021 DSEIS cited the Applicant's ER, in which the Applicant explicitly considered the Mineral VA earthquake, and relied upon that information in concluding that there was no new and significant information that would warrant a different conclusion regarding the probability-weighted consequences of severe accidents. Mr. Mitman and the Petitioners nowhere cite the Applicant's first SLR ER or its 2022 ER supplement, nor do they contest the Staff's review and reliance on those documents; indeed, they appear to misunderstand the history of these analyses, and fail to point to any particular aspect of these analyses with specificity, to support their generalized claims that the Staff's SAMA analyses were deficient.

For example, the Petitioners and Mr. Mitman claim that "the Draft SEIS" makes "broad generalizations about external event CDF based on extrapolations from internal event CDF

¹³⁰ 10 C.F.R. § 51.53(c)(3)(ii)(L).

¹³¹ 10 C.F.R. §§ 51.53(c)(3)(ii)(L) and 51.53(c)(3)(iv).

¹³² See DSEIS at F-18; Attachment 1 at F-19 – F-20.

¹³³ See 10 C.F.R. § 51.53(c)(3)(iv) (requiring a license renewal applicant's environmental report to contain "any new and significant information regarding the environmental impacts of license renewal of which the applicant is aware").

values and limited actual plant-specific values for external event CDF”;¹³⁴ that Appendix F looks at external events by “focusing exclusively on seismic issues [and] ignores other external events such as flooding, external fires (e.g., forest and wildfires), tornadoes, etc.”; that “these additional external events, especially flooding, may not be ignored without serious[ly] underestimating environmental impacts”; and that “increased frequency and severity of weather-induced external events . . . must be considered.”¹³⁵ However, the Petitioners and Mr. Mitman fail to observe that the Staff’s evaluation of new and significant information considered new information regarding external events and determined that the external event increase was less than the factor of 25 decrease in the North Anna internal events CDF, and therefore the new information did not affect the Staff’s conclusions.¹³⁶ Further, contrary to Mr. Mitman’s claims, the Staff’s analysis considered numerous types of external events – including high winds, external flooding and other external events – rather than only seismic events, as the Petitioners and Mr. Mitman have alleged.¹³⁷

Similarly, while the Petitioners and Mr. Mitman claim that the Staff “ignore[d] its own data regarding seismic and fire [CDF]” and ignored the increased risk of an earthquake severe enough to damage safety equipment, posed by the 2011 Mineral Earthquake,¹³⁸ they ignore the fact that the Staff’s analysis did in fact consider such matters.¹³⁹ Likewise, while they claim that the Staff erred (at page F-26) in stating that “there has been ‘a substantial decrease in internal

¹³⁴ Mitman Declaration, ¶ 31 at 9.

¹³⁵ *Id.* In support of this claim, Mr. Mitman cites the “Draft SEIS at page F-10 lines 24-37 for the absence of a discussion of flooding, fires, high winds, etc.” *Id.* at 9 n.28.

¹³⁶ See Attachment 1 at F-11 – 13, and F19 – F-20.

¹³⁷ See *Id.* at F-11. As stated in the DEIS, the PRA model used in the external events section reflected the most up to date understanding of nuclear power plant risk at the time of analysis. *Id.* Cf. 2002 North Anna LR EIS at 5-9.

¹³⁸ Mitman Declaration, ¶ 32 at 9.

¹³⁹ See DEIS at F-10.

event CDF,”¹⁴⁰ they ignore the fact that this statement reflected the Staff’s consideration that the current North Anna internal events PRA model of record has a CDF of approximately 1.36×10^{-6} /year,¹⁴¹ which represents a 96-percent reduction (a factor of 25 reduction) in CDF for each unit at North Anna.¹⁴² Mr. Mitman and the Petitioners ignore this information. Moreover, while the Petitioners and Mr. Mitman make numerous generalized claims that the Staff’s SAMA analysis was deficient, they fail to point to any specific statements in the Staff’s description of that analysis that would support such claims.

