UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

LBP-26-01

ATOMIC SAFETY AND LICENSING BOARD PANEL

Before the Licensing Board:

Stefan R. Wolfe, Chair
Dr. David A. Smith
Nicholas G. Trikouros

In the Matter of	Docket No. 50-614-CP
LONG MOTT ENERGY, LLC	ASLBP No. 25-991-01-CP-BD01
(Long Mott Generating Station)	January 22, 2026

MEMORANDUM AND ORDER
(Ruling on Intervention Petition)

The genesis of this proceeding is the March 2025 10 C.F.R. Part 50 construction permit ("CP") Application filed by Long Mott Energy, LLC ("LME") requesting authorization to build the Long Mott Generating Station ("LMGS") in Calhoun County, Texas.[1] This facility, which is to consist of four Xe-100 high-temperature gas-cooled power reactor ("HTGR") modules,[2] is one of

[1] See Letter from Edward Stones, LME President, to Document Control Desk, Nuclear Regulatory Commission ("NRC"), at 2 (Mar. 31, 2025) (Agencywide Documents Access and Management System ("ADAMS") Accession No. ML25090A058) [hereinafter CP Application]. Relative to this decision, the portions of the CP Application of principal interest are the general and financial information portion, the preliminary safety analysis report ("PSAR"), the environmental report ("ER"), and the non-applicabilities and exemptions section. See id., encl. 1a (LME, LMGS, [CP] Application, Part 1, General and Financial Information (rev. 0 2025) (public version)) (ADAMS Accession No. ML25090A059) [hereinafter CP Application General Information]; id., encl. 2a (LME, LMGS, [CP] Application, Part II, [PSAR] (rev. 0 2025) (public version)) (ADAMS Accession No. ML25090A061) [hereinafter PSAR]; id., encl. 3 (LME, LMGS, [CP] Application, Part III, [ER] (rev. 0 2025) (public version)) (ADAMS Accession No. ML25090A063) [hereinafter ER]; id., encl. 5 (LME, LMGS, [CP] Application, Part V, Non-Applicabilities and Exemptions (rev. 0 2025) (public version)) (ADAMS Accession No. ML25090A065) [hereinafter CP Application Exemptions].

[2] CP Application at 2.

the first employing the new generation of "advanced" non-light water reactors to be subject to the NRC's Atomic Energy Act (AEA)-mandated licensing process.

And in that regard, pending before the Licensing Board is the August 11, 2025 hearing request of Petitioner San Antonio Bay Estuarine Waterkeeper ("Petitioner" or "Waterkeeper") challenging certain safety and environmental aspects of the CP Application,[3] as well as a hearing petition supplement, originally filed on August 25, 2025, and corrected on August 27, September 9, and December 15, 2025, that proffers an additional safety-related contention based on Sensitive Unclassified Non-Safeguards Information ("SUNSI") in the CP Application.[4]

With this decision we grant Petitioner's intervention request, finding it has (1) established its representational standing under 10 C.F.R. § 2.309(d); (2) put forth one contention that, consistent with section 2.309(f)(1), is admissible in part, i.e., Contention 3, "LME has failed to demonstrate its financial qualifications to build and operate the LMGS"; and (3) proffered two contentions that under the section 2.309(f)(1) standards are inadmissible, i.e., Contention 1, "LME's proposed functional containment fails to demonstrate compliance with applicable regulations," and Contention 4, "The [LME ER] erroneously minimizes the adverse environmental impacts of the proposed LMGS." Additionally, because our ruling regarding Petitioner's SUNSI-related fifth contention involves the consideration of potentially nonpublic information, this date we issue a separate, currently nonpublic decision in which we conclude that contention is not admissible under section 2.309(f)(1).[5]

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[3] See [Petitioner's] Petition to Intervene and Request for Hearing (Aug. 11, 2025) [hereinafter Hearing Request].

[4] See [Petitioner's] Second Corrected Supplement to Its Petition to Intervene and Request for Hearing Based on [SUNSI] (Redacted) (Dec. 15, 2025) at 1 n.1.

[5] See Licensing Board Memorandum (Notice Regarding Issuance of Decision on Intervention Petition Supplement Concerning [SUNSI]) (Jan. 22, 2026) at 2 (unpublished) (indicating LBP-26-02 will be treated as a nonpublic issuance pending participant review for proposed redactions and issuance of a publicly-available version of the decision).

I. BACKGROUND

In a June 10, 2025 Federal Register notice, the NRC announced the opportunity to request a hearing on the LME CP Application,[6] to which Petitioner responded with its August 11, 2025 hearing petition setting out four contentions.[7] On August 14, 2025, this Licensing Board was established to rule on standing and contention admissibility matters and to preside at any hearing.[8]

On September 5, 2025, LME and the NRC Staff responded to Petitioner's hearing request. For its part, LME declared Petitioner lacked standing and had failed to frame an admissible contention.[9] The Staff, on the other hand, maintained that Petitioner had established representational standing and that while its Contention 2, "LME's functional containment fails to include beyond design basis events (BDBEs) in the functional containment evaluation," was not admissible, narrow portions of its Contentions 1, 3, and 4 could be admitted for further

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[6] See [LME]; [LMGS]; [CP] Application, 90 Fed. Reg. 24,428 (June 10, 2025).

[7] See Hearing Request at 2. Additionally, acting in accordance with the terms of the agency's hearing opportunity notice, on June 20, 2025, Petitioner requested access to certain SUNSI in the LME application. See Letter from Marisa Perales, Counsel for Petitioner, to Office of the Secretary, NRC, and Deputy General Counsel for Licensing, Hearings, and Enforcement, Office of the General Counsel, NRC, at 1 (June 20, 2025). On June 30, 2025, the NRC Staff concluded there was an adequate basis for Petitioner's access request, a determination that was not opposed by LME. See Letter from Richard Rivera, Project Manager, Office of Nuclear Reactor Regulation, NRC, to Marisa Perales, Counsel for Petitioner, at 4 (June 30, 2025); Joint Motion for Proposed Protective Order Governing Disclosure of [SUNSI] and Non-Disclosure Agreement (July 21, 2025) at 1. On July 22, 2025, the Chief Administrative Judge ("CAJ") of the Atomic Safety and Licensing Board Panel issued a protective order granting access to that SUNSI. See CAJ Memorandum and Order (Protective Order Governing Specific [SUNSI]) (July 22, 2025) (unpublished). A week later, LME filed a notice stating that on that date it had timely provided access to the SUNSI specified in the protective order. See [LME]'s Notice of Provision of Access to Specific [SUNSI] (July 29, 2025) at 1. Thereafter, Petitioner timely filed the SUNSI-related contention that is the subject of LBP-26-02, a separate admissibility ruling issued by the Board today. See supra notes 4–5.

[8] See [LME], Establishment of Atomic Safety and Licensing Board, 90 Fed. Reg. 40,398 (Aug. 19, 2025). Pursuant to this Board establishment notice and in accordance with 10 C.F.R. § 2.322, Administrative Judge G. Paul Bollwerk, III, is serving as a special assistant to the Licensing Board. See id. at 40,398.

[9] See [LME's] Answer to [Petitioner's] Hearing Request and Petition to Intervene (Sept. 5, 2025) at 1–3 [hereinafter LME Answer].

litigation.[10] In its September 12, 2025 reply, as amended later that day, Petitioner asserted that, consistent with the NRC Staff's position and traditional standing requirements, it had established representational standing.[11] Further, while maintaining that Contentions 1, 3, and 4 were admissible in toto, Petitioner withdrew Contention 2.[12] LME responded to this reply with a September 22, 2025 motion to strike portions of the pleading as exceeding the permissible scope of a reply and as untimely supplements to and expansions of the claims in Petitioner's hearing request.[13]

In an August 28, 2025 initial prehearing order the Board established a procedure for identifying possible dates for an initial prehearing conference to hear arguments regarding any disputes over Petitioner's standing or the admissibility of its contentions.[14] Subsequently, the Board advised the participants that it planned to conduct an initial prehearing conference on October 6, 2025, regarding Petitioner's standing and the admissibility of Contentions 1, 3, and 4.[15] And on September 29, 2025, the Board provided further administrative information

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[10] See NRC Staff's Answer to [Petitioner's] Petition to Intervene and Request for Hearing (Sept. 5, 2025) at 1 [hereinafter Staff Answer].

[11] See [Petitioner's] Reply in Support of Petition to Intervene and Request for Hearing (Sept. 12, 2025) at 1 [hereinafter Petitioner Reply]. As initially submitted on September 12, attached to Petitioner's Reply were two copyrighted articles. Consistent with agency practice regarding copyrighted material submitted to its Electronic Hearing Docket without obtaining the copyright holder's permission, the pleading with the attachments was placed in the nonpublic protective order file for this proceeding. Petitioner resubmitted its reply that same day with the previously attached copyrighted documents removed and replaced by citations to the documents and that revised pleading was placed into the agency's public docket. In this ruling we reference the revised public version of Petitioner's Reply filing cited above.

[12] See id. at 9, 20, 26.

[13] See [LME's] Motion to Strike Portions of [Petitioner's] September 12, 2025 Reply (Sept. 22, 2025) at 1.

[14] See Licensing Board Memorandum and Order (Initial Prehearing Order) (Aug. 28, 2025) at 7 (unpublished).

[15] See Licensing Board Memorandum and Order (Scheduling Initial Prehearing Conference) (Sept. 16, 2025) at 1–2 (unpublished). The Board also asked that the participants maintain their availability on October 14, 2025, for a potential nonpublic prehearing conference concerning Petitioner's SUNSI-related contention. See id. at 2.

regarding the October 6 virtual prehearing conference along with a series of questions that the Board indicated it anticipated would be posed to the participants' counsel during argument.[16]

On October 1, 2025, however, as part of the federal government-wide shutdown due to a lapse of appropriated funds, the Commission suspended all adjudicatory proceedings pending before the agency.[17] As a result, the Board's planned October 6, 2025 prehearing conference was postponed pending the resumption of agency adjudicatory proceedings. With the subsequent enactment of a continuing resolution and the reopening of the federal government, on November 13, 2025, the Commission lifted the suspension with the instruction that "[a]ll filing deadlines affected by the shutdown . . . have been extended by 43 days."[18]

With this proceeding's resumption, in a November 19, 2025 issuance the Board rescheduled the initial prehearing conference for December 8, 2025.[19] Two weeks later, on December 3, the Staff notified the Board and the other participants that its position regarding the admissibility of portions of Contentions 1, 2, and 3 had changed upon receipt of three LME CP Application supplemental information submittals: one dated September 26 (PSAR Supplement 1 regarding fuel qualification testing and scheduling), one dated October 17 (ER confirmatory information concerning continued storage of spent nuclear fuel), and one dated November 20, 2025 (PSAR Supplement 2 regarding facility flood-level analysis).[20] As a result, in a December 4

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[16] See Licensing Board Memorandum and Order (Providing Administrative Information and Questions for Prehearing Conference) (Sept. 29, 2025) at 2 (unpublished).

[17] See Commission Notice (Oct. 1, 2025) at 1 (unpublished).

[18] Commission Notice of Resumption of Adjudications (Nov. 13, 2025) at 2 (unpublished).

[19] See Licensing Board Memorandum and Order (Rescheduling Initial Prehearing Conference) (Nov. 19, 2025) at 1 (unpublished) [hereinafter Board Rescheduling Order].

[20] See Notification Regarding Supplemental Information (Dec. 3, 2025) at 1–2 [hereinafter Staff Notification]; see also Letter from Charles R. O'Connor, LME Senior Director, to NRC Control Desk (Sept. 26, 2015) (ADAMS Accession No. ML25269A125); Letter from Charles R. O'Connor, LME Senior Director, to NRC Document Control Desk (Oct. 17, 2025) (ADAMS Accession No. ML25290A123); Letter from Charles R. O'Connor, LME Senior Director, to NRC Document Control Desk (Nov. 20, 2025) (ADAMS Accession No. ML25324A307). The September 25, 2025 LME submission regarding PSAR Supplement was the subject of a September 26, 2025 LME notice to the Board and the other participants that it might be relevant

memorandum, the Board provided guidance on how this Staff filing would be incorporated into the Board's questioning of the participants at the December 8 oral argument.[21]

The next day, LME submitted a letter notifying the Board and the participants of PSAR Supplement 3 to its CP Application concerning site-specific flooding analysis information and indicating that it also might be viewed as relevant to Petitioner's Contention 4.[22] And the day after that, in a motion to amend Contention 1, Petitioner asserted that LME's September 25, 2025 PSAR Supplement 1 did not resolve the dispute raised by that contention and that it was seeking to amend that contention to add that the Supplement failed to satisfy the requirements of 10 C.F.R. § 50.35(a) requiring that a CP Application initially missing technical information nonetheless may be granted only if the application identifies a research and development program reasonably designed to resolve any safety questions at or before the latest date stated in the application for completing construction.[23]

On December 8, 2025, the Board held the initial prehearing conference on the efficacy of Petitioner's hearing request.[24] At the conference's outset, the Board held that, Petitioner having failed to respond to LME's September 22, 2025 motion to strike portions of Petitioner's September 15, 2025 reply to the September 5, 2025 answers of LME and the Staff, LME's

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to Contention 1. See Letter from Ryan K. Lighty, LME Counsel, to Licensing Board at 1–2 (Sept. 26, 2025).

[21] See Licensing Board Memorandum (Supplemental Guidance Regarding Initial Prehearing Conference) (Dec. 4, 2025) at 1–2 (unpublished).

[22] See Letter from Ryan K. Lighty, LME Counsel, to Licensing Board at 1 (Dec. 4, 2025); see also Letter from Charles R. O'Connor, LME Senior Director, to NRC Document Control Desk (Dec. 4, 2025) (ADAMS Accession No. ML25338A311); id., encl. 1 (Table 2.0-1: [LMGS] Site Circumstances) (ADAMS Accession No ML25338A312).

[23] See [Petitioner's] Motion to Amend Contention 1 Based on PSAR Supplement 1 (Dec. 5, 2025) at 1. LME and the NRC Staff filed answers to this motion on December 19, 2025, to which Petitioner submitted a December 29, 2025 reply. See [LME's] Answer to Waterkeeper's December 5, 2025 Motion to Amend Contention 1 (Dec. 19, 2025); NRC Staff's Answer to [Petitioner's] Amended Contention 1 (Dec. 19, 2025); [Petitioner's] Reply in Support of Its Motion to Amend Contention 1 (Dec. 29, 2025).

[24] See Tr. at 1–249.

motion to strike was granted both on substantive grounds and because Petitioner waived any response.[25] Thereafter, the participants made presentations and answered Board questions concerning Petitioner's standing and the admissibility of its Contentions 1, 3, and 4.

Subsequent to the oral argument, the Board issued a December 11, 2025 order requesting additional briefing from Petitioner and LME on the question whether the portion of Contention 4 regarding the environmental impacts of continued storage of spent fuel storage had been mooted as a contention of omission.[26] Given the Staff's assertion in its December 3, 2025 notification that LME corrected any omission, the Board requested that Petitioner and LME address the matter of mootness in their filings associated with any new/amended contention motion filed by Petitioner regarding that LME submission.[27] Petitioner filed such a motion on December 12, 2025, maintaining that LME's October 17, 2025 ER confirmatory information Supplement did not resolve the portion of Contention 4 concerning LME's failure to provide a required environmental assessment of spent fuel storage impacts beyond the operational lifetime of reactors at the LMGS.[28] Moreover, in a December 15, 2025 filing, Petitioner indicated that neither the September 16, 2025 PSAR Supplement 1 nor the October 17, 2025 ER confirmatory information has mooted any portions of Contentions 1 and 4.[29] In addition, in that filing Petitioner stated it likely would submit a new/amended contention motion regarding PSAR

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[25] See Tr. at 11; see also Board Rescheduling Order at 2 n.3.

[26] See Licensing Board Memorandum and Order (Requesting Briefing Regarding Portion of Contention 4 and Establishing Schedule for Reply to Motion to Amend Contention 1) (Dec. 11, 2025) at 1–2 (unpublished).

[27] See id. at 2.