3. Contention 3: Draft SEIS fails to address the effects of Climate change on accident risk.¹⁴³

Amended Contention 3:

The Draft SEIS fails to satisfy NEPA or NRC implementing regulation 10 C.F.R. § 51.71 because it does not address the effects of climate change on accident risk. No such discussion can be found in Section 3.11.6.9 or Appendix F. To the contrary, the NRC asserts that “the effects of climate change are outside the scope of the NRC staff’s SLR review.” In support of this assertion, the NRC claims to consider climate-related information in its licensing reviews and ongoing oversight. But this is exactly the kind of blindered reasoning that was rejected in *State of New York*. The fact that NRC plans to address climate change risks in the future does not excuse the agency from addressing the risks as they are understood at this time. Only if the NRC can say that the effects of climate change are so small as to be “remote and speculative” can it avoid addressing those effects in its environmental review. And the Executive Branch of the U.S. government, including [the Council on Environmental Quality] and other federal agencies, has stated in no uncertain terms that climate change poses a current and future threat to critical

¹⁴⁰ Mitman Declaration, ¶ 32 at 9

¹⁴¹ See DEIS at F-9, *citing* (Virginia Electric and Power Co., *Appendix E Applicant's Environmental Report Subsequent Operating License Renewal Stage North Anna Power Station Units 1 and 2*. (ML20246G698)

¹⁴² See DEIS at F-9.

¹⁴³ Corrected Petition at 15-17. Contention 3 states that it relies upon Mr. Mitman’s Declaration, generally without specifying which statements in his Declaration support the contention, other than ¶¶ 48 and 51. See Corrected Petition at 16 and 17. This makes it difficult to discern which statements in his Declaration are relied upon to support Contention 3; the Staff assumes, however, that Contention 3 relies upon Section C.3 (“Inadequate Discussion [of the] Effects of Climate Change on Accident Risk”) of the Declaration, although this section of the Declaration is not cited in the petition or corrected petition.

infrastructure that should be addressed now in NEPA reviews and all other decision-making processes.

Further, as set forth in Mr. Mitman's Declaration, the Draft SEIS' failure to address climate change impacts on accident risk constitutes a significant deficiency because climate change demonstrably affects the frequency and intensity of some external events and therefore has the potential to significantly increase accident risks. Moreover, the frequency and intensity of climate change effects are increasing over time.

Mr. Mitman also presents an illustration of how the reasonably foreseeable increase in the frequency and volume of flooding could significantly increase the risk of a serious accident at NAPS. This is just one example of the increased accident risk that can be reasonably expected due to climate change and that should be addressed in the Draft SEIS.¹⁴⁴

In Contention 3, the Petitioners argue that the December 2023 DEIS is incomplete because it does not discuss climate change impacts on accident risk.¹⁴⁵ The Petitioners claim that climate change affects accident risk because it "demonstrably affects the frequency and intensity of some external events," including the frequency and volume of flooding.¹⁴⁶ Moreover, the Petitioners claim (incorrectly) that the Staff's Draft EIS stated that "the effects of climate change are outside the scope of the NRC staff's SLR review"¹⁴⁷ -- which they argue is contrary to federal guidance¹⁴⁸ and NEPA.¹⁴⁹ Significantly, however, the Petitioners' assertion is incorrect and misleading, in that it omits important text in the quoted statement; the complete

¹⁴⁴ Motion by Beyond Nuclear and the Sierra Club to Amend Their Contention 3 Regarding Failure to Consider Environmental Impacts of Climate Change (Apr. 11, 2024) (Amended Contention), at 2-3 (footnote numbers within the text omitted).

¹⁴⁵ *Id.*

¹⁴⁶ *Id.* at 16-17, citing to Mitman Declaration at ¶ 48, 51.

¹⁴⁷ *Id.* at 16. This is a significant omission, as even Mr. Mitman's Declaration, upon which the Petitioners rely, acknowledges that "various sections of the Draft SEIS [do] address climate change." Mitman Declaration, ¶ 48.

¹⁴⁸ Corrected Petition at 8 (citing Council on Environmental Quality, National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change, 88 Fed. Reg. 1196, 1209 (Jan. 9, 2023)).

¹⁴⁹ Corrected Petition at 8.

statement in the DEIS, improperly quoted by the Petitioners, was: “The effects of climate change on North Anna structures, systems, and components are outside the scope of the NRC staff’s environmental review” – clearly indicating that what is omitted from license renewal reviews is the effect of climate change on plant safety, not the environmental impacts of climate change, as the Petitioners claimed.¹⁵⁰

As discussed in **Section III. A** above, to be admissible in this proceeding, a contention must meet the general admissibility requirements in 10 C.F.R. § 2.309(f) and must demonstrate that the claims being made are within the scope of the proceeding. Contention 3 fails to satisfy these requirements, in that it raises issues that fall outside the scope of this proceeding, impermissibly challenges the NRC’s regulations concerning the safety issues that may be raised in a license renewal proceeding, and fails to show the existence of a genuine dispute of material fact concerning new information contained in the DEIS. This is because, as explained below, the scope of this proceeding was specifically limited by the Commission in CLI-22-3 and the January 2024 *Federal Register* Notice to “contentions based on new information in the site-specific [EIS]”¹⁵¹ – and contrary to this requirement, Contention 3 is not based on new information in the Draft EIS. Rather, the Petitioners’ assertions concern the effect of environmental conditions on the safety of a nuclear power plant, which is outside the scope of a license renewal proceeding.¹⁵² Moreover, even if their claims were within scope, they fail to identify the specific analysis or statements in the DEIS that they wish to challenge, and do not identify a genuine dispute with the Draft EIS that is material to the license renewal decision, as required by 10 C.F.R. § 2.309(f)(1)(v)-(vi). The proposed contention must therefore be rejected.

¹⁵⁰ Compare DEIS at 3-194 with Corrected Petition at 16 (the underlined text was omitted by the Petitioners in their recitation of the DEIS language).

¹⁵¹ CLI-22-3, 95 NRC at 42.

¹⁵² See *Turkey Point*, CLI-20-23, 52 NRC at 329.

As discussed in **Section II** above, the scope of this SLR proceeding was specifically limited by the Commission in CLI-22-3 to “contentions based on new information in the site-specific [EIS]”¹⁵³ – and Contention 3 is not based on new information in the Draft EIS. Indeed, the Petitioners recognize that their contentions must fall within the limited scope of this proceeding, asserting that Contention 3 is within scope and that it addresses “new information” because it concerns “a new reactor-specific accident analysis in the draft SEIS that takes the place of a previous environmental analysis for which the NRC had unlawfully relied on [2013 LR GEIS].”¹⁵⁴ However, contrary to their assertion, the Draft EIS does not provide “a new reactor-specific accident analysis . . . that takes the place of a previous environmental analysis”; rather, the December 2023 DEIS reproduces the discussion contained in the August 2021 Draft SEIS, with minor updates.¹⁵⁵ Nor does the DEIS provide new information on the effects of climate change on the safety of North Anna, as that determination is not within the scope of the NRC’s environmental review, as stated in the August 2021 Draft SEIS and restated in the December 2023 DEIS.¹⁵⁶ In sum, Contention 3 constitutes a challenge to the NRC’s safety determinations and does not challenge “new information” presented in the DEIS. For this reason, Contention 3 falls outside the permissible scope of this proceeding and should be rejected.

Contention 3 should also be rejected because it raises safety issues that are beyond the scope of this license renewal proceeding. As discussed above with respect to Contention 1, safety issues are beyond the scope of this proceeding – and, in any event, the safety issues

¹⁵³ CLI-22-3, 95 NRC at 42.

¹⁵⁴ Corrected Petition at 17-18.

¹⁵⁵ See Attachment 1 hereto, at 3-139. The discussion of climate change impacts to environmental resource areas were previously included under cumulative impacts in the 2021 draft SEIS (Section 3.16, page 3-162, 3-163, and 3-164). These discussions were removed from cumulative impacts and included under Section 3.15.3.2 (page 3-195) for the draft site-specific EIS. These may appear like new discussions, but they were just moved from one section to another between the 2021 Draft SEIS and the 2023 Draft site-specific EIS.

¹⁵⁶ The statement that “[t]he effects of climate change on North Anna structures, systems, and components are outside the scope of the NRC staff’s SLR environmental review” was moved from 3.15.3 on page 3-160 in the 2021 draft SEIS to 3.14.3.2 on page 3-194 in the new Draft EIS.