[28] See [Petitioner's] Motion to Amend Contention 4 Based on ER Supplement 2 (Dec. 12, 2025) at 1–2. The LME and NRC Staff answers to this motion were filed on December 29, 2025, to which Petitioner submitted a January 5, 2026 reply. See [LME's] Answer to Waterkeeper's December 12, 2025 Motion to Amend Contention 4 (Dec. 29, 2025); NRC Staff's Answer to [Petitioner's] Amended Contention 4 (Dec. 29, 2025); [Petitioner's] Reply in Support of Motion to Amend Contention 4 Based on ER Supplement 2 (Jan. 5, 2026).

[29] See [Petitioner's] Notification Regarding LME's Supplemental Information (Dec. 15, 2025) at 2–3.

Supplement 2, which it also asserted did not moot any portion of Contention 4.[30] Petitioner on December 31, 2025 then filed a motion to add a new contention and to amend Contention 4 based on PSAR Supplements 2 and 3, and enclosure 6 to LME's December 17, 2025 PSAR Supplement 4.[31]

II. STANDING

The regulatory requirements for standing in NRC adjudicatory proceedings are well established, but their application in this case is nonetheless contentious. While there is a long-standing presumption that any individual residing within fifty miles of a proposed nuclear power reactor has standing to challenge a CP application,[32] the participants disagree whether the presumption applies in this case. The participants also disagree as to whether, without the presumption, Waterkeeper has established representational standing based on the standing of its members.

While we acknowledge LME's argument that a 50-mile proximity presumption is not well-suited to the type of power reactor facility it seeks to construct and operate, the Commission's prior precedential decisions regarding the fifty-mile proximity presumption obligate the Board to apply the presumption in this case. And doing so, we conclude Waterkeeper has standing under that presumption.

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[30] See id. at 3.

[31] See [Petitioner's] Motion to Add a New Contention and Amend Contention 4 Based on [LME's] Supplements to the PSAR (Dec. 31, 2025) at 1–2. PSAR Supplement 4 dealt with a number of topics, with enclosure 6 providing an amended table 2.0-1 that reflected updated information from enclosures 1-5 to that PSAR Supplement. See Letter from Charles R. O'Connor, LME Senior Director, to NRC Document Control Desk at 2 (Dec. 12, 2025) (ADAMS Accession No. ML25346A257); id. encl. 6 (Table 2.0-1 [LMGS] Site Circumstances) (ADAMS Accession No ML25346A258). LME and the NRC Staff submitted answers to this motion on January 14, 2026, to which Petitioner filed a January 21, 2026 reply. See [LME's] Answer to Waterkeeper's December 31, 2025 Motion for New Contention and Amended Contentions (Jan. 14, 2026); NRC Staff's Answer to [Petitioner's] New Contention and Amended Contention 4 (Jan. 14, 2026).

[32] See infra notes 47–48 and accompanying text.

A. Legal Standard for Standing.

Waterkeeper bears the burden of providing facts sufficient to establish its standing.[33] Making such a showing in this case involves essentially two steps. First, Waterkeeper must meet the regulatory filing requirements. Second, as an association, Waterkeeper must demonstrate compliance with the standards for organizational or representational standing, to include showing that at least one of Waterkeeper's individual members has standing. We address each in turn.

1. Regulatory Requirements for Standing.

NRC's rules of practice require that a request for hearing or an intervention petition include four items to establish standing:

> (i) The name, address and telephone number of the requestor or petitioner;
> (ii) The nature of the requestor's/petitioner's right under the Act to be made a party to the proceeding;
> (iii) The nature and extent of the requestor's/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 requestor's/petitioner's interest.[34]

While the first requirement is relatively straightforward, the remaining three require the Board to assess whether the petitioner has an "interest [that] may be affected by the proceeding" allowing it to intervene under AEA section 189a.[35] In this regard, the Commission requires petitioners to allege a particularized injury that is within the zone of interests protected by the statute governing the proceeding, fairly traceable to the challenged action, and likely to be redressed by a favorable decision.[36]

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[33] PPL Bell Bend, LLC (Bell Bend Nuclear Power Plant), CLI-10-7, 71 NRC 133, 139 (2010).

[34] 10 C.F.R. § 2.309(d)(1).

[35] 42 U.S.C. § 2239(a)(1)(A).

[36] Yankee Atomic Elec. Co. (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 195 (1998).

2. Representational and Organizational Standing

An organization such as Waterkeeper must demonstrate either representational or organizational standing.[37] Representational standing involves alleged harm to an organization's members. In contrast, organizational standing, which Waterkeeper does not raise and which we do not address further, involves an alleged harm to the organization itself.

Waterkeeper may represent the interests of its members using representational standing if it can (1) show that the interests it seeks to protect are germane to its own purpose; (2) identify at least one member who qualifies for standing in his or her own right; (3) show that it is authorized by that member to request a hearing on his or her behalf; and (4) show that neither the claim asserted nor the relief requested requires an individual member's participation in the organization's legal action.[38]

3. The Proximity Presumption.

As just stated, to establish representational standing Waterkeeper must provide facts sufficient to show that at least one of its individual members also has standing. While standing for an individual member can be determined on a case-by-case basis, "in certain circumstances — such as construction permit . . . proceedings for power reactors . . . we presume that a petitioner has standing to intervene if the petitioner lives within, or otherwise has frequent contacts with, the zone of possible harm from the nuclear reactor."[39] This "proximity presumption" rests on the Commission's finding, in construction permit cases, "that persons living within the roughly 50-mile radius of the facility face a realistic threat of harm if a release

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[37] Lujan v. Def. of Wildlife, 504 U.S. 555, 561 (1992).

[38] FirstEnergy Nuclear Operating Co. (Beaver Valley Power Station, Units 1 and 2), CLI-20-5, 91 NRC 214, 219 (2020); see also Consumers Energy Co. (Palisades Nuclear Plant), CLI-07-18, 65 NRC 399, 409 (2007).

[39] El Paso Elec. Co. (Palo Verde Nuclear Generating Station, Units 1, 2, & 3), CLI-20-7, 92 NRC 225, 231 (2020) (citations omitted).

from the facility of radioactive material were to occur."[40] If the presumption applies, instead of assessing Waterkeeper's members individually, we need only find that at least one member resides within 50 miles of LME's proposed power reactor facility.

B. Standing Analysis.

The focus of the standing dispute among the participants is whether applying the proximity presumption is appropriate. Waterkeeper submitted affidavits from four of its members,[41] each of whom attest that they reside within fifty miles of the proposed reactor site.[42] Indeed, one individual resides just four miles away.[43] Waterkeeper therefore asserts that it has "presumptive standing by virtue of the location of its members' residences and property within 50 miles of the proposed LME reactors."[44] Waterkeeper's Petition does not explain in any detail how, without the presumption, any of these individuals would have standing.

1. The Proximity Presumption Applies to This CP Proceeding.

In response to Waterkeeper's invocation of the proximity presumption, LME argues that the "presumption is rooted in certain" policies germane to large light water reactors ("LLWRs") and, as such, the Board should "decline to unilaterally expand the Commission's policy" to cover LME's proposed reactor.[45] While not taking a definitive position on the appropriateness of the proximity presumption, but conceding that LME's argument about the appropriateness of the

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[40] Id. at 231 n.27 (citation omitted).

[41] Hearing Request, ex. A at 1–2 (Declaration of Diane Wilson (Aug. 11, 2025)) [hereinafter Wilson Declaration]; id., ex. B at 1 (Declaration of Mauricio Blanco (Aug. 11, 2025)) [hereinafter Blanco Declaration]; id., ex. C at 1 (Declaration of Curtis Miller (Aug. 11, 2025)) [hereinafter Miller Declaration]; id., ex. D at 1 (Declaration of John Daniel (Aug. 11, 2025)) [hereinafter Daniel Declaration].

[42] Wilson Declaration at 1; Blanco Declaration at 1; Miller Declaration at 1; Daniel Declaration at 1.

[43] Hearing Request at 7; Daniel Declaration at 1 (indicating declarant's home on farm and cattle ranch adjacent to LMGS is less than four miles from the facility).

[44] Hearing Request at 7.

[45] LME Answer at 17.

presumption for smaller advanced reactors has some merit, the NRC Staff does not oppose the Board's application of the presumption in this instance.[46]

To discern whether the application of the distance-based proximity presumption is appropriate in this proceeding, we begin with a review of its origin and subsequent application. In that regard, the presumption can be traced at least as far back as 1973.[47] And to LME's point, over the subsequent fifty years, at each instance in which the Commission has addressed its proximity presumption, it has always been connected to the distance at which a reasonable danger from the release of fission products into the environment during an accident exists.[48]

Here, LME argues that the fifty-mile presumption is "ill-suited" for the small modular reactors it seeks to construct and eventually operate.[49] LME contends that because the reactor's passive safety systems prevent a core melt event, even under circumstances of total off-site power loss, determining standing warrants a different framework.[50] LME also asserts that

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[46] Staff Answer at 7. In its Answer, the NRC Staff concluded Waterkeeper had standing but shares concerns with LME that "the 50-mile radius may not be appropriate for smaller, advanced reactors like the proposed facility." Id. at 6-7. While thus appearing to acknowledge the merit of LME's arguments, the Staff declines to take an affirmative stance and states that "[g]iven the application of the proximity presumption in license amendment proceedings [for operating reactors] and the Commission's recognition that the 50-mile presumption is rebuttable, the NRC Staff does not oppose application of the proximity presumption in this case." Id. at 7.

[47] Northern States Power Co. (Prairie Island Nuclear Generating Plant, Units 1 and 2), ALAB-107, 6 AEC 188, 190–93 (1973) ("Without attempting to lay down any inflexible standard, we deem distances of 30 to 40 miles from this reactor site as not being so great as to require the conclusion that residents of Minneapolis and Northfield are geographically outside of the zone of interests protected by the [AEA].").

[48] See, e.g., Calvert Cliffs 3 Nuclear Project, LLC (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-09-20, 70 NRC 911, 917 (2009) (approving licensing board's statement that "[t]he Commission . . . has applied its expertise and concluded that persons living within a 50-mile radius of a proposed new reactor face a realistic threat of harm if a release of radioactive material were to occur from the facility." (internal citations omitted)); see also Sequoyah Fuels Corporation and General Atomics (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 75 n.22 (1994) ("The determination of how proximate a petitioner must live or have frequent contacts to a source of radioactivity depends on the danger posed by the source at issue.").

[49] LME Answer at 18.

[50] Id.

its proposed plant will have "no plume exposure pathway ('PEP') emergency planning zone ('EPZ')," consistent with the agency's recently adopted performance-based framework and so "the prescriptive 10-mile PEP and 50-mile ingestion pathway EPZs that are mandatory for LLWRs *do not apply* to Advanced Reactors."[51] Thus, LME argues, "this proceeding differs materially, in scope and scale, from the [light water reactor] proceedings to which the proximity presumption has historically applied."[52] While LME agreed at oral argument that application of the proximity presumption is within this Board's discretion,[53] it nevertheless maintains that if a significant radiological release into the environment is implausible then application of the proximity presumption is perhaps inapt.[54]

While not unreasonable, the argument urging this Board to abandon the proximity presumption in this case nonetheless faces two difficulties. The first is that reconsidering Commission precedents is beyond this Board's authority: "[L]icensing boards are bound to comply with [higher authority], whether they agree with them or not" because "[a]ny other alternative would . . . be unworkable and unacceptably undermine the rights of the parties."[55] Within the last five years, the Commission has reaffirmed that while the presumption does not apply to all proceedings, it does apply to construction permits for power reactors.[56]

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[51] Id. at 18, 19.

[52] Id. at 18. Indeed, "'the common thread in the [NRC] decisions applying the 50-mile presumption is a recognition of the potential effects at significant distances from the facility of the accidental release of fissionable materials.'" Calvert Cliffs, CLI-09-20, 70 NRC at 917 (quoting Calvert Cliffs 3 Nuclear Project, LLC, & Unistar Nuclear Operating Servs., LLC (Calvert Cliffs Nuclear Power Plant, Unit 3), LBP-09-4, 69 NRC 170, 182 (2009)).

[53] Tr. at 62.

[54] LME Answer at 16–17.

[55] S.C. Elec. & Gas Co., et al. (Virgil C. Summer Nuclear Station, Unit 1), ALAB-710, 17 NRC 25, 28 (1983).

[56] Nuclear Dev., LLC (Bellefonte Nuclear Plant, Units 1 & 2), CLI-20-16, 92 N.R.C. 511, 516 (2020); see also Calvert Cliffs, CLI-09-20, 70 NRC at 917 n. 27 ("Our 50-mile presumption has proved a workable standard for decades, and we see no reason to abandon it today.").

And second, we can only distinguish this case from CP applications for existing power reactors by first accepting the representations in LME's application regarding the inherent safety of its reactor design. Yet, LME's CP Application has not yet been approved, nor has the NRC approved permits for similar reactors. In our view, it would require significant bootstrapping to avoid the proximity presumption based on representations in the LME CP Application before those same representations are determined to be correct.[57]

Moreover, the Commission has rejected weighing the likelihood of an accident when determining whether to apply the proximity presumption. The Commission has found that "persons living within the roughly fifty-mile radius of the [reactor] face a realistic threat of harm if a release from the facility of radioactive material were to occur."[58] That is, when determining standing, the Commission did not assess the likelihood of an accident, but rather assumed an accident would occur and then assessed who would be affected. As a licensing board observed in this regard:

> [T]he Commission [has] previously rejected an appeal that sought to disturb a standing determination in a case where a research reactor licensee argued that the hypothetical scenarios underlying the proximity presumption were "incredible," because they would "first require three independent safety systems to fail." In [another]

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[57] That being said, it appears the NRC Staff's recently released safety evaluation report for the CP application for the Kemmerer Natrium 840 megawatt thermal pool-type sodium-cooled fast reactor gave preliminary approval to sizing a PEP EPZ at one-quarter mile from the reactor, corresponding roughly to the facility's exclusion area boundary, and to the ingestion pathway response resources certification that is now required in lieu of a specified ingestion pathway EPZ. See NRC, Safety Evaluation Related to the U.S. SFR Owner, LLC [CP] Application for the Kemmerer Power Station Unit 1, at 2-3, 11-20 to -26, 11-45 to -46 (Nov. 2025) (ADAMS Accession No. ML25329A252). If this approach, which is not unlike what LME is urging the Staff to approve relative to the LME facility, see PSAR at 11.4-1 to -2, continues to gain agency approval, the beyond-the-plant-perimeter EPZs that have been the apparent benchmark for the proximity presumption as it is currently applied to LLWRs, see Strata Energy, Inc. (Ross In Situ Uranium Recovery Project), CLI-12-12, 75 NRC 603, 610 n.32 (2012) (observing that "the 50-mile proximity zone we use for standing in reactor proceedings corresponds roughly to the [EPZ] for ingestion pathways" and rejecting applying any presumption in a materials case because "no similar boundary" exists), may well be substantially reduced if not totally eliminated.

[58] Nuclear Dev., LLC (Bellefonte Nuclear Plant, Units 1 & 2), CLI-20-16, 92 NRC 511, 516 (2020).

> proceeding, the Commission held that the Petitioners had standing based on the proximity presumption without reviewing the merits at all, stating that its ruling did "not signify any opinion on the admissibility or the merits of the Petitioners' contention" and remanding those issues to the licensing board. Similarly, licensing boards have found standing in cases where the proximity presumption was based on "unlikely" but plausible risk scenarios.[59]

The licensing board then concluded that "whether [a] petitioner is ultimately correct on the merits is generally a distinct issue from the threshold question of standing for purposes of the proximity presumption."[60] Thus, Commission precedent appears to instruct us *not* to weigh LME's claim that there is little risk of a radiological accident when determining whether the proximity presumption applies.[61]

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[59] S. Nuclear Operating Co., Inc. (Vogtle Elec. Generating Plant, Units 3 & 4), LBP-16-5, 83 NRC 259, 270 (2016) (citing Commission cases).

[60] Id.

[61] During the December 2025 oral argument, a question was raised about what effort would be required on a petitioner's part, including possibly expert-supported radiation dose modeling, to make the necessary showing of injury in fact if the proximity presumption were negated in this and other instances involving non-LLWR power facilities. See Tr. at 47–49. Petitioner indicated that based on the agency's existing proximity-plus precedent, no expert submission would be required, but rather a showing based on the nature of the proposed licensing action, radiological source significance, and offsite consequences potential would be. See Tr. at 48–49. The NRC Staff seemed to support this approach generally as it has been applied in non-LLWR cases, noting that petitioners would need "to propose simply just the harms that they may face" and that the licensing boards and the Commission would exercise "substantial deference to petitioners in those claims, without having the[m] to provide any evidentiary hearings or expert support to support their claims." Tr. at 54. For its part, LME asserted it should not be difficult as a pleading matter for petitioners to make the necessary showing of a plausible chain of causation without using studies and computer models supported by testimony and other evidence, although it acknowledged that "[p]otentially" expert input might be needed, albeit not "detailed scientific analysis" such that "[a]n educat[ed] layperson could probably put [it] together." Tr. at 49–52.

Given the prospect of LME's position that its advanced reactor facility is inherently safe so as not to pose radiological safety hazards or impacts much, if at all, beyond the site boundary becoming the accepted approach as more non-LLWR applications come before the agency, see supra note 57, in the absence of some kind of practical proximity presumption standard rooted in the same considerations regarding radiological impacts that were the genesis of the existing proximity presumption for LLWRs, whether the issue of standing will become a resource intensive and potentially exclusionary barrier to public participation in AEA section 189a adjudications associated with non-LLWR power facility licensing proceedings seems a matter appropriate for, and worthy of, careful Commission consideration. See Calvert

Lastly, the LME CP Application would result in the construction of four interconnected reactors totaling 800 megawatts thermal (MWt). In combination, this output is smaller than, but within the same order of magnitude as, the output of a LLWR reactor to which the proximity presumption has typically been applied.[62] This provides additional weight to our conclusion that only the Commission may reevaluate its proximity presumption precedent,[63] meaning that the

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Cliffs, CLI-09-20, 70 NRC at 915 ("In determining whether a person is an "interested person" for the purposes of a section 189(a)(1)(A) standing determination, we are not strictly bound by judicial standing doctrines.").

[62] See 35 Office of Public Affairs, NRC, NUREG-1350, 2024-2025 Information Digest at 35 (Feb. 2025) (indicating smallest United States commercial power reactor operates at 1,677 MWt) (ADAMS Accession No. ML25051A094). By comparison, the *largest* research and test reactor is licensed to operate at up to 20 MWt. Id. Thus, while LME's proposed plant will have about half the power of the smallest LLWR, it will have forty times the power of the largest research reactor. The LMGS is therefore closer in power to an LLWR for which the 50-mile proximity presumption has been applied than to research reactors which must be analyzed on a case-by-case basis. See Georgia Institute of Technology (Georgia Tech Research Reactor), CLI-95-12, 42 NRC 111, 116 (1995).

[63] The source of the standing precept in the agency's rules of practice is AEA section 189a, which, as is relevant here, provides that "any person whose interest may be affected by [a] proceeding" for the granting of a construction permit who requests a hearing shall be admitted as a party to the proceeding. 42 U.S.C. § 2239(a)(1)(A). And the United States Court of Appeals for the District of Columbia Circuit has interpreted the requirement for "public hearings . . . *upon request of any interested party*" as "vest[ing] in the public . . . a role in assuring safe operation of nuclear power plants." Union of Concerned Scientists v. NRC, 735 F.2d 1437, 1447 (D.C. Cir. 1984). Moreover, the District of Columbia Circuit has indicated relative to the AEA that Congress "enact[ed] a regulatory scheme which is virtually unique in the degree to which broad responsibility is reposed in the administering agency, free of close prescription in its charter as to how it shall proceed in achieving the statutory objectives." Siegel v. AEC, 400 F.2d 778, 783 (D.C. Cir. 1968).

While the United States Supreme Court in Loper Bright Enterprises recently eliminated the deference the Court's earlier Chevron ruling afforded to an agency's interpretation of its statutory authority, the Supreme Court in that decision also recognized that "when a particular statute delegates authority to an agency consistent with constitutional limits, courts must respect the delegation, while ensuring the agency acts within it." Loper Bright Enters. v. Raimondo, 603 U.S. 369, 413 (2024) (overturning Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc., 467 U.S. 837 (1984)). As it constitutes the agency's interpretation of its organic statute, any significant revision in the scope and application of the proximity presumption is a matter for Commission consideration, acting within the parameters afforded by Loper Bright Enterprises.

In any event, and notwithstanding our determination in this proceeding, until the Commission issues a definitive ruling on the application of the proximity presumption to non-LLWRs (e.g., small modular reactors, advanced reactors, microreactors) and, potentially,

Board should not stray in this instance from the Commission's command to apply the proximity presumption when determining standing in a case involving a sizable power reactor facility such as this one.[64]

2. Waterkeeper Meets the Remaining Requirements for Standing.

Although not contested by any participant,[65] we find that Waterkeeper also meets the remaining requirements for standing in this proceeding. Its petition properly lists its name, address and telephone number.[66] Waterkeeper's intervention in this proceeding is germane to its stated purpose of advocating for preservation of local waterways and wetlands located within 50 miles of the proposed plant.[67] Waterkeeper has provided affidavits from four of its members, all of whom claim some degree of harm from the construction of the power plant, all of whom authorize Waterkeeper to represent their interests, and all of whom live within 50 miles of the

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fusion machines, out of an abundance of caution future petitioners may wish to include in their hearing request a standing analysis that does not rely solely upon the presumption.

[64] In the context of this CP Application proceeding, we also note LME's argument that Waterkeeper has not "articulated a plausible theory of how any personal injuries could be 'fairly traced' to the issuance of a [CP]." LME Answer at 24. LME asserts that a "[CP] *does not authorize the possession or use of nuclear material* . . . [or] *the operation of a facility* after it is constructed." Id. at 6. From this, we understand LME to argue that because a CP does not include a license authorizing the possession and use of radiological materials, it is logically impossible for a radiological release to arise from a CP issuance. It therefore follows that if a CP issuance cannot cause radiological harm, Waterkeeper's members cannot seek to intervene in this proceeding to prevent such harm. Or put another way, there is no potential radiological harm redressable by this Board from CP issuance alone because a CP does not include authorization to possess and use nuclear material.

Accepting LME's argument would seem to compel the conclusion that Waterkeeper's concerns about radiological dangers would have to await consideration until LME seeks an operating license. During oral argument, LME nevertheless acknowledged precedent that had routinely applied the proximity presumption to find standing in power reactor CP Application proceedings, and also acknowledged the problems that would ensue if a petitioner could not raise a challenge to the location or design of a plant until the applicant sought an operating license (i.e., after the plant was sited and built). See Tr. at 58–60. In our view, this too is an issue that only the Commission can address, as this Board is required to follow Commission precedent.

[65] Tr. at 63.

[66] Hearing Request at 4.

[67] Id.; see Wilson Declaration at 1–3.

proposed plant.[68] We are unaware of facts that would require any of the four individuals to participate directly in this proceeding.

Accordingly, we find that Waterkeeper has standing to intervene in this proceeding.

III. CONTENTION ADMISSIBILITY

As noted in the introduction, Waterkeeper's Petition included four contentions. After reviewing LME's and the NRC Staff's responsive briefs, Waterkeeper elected to withdraw its second contention, leaving the first, third and fourth contentions.[69]

Broadly, Waterkeeper's contentions fall short when attempting to raise general concerns about nuclear power, climate change, or small modular reactors, without specifically tying those concerns to LME's actual CP Application. Issues that are generic and that could be cut-and-pasted into any number of petitions typically lack the specificity required for board adjudication. Waterkeeper fares better, however, when it supports its contention by citing specific regulations and specific portions of the CP Application and ties those references together with appropriate analysis.

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[68] See supra notes 41–44 and accompanying text.

[69] As outlined previously, Petitioner also submitted a SUNSI-based fifth contention that is the subject of a second Board issuance today. See supra note 4 and accompanying text. Additionally, pending with the Board are three motions by Petitioner to amend the three contentions remaining from its original Hearing Request to address what it asserts is new information from three LME PSAR license amendment supplements and an LME response to an NRC Staff ER-related information request, each of which became available after its hearing request was filed. See supra notes 20, 22–23, 28, 31 and accompanying text. Under long-standing agency practice as now codified in section 2.309(c), a petitioner/intervenor is afforded the opportunity to seek the admission of a new or amended contention in response to such new information. And while such motions are not uncommon in agency licensing adjudications as the applicant and the NRC Staff generate new or revised information during the parallel license application review process, it also does not seem coincidental that they tend to arise more frequently in proceedings, such as this one and the ongoing Palisades restart proceeding, in which the regulatory parameters are under development. See Risk-Informed, Technology-Inclusive Regulatory Framework for Advanced Reactors, 89 Fed. Reg. 86,918 (Oct. 31, 2024) (proposing to revise the NRC's regulations by adding a risk-informed, performance-based, technology-inclusive regulatory framework for commercial advanced reactors). In any event, we retain jurisdiction over those three motions, which we will address in due course as this proceeding moves forward. See infra notes 121, 213, 233, 250.

In detailing our determination, we first address the legal standards for contention admissibility and then address the first, third, and fourth contentions in turn.

A. Legal Standards for Contention Admissibility.

In addition to standing, for an intervention petition to be granted, petitioners must demonstrate that they have submitted at least one admissible contention.[70] To be admissible, a contention 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;
> (iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;
> (iv) Demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding;
> (v) Provide a concise statement of the alleged facts or expert opinions which support the [petitioner's] position on the issue . . . , together with references to the specific sources and documents on which the [petitioner] intends to rely to support its position on the issue; [and]
> (vi) [P]rovide sufficient information to show that a genuine dispute exists with the [applicant] on a material issue of law or fact. This information must include references to specific portions of the application . . . 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 . . . .[71]

It is a petitioner's obligation, not a licensing board's, to formulate a contention which satisfies the six criteria necessary for the contention's admission.[72] The failure to meet any one of the six elements for contention admissibility renders that contention inadmissible.[73] At the same time, petitioners are not required to prove their contentions at the admissibility

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[70] 10 C.F.R. § 2.309(a).

[71] Id. § 2.309(f)(1).

[72] Entergy Nuclear Operations, Inc. (Palisades Nuclear Plant), CLI-15-23, 82 NRC 321, 329 (2015).

[73] Entergy Nuclear Operations, Inc. (Indian Point, Unit 2), CLI-16-5, 83 NRC 131, 136 (2016).

determination stage and "we do not consider the merits of [petitioners'] arguments" at this stage.[74] Nonetheless, "[w]hile the Board appropriately may view Petitioners' support for its contention in a light that is favorable to the Petitioner, it cannot do so by ignoring the [contention admissibility] requirements . . . ."[75]

"'Bare assertions and speculation,' even by an expert, are insufficient to trigger a full adjudicatory proceeding."[76] Indeed, "an expert opinion that merely states a conclusion . . . without providing a reasoned basis or explanation for that conclusion is inadequate because it deprives the Board of the ability to make the necessary, reflective assessment of the opinion . . . ."[77] A licensing board must review the petitioner's information, facts, and expert opinions provided to determine whether they provide adequate support for the proffered contentions.[78]

For a properly pled contention of omission, showing that a required analysis was not performed is sufficient.[79] For other contentions, however, a petitioner cannot just say that 'more

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[74] Pac. Gas & Elec. Co. (Diablo Canyon Nuclear Power Plant, Units 1 & 2), CLI-11-11, 74 NRC 427, 443 (2011); S. Nuclear Operating Co. (Vogtle Elec. Generating Plant, Units 3 & 4), CLI-11-8, 74 NRC 214, 221 (2011); U.S. Dep't of Energy (High-Level Waste Repository), CLI-09-14, 69 NRC 580, 591 (2009) (noting merits are to be considered at a phase other than contention admissibility); Priv. Fuel Storage, L.L.C. (Indep. Spent Fuel Storage Installation), CLI-04-22, 60 NRC 125, 139 (2004) ("[W]e do not expect a petitioner to prove its contention at the pleading stage . . . .").

[75] Ariz. Pub. Serv. Co. (Palo Verde Nuclear Generating Station, Units 1, 2, & 3), CLI-91-12, 34 NRC 149, 155 (1991).

[76] Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), CLI-12-15, 75 NRC 704, 714 (2012) (quoting AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-08-28, 68 NRC 658, 674 (2008)).

[77] USEC, Inc. (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 472 (2006) (citation omitted); see Power Authority of the State of New York (James A. FitzPatrick Nuclear Power Plant; Indian Point, Unit 3), CLI-00-22, 52 NRC 266, 315 (2000) ("Unsupported hypothetical theories or projections, even in the form of an affidavit, will not support invocation of the hearing process.").

[78] American Centrifuge Plant, CLI-06-10, 63 NRC at 457.

[79] When a petitioner raises a contention of omission (i.e., an assertion that the application is lacking required information) and there is a subsequent submission of information relevant to the claimed omission, see supra note 69, a licensing board will consider whether the supplemental information moots the omission. USEC, Inc. (American Centrifuge Plant), CLI-06-9, 63 NRC 433, 444–45 (2006) (noting that a contention of omission may be mooted "as

could have been done.'[80] As it is always possible to come up with more details or areas of discussion that could have been included in an application or environmental report, "[c]ontentions admitted for litigation must be based on alleged facts or expert opinion pointing to an actual error or deficiency in the application, not petitioners' 'suggestions' or ideas of additional details or description that conceivably could be included."[81]

B. "Contention 1: LME's proposed functional containment fails to demonstrate compliance with applicable regulations."[82]

Waterkeeper's first contention alleges that the LME CP Application fails to meet regulatory requirements for functional containment. Functional containment refers to the ability of the nuclear power plant to prevent the release of fission products into the environment.[83] For the reasons discussed below, we find the contention inadmissible.

1. The Petition Does Not Address the CP Application as Filed.

In alleging that the LME CP Application does not comply with the agency's regulations, Waterkeeper's first contention cites the CP Application only twice. The first reference notes that the latest date for the completion of the LME facility is projected to be 2033.[84] The second

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part of the contention admission phase of the proceeding."); First Energy Nuclear Operating Co. (Davis-Besse Nuclear Power Station, Unit 1), LBP-12-27, 76 NRC 583, 610 (2012) (finding a contention that would have been admissible as a contention of omission mooted by subsequently supplied information "[w]hile the matter of the contention's admissibility was pending"). Assessing whether new information satisfies what is wanting in a contention of an omission (i.e., is 'X' now present) is a very different question from assessing whether the new information is adequate to address the safety or environmental matter to which the information is directed.

[80] American Centrifuge Plant, CLI-06-10, 63 NRC at 477.

[81] Id.

[82] Hearing Request at 12.

[83] NRC, Regulatory Guide 1.232, Guidance for Developing Principal Design Criteria for Non-Light-Water Reactors, app. C, at C-8 (rev. 0 Apr. 2018) (defining a "functional containment" as "a barrier, or set of barriers taken together, that effectively limit the physical transport and release of radionuclides to the environment across a full range of normal operating conditions, [anticipated operational occurrences], and accident conditions") (ADAMS Accession No. ML17325A611).

[84] Hearing Request at 20.

citation reports that LME is seeking an exemption from section 50.34(a)(1)(ii)(D).[85] We address these specific references in more detail below. The remainder of the contention, however, discusses the CP Application in the abstract without directing the Board to the specific parts of the application that Waterkeeper alleges are deficient or that the Board needs to understand to follow Waterkeeper's argument. Because this Board's authority is limited to adjudicating disputes regarding the CP Application *as filed*, this contention is inadmissible because it lacks specificity and fails to allege a genuine dispute.[86]

Moreover, the failure to engage with the CP Application occasionally leads Waterkeeper astray. Under 10 C.F.R. § 50.34(a)(3), a CP application must include principal design criteria for the facility. In its first contention, Waterkeeper attacks the LME CP Application for failing to meet the principal design criteria (PDC) for modular high temperature gas-cooled reactors (known as MHTGR-16) contained in regulatory guidance.[87] But by failing to cite the application actually at issue, Waterkeeper misses that the CP Application did not propose using the MHTGR-16. Instead, LME proposes to use its own PDC for functional containment, which it refers to as Long Mott Generating Station 16 (LMGS-16).[88] Thus, LME argues, Waterkeeper's contention attacks its compliance with a design criterion that LME did not propose to use.[89]

LME is correct. If Waterkeeper intended its discussion of MHTGR-16 to be applicable to LME's proposed plant, Waterkeeper was required to tie those concerns to the design criteria in the application. Waterkeeper never claims that LME's selection of LMGS-16 is inapt, inappropriate, or in error. Nor does Waterkeeper argue that its concerns about MHTGR-16 are

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[85] Id. at 21.