raised in this contention do not address the safety requirements of 10 C.F.R. Part 54.¹⁵⁷ With respect to safety issues, contentions are limited to concerns regarding the applicant's aging management programs and time-limited aging analyses.¹⁵⁸ Similarly, contentions may address the environmental effects, including any cumulative effects, of the proposed action¹⁵⁹ – but as the Commission has repeatedly explained, the effects of environmental conditions on a nuclear power plant, as opposed to the effects of the plant on the environment, are not within the scope of license renewal proceedings.¹⁶⁰ Therefore, the Petitioners' argument that the Staff's environmental review is inconsistent with federal guidance¹⁶¹ and NEPA¹⁶² because it does not address the impacts of climate change on plant safety amounts to a challenge to the NRC's regulations governing the scope of safety issues that may be raised in a license renewal proceeding.¹⁶³ As provided in 10 C.F.R. § 2.335, no rule or regulation of the Commission may be subject to attack in an adjudicatory proceeding unless the proponent files a petition for waiver of the rule or regulation. Because the Petitioners have not filed such a petition for waiver, their challenges to the scope of safety concerns that may be raised in a license renewal proceeding should be rejected.¹⁶⁴

¹⁵⁷ See *Oconee*, CLI-22-3, 95 NRC at 42; see also *Turkey Point*, CLI-22-6, 95 NRC at 115 (“Our ruling in CLI-22-2 did not disturb the safety review.”); *Florida Power and Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 6–10 (2001) (explaining that the Staff's safety review of license renewal applications is limited as described in 10 C.F.R. Part 54).

¹⁵⁸ 10 C.F.R. §§ 54.21 and 54.29.

¹⁵⁹ See, e.g., 10 C.F.R. §§ 51.71(d) and 51.95(c).

¹⁶⁰ See, e.g., *Pacific Gas & Elec. Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-15-21, 82 NRC 295, 304 (2015).

¹⁶¹ Corrected Petition at 75 (*citing* Council on Environmental Quality, National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change, Interim guidance, request for comments, 88 Fed. Reg. 1196, 1209 (Jan. 9, 2023)).

¹⁶² *Id.* at 79–80.

¹⁶³ As explained *supra* at 22, the NRC considers the impacts on plant safety of matters such as climate change as part of its ongoing oversight of nuclear power plants, outside the scope of license renewal, because such considerations are not unique to license renewal. Moreover, the cited federal guidance regarding climate change is just that—guidance—and it does not impose legally binding requirements on the NRC. See 88 Fed. Reg. at 1197 n.4.

¹⁶⁴ *Millstone*, CLI-03-14, 58 NRC at 218.

The Staff notes that in a recent decision, the Board in the *Turkey Point* SLR proceeding accepted a petitioner's claim that its contention was challenging the Draft EIS and not the safety analysis, and it therefore interpreted it as an environmental contention;¹⁶⁵ such a determination would be incorrect in this proceeding. Here, the Petitioners do not explain how their contention concerns the impacts of the proposed action (i.e., continued operation for an additional 20 years) on the environment, as distinct from the impacts of environmental conditions on the plant. While the contention discusses how climate change can impact accident risk, the Petitioners never explain how climate change impacts on accident risk could affect the Staff's environmental impacts analysis, which is the focus of the Draft EIS. Thus, nowhere in the contention do the Petitioners specify how their concerns would affect any analysis performed by the Staff in the Draft EIS, which is required for the contention to establish a genuine dispute of material fact with the requisite specificity as required by 10 C.F.R. § 2.309(f)(1).

Further, Contention 3 fails to identify a genuine dispute with the Draft EIS that is material to the license renewal decision in this proceeding. For a contention to show that a genuine dispute exists, the contention "must include references to specific portions of the application that the petitioner disputes and the supporting reasons for each dispute," and if the petitioner believes that the application fails to contain information on a relevant matter, then "the contention must identify each failure and the supporting reasons for the petitioner's belief."¹⁶⁶ Contention 3 fails to satisfy these requirements, in that it fails to identify with specificity the portions of the DEIS that they dispute, and fails to provide sufficient support for their contention.

¹⁶⁵ *Turkey Point*, LBP-24-03, 99 NRC at ___, slip op. at 32 (taking the petitioner "at its word that it seeks to challenge the Draft [EIS] and does not seek to challenge the Staff's safety analysis" but concluding that such an environmental contention is not admissible because it does not provide sufficient information to show that a genuine, material dispute exists with the Draft EIS).

¹⁶⁶ *Exelon Generation Co., LLC*. (Peach Bottom Atomic Power Station, Units 2 and 3), CLI-20-11, 92 NRC 335, 342 (Nov. 12, 2020).