[86] See 10 C.F.R. § 2.309(f)(1)(i), (vi).

[87] Hearing Request at 14.

[88] See LME Answer at 36 (citing PSAR at 5.3-5). Specifically, LME uses this reference to encompass two functional design criteria set forth in its PSAR, PDC RFDC 16 and PDC CDC 16. See id.

[89] Id. at 36–37.

equally applicable to LMGS-16. Waterkeeper's Petition does not mention LMGS-16 at all. To be admissible, a contention is required to be both "material to the findings the NRC must make to [grant or deny the license application]" and to raise a "genuine dispute . . . on a material issue of law or fact."[90] Here, because the application does not propose to use PDC MHTGR-16, a contention which argues that the application does not meet MHTGR-16 is not material.

2. Waterkeeper Fails to Specify the Regulations It Asserts Were Violated.

While the *sine qua non* of Waterkeeper's first contention is that LME's CP Application does not meet regulatory requirements for functional containment of fission products, the Board finds it difficult to determine from the petition which specific part of the CP Application fails to adhere to which particular regulation. An admissible contention that asserts a CP application violates regulations must specify the regulation at issue.[91]

The likely source of Waterkeeper's shortfall is that it often conflates regulations with non-binding guidance documents.[92] "Staff guidance documents do not have the force of law."[93] "Indeed, an agency violates the Administrative Procedure Act if it treats a guidance document as binding, either on itself or on the regulated community."[94] Thus, it is not sufficient to claim that the application fails to adhere to regulatory guidance.

To be sure, regulatory guidance is often relevant. NRC guidance documents generally describe an approach for compliance with NRC rules that may be presumptively acceptable to the NRC. An applicant, however, remains free to choose alternative methods of compliance. Whether an application follows guidance or not, *the key inquiry* is whether the application

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[90] 10 C.F.R. § 2.309(f)(1)(iv), (vi).

[91] Id. § 2.309(f)(1).

[92] See Hearing Request at 13–21.

[93] Entergy Nuclear Operations, Inc. (Indian Point, Units 2 & 3), CLI-15-6, 81 NRC 340, 358 (2015).

[94] Nextera Energy Seabrook, LLC (Seabrook Station, Unit 1), LBP-20-12, 92 NRC 431, 453 (2020).

follows the underlying regulation that the guidance interprets. Waterkeeper's Petition falls short when it argues that LME's approach does not follow regulatory guidance -- and then stops its analysis.[95]

Waterkeeper's first contention addresses specific regulations in only three instances. The first is section 50.34(a)(3), discussed in section III.B.1 above, in which Waterkeeper mistakenly attacks a PDC not actually used in the application. The remaining two instances are discussed separately below. To the extent that Waterkeeper intended to make any additional claims that the application does not comply with regulations, it failed to identify the specific regulations at issue, and its concerns thus lack the specificity required by our contention admissibility standards.

Most problematically, although the petition lists eight specific areas where it alleges the CP Application does not meet "minimum criteria for adequacy" it omits any description of the regulatory source for those criteria.[96] What are the "minimum criteria" for adequacy? Where can the Board find the regulation establishing the minimum criteria? The Petition does not say. The only reference to guide the Board is a "*see generally*" citation to a sixteen-page appendix attached to non-binding interim staff guidance.[97] The Board is not required to search through Title 10 of the Code of Federal Regulations and the CP Application to make Waterkeeper's case for it.[98]

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[95] See, e.g., Hearing Request at 17–20.

[96] Id. at 17–18.

[97] Id. at 17 n.48.

[98] The Hearing Request does make general references to 10 C.F.R. § 50.34. But as LME points out, this is a section of title 10 with 162 subsections, paragraphs, subparagraphs, clauses, and subclauses. LME Answer at 33. The Board cannot identify on behalf of Petitioner the portion of this regulation that Waterkeeper alleges was violated. Handwaving references to large sections of the code do not meet Waterkeeper's obligation to state its contentions with specificity. To the extent that Waterkeeper attempted to cure these omissions in its reply, we cannot consider a new basis for a contention in a reply brief. Louisiana Energy Servs., L.P. (National Enrichment Facility), CLI-04-25, 60 NRC 223, 225, recons. denied, CLI-04-35, 60 NRC 619 (2004).

3. When Waterkeeper References Specific Regulations, Contention 1 Still Does Not Meet Contention Admissibility Standards.

Waterkeeper's first contention makes three specific references to subsections of section 50.34. The first, discussed above, alleged a violation of section 50.34(a)(3). The second alleges a violation of section 50.34(a)(1)(ii)(D). The third raises simultaneous violations of sections 50.34(a)(4) and 50.34(a)(8). We address these next.

a. 10 C.F.R. § 50.34(a)(1)(ii)(D).

Waterkeeper claims that LME's CP Application fails to comply with section 50.34(a)(1)(ii)(D).[99] This regulation requires a safety assessment that "assume[s] a fission product release from the core [of the reactor] into the containment assuming that the facility is operated at the ultimate power level contemplated." A footnote to this subsection emphasizes that the assessment "should be based upon a major accident . . . [that is] assumed to result in substantial meltdown of the core with subsequent release into the containment of appreciable quantities of fission products."[100] The regulation then provides specific limits on radiation doses at the boundary of the reactor site and within nearby populated areas during the postulated accident.[101]

Waterkeeper's Petition addresses this regulation in two places.[102] In both, Waterkeeper asserts that as LME does not have an approved evaluation model for meeting the requirements of section 50.34(a)(1)(ii)(D), it can only meet the requirements by constructing "a conventional, essentially leak-tight containment structure."[103] Because the CP Application does not include

[99] Hearing Request at 16, 21 n.53.

[100] 10 C.F.R. § 50.34(a)(1)(ii)(D) n.3.

[101] Id. § 50.34(a)(1)(ii)(D)(1)–(2).

[102] Hearing Request at 16, 21 n.53.

[103] Id. at 16.

building a leak-tight containment structure, Waterkeeper argues it does not meet the requirements.[104]

LME's CP Application, however, sought a partial exemption from the requirements of section 50.34(a)(1)(ii)(D).[105] Thus, the proper focus of any contention challenging compliance with section 50.34(a)(1)(ii)(D) should be either that (1) LME's requested exemption should not be granted; or (2) even if LME's requested exemption were granted, LME would still fail to comply with section 50.34(a)(1)(ii)(D). The petition fails to develop either of these claims.[106]

Instead, Petitioner relies on conclusory statements that granting the exemption would "contravene the purpose of the PSAR rules" and that granting the exemption would "present an undue risk to public health and safety."[107] While the release of an appreciable quantity of fission products could present an undue risk to public health and safety, Waterkeeper does not explain how granting LME's requested exemption could lead to such a release. Other than a lone reference to the PSAR, Petitioner fails to "include references to specific portions of the application," and includes no discussion or references to LME's rationale for the requested exemption.[108] Fatally, the petition does not address the substance of the exemption request at all.

Thus, with regard to Waterkeeper's claim that LME's CP Application fails to adhere to section 50.34(a)(1)(ii)(D), compliance with that requirement is not material to this proceeding

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[104] Id.

[105] CP Application Exemptions at Part V-XVII to -XXII. We note that for this and several other enclosures to its CP Application, LME uses the page numbering protocol "Part #," which references the Roman numeral for the CP Application part, followed by a hyphen, followed by the Roman numeral designating the page number.

[106] The criteria for an applicant to be granted an exemption to a Part 50 regulatory requirement are listed in 10 C.F.R. § 50.12. While Waterkeeper addresses those criteria with regard to its third contention, see infra section III.C, it fails to address them in connection with Contention 1.

[107] Hearing Request at 21.

[108] 10 C.F.R. § 2.309(f)(1)(vi).

because the CP Application, rather than attempting to meet that provision, seeks an exemption.[109] Moreover, as Waterkeeper never substantively engages with whether LME's request for an exemption from section 50.34(a)(1)(ii)(D) should be granted, the petition lacks the specificity needed to generate a "genuine dispute" that is material to the proceeding.[110]

b. 10 C.F.R. § 50.34(a)(4), (8).

Lastly, Waterkeeper alleges the CP Application fails to follow section 50.34(a)(4) and (a)(8). Waterkeeper addresses these two provisions simultaneously without distinguishing between the two.

Paragraph (a)(4) of section 50.34 requires a "preliminary analysis and evaluation of the design and performance of structures, systems, and components of the facility with the objective of assessing the risk to public health."[111] By contrast, paragraph (a)(8) requires an identification of those structures, systems or components that will require research and development to confirm the adequacy of their design. If the application identifies any research or development needed, it must include a schedule "showing that such safety questions will be resolved . . . before the latest date stated in the application for completion of the construction of the facility."[112] In combination, these rules require a CP Application to contain a preliminary analysis and evaluation of the facility's safety features, and *a plan* to address any unresolved issues before the construction is completed.

As a threshold issue, as Waterkeeper's Petition addresses both provisions simultaneously, we must first determine whether it raises noncompliance with section 50.34(a)(4), section 50.34(a)(8), or both. We conclude the petition only raises an issue regarding section 50.34(a)(8). After stating the contents of both paragraphs (a)(4) and (a)(8),

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[109] Id. § 2.309(f)(1)(iv).

[110] Id. § 2.309(f)(1)(vi).

[111] Id. § 50.34(a)(4).

[112] Id. § 50.34(a)(8).

Waterkeeper argues that the CP Application "fails to satisfy *these* requirements" because "the latest date for completion cited in the [application] is 2033."[113] As the date for the completion of construction is only relevant to the requirements of section 50.34(a)(8), that is the only plausible basis of Waterkeeper's contention.[114]

Waterkeeper raises compliance with section 50.34(a)(8) in the context of LME's selection of reactor fuel. And indeed, the substance of LME's CP Application rests in large part on its selection of fuel. LME proposes designing its reactors around TRISO X, a pebble-based fuel in which the fissionable material is surrounded by multiple layers of carbon and silicon-based molecules that LME contends will substantially prevent the release of the radioactive fission products created during reactor operation (and during postulated accident events).[115]

Waterkeeper is not convinced. Waterkeeper's expert Dr. Edwin Lyman opines that the assumptions LME uses regarding fuel performance have not been validated.[116] He states that in a loss of coolant event, reactor temperatures will approach 2000 degrees Celsius with sustained temperatures above 1800 degrees, but that TRISO fuel has only been shown to be stable at temperatures up to 1600 degrees.[117] Waterkeeper's expert contends, with citations, that at

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[113] Hearing Request at 20 (emphasis added).

[114] Additionally, Waterkeeper notes that LME cannot test its fuel as manufactured, because the manufacturing plant has not yet been built. Hearing Request at 20. That is, Waterkeeper acknowledges the testing *necessarily* must occur in the future. This again leads us to conclude that Waterkeeper focused its contention on section 50.34(a)(8) as that provision addresses future research and testing. But to the extent that Waterkeeper also intended to raise a challenge under section 50.34(a)(4), it did not explain the basis for that concern and so any contention based on 50.34(a)(4) is not admissible. See 10 C.F.R. § 2.309(f)(1)(ii).

[115] PSAR at 6.4-19.

[116] Hearing Request, ex. E ¶ 19 (Declaration of Edwin Lyman, Ph.D. in Support of Petition to Intervene and Request for Hearing by [Petitioner] (Aug. 11, 2025)) [hereinafter Lyman Declaration].

[117] Id. ¶¶ 20–22. For the type of reactor that LME proposes to build, this event is referred to as a depressurized loss of forced circulation. Id. ¶ 19.

temperatures above 1600 degrees, "TRISO particle failures steadily increase, and can increase by an order of magnitude or more at 1800 [degrees]."[118] Essentially, Waterkeeper asserts that aspects of LME's design, specifically the fuel, is untested in the full range of environments that it may experience.

Section 50.34(a)(8) broadly requires a CP application both to identify those areas of the design that require additional research and propose a schedule to resolve those issues prior to the completion of construction. As LME's CP Application did not initially include a schedule for such fuel testing, Waterkeeper's Petition seems to have initially identified a contention of omission.[119] However, after Waterkeeper filed its Petition, LME amended its application to include a schedule for completing fuel testing prior to the completion of construction.[120] Once this PSAR Supplement 1 was submitted, there was no longer a "genuine dispute" as to the existence of a schedule for fuel testing.[121]

With the contention of omission thus resolved, there are two remaining aspects of Waterkeeper's section 50.34(a)(8) claim. First, Waterkeeper suggests that not only did LME fail to submit a fuel testing schedule showing that fuel testing would be finished before construction is completed, but that it would be impossible to do so.[122] This, however, is speculation. While Waterkeeper's expert Dr. Lyman notes that the Advanced Gas Reactor Program at Idaho

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[118] Id. ¶ 22.

[119] See Staff Answer at 15.

[120] See supra note 20 and accompanying text.

[121] Petitioner, however, has submitted a motion to amend this contention relative to the information in PSAR Supplement 1, see id., which we will resolve in due course.

[122] In its Hearing Request, Waterkeeper asserts it is "unlikely" that LME will be able to perform the testing it alleges is required prior to the completion of LMGS construction in 2033. Hearing Request at 20. Of course, at the time it filed its initial Hearing Request, Waterkeeper did not have the fuel testing schedule. Accordingly, its argument was that there was no hypothetical schedule under which fuel testing could be completed by 2033. It is this argument we address here.

National Laboratory ("INL") took ten years to make allegedly similar tests,[123] that is insufficient to create a genuine dispute that LME would not complete its testing by 2033 under any circumstance.[124]

Lastly, Waterkeeper claims that the fuel schedule submitted by LME does not include a schedule for quality control testing of the fuel "as-manufactured."[125] That is, Waterkeeper seeks to have LME not only test its fuel at INL but also test the fuel as it is produced in a manufacturing environment. As the facility that will fabricate the fuel at scale has not been constructed, Waterkeeper asserts that it is not feasible to build the factory and test the as-manufactured fuel before LME completes construction in 2033.[126]

Petitioner does not explain, however, how section 50.34(a)(8) requires LME, as part of a *CP application*, to demonstrate ongoing quality control of the "as-manufactured" fuel, constructed at a different facility. The Board notes that section 50.34(a)(8) only requires additional research for the "structures, systems, [and] components of *the facility*" that is being licensed.[127] While LME is scheduled to test its fuel design at INL, Waterkeeper does not explain why regulations would also require, at the CP application stage, testing the fuel as-manufactured. Thus, while we do not suggest that fuel manufacturing quality control is

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[123] Lyman Declaration ¶ 36.

[124] If we were to infer that practical experience suggests unforeseen delays to LME's fuel testing schedule, experience would likewise suggest that the completion date for the construction of the facility may similarly be delayed for unforeseen reasons. As the testing must be completed before construction, an inference of unexpected delays cuts both ways as it right-shifts the schedule for both events.

[125] Id. ¶ 36.

[126] Id. ¶ 9.

[127] 10 C.F.R. § 50.34(a)(8) (emphasis added).

unimportant or unregulated,[128] Waterkeeper has failed to show that this issue is within the scope of this CP application proceeding.[129]

C. "Contention 3: LME has failed to demonstrate its financial qualifications to build and operate the LMGS."[130]

The financial qualifications requirement was initially adopted based on the Commission's finding that "the fundamental purpose of the financial qualifications provision . . . is the protection of the public health and safety" and that "an applicant's financial qualifications can also contribute to [the applicant's] ability to meet [its] responsibilities on safety matters."[131] In its third contention, Waterkeeper claims that LME has failed to meet the financial qualifications criteria necessary for the approval of a construction permit.