First, the Petitioners fail to cite with enough specificity the analyses in the Draft EIS that they claim are lacking. The Draft EIS discusses the environmental impacts of design-basis accidents and severe accidents at length.¹⁶⁷ The Petitioners' only claim is that the discussion they believe is missing cannot be found in Section 3.11.6.9 or Appendix F.¹⁶⁸ However, the Petitioners' claims do not provide sufficient specificity to allow one to understand what they claim is deficient. Appendix F contains a discussion of numerous analyses (i.e. internal events information, new source term information, use of BEIR VII risk coefficients, consideration of external events, *etc.*).¹⁶⁹ The Petitioners fail to state where within the many different types and levels of analysis they believe the Staff did not consider any required information. This omission is significant. In *Turkey Point*, the petitioner similarly made what the Board described as "only a passing reference to a portion of the Staff's analysis," which the Board determined had failed to sufficiently tie the petitioner's claim directly to the Staff's Draft EIS and the contention was therefore inadmissible.¹⁷⁰ In *Turkey Point*, the contention similarly asserted that the Draft EIS failed to consider the effects of climate change on accident risk, and relied on nearly identical points set out in a similar declaration by Mr. Mitman.¹⁷¹ Just as the Board in *Turkey Point* rejected that contention due to its lack of specificity, Contention 3 should be rejected here.¹⁷²

Further, Mr. Mitman makes various assertions in Section C.3 of his Declaration, as to how climate change could affect plant safety and an accident analysis. However, those statements are entirely general in nature, in which he states his views of how an accident analysis should be conducted, without pointing to any specific allegations of deficiencies in the

¹⁶⁷ See Attachment 1 at Appendix F.

¹⁶⁸ Corrected Petition at 16. The Petitioners included in their original hearing request Mr. Mitman's "Technical Review," but the Petitioners do not cite that document in Contention 3. Instead, the Petitioners only rely on Mr. Mitman's Declaration and cite to two specific declarations within that Declaration.

¹⁶⁹ Draft SEIS Appendix F at F-17.

¹⁷⁰ LBP-24-03 at 33-34.

¹⁷¹ *Id.* at 32-34.

¹⁷² *Id.*

Staff's DEIS.¹⁷³ Indeed, his only claims regarding the adequacy of the DEIS appear in ¶¶ 48 and 51 of the Declaration – but even there, he merely claims that “the Draft EIS does not address climate changes [sic] impacts on accident risks in Sections 3.11.6.9 or Appendix F,” and that the DEIS is inadequate because “climate change will increase the frequency and severity of these [unspecified] types of events.”¹⁷⁴ These general assertions, however, fail to identify, with specificity, any particular aspect of the Staff's accident analyses that Mr. Mitman believes to be inadequate and fail to demonstrate a genuine dispute of material fact, as required by 10 C.F.R. §§ 2.309(f)(1)(i), (ii) and (vi). Accordingly, Mr. Mitman's Declaration does not support the admission of Contention 3.

While the Petitioners amended Contention 3 to cite a recent report by the General Accounting Office (GAO)¹⁷⁵ in addition to their reliance on the Mitman Declaration, this addition does not solve the lack of specificity. The GAO Report adds to the contention's basis, but the Petitioners again fail to connect it to the Draft EIS or explain what analysis in the Draft EIS is affected by the report or why it renders the DEIS inadequate.¹⁷⁶ Since the Petitioners fail to do this, Contention 3 should be rejected for lacking the specificity and for failing to demonstrate a genuine dispute of material fact, as required by 10 C.F.R. §§ 2.309(f)(1)(i), (iii) and (vi).

Second, the Petitioners fail to provide sufficient support for their contention. This is because, just like the petitioner in *Turkey Point*, the Petitioners here rely on nearly identical points of a Mitman Declaration that repeatedly speculates as to how climate change impacts could be significant; however, as the Board observed in *Turkey Point*, they did “not provide[]

¹⁷³ See Mitman Declaration, Section C.2, at 15-17.

¹⁷⁴ *Id.* at 15.

¹⁷⁵ GAO-106326, “Nuclear Power Plants: NRC Should Take Actions to Fully Consider the Potential Effects of Climate Change (April 2024) (“GAO-106326” or “the GAO Report”).

¹⁷⁶ As noted below, this is particularly important since the GAO Report itself is focused on safety analysis and does not make any claims on the Staff's environmental impacts analysis. However, it did briefly talk about renewal.

sufficient support to raise a genuine material dispute.”¹⁷⁷ Here, as in *Turkey Point*, the contention and supporting declaration failed to tie the Petitioners’ claims about climate change impacts directly to the environmental impact analysis performed by the Staff.¹⁷⁸ Additionally, the Petitioners failed to tie their claims here to any specific alleged deficiency in the DEIS evaluation of accident risks. Contention 3 should therefore be rejected for failing to satisfy the requirements of 10 C.F.R. §§ 2.309(f)(1)(i), (iii) and (vi).

Further, as stated above, the Petitioners and Mr. Mitman fail to observe that in Section 5.5.2.5 of the 1996 LR GEIS, the NRC staff concluded that the generic analysis “applies to all plants and that the probability-weighted consequences of atmospheric releases, fallout onto open bodies of water, releases to ground water, and societal and economic impacts of severe accidents are of small significance for all plants.”¹⁷⁹ For North Anna, the predicted risks are the total 95-percent upper-confidence bound (UCB) metrics in Table 5.9 , Table 5.10 and Table 5.11. Thus, the risk of external events and uncertainties was considered in the 1996 GEIS evaluation.¹⁸⁰ The 1996 GEIS was the basis for the 1996 rule regarding the probability weighted consequences of an accident to the public. In the statements of consideration of the rule, the Commission concluded:

In conclusion, the GEIS analysis of severe accident consequences and risk is adequate, and additional plant specific analysis of these impacts is not required. However, because the ongoing regulatory program related to severe accident mitigation (i.e., IPE and IPEEE) has not been completed for all plants and consideration of severe accident mitigation alternatives has not been included in an EIS or supplemental EIS related to plant

¹⁷⁷ LBP-24-03, at 32-34.

¹⁷⁸ *Id.*

¹⁷⁹ 1996 GEIS at 5-114 and 5-115.

¹⁸⁰ 1996 GEIS at Section 5.3.4. The 95th upper confidence bound values were used in the 1996 GEIS, and were determined to be reasonable upper bound estimates of risk, to account for uncertainty of the mean value. *Id.* at 5-114 -- 115. Since upper-confidence metrics were used, uncertainties regarding unknowns bound the potential increases in risk at North Anna from accidents due to external events such as climate-change induced events, and seismic events like the Mineral Earthquake. This conservatism is apparent upon comparing the North Anna population dose risk estimates in the 1996 GEIS with later estimates for North Anna. See DEIS at F-11; Attachment 1 at F-12 – F-13.

operations for all plants, a site-specific consideration of severe accident mitigation alternatives is required at license renewal for those plants for which this consideration has not been performed.

The Commission expects that if these reviews identify any changes as being cost beneficial, such changes generally would be procedural and programmatic fixes, with any hardware changes being only minor in nature and few in number.¹⁸¹

Consistent with the Commission's determination, the Staff considered severe accident mitigation alternatives for North Anna during initial license renewal.¹⁸² As stated in the North Anna initial license renewal EIS, after conducting that analysis, the Staff concluded that there are no impacts of severe accidents beyond those discussed in the GEIS. However, as required, the Staff evaluated SAMAs for North Anna initial license renewal, and developed a plant-specific population dose risk value and risk profile to compare to the 1996 GEIS values, to confirm that the probability-weighted consequences for severe accidents at North Anna were SMALL.¹⁸³

The 1996 GEIS and the North Anna initial license renewal SAMA analysis are comprehensive severe accident consequence analyses that account for external events and consider uncertainties, as Mr. Mitman and the Petitioners allege is required. While Mr. Mitman and the Petitioners claim that a comprehensive analysis should be performed now for subsequent license renewal at North Anna, they ignore the fact that the Commission's regulations do not require another comprehensive SAMA analysis to be performed; rather, SLR applicants and the Staff are directed to consider any new and significant information that has arisen, and to evaluate how that information might affect the prior analyses.¹⁸⁴ That is precisely what the Applicant and Staff have done for North Anna SLR. Thus the Applicant (in its ER, as supplemented) and the Staff (in both its 2021 DSEIS and 2023 DEIS) considered any new and

¹⁸¹ Final rule, Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 61 Fed. Reg. 28,467, 28,481 (Aug. 5, 1996) (emphasis added).

¹⁸² 2002 North Anna LR EIS at 5-16 to 5-21.