The detailed financial qualifications requirement associated with a CP application are found in 10 C.F.R. section 50.33(f) and its related Part 50 Appendix C. Rather than meet those requirements, however, LME seeks an exemption, asking the NRC to apply the more lenient standards used in section 70.23(a)(5).[132] Waterkeeper opposes granting the exemption on the grounds that LME has not established the requisite "special circumstance" to support its exemption under section 50.12(a)(2) (which we designate Contention 3A) and alleges as well that the CP Application fails to meet even the lower financial qualifications threshold in Part 70 (which we designate Contention 3B).[133]

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[128] See, e.g., 10 C.F.R. pt. 50, app. B, intro (requiring a CP application to have a "description of the quality assurance program to be applied to the design, fabrication, construction, and testing of the structures, systems, and components of the facility" while an operating license applicant is required to have an established quality control program). Waterkeeper's Petition does not challenge the description of LME's quality control program.

[129] 10 C.F.R. § 2.309(f)(iii), (vi).

[130] Hearing Request at 26.

[131] Part 50—Licensing of Production and Utilization Facilities, 33 Fed. Reg. 9704, 9704 (July 4, 1968) (quoting statement of considerations accompanying amendments to 10 C.F.R. §§ 50.33(f), 50.71, and the addition of Appendix C to Part 50).

[132] LME Answer at 59; see CP Application Exemptions at Part V-XI to -XVII.

[133] Hearing Request at 26, 41–43.

In determining contention admissibility, the Board does not consider whether LME's exemption request should be granted. Nor do we decide whether LME's CP Application meets the financial qualifications requirements (under any standard). Rather, we focus only on whether Waterkeeper has stated an admissible contention. Because we conclude Waterkeeper has shown that portions of its third contention fulfill all six of section 2.309(f)(1)'s admissibility criteria, we admit those aspects of the contention.

1. 10 C.F.R. § 50.12 Provides the Standard for Granting an Exemption.

The standards for granting an exemption from any of the requirements in Part 50 can be found in 10 C.F.R. § 50.12(a). As relevant here, the exemption must be "authorized by law," cannot "present an undue risk to the public health and safety," and must be "consistent with the common defense and security."[134] Additionally, the exemption must meet at least one of several "special circumstances."[135]

While section 50.12(a)(2) lists several special circumstances that would qualify for an exemption, LME's CP Application raises only two. Specifically, LME seeks an exemption under subparagraphs (a)(2)(ii) and (a)(2)(vi) because either (1) "[a]pplication of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule"; or (2) "[t]here is present some other material circumstance not considered when the regulation was adopted for which it would be in the public interest to grant an exemption."[136]

Because LME only needs one special circumstance (a disjunctive requirement), a challenge to LME's exemption request must show a genuine dispute of a material issue of law or fact as *to each* special circumstance raised by LME. Stated differently, if there is no genuine

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[134] 10 C.F.R. § 50.12(a)(1).

[135] Id. § 50.12(a)(2).

[136] CP Application Exemptions at Part V-XV to -XVI (quoting 10 C.F.R. § 50.12(a)(2)(ii), (vi) (emphasis omitted)); see LME Answer at 65 & n.253.

dispute as to whether LME has met one of the two special circumstances upon which it relies, resolving the applicability of the alternative special circumstances would not be material to the proceeding.

We address in turn each of the two special circumstances raised in the application.

2. Waterkeeper Has Raised a Genuine Dispute as to Whether the Exemption Request Meets the Section 50.12(a)(2)(ii) Special Circumstance Regarding Serving the Underlying Purpose of the Rule.

LME acknowledges in its application that the purpose of section 50.33(f) "is to protect public health and safety by preventing safety lapses during construction from underfunded projects."[137] LME nonetheless asserts public health and safety will not be adversely affected by an exemption to these requirements.[138]

In support of this argument, LME notes that the NRC Staff "has not found a direct correlation between an applicant's financial qualification prior to commencing construction activities and later safe construction practices or safe operating performance."[139] And LME is correct that in conjunction with proposing to the Commission an amendment to section 50.33(f), the NRC Staff in 2016 indicated that the current version of section 50.33(f) and Part 50 Appendix C impose unnecessary financial disclosure requirements on non-utility applicants and that applying the more relaxed financial qualifications standard contained in Part 70 "would not compromise public health and safety because the NRC maintains a number of oversight programs and processes that directly ensure safe plant construction and operation."[140]

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[137] CP Application Exemptions at Part V-XVI; see id. at Part V-XIII.

[138] Id. at Part V-X; see id. at Part V-XVI.

[139] Id. at Part V-XIII.

[140] NRC, Financial Qualifications for Reactor Licensing Rulemaking, Regulatory Basis Document at 11–12 (Oct. 2016) (ADAMS Accession No. ML15322A185) [hereinafter Regulatory Basis Document]. This regulatory basis document was prepared in response to a 2014 Commission directive to amend the agency's financial qualifications requirements in Part 50 to conform to the review standard in Part 70. See SECY-18-0026, Proposed Rule: Financial Qualifications Requirements for Reactor Licensing (RIN 3150-AJ43) at 1–2 (Feb. 26, 2018) (ADAMS Accession No. ML17172A565).

According to the LME CP Application, its proposal for an exemption is consistent with the NRC Staff's earlier findings.[141] Nonetheless, at the contention admissibility stage, LME's arguments face two hurdles.

First, as Waterkeeper observes, the Staff's proposal for rulemaking was not adopted by the Commission.[142] To accept LME's arguments that financial qualifications are not necessary for public health and safety, this Board would have to *independently* reach the same conclusions as the NRC Staff. At the contention admissibility stage, we are not aware of any authority (and LME points to none) that would allow this Board to adopt factual findings by the Staff.[143]

Our second concern is that the central thrust of LME's arguments is applicable to *all* CP applications. For the most part, LME does not claim that its specific circumstances warrant relief

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[141] CP Application Exemptions at Part V-XVI.

[142] In its Answer, the NRC Staff notes that the Commission "did not disapprove the rule for substantive reasons but rather directed the [S]taff to address financial qualifications" in its development of new rules for advanced reactor licensing in 10 C.F.R. Part 53, which the Staff has done by seeking feedback on the application of the Part 70 standards to power reactor licensing. Staff Answer at 27 & n.123. However, at the contention admissibility stage, the extent to which the Board can wet its finger and attempt to discern which way the regulatory wind is likely to blow is problematic. In our view, given the Board's duty to apply the Commission's rules and precedent until the Commission formally alters the rule, for this contention that means applying section 50.33, except as section 50.12 allows for an exemption.

[143] We are also unclear as to the factual basis for the Staff's conclusion that abrogating the existing financial requirements in section 50.33(f) would not compromise safety. In 1979, the NRC Staff surveyed its Office of Inspection and Enforcement regional office staffs to determine if there were any instances of a utility taking an action detrimental to public health to reduce costs. See SECY-79-299, Generic Issue of Financial Qualifications: Licensing of Production and Utilization Facilities at 6 (Apr. 27, 1979) (ADAMS Accession No. ML12236A723). The survey did not reveal any instances, but the NRC Staff noted that it audits "only a sample" of the regulated activity and that while it was "not aware of any incidents of 'corner cutting' by utilities for financial reasons, it cannot guarantee that it has never occurred." Id. The NRC Staff also concluded "that although technical reviews and inspection efforts are very effective direct methods of discovering deficiencies that could affect safety, the analysis of financial qualifications is an additional method, albeit indirect, of determining an applicant's ability to satisfy safety requirements." Id. at 10.

from section 50.33(f). Rather, its argument is that the current financial qualifications rules are not necessary to protect public safety, an argument that would appear to apply to all applicants.

Were this Board to find that compliance with section 50.33(f) is not necessary to serve its purpose for CP applications *generally*, we would likely be infringing on the Commission's rulemaking authority. When the Commission refers a hearing petition to a licensing board, it may explicitly or implicitly authorize the Board to consider exemptions to the licensing rules on a case-by-case basis.[144] But it is the Commission, not this Board, that establishes the rules under which the NRC operates.[145] Finding that compliance with section 50.33 is broadly unnecessary is akin to substituting our judgment for that of the Commission. We cannot blithely determine, and certainly not on this record, that a rule of general applicability established by the Commission is not generally applicable. Indeed, the requirement to find a "special circumstance" prior to granting an exemption implies a circumstance that is different or unique from the typical case.[146]

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[144] See Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station), CLI-16-12, 83 NRC 542, 551–553 (2016) (allowing a challenge to an exemption request because the exemption request was "inextricably intertwined" with an action for which a hearing opportunity must be provided).

[145] Pub. Serv. Co. of Ind. (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-316, 3 NRC 167, 170 (1976) (indicating that a licensing board has only the jurisdiction and power which the Commission delegates to it); Fansteel Inc. (Muskogee, Oklahoma Facility), LBP-03-13, 58 NRC 96, 100 (2003) (indicating that a presiding officer only has the jurisdiction delegated by the Commission).

[146] The term "special circumstances" in the context of section 50.12(a)(2) has been interpreted consistently with the same term found in 10 C.F.R. § 2.335, which requires special circumstances before a waiver of a rule's application may be granted under that provision. See Honeywell Int'l, Inc. (Metropolis Works Uranium Conversion Facility), LBP-12-6, 75 NRC 256, 271 (2012). Moreover, the Commission has interpreted "special circumstances" to mean "'unique' to the facility rather than 'common to a large class of facilities.'" See Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 560 (2005) (footnotes omitted). This interpretation of "special circumstances" is "mandated by sound policy considerations" as NRC regulations "do not operate as a one-way street or safe harbor. In other words, they do not merely establish a standard that . . . may then be disregarded whenever an applicant wants to argue its case on an individual, fact-specific basis." Metropolis Works, LBP-12-6, 75 NRC at 271.

We conclude that Waterkeeper has raised a genuine dispute on a material issue of law or fact as to whether the LME request for an exemption in its CP Application meets the special circumstance outlined in 10 C.F.R. § 50.12(a)(2)(ii).[147]

3. Waterkeeper Has Raised a Genuine Dispute as to Whether the Exemption Request Meets the Section 50.12(a)(2)(vi) Special Circumstance Regarding a Material Circumstance Not Considered When the Regulation was Adopted.

LME's second identified "special circumstance" is that developments since section 50.33(f) was enacted warrant an exemption to the rule. Specifically, LME's CP Application asserts that the Commission directed the NRC Staff "to initiate a rulemaking to amend the financial qualification requirements of 10 CFR 50 and to apply financial qualification standards similar to those in 10 CFR 70."[148] LME in its CP Application argues that while the Commission "disapproved the proposed rule . . . and instead directed the staff to address financial qualifications during the development of 10 CFR 53," nonetheless "the proposed amendment of the 10 CFR Part 50 financial qualification standards . . . remains in a pendent state . . . ."[149] LME further asserts that this history of attempted rulemaking is "the material circumstance not considered when the regulation was adopted as described in 10 CFR 50.12(a)(2)(vi) [and] is present and applicable to the requested exemption."[150] Waterkeeper responds that an attempted rulemaking, when the rule was ultimately not adopted, cannot be the basis for a special circumstance under section 50.12.[151]

It is not clear to the Board that this attempted rulemaking effort qualifies as an unconsidered "material circumstance" as that term is used in section 50.12(a)(2)(vi). Indeed, this

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[147] 10 C.F.R. § 2.309(f)(1)(vi).

[148] CP Application Exemptions at Part V-XVI.

[149] Id. at Part V-XVII.

[150] Id.

[151] Hearing Request at 39–40.

is a rule that Waterkeeper argues, and LME concedes, the Commission considered changing but did not.[152] It would be an odd result if the Commission's not adopting a rule change caused this Board to conclude that LME should receive the benefit of that same rejected rule.

LME responds that Waterkeeper's analysis is too thin to meet the requirements for an admissible contention.[153] And we would agree that a weak attack on a robust application may be insufficient to generate the "genuine dispute" needed for an admissible contention. Here, however, LME's justification for its special circumstance itself is strained.[154] Indeed, because it is questionable whether, even as a matter of law, LME's proffered justification qualifies as a special unconsidered "material circumstance," Waterkeeper provided more than enough to create a genuine dispute on a material issue of law or fact as to the validity of LME's special circumstance justification.[155]

4. Waterkeeper Frames an Admissible Contention as to Whether There Is a Special Circumstance Warranting an Exemption to Section 50.33(f).

While the Commission is, of course, free to reconsider whether to maintain the current financial qualifications requirements in Part 50, this Board cannot. Nor can the Board interpret the exemption requirements in section 50.12 in such a manner that we substitute our views for

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[152] Id. at 35, 38–40; LME Answer at 64.

[153] Tr. at 242.

[154] In its 2016 regulatory basis document, the NRC Staff noted the "widespread deregulation of electricity markets in the past two decades has resulted in a new class of nuclear 'nonelectric utility' license applicants for facilities known as 'merchant plants' that sell the power they generate on the open market at unregulated prices." Regulatory Basis Document at 2. The Staff indicated that nuclear industry groups maintained that these new applicants, which did not exist when the financial qualifications rule was originally propounded, found it "difficult, if not impossible, . . . to secure project funding to meet [financial qualifications] requirements in advance of initial license issuance." Id. at 2–3.

Procedural fairness requires that we be equally rigorous in holding LME to the terms of its CP Application as we are in holding Waterkeeper to the terms of its Petition. Thus, just as we do not consider arguments that Waterkeeper could have made in its Petition, but did not, we likewise do not consider arguments that LME could have included in its CP Application.

[155] 10 C.F.R. § 2.309(f)(1)(vi).

those of the Commission. Accordingly, we find Waterkeeper has framed an admissible contention as to that portion of its Contention 3 that questions whether the CP Application includes a special circumstance under section 50.12(a)(2)(ii), (v) that warrants an exemption to the financial qualification requirements of section 50.33(f). Because LME did not attempt to meet the requirements of section 50.33(f),[156] the CP application as submitted is incomplete if LME does not receive its requested exemption. Accordingly, the contention provides a specific statement identifying a material issue of law or fact that is material to and within the scope of this proceeding and has an adequately supported basis so as to establish a genuine dispute regarding the "special circumstances" issue. As Waterkeeper's Petition adequately frames the contention,[157] we conclude contention 3A is admissible as set forth below:

Contention 3A: LME's CP application relies upon but does not meet the 10 C.F.R § 50.12(a)(2)(ii), (vi) requirements for an exemption to the financial qualifications requirements in 10 C.F.R. § 50.33(f).

5. Even Assuming LME Is Granted an Exemption to the Financial Qualifications Requirements of Part 50, Waterkeeper Adequately Raises a Contention as to Whether the CP Application Meets the Requirements of Section 70.23(a)(5), Absent Conditions.

In addition to its challenge to whether LME should receive an exemption to the requirements of section 50.33(f), Waterkeeper also asserts that even if the exemption were to be granted, LME cannot meet the resulting requirements without conditions.[158] Under section 70.23(a)(5), which is the financial qualification standard LME seeks to make applicable via its exemption request, a CP "will be approved" if the Commission determines, among other

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[156] LME Answer at 61.

[157] 10 CFR § 2.309(f)(1)(i)–(vi); see Hearing Request at 26–44 (adequately stating contention with specificity, providing a brief explanation, and providing a concise statement of relevant facts and expert opinion).

[158] Hearing Request at 41–43.

issues, "that the applicant appears to be financially qualified" to proceed with the construction.[159] Both LME and Petitioner agree that this is a less rigorous showing than the detailed qualifications contained in section 50.33(f).[160]

In seeking to show it is "financially qualified" under section 70.23(a)(5), LME stated in its CP application that under the Department of Energy's ("DOE") Advanced Reactor Demonstration Program ("ARDP"), DOE would provide "a 50 percent DOE/private sector cost share on all projected costs to deliver LMGS."[161] LME did not include a copy of the ARDP award in its application. Nonetheless, by claiming that it has obtained fifty percent funding, LME seeks to avoid the financial qualifications permit conditions that were contemplated in a 2014 proposed Part 50 rulemaking, which the Commission subsequently directed should be incorporated into the ongoing Part 53 rulemaking regarding advanced reactors, and that were applied to the combined operating license for the South Texas LLWR project under somewhat similar circumstances.[162]

a. Reliability of Waterkeeper's Factual Assertions.