¹⁸³ North Anna Initial LR EIS at Table 5-4. The Staff based its assessment of offsite risk on the CDF and offsite doses in section 5.2.2.2 of the EIS for Initial LR.

¹⁸⁴ See 10 C.F.R. §§ 51.53(c)(3)(ii)(L) and 51.53(c)(3)(iv).

significant information that might affect their previous conclusions.¹⁸⁵ In particular, the December 2023 DEIS considered the effect of new and significant information (such as changes in CDF values) on accident risk, on a site-specific basis.¹⁸⁶

Thus, potential external events (whether or not due to climate-change) were considered and accounted for in the DEIS conclusion that the probability-weighted consequences of a severe accident are SMALL.¹⁸⁷ Moreover, the Petitioners do not explain how any of the information they claim is missing would impact any particular analysis or material determination presented in the DEIS, or would affect the Staff's determinations that the impacts of design basis accidents, and the probability-weighted consequences of severe accidents, are SMALL.

While the Petitioners amended their contention to cite the GAO report, they have still failed to provide sufficient support for their contention.¹⁸⁸ The subject of the GAO report, as the Petitioners admit in their amended contention, is not environmental reports and environmental impact analyses, but reactor safety analysis.¹⁸⁹ While the Petitioners attempt to paper over this distinction by stating that the report supports their contention because accident risks are part of the environmental review, they fail to explain any connection between the GAO Report and the DEIS evaluation.¹⁹⁰ Indeed, the GAO Report makes no claims about whether its findings and

¹⁸⁵ See Attachment 1 at F-7 – F-29. Additionally, in 2008, the NRC completed a State-of-the-Art Reactor Consequence Analyses (SOARCA) project for Surry (like North Anna, the Surry Units are Westinghouse PWRs with a large containment), located near North Anna. The SOARCA project was initiated to develop best estimates of the offsite radiological health consequences for potential severe reactor accidents. That information was considered by the Staff for North Anna SLR, See Attachment 1 at F-13 and F-22 to F-23.

¹⁸⁶ DEIS at F-1, F-5, F-18.

¹⁸⁷ DEIS at Section F.3.10; Attachment 1 at F-19 – F-20. See 2002 North Anna LR EIS at 5-9.

¹⁸⁸ Amended Contention at 3-6.

¹⁸⁹ Amended Contention at 6. The Petitioners state, "GAO-106326 describes this concern in terms of reactor safety rather than environmental impacts," but they then proceed to argue that the report "is relevant to the NRC's environmental review because accident risks are a lawful subject of that review." *Id.* The Petitioners' argument thus seeks to transform GAO's safety concerns into something else, without showing how that report calls into question the Staff's evaluation of the environmental impacts of North Anna SLR.

¹⁹⁰ *Id.*

contents would be applicable to any environmental reviews performed by the NRC. Inasmuch as the Petitioners fail to explain why this report is relevant to the environmental evaluation performed in the North Anna Draft EIS, they have failed to provide sufficient support for their contention, and it therefore should be rejected.

In sum, Contention 3 is not within the scope of this proceeding and does not meet the requirements for contention admissibility, as required by 10 C.F.R. § 2.309(f)(1)(ii), (v) and(vi). Contention 3 should therefore be rejected.

CONCLUSION

For the reasons set forth above, the Staff submits that Beyond Nuclear and the Sierra Club have failed to proffer at least one admissible contention. Accordingly, the Petitioners' request for hearing and petition for leave to intervene should be denied.

Respectfully submitted,

/Signed (electronically) by/

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Executed in Accord with 10 CFR 2.304(d)

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Dated at Rockville, Maryland
this 6th day of May 2024

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of

VIRGINIA ELECTRIC AND POWER
COMPANY

(North Anna Power Station, Units 1 and 2)

Docket Nos. 50-338-SLR-2
50-339-SLR-2

Certificate of Service

Pursuant to 10 C.F.R. § 2.305, I hereby certify that copies of the foregoing “NRC STAFF ANSWER IN OPPOSITION TO PETITION FOR LEAVE TO INTERVENE FILED BY BEYOND NUCLEAR INC. AND SIERRA CLUB, INC.” dated May 6, 2024, together with “ATTACHMENT 1” thereto, have been served upon the Electronic Information Exchange (the NRC’s E-Filing System), in the captioned proceeding, this 6th day of May, 2024.

/Signed (electronically) by/

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Dated at Rockville, MD
this 6th day of May, 2024