As the basis for this portion of its contention, Waterkeeper questions LME's claim that the ARDP award will cover fifty percent of the projected costs of construction. Waterkeeper argues that based on information from a 2020 DOE press release, the ARDP award to LME is being split between two projects, i.e., the LMGS that is the subject of this Petition and a

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[159] 10 C.F.R. § 70.23(a)(5).

[160] Hearing Request at 41; LME Answer at 70–71.

[161] CP Application General Information at Part I-IX.

[162] See LME Answer at 64–67 (discussing Staff Requirements—SECY-18-0026—Proposed Rule: Financial Qualifications Requirements for Reactor Licensing (RIN 3150-AJ43) at 1 (July 14, 2022) (ADAMS Accession No. ML22195A097) and Letter from Scott Head, Manager, Nuclear Innovation North America LLC, to NRC Document Control Desk at 1–2 (June 19, 2014) (ADAMS Accession No. ML14175A142)); see also Office of New Reactors, NRC, Final Safety Evaluation Report for the South Texas Project, Units 3 and 4, Combined License Application at 1-44 to -45 (Sept. 29, 2015) (ADAMS Accession No. ML15271A126).

separate fuel fabrication plant that X-energy proposes to build in Oak Ridge, Tennessee.[163] Waterkeeper then references a 2023 X-energy press release to claim that the estimated construction cost for both projects is between $4.75 billion and $5.75 billion.[164] Finally, based on this and a 2021 X-energy press release Waterkeeper claims the total amount of the ARDP award is $1.2 billion.[165]

LME responds by questioning the reliability of Waterkeeper's assertions, which it says are based on "speculation and internet-sourced assumptions" rather than the construction costs contained in the application itself.[166] As a nonpublic portion of the LME CP Application included such financial information,[167] LME is correct that, for whatever reason, Waterkeeper did not seek to review the nonpublic construction costs contained in the application.[168]

LME's arguments fall short, however. The "speculative" "internet-sourced assumptions" are from a press release that X-energy itself issued listing the construction cost estimates.[169] Nor does LME claim the cost estimates contained in its 2023 press release were inaccurate at

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[163] Hearing Request at 31–32 & n.78 (citing id., ex. I, at unnumbered pp. 2–3 (Press Release, DOE, [DOE] Announces $160 Million in First Awards under [ARDP] (Oct. 13, 2020))).

[164] Id. at 31–32; see id., ex. H, at unnumbered p. 3 (Press Release, X-energy, X-energy and Ares Acquisition Corporation Announce Strategic Update to Business Combination Terms to Reinforce Long-Term Value Creation Opportunity and Alignment with Shareholders (June 12, 2023)) [hereinafter 2023 X-energy Press Release].

[165] Id. at 31 & nn.76–77 (citing id., ex. G at unnumbered p. 2 (Press Release, X-energy, Congress Appropriates ~$1.1B Dollars to X-energy's ARDP Project with Historic Legislation Recognizing Clean Energy Supply as vital to US Infrastructure and Economic Health (Nov. 15, 2021) [hereinafter 2021 X-energy Press Release]); 2023 X-energy Press Release).

[166] LME Answer at 59.

[167] See CP Application General Information at Part I-III, tbl.I-1 (Estimate of [LMGS] Construction Costs (2024 dollars), containing LMGS estimated construction costs with estimated cost figures redacted); see also CP Application at 7 (noting enclosure 1b, General and Financial Information, contains nonpublic information).

[168] In determining the admissibility of Waterkeeper's contention, we only consider documents that were available to all participants. Thus, while this Board, along with LME and the NRC Staff, has access to the nonpublic construction costs, we do not consider them in reaching our contention admissibility determination.

[169] See supra note 164 and accompanying text.

the time of issuance.[170] The source for the amount of the ARDP award is a 2021 X-energy press release,[171] which again LME does not question. A petitioner is not limited to basing its contention on the application but may rely "on documents or other information . . . available to a petitioner."[172] Waterkeeper's documents are sufficiently reliable at the contention admissibility stage to support its assertion that construction costs for the two facilities are between $4.75 billion and $5.75 billion, and the amount of the ARDP award is $1.2 billion.

b. Waterkeeper's Genuine Dispute.

Having determined that Waterkeeper's public documents are reliable for the purpose of contention admissibility, what remains is to determine whether they interpose a genuine dispute about the amount of construction funding available to LME.

We agree with the NRC Staff that Waterkeeper has asserted facts sufficient to put the percentage of construction costs supplied by ARDP funding into dispute.[173] While Waterkeeper does not have access to the projected construction costs contained in the application, for contention admissibility purposes Waterkeeper is not required to prove its contention, only to

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[170] The June 2023 X-energy press release estimated costs as of March 2023 whereas the application estimated costs as of 2024. Compare 2023 X-energy Press Release at unnumbered p. 3, with CP Application General Information at Part I-III. We have no basis for concluding that a one-year difference in costs is appreciably significant to make the 2023 estimates unreliable. And at argument, LME also raised the point that the cost estimates in the 2023 press release did not include the potentially reduced costs of partnering with Dow Chemical or any potential reduced costs from the selection of the Seadrift plant location. See Tr. at 168–69. However, the 2023 press release acknowledged that inflation had previously caused an adjustment in estimated construction costs. 2023 X-energy Press Release at unnumbered p. 3. The 2024 estimate in the CP Application, stated to be in "2024 dollars" would also have included an additional year of inflation, CP Application General Information at Part I-III, which reasonably could have, partially or wholly, offset any reduced costs. For purposes of contention admissibility, we do not find Waterkeeper's documents so lacking in reliability as to prevent them from putting into dispute the facts surrounding the extent to which the DOE ADRP award is sufficient to cover LMGS construction costs for financial qualifications purposes.

[171] 2021 X-energy Press Release (citing Press Release, X-energy, X-energy Signs Department of Energy's [ARDP] Cooperative Agreement (Mar. 1, 2021)).

[172] 10 CFR § 2.309(f)(2).

[173] Staff Answer at 27–30.

raise sufficient facts to create a genuine dispute on a material issue of law or fact.[174] While a close call, Waterkeeper has provided a sufficient factual basis to create a genuine dispute over the amount of ARDP funding available to LME for construction costs. The actual estimated cost of construction and the amount of funding available from the ARDP award to cover those costs are facts readily determinable at a hearing.

c. Waterkeeper's Admissible Contention.

Accordingly, as Waterkeeper has put forth a specific issue of law or fact that is material to and within the scope of this proceeding supported by a basis adequate to put into genuine dispute the amount and sufficiency of funding that LME has secured for this project, we conclude that Waterkeeper has likewise stated an admissible contention as to whether, assuming LME is granted an exemption under section 50.12, LME's CP application meets the requirements of section 70.23 without permit conditions.[175]

As admitted, Contention 3B is set forth below:

Contention 3B: Assuming LME's CP request for an exemption from section 50.33(f) is granted, the CP should only be issued with permit conditions addressing financial qualifications because LME does not otherwise meet the section 70.23(a)(5) standard.

D. "Contention 4: The [ER] erroneously minimizes the adverse environmental impacts of the proposed LMGS."[176]

Waterkeeper's fourth contention is based on the National Environmental Policy Act (NEPA) and takes aim at the LME ER, alleging that the ER understates the adverse

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[174] The contention admissibility rules do not "require a petitioner to prove its case at the contention stage." Yankee Atomic Electric Co. (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 249 (1996)). Instead, a petitioner "'must present sufficient information to show a genuine dispute' and 'reasonably indicating that a further inquiry is appropriate.'" Id. (quoting Georgia Tech Research Reactor, CLI-95-12, 42 NRC at 118).

[175] 10 C.F.R. § 2.309(f)(1)(i)-(vi); see Hearing Request at 26–44 (adequately stating contention with specificity, providing a brief explanation, and providing a concise statement of relevant facts and expert opinion).

[176] Hearing Request at 44.

environmental effects that would be caused by a significant accident at LME's proposed plant. The alleged harm raised by Waterkeeper is related solely to the environmental hazards that might be caused by a nuclear accident that are unique to a nuclear facility.[177]

The focus of Waterkeeper's fourth contention is that climate change creates a risk of a severe accident. Before turning to that claim, however, we first discuss two preliminary issues. First, we examine whether the contention adequately raises any specific fault in the ER. Second, we briefly address Waterkeeper's claim that the issues raised in the first contention are also applicable in its environmental contention. After dealing with those issues, we turn our attention to Waterkeeper's claims about climate change.

1. Waterkeeper's Fourth Contention Claims the ER Is Erroneous Without Sufficiently Citing the ER.

As a threshold issue, while asserting that the ER erroneously minimizes the adverse environmental impacts of the proposed LMGS, Contention 4 contains only two specific references to the ER.[178] The first citation simply references without further explanation several ER tables that the Petitioner describes as indicating the environmental impact during LMGS construction and the small to no impact during facility operation.[179] The second citation

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[177] In introducing the basis for its fourth contention, Waterkeeper writes:

> Here, there is a reasonably foreseeable and potentially significant effect on the quality of the human environment at least due to the risk of accidents. As drafted, the PSAR and ER obscure the actual risk of accidents because of erroneous assumptions and omissions in these documents, including the failure to adequately address climate change impacts.

Id. at 45.

[178] See id. at 43 n.103, 49 n.126.

[179] See id. at 44 & n.103 (citing ER at 4.6-3, tbl.4.6-1 (Summary of Measures and Controls to Limit Adverse Impacts During Construction) [hereinafter Construction Impacts Table]; id. at 5.12-2, tbl.5.12-1 (Summary of Measures and Controls to Limit Adverse Operational Impacts); id. at 10.2-3, tbl.10.2-1 (Unavoidable Adverse Environmental Impacts from Construction of the [LMGS])). In fact, the ER actually characterizes certain of the environmental impacts from construction as potentially large. See Construction Impacts Table at 4.6-6 (construction traffic).

references the ER's analysis of spent fuel storage (which is addressed below). The remainder of the contention does not guide the Board as to which parts of the ER are erroneous.

The result is that when Waterkeeper argues in support of its contention that errors in the PSAR "propagate" into the ER,[180] following Waterkeeper's claims is difficult. The Board should not have to guess as to which specific ER findings Waterkeeper contests when the ER exceeds 1000 pages.

2. Waterkeeper Acknowledges that the Board's Resolution of Contention 1 Resolves Those Same Issues Repeated in Contention 4.

The first part of Waterkeeper's fourth contention essentially adopts its arguments from its first contention and repackages them as a violation of NEPA. At oral argument, when asked if the Board's resolution of Waterkeeper's first contention would address those same issues when raised in the fourth contention, Waterkeeper acknowledged that there was no need to address those issues separately.[181] Thus, for the same reasons we found Waterkeeper's first contention inadmissible, we likewise find this aspect of its fourth contention inadmissible. Waterkeeper's Petition generally does not identify the "applicable regulations" that LME failed to meet or point to the parts of the CP application that violate any applicable regulation. When Waterkeeper does identify a specific regulation, it either does not substantively engage with LME's exemption request to the regulation or the issue has been mooted by a subsequent filing. As was the case with Contention 1, Waterkeeper does not develop or cure these deficiencies in connection with Contention 4. Moreover, for a portion of the contention that alleges the ER is insufficient and erroneous, the ER is barely cited while the declarations of Dr. Lyman and Mr. Mitman discussing PSAR deficiencies are liberally referenced.[182] As such, this portion of the contention fails to

[180] Hearing Request at 48.

[181] Tr. at 191–92.

[182] Compare Hearing Request at 44 n.103, with id. at 46–48 nn.105–25.

meet the section 2.309(f)(1) admissibility requirements as lacking specificity, materiality, and a genuine dispute regarding a material issue of law or fact.[183]

3. Waterkeeper Contends that the ER Does Not Adequately Take into Account the Effects of Climate Change.

Waterkeeper's fourth contention next asserts that the ER does not adequately take into account climate change.[184] And as to this broad claim, Waterkeeper also fails to state an admissible contention.[185]

An alleged "fail[ure] to take into account [] climate change"[186] is too vague to be an admissible contention. As argued by Petitioner, climate change can pose assorted risks to a nuclear power plant, but these risks are varied and site-specific. As the Mitman declaration explains, changes in weather caused by climate change can result in hotter or colder temperatures, and more or less precipitation, all of which may affect plant operations.[187] Yet Petitioner's concerns about climate change must be focused on the applicant's proposed plant and any contention alleging that climate change has altered the reliability of historical data to assess risk should be tailored to the historical weather data used in the application for that plant.

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[183] 10 C.F.R. § 2.309(f)(1)(i), (iv), (vi).

[184] Hearing Request at 47–49. We read Waterkeeper's fourth contention to have several independent bases. Thus, to whatever extent Waterkeeper intended to raise climate change as a stand-alone issue associated with specific claims such as flooding, we address those specific allegations as well.

[185] Waterkeeper's expert Mr. Mitman acknowledges that "the NRC has no regulatory requirement to consider the safety and environmental effects of climate change in its licensing decisions for nuclear reactors," which he considers a "serious deficiency." Mitman Declaration ¶ 12. We nonetheless do not read Waterkeeper's Petition as seeking to impose an extra-regulatory requirement on LME through this proceeding, but if it so intended this is something we cannot do. "[A]ny contention calling for requirements in excess of those imposed by [NRC] regulations" is an impermissible "collateral attack" on the Commission's rules as this Board cannot impose new regulatory requirements on the applicant that were not first adopted by the Commission. NextEra Energy Seabrook, LLC (Seabrook Station, Unit 1), CLI-12-5, 75 NRC 301, 315 (2012).

[186] Tr. at 21.

[187] Mitman Declaration ¶ 13.

Indeed, if this contention were admitted for a hearing, it is unclear what factual issue the hearing would attempt to resolve. At argument, Waterkeeper indicated that at a hearing it would be prepared to introduce evidence and expert testimony to show the specific means by which climate change would impact the plant.[188] But that is too late. We cannot grant a hearing based on the assumption that Waterkeeper's expert will testify in a manner that creates a genuine dispute about whether an external weather event may affect plant safety. While Waterkeeper need not prove its assertions at the admissibility stage, Waterkeeper must put at issue that climate change could affect plant safety and the ER's analysis in some credible manner. Thus, a properly framed contention claiming that an application erred in not accounting for climate change arguably would demonstrate a genuine dispute about whether climate change (by itself or in combination with other factors) has rendered the data used to model external weather events for a particular facility unreliable.

Waterkeeper's expert Mr. Mitman begins to tackle the issue, stating, "[c]limate change has two defining and interacting characteristics: increased frequency of weather events and increased intensity of those events."[189] Thus, he claims "it is no longer adequate to prepare for future adverse weather events by identifying the worst historical event and designing against it."[190] But except as discussed below, Waterkeeper never proposes alternate data that would support this analysis or explains in any detail why, given such alternative data, the data used by LME in its CP application was erroneous.

Put another way, the talismanic invocation of "climate change" is insufficient to meet Waterkeeper's burden to show a genuine dispute as to the reliability of the CP Application data used by LME. Even accepting Waterkeeper's arguments, as was acknowledged by

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[188] Tr. at 197.

[189] Mitman Declaration ¶ 9.

[190] Id.

Waterkeeper at oral argument, climate change is not a singular force and its effects will vary depending on location.[191] The effect may be greater in some areas than in others. Thus, generic arguments about climate change that could be applied equally to any plausible plant location do not have the specificity required for an admissible contention.

So, while we do not conclude that Waterkeeper's climate change concerns are per se irrelevant or inadmissible, it is also the case that generic claims that weather data is broadly changing are not specific enough to put at issue the reliability of the data actually used in the CP Application. In other words, the danger to a nuclear power plant is not "climate change" in some abstract sense. Rather, as Waterkeeper suggests in the exhibits attached to its Petition but does not tie specifically to this plant, the danger comes in specific forms (e.g., extreme heat, drought, wildfires, floods, storm surge, sea level rise, and extreme cold) that will be of varying severity based on facility location and other factors.[192]

Finding that Waterkeeper's broad claims regarding climate change lack the requisite specificity to form the genuine dispute needed for an admissible contention,[193] we turn to Waterkeeper's more specific claims.

4. Waterkeeper Claims that "[t]he PSAR's conclusions as to maximum flood elevations of nearby waterbodies are based only on historic data and incomplete analysis, with no consideration of climate change."[194]

Waterkeeper comes closer to the mark when it marries its concerns about climate change with a specific allegation that the use of historical data to determine flood levels is now unreliable. Yet, while this flood-level concern is correctly framed, Waterkeeper's Petition never develops this claimed deficiency into an admissible contention. At most, Waterkeeper states that

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[191] Tr. at 213.

[192] Hearing Request, ex. F-3, at 3 (U.S. Gov't Accountability Off., GAO-24-106326, Nuclear Power Plants, NRC Should Take Actions to Fully Consider the Potential Effects of Climate Change (Apr. 2024)).

[193] 10 C.F.R. § 2.309(f)(1)(i), (vi).

[194] Hearing Request at 47.

"the methodologies used to calculate probable maximum precipitation [] and local intense precipitation[] –inputs into accident risk analysis -- do not consider very recent intense storms that could affect the models."[195] The Petition then cites as support for this proposition the declaration of Waterkeeper's expert Mr. Mitman who states that the National Weather Service reports relied on by LME do not consider "recent, unusually severe storms such as Hurricane Harvey in 2017 and Hurricane Beryl in 2024 . . . ."[196] Mr. Mitman further claims this analysis is inadequate because the methodologies employed by the National Weather Service "reflect only historical knowledge at the time they were written and do not attempt to evaluate how the frequency and intensity of severe storms will increase due to climate change."[197]

While it is axiomatic that methodologies developed before Hurricane Harvey in 2017 will not consider events that happened on or after the 2017 date of that storm, this alone is insufficient to create a genuine dispute regarding LME's use of historical data. Nor does asking LME to add additional data points to its analysis, standing alone, tell us that any postulated data points result in the creation of a genuine dispute as to a material issue. Indeed, and critically, Waterkeeper never claims that the inclusion of data from Hurricane Harvey (or any other more recent storm) would have altered the CP Application's resulting analysis.

Nor does Waterkeeper show a general trend of increased frequency or severity in precipitation that could create a genuine dispute about LME's reliance on historical data. While

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[195] Id.

[196] Id. n.116 (citing Mitman Declaration ¶ 21). The Board notes that the LME PSAR does address the maximum storm tides that occurred during Hurricane Harvey "where the storm surge levels reached a maximum of 12.5 [feet] . . . above ground level." PSAR at 2.4-48. The PSAR states that the highest storm surge water level in the LMGS's locale was from Hurricane Carla at 16.6 feet above mean sea level. Id.

[197] Mitman Declaration ¶ 21 (citing Nat. Oceanic and Atmospheric Admin., U.S. Dep't of Commerce and Corps of Engineers, U.S. Dep't of the Army, Probable Maximum Precipitation Estimates, United States East of the 105th Meridian (June 1978); Nat. Oceanic and Atmospheric Admin., U.S. Dep't of Commerce and Corps of Engineers, U.S. Dep't of the Army, Application of Probable Maximum Precipitation Estimates - United States East of the 105th Meridian (Aug. 1982)).

Waterkeeper's expert Mr. Mitman references recent severe weather events such as Hurricane Harvey, he does not provide any actual data (e.g., precipitation, wind, flooding) that would put the data used by LME into dispute. Waterkeeper also does not explain whether data from Hurricane Harvey is inside, on the margin, or outside the historical envelope such that it would create a genuine dispute as to LME's reliance on historical data. If Hurricane Harvey were so outside the historical norm as to call into question the assumptions in LME's application, Waterkeeper should have included that information in its petition. But it did not.

Admissible contentions of adequacy must be based on alleged facts or opinion pointing to a genuine discrepancy on a material issue.[198] Instead, Waterkeeper proffers a mere suggestion about the possibilities that later storm information could be pertinent, but without demonstrating why LME was required to consider these recent storms, or that if LME had considered the storms the result would have materially changed the ER. Consequentially, Waterkeeper has failed to plead the necessary genuine dispute as grounds for an admissible contention.[199]

5. Waterkeeper Asserts that Severe Storms May Cause Dam Overtopping or Failure.

Waterkeeper also claims that the PSAR and ER do not adequately evaluate the risk of "a storm that drops additional water on a dam in a saturated watershed such that the additional precipitation causes the dam to overtop."[200] Waterkeeper claims that this is a "straightforward extension of historic storms" to include a "large Hurricane Harvey-type storm making landfall near the facility . . . ."[201]

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[198] 10 C.F.R. § 2.309(f)(1)(v), (vi).

[199] Id. § 2.309(f)(1)(vi).

[200] Petitioner Reply at 29.

[201] Id. (footnote omitted).

The CP Application indicates that there are dozens of reservoirs upstream of the LMGS site that have at least 3000 acre-feet of storage.[202] The CP Application also includes tables specifying each dam's location, height, length, and the maximum amount of water that can be stored by the dam.[203] Some of the dams are more than a hundred miles upriver, which may present different risks than a dam located closer to the proposed plant.[204] The two largest dams near the site (holding 85 percent of the total stored water of the Guadalupe River) are the Canyon and Coleto Creek Dams.[205] LME's CP Application includes an analysis of the resulting flood level at the LMGS site, assuming (1) a failure of either the Canyon or the Coleto Creek dams, with the water levels at the dam exceeding the dam crest by three feet; and (2) that the failure happened simultaneously with the lesser of either a once in five-hundred year flood, or a one-half probable maximum flood event.[206] For both dams, the model calculated that the resulting flood would not overtop the river bank at the LMGS site.[207] Yet, Waterkeeper does not challenge this analysis in the CP Application. Instead, it alleges without citation that the ER's dam failure analysis "assumes a sunny-day failure with a minimal amount of water stored behind the dam and a not-fully-saturated watershed."[208]

Also worth noting in this regard is that LME's dam failure analysis was based on an evaluation first made in 2007 as part of the early site permit application for the planned (but

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[202] PSAR at 2.4-5, 2.4-150 (indicating there are 29 storage reservoirs in the Guadalupe River basin and 35 storage basins in the San Antonio River basin with storage capacity of at least 3000 acre-feet).

[203] Id. at 2.4-14, tbl.2.4.1-1 (Guadalupe River Basin Dams (Storage Greater than 3000 Acre-Feet)); id. at 2.4-16, tbl.2.4.1-2 ((San Antonio River Basin Dams (Storage Greater than 3000 Acre-Feet)).

[204] Id. at 2.4-178, fig.2.4.4-4 (Plan View of Cross Section Locations on the Guadalupe River).

[205] Id. at 2.4-5, 2.4-158.

[206] Id. at 2.4-161 to -162.

[207] Id. at 2.4-165.

[208] Petitioner Reply at 29.

never built) Victoria County Station ("VCS") LLWR facility.[209] While providing insight on the effect that a dam failure would have on the LMGS, the model did "not necessarily address" current dam failure guidance standards.[210] LME's CP Application recognizes the issue and states that "[a]dditional site-specific analyses and associated information that includes a confirmatory analysis conducted in accordance with [current guidelines] will be provided by the end of 2025."[211]

Ultimately, two different analyses support the conclusion that this aspect of Waterkeeper's contention that the CP Application contains an inadequate examination of dam failure is not admissible. To the extent it is considered a contention of omission based on the allegation that LME's original CP Application failed to include a dam failure analysis using the appropriate guidelines,[212] LME's November 20, 2025 PSAR Supplement 2 that provides significant, site-specific revisions to its dam failure analysis cures the deficiency.[213] Alternatively, because Waterkeeper did not address the dam failure model contained in the application, we could view the Petition as failing to state a genuine dispute on a material issue.[214] In either case, Waterkeeper's Petition fails to present an admissible contention regarding dam failure.

6. Even If Waterkeeper Had Established a Genuine Dispute Regarding Appropriate Flood Levels, Waterkeeper Nonetheless Failed to Show the Dispute is Material to this Proceeding.

A genuine disagreement on calculating the appropriate maximum flood level (whether caused by precipitation, storm, or dam failure) is only relevant to this proceeding if the

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[209] PSAR at 2.4-158.

[210] Id.

[211] Id.

[212] See Hearing Request at 47 & n.116 (citing Mitman Declaration ¶ 20).

[213] See supra note 20 and accompanying text. And as Petitioner likewise filed a motion to amend this contention relative to the dam failure analysis information in PSAR Supplement 2, see supra note 31 and accompanying text, we will address any issues raised by that motion in a separate decision.

[214] 10 C.F.R. § 2.309(f)(1)(vi).

disagreement could affect the CP issuance or the NEPA analysis. If resolving the dispute will not affect the issuance of the permit or that environmental analysis, the dispute is not material to the licensing proceeding.[215] As an illustrative example, assuming there is a genuine dispute about whether the correct maximum possible flood level is ten feet or fifteen feet above sea level, resolving that dispute is not material if the plant sits on a bluff above the flood plain at an elevation of fifty feet above sea level. To be admissible, a contention must include a dispute the resolution of which is material to the proceeding.[216]

According to the CP Application, the plant floor grade for all safety-related structures will sit at an elevation of about 31.5 feet.[217] The plant's design basis hazard level ("DBHL") for external floods is, however, based on a flood of 10.47 feet *above* that grade.[218] Consequently, the safety-related structures, systems, and components ("SSCs") inside the plant's reactor shield structure and fuel handling building must be designed so that an external flood at or below that level will not affect their ability to fulfill their required safety functions.[219] Thus, for a contention claiming there is an accident risk due to flooding *to be material* it must provide a basis supporting that there is either (1) a flood that could exceed 41.97 feet; or (2) a fault in LME's design criteria for the facility's SSCs that are formulated to ensure that they will be located in structures with the ability to withstand a flood of up to 10.47 feet above grade. At best, Waterkeeper notes that LME calculated the maximum possible flood elevation associated with one specific creek near the facility as two feet above plant grade,[220] which is still more than eight

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[215] See Virginia Electric Power Co. d/b/a Dominion Virginia Power and Old Dominion Electric Cooperative (North Anna Power Station, Unit 3), LBP-09-27, 70 NRC 992,1006 (2009).

[216] 10 C.F.R. § 2.309(f)(1)(iv).

[217] PSAR at 2.4-74.

[218] Id. at 6.1-5, tbl.6.1-1 (Table of [DBHLs]).

[219] Id. at 2.4-50.

[220] Mitman Declaration ¶ 16.

feet below the DBHL.[221] Thus, even if we were to assume that Waterkeeper successfully established a genuine dispute about flood levels, it did not demonstrate that resolving that dispute is material to the proceeding as required by section 2.309(f)(1)(iv).

7. As a Contention of Omission, the Spent Fuel Storage Portion of Contention 4 Has Become Moot.

As part of Contention 4, Waterkeeper alleges that the LME CP Application fails to comply with the agency's regulations regarding spent fuel storage. Specifically, Petitioner claims the ER erroneously relies on NUREG-2157, the agency's Generic Environmental Impact Statement

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[221] In the context of the portion of Waterkeeper's contention addressing climate change relative to LME's CP Application, the importance of DBHLs and plant design as elements of contention admissibility seems apparent. In this regard, the path to contention admissibility seemingly would have at least four steps: (1) LME's CP Application does not account for climate change; (2) by not considering climate change, the ER understates the severity and frequency of flooding; (3) notwithstanding the DBHL-informed plant design, a more severe flood leads to a nuclear accident and the release of fission products into the environment; and (4) the ER's conclusions about the environmental impact from the construction of the plant are thus erroneous.

When asserting climate change or flood risk, Waterkeeper's fourth contention focuses on the first and second steps. But the third and, perhaps self-evident, fourth steps are not addressed. Undoubtedly, a significant flood can endanger a nuclear power plant. But the mechanism by which it does so, and the degree to which active and passive safety systems are designed in a way that mitigates that risk, will depend on the plant design and its location. Yet, in asserting flood-based accident risk, Waterkeeper does not address how a flood will impact the specific design of the plant that LME proposes to build. Moreover, generalities and oversimplifications at each step of the contention have a compounding effect. And the contention's non-specific allegations regarding flood risk make understanding how a flood could affect this particular plant all the more important. So, by not suggesting how a flood will actually affect this plant's SSCs as designed, Waterkeeper asks the Board to connect more dots on behalf of Petitioner than it should.

To be sure, at a certain point, the danger from a flood relative to a plant's DBHL-informed design would be self-evident and we would not require additional specificity in explaining the mechanism by which a flood impacts accident risk. We are not asking Waterkeeper to describe in detail how a flood might cause specific safety-related SSCs to fail, resulting in an accident. But Waterkeeper never puts forth any discussion showing how the plant as designed will be affected by a flood, nor provides any alternative to LME's flood data.

LME has proposed a specific plant design, with criteria intended to protect against flooding the plant's active and passive safety-related SSCs. A contention claiming that climate change-based flooding may cause a nuclear accident should engage with the actual plant that LME proposes to build.

("GEIS") for Continued Storage of Spent Nuclear Fuel,[222] and 10 C.F.R. § 51.23 to demonstrate compliance with the NEPA-required assessment of the impacts of continued storage of spent fuel beyond the licensed lifetime of the reactor.[223]

The NRC Staff initially agreed with Waterkeeper, asserting that "[i]n the case of the proposed reactor, . . . the impacts of continued storage have not been generically assessed and, therefore, licensing applicants will need to separately determine the environmental impacts."[224] The Staff continued, "[t]herefore, LME was required to include an evaluation of the effects of continued storage after the operating life of the reactor in its ER."[225] Essentially, the NRC Staff found that LME had failed to explain why it should be able to rely on the GEIS for this purpose, characterizing this portion of Contention 4 as a contention of omission.[226] However, the NRC Staff also observed that LME could "rely" on the GEIS if it could show that the "GEIS analysis bounds the proposed facility."[227]

The NRC Staff's reference to "bound[ing] the proposed facility" appears to contemplate reliance on a specific portion of the GEIS. While applying generally to light water reactors,[228] the GEIS also had an "exception [for the HTGR] reactor fuel stored [at] Fort Saint Vrain . . . ."[229] The reactors that are the subject of this petition are also HTGR reactors.[230] When LME

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[222] 1 Office of Nuclear Materials Safety and Safeguards, NRC, NUREG-2157, [GEIS] for Continued Storage of Spent Nuclear Fuel, Final Report (Sept. 2014) (ADAMS Accession No. ML14196A105) [hereinafter Continued Storage GEIS].

[223] Hearing Request at 49–50.

[224] Staff Answer at 41 n.188.

[225] Id.

[226] Id. at 41–42.

[227] Id. at 41.

[228] Continued Storage GEIS at 2-6 to -9. Waterkeeper erroneously stated that the GEIS applied exclusively to light water reactors. Hearing Request at 49.

[229] Continued Storage GEIS at 2-9 to -10.

[230] See supra note 2 and accompanying text.

supplemented the ER portion of its application on October 17, 2025, to state that its fuel was "comparable" to the fuel stored at Fort St. Vrain, the NRC Staff revised its position and now maintains Waterkeeper no longer has a viable contention of omission.[231] Assuming, as the NRC Staff contends, that the ER was required to explain why LME could "rely" on the GEIS,[232] we agree with the Staff and find that any contention of omission is now moot, and therefore is not an admissible contention.[233]

8. The Remaining Portions of Contention 4 Do Not Provide the Basis for an Admissible Contention.

In the course of explaining the basis for its fourth contention, Waterkeeper raises a number of additional issues that it does not fully advance. These issues were often stated as short bullet points or in one or two sentences without development or analysis. It is not clear if Waterkeeper intended any of these issues to be a separate basis for its contention. In any event, none were stated with specificity or shown to be material to the proceeding or to raise the

[231] See supra note 20 and accompanying text.

[232] The NRC Staff noted that "the plain meaning" of 10 C.F.R. § 51.23(b) indicates that the ER was not required to contain an analysis of the environmental impacts of spent fuel storage beyond the life of the reactor. Staff Answer at 41 n.188. If no analysis was required, there can be no omission. Notwithstanding the plain language, however, the NRC Staff concluded the ER was required to address spent fuel storage. Id. As this issue was not adequately briefed in Waterkeeper's initial Hearing Request, LME's answer, or Waterkeeper's reply, for the purpose of determining whether there is an admissible contention, we assume the ER was required to address spent fuel storage. Whether such an analysis was required may more properly be a subject for Board consideration when we turn to Waterkeeper's December 12, 2025 motion to amend Contention 4. See supra note 28.

[233] Having been advised at the December 8, 2025 oral argument that Waterkeeper likely intended to amend Contention 4 based on LME's October 17, 2025 ER confirmatory information supplement, see Tr. at 12, on December 11, 2025, we directed that Waterkeeper's motion address whether the status of the portion of Contention 4 involving continued storage of spent fuel is now moot. See supra notes 26–27 and accompanying text. On December 12, 2025, Waterkeeper filed its motion to amend Contention 4, in which, without addressing the NRC Staff's reasoning for asserting that the basis for admitting Contention 4 as a contention of omission was now moot, Petitioner challenged the adequacy of the supplemented ER portion of the CP Application. See supra note 28 and accompanying text. We also will address the issues raised in this pending motion to amend Contention 4 in a separate decision.

requisite genuine dispute so as to warrant admission as a litigable issue statement.[234] Nor did Waterkeeper connect these issues to its assertion that the ER wrongly concluded that LMGS construction and operation will have a small environmental impact. Nonetheless, for completeness, we briefly address those additional issues we were able to identify.

Petitioner's hearing request states that the "PSAR's assumptions on operating basin failure possibilities are unjustified."[235] In this regard, Waterkeeper briefly takes issue with LME's claim that failure of the embankments surrounding two water storage basins in the vicinity of the LMGS nuclear island "is not . . . a credible event."[236] However, regardless of whether embankment failure is likely or not, LME conducted a flood analysis *assuming* embankment failure – which Waterkeeper does not challenge.[237] Thus, any dispute about the likelihood of embankment failure does not create a genuine dispute on a material issue.[238]

Waterkeeper also expresses the concern "that safety structures were consolidated and moved, and that analyses in the PSAR are thus based on outdated information."[239] In support of this assertion, Waterkeeper's expert Mr. Mitman notes that the PSAR indicates certain structures were moved 750 feet.[240] The PSAR, however, states the new location's "depositional environment and geologic formation" is the same as the prior location and that it will conduct a confirmatory slope stability analysis.[241] The Petition does not, with any specificity, put at issue whether that location change would cause any harm, nor does it create a genuine dispute as to LME's stated expectation that the change in location will not materially change the slope stability

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[234] See 10 C.F.R. § 2.309(f)(1)(i), (iv), (vi).

[235] Hearing Request at 47.

[236] Mitman Declaration ¶¶ 23–24 (quoting PSAR at 2.4-161).

[237] PSAR at 2.4-159 to -161, 2.4-171.

[238] 10 C.F.R. § 2.309(f)(1)(vi).

[239] Hearing Request at 47.

[240] Mitman Declaration ¶ 19 (citing PSAR at 2.5-254).

[241] PSAR at 2.5-245.

analysis in the PSAR. Accordingly, there is no genuine dispute for the Board to resolve, and to the extent there is a disputed issue, its materiality is not clear.[242]

Contention 4 also alleges that the PSAR's "probable maximum surge predictions rely on a questionable assumption for sea level rise" and the PSAR does not explain how LME "plans to protect the safety-related [SSCs] from surge and seiche flooding."[243] The petition itself does not explain why LME's assumptions regarding sea level rise are erroneous or how such assumptions create a genuine dispute as to a material issue. If we look beyond the petition to Waterkeeper's expert Mr. Mitman, in his declaration he takes issue with LME's assumption of a 1.2-foot increase in sea level during the life of the plant and argues that a 1.9-foot to 6-foot increase is more appropriate.[244] However, Waterkeeper never explains whether changing the assumptions about sea level rise would affect the proposed plant and, therefore, never demonstrates that any dispute about maximum surge flood levels is material to the ER. As discussed earlier, the plant will sit at an elevation of over thirty feet and is designed to withstand DBHL floods of over ten feet above that grade.[245] Thus, the materiality of the issue of even a six-

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[242] 10 C.F.R. § 2.309(f)(1)(vi). Assuming Waterkeeper can establish good cause, it is free to challenge the confirmatory analysis when that analysis becomes available. See 10 C.F.R. § 2.309(c); supra note 69.

[243] Hearing Request at 48.

[244] Mitman Declaration ¶ 27. In support of the six-foot increase in sea level rise, Mr. Mitman cites a 2021 United States Army Corps of Engineers' report on coastal Texas protection and restoration in the face of potential sea level rise, which describes this as the "high" assumption. Id. ¶ 27 n.7 (citing Hearing Request, ex. F-4, at 14 (U.S. Army Corps of Eng'rs, Coastal Texas Protection and Restoration Feasibility Study, Final Report (Aug. 2021)) ("Current forecasts indicate that relative sea levels could rise by 1 to 6 feet over the next 50 years . . . .") [hereinafter Coastal Protection Study]). However, according to that same report, the high estimate for sea level rise in the part of Texas where LMGS is to be located is projected to be 4.1 feet by the year 2085, not 6 feet. Coastal Protection Study at 15, tbl.1.1 (Relative Sea Level Change Projections (feet)); see also PSAR at 2.1-24, tbl.2.1.3-8 (Population Centers Within 50 Mi of the [LMGS] Site, 2020-2070). This 4.1-foot increase in sea level rise is 2.9 feet higher than LME's assumption. For an admissible contention, Waterkeeper would have to demonstrate that a genuine dispute about a 2.9 foot sea level rise is material. It has not done so.

[245] See supra notes 217–18 and accompanying text.

foot sea level rise is not obvious such that it would generate the requisite genuine dispute under section 2.309(f)(1)(vi).[246]

In addition, Waterkeeper takes issue with the portion of the application that provides certain site-specific analyses and associated information that includes analysis of wind-driven waves that LME indicated would be provided in late 2025.[247] On November 20, 2025, LME submitted PSAR Supplement 2 that included additional information on dam failures, probable maximum surge and seiche flooding, and site-specific flooding caused by wind-driven waves.[248] We therefore agree with the NRC Staff [249] that this contention of omission is now moot.[250]

Lastly, in a single sentence, Waterkeeper states that "[t]he ER is further flawed . . . because it treats seismic risk as not credible, without sufficient explanation to support this determination."[251] In its Answer, LME stated that its PSAR's claim that a seismic risk was "not credible" was made in error and that the PSAR had in fact analyzed seismic risk.[252] LME then states it corrected the error in ER Supplement 1 submitted on August 29, 2025.[253] We conclude

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[246] As discussed above, see supra section III.D.4, Waterkeeper complains that the CP Application fails to account for recent storms such as Hurricane Harvey. But regarding surge flooding, the PSAR notes that the maximum recorded storm surge caused by Hurricane Harvey was just under eight feet in LMGS's locale. PSAR at 2.4-197. Thus, it would take a storm surge over five times higher than Harvey's to exceed the proposed plant's design basis of 41.97 feet. See supra notes 219–21 and accompanying text.

[247] Hearing Request at 47 (citing PSAR at 2.4-76).

[248] PSAR Supplement 2 Letter at 1.

[249] Staff Answer at 36–37; Staff Notification at unnumbered p. 4.

[250] As Petitioner filed a motion to amend this contention relative to the information in PSAR Supplement 2, see supra note 31 and accompanying text, we will address any issues raised by that motion in due course.

[251] Hearing Request at 48 (citing Mitman Declaration ¶ 37).

[252] LME Answer at 89.

[253] Id. at 89–90 (citing Letter from Edward Stones, LME President, to NRC Document Control Desk at 1 (Aug. 29, 2025) (ADAMS Accession No. ML25241A352)).

that while Waterkeeper correctly identified an error at the time it filed its Petition, LME's subsequent correction of the PSAR mooted the error such that no genuine dispute remains.[254]

In summary, none of these additional issues rise to the level of an admissible contention. As explained above, they lack specificity or materiality, or they fail to show a genuine dispute so as to be admissible under section 2.309(f)(1).[255] Additionally, for each such issue Waterkeeper has also failed to explain which ER sections are affected by these alleged PSAR errors. By focusing on the PSAR and ignoring the ER (i.e., the subject of this contention), Waterkeeper's overarching argument that the ER erroneously minimized the proposed plant's adverse environmental impacts fails to provide the requisite explanation of and support for the basis for the contention.[256]

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[254] 10 C.F.R. § 2.309(f)(1)(vi). In its reply brief, Waterkeeper did attempt to address LME's correction. Petitioner Reply at 33–34. However, given we do not consider issues raised for the first time in a reply, a petitioner likewise cannot amend a contention through its reply brief . National Enrichment Facility, CLI-04-25, 60 NRC at 225. Nor did Waterkeeper timely move to amend its contention based on the correction. 10 C.F.R. § 2.309(c)(1)(iii); see supra note 69.

[255] See 10 C.F.R. § 2.309(f)(1)(i), (iv), (vi).

[256] See id. § 2.309(f)(1)(ii), (v). Moreover, even if we were to divorce these assertions from the larger contention and treat each as a stand-alone safety concern, we would find that Petitioner failed to treat these claims with sufficient specificity and did not demonstrate their materiality. See id. § 2.309(f)(1)(i), (iv). And to the extent that the declaration of Mr. Mitman is intended to provide additional support for these assertions, Petitioner seemingly runs afoul of the precept against relying on references to expert opinions "without providing analysis demonstrating that they provide factual support for the proposed contention." USEC Inc. (American Centrifuge Plant), LBP-05-28, 62 NRC 585, 597–98 (2005) (citing Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), CLI-89-3, 29 NRC 234, 240–41 (1989)); see Virginia Electric and Power Co. (North Anna Power Station, Units 1 and 2), LBP-24-7, 100 NRC 32, 66–67 (2024), appeal pending.

V. CONCLUSION

As we detail in sections II and III above, in our view Waterkeeper has established its representational standing in this instance and its Petition meets the 10 C.F.R. § 2.309(f)(1) contention admissibility standard in part. Portions of its Contention 3 on financial qualifications do engage appropriately with LME's exemption request and raise a genuine dispute on a material issue warranting further litigation. As to the remaining portions of that contention, as well as Contentions 1 and 4, they fall short of complying with that admissibility standard—not necessarily because the issues raised lack importance, but because the Petition fails to connect those concerns to the actual application or the controlling regulatory requirements.

For the foregoing reasons, and in furtherance of our obligations under the Commission's regulations, we determine that:

1. Having established its standing to participate in this proceeding, relative to the contentions specified in paragraph two below, the August 11, 2025 hearing request of Waterkeeper is granted and that Petitioner is admitted as a party to this proceeding.

2. The following of Petitioner's contentions are admitted for litigation in this proceeding: Contention 3A and Contention 3B as set forth in sections III.C.4 and III.C.5, respectively.

3. The following of Petitioner's contentions are rejected for litigation in this proceeding as inadmissible: Contention 1, Contention 4, and the balance of Contention 3 that is not admitted in paragraph two above.

4. Given that Petitioner's hearing petition did not request the Board to ask the Commission for permission to conduct this proceeding under the procedures specified in 10 C.F.R. Part 2, Subpart G, unless all parties agree that this proceeding should be conducted pursuant to 10 C.F.R. Part 2, Subpart N, this proceeding will be conducted in accordance with the procedures of 10 C.F.R. Part 2, Subparts C and L. Assuming all the parties currently do not consent to conducting this proceeding under Subpart N, the parties should conduct a

conference within ten (10) days of the date of this memorandum and order to discuss their particular claims and defenses and the possibility of settlement or resolution of any part of this proceeding and to make arrangements for the mandatory disclosures under 10 C.F.R. § 2.336(a), which are required to be made within thirty (30) days of the date of this memorandum and order.

5. Within ten (10) days of the date of this memorandum and order, the NRC Staff shall provide notice as to its status as a party to this proceeding.

6. Pursuant to 10 C.F.R. § 2.332(d), the Board is to consider the NRC Staff's projected schedule for completion of its safety and environmental evaluations in developing the hearing schedule. Within ten (10) days of the date of this memorandum and order the Staff shall submit to the Board through the E-Filing system a written estimate of its projected schedule for completion of its safety and environmental evaluations, including but not limited to its best estimate of the dates for issuance of the final safety evaluation report(s) and any draft and final environmental assessment/finding of no significant impact or environmental impact statement relative to the LMGS. The Board will then conduct a prehearing conference to discuss initial discovery disclosures, scheduling, and other matters on a date to be established by the Board in a subsequent order.

7. In accordance with the provisions of 10 C.F.R. § 2.311, as this memorandum and order rules upon an intervention petition, any appeal to the Commission from this memorandum and order must be taken within twenty-five (25) days after this issuance is served.

It is so ORDERED.

THE ATOMIC SAFETY
AND LICENSING BOARD

/RA/

David A. Smith
ADMINISTRATIVE JUDGE

/RA/

Nicholas G. Trikouros
ADMINISTRATIVE JUDGE

Rockville, Maryland

January 22, 2026

Administrative Judge Wolfe, Concurring in Part and Dissenting in Part

I agree fully with my colleagues in all aspects of this decision except as to the admissibility of Contention 3B.[257] While I concur it is a "close" call as to whether Waterkeeper has framed a genuine dispute, I view what amounts to a genuine dispute somewhat differently, which in this case leads me to an alternative result.

I agree that Waterkeeper adequately puts at issue that the construction cost for *both* the LMGS and a separate fuel fabrication facility is between $4.75 and $5.75 billion. I also agree that Waterkeeper has put at issue that the ARDP award for both facilities is $1.2 billion. Where I part with my colleagues is determining whether those facts alone are sufficient to create a genuine dispute as to whether the ARDP award will fund fifty percent of the cost of the LMGS.

It requires speculation to calculate what percentage of the construction costs for both facilities is attributable to LMGS. The two facilities are not similar, and nothing in the record guides me as to what such facilities typically cost. Nor does anything in the record support Waterkeeper's speculation that the ARDP award will be split equally between the two facilities.

All I can infer from Waterkeeper's asserted facts is that the construction of LMGS will cost some amount less than $4.75-$5.75 billion, and that the ARDP award attributable to LMGS is not more than $1.2 billion. This leaves a vast number of possible permutations for allocating the construction costs and the amount of the ARDP award between the two facilities. For sure, many permutations will support Waterkeeper's conclusion that LME has not secured at least fifty percent funding for LMGS, which is why this issue is a close one. But some do not. And because the LMGS facility is both novel and bespoke, except at the extremes I cannot easily infer which permutations are reasonable. Nor do I see myself able to remedy this lapse by reviewing and considering the nonpublic construction costs to determine if Waterkeeper's hunch

[257] See supra section III.C.5.b.

is correct. For determining the admissibility of this contention, the nonpublic construction costs are not part of the record, and therefore I, like my colleagues, have not considered them.

Waterkeeper's burden was to put sufficient facts at issue that create a genuine dispute on a material issue of law or fact. Instead, Waterkeeper put forth facts that — when combined with unknown facts (i.e., speculation) — create a genuine dispute.

This was avoidable. The Commission's hearing process provided Waterkeeper with the means to obtain access to the nonpublic construction costs contained in the CP Application, the nonpublic nature of which was apparent.[258] Waterkeeper was aware of the process for gaining access to nonpublic portions of the CP Application and, in fact, employed that process to gain access to other nonpublic portions of the application.[259] Had it requested and obtained access, Waterkeeper would not have had to speculate as to the construction costs for LMGS, and resolution of this contention would have been much simpler.

In the end, when I excise Waterkeeper's speculation and limit myself to the information presented, I see only the *possibility* of a genuine dispute, which is why I see Waterkeeper as falling just short of the mark. [260] I therefore conclude that Contention 3B is inadmissible.

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[258] See supra notes 4, 167 and accompanying text.

[259] See supra note 4.

[260] 10 C.F.R. § 2.309(f)(1)(vi).

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
LONG MOTT ENERGY, LLC.	)	Docket No. 50-614-CP
	)	
	)	
(Long Mott Generating Station)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing **MEMORANDUM AND ORDER (Ruling on Intervention Petition) (LBP-26-01)** have been served upon the following persons by Electronic Information Exchange.

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Office of the Secretary of the Commission

Dated at Rockville, Maryland,
this 22n day of January 2026.