LBP-24-04

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD PANEL

Before the Licensing Board:

Michael M. Gibson, Chair
Nicholas G. Trikouros
Dr. Gary S. Arnold

In the Matter of	Docket No. 50-440-LR
ENERGY HARBOR NUCLEAR CORP.	ASLBP No. 24-982-01-LR-BD01
(Perry Nuclear Power Plant, Unit 1)	March 13, 2024

MEMORANDUM AND ORDER
(Denying Intervention Petition and
Terminating Proceeding)

Before this Licensing Board is the November 28, 2023 request for hearing and petition for leave to intervene of Ohio Nuclear-Free Network (ONFN) and Beyond Nuclear (BN) (collectively Petitioners) seeking to challenge the license renewal application (LRA) of Energy Harbor Nuclear Corp. (Energy Harbor) for its Perry Nuclear Power Plant Unit 1 (Perry). The Board concludes that Petitioners have established representational standing but that they have not submitted an admissible contention. Accordingly, Petitioners' hearing request is denied and this proceeding is terminated.

I. BACKGROUND

On July 3, 2023, Energy Harbor submitted an application to renew Perry's operating license for an additional 20 years beyond Perry's current license expiration date of November 7,

2026.[1] After receipt of Energy Harbor's LRA, the Nuclear Regulatory Commission Staff (NRC Staff) published a notice in the Federal Register announcing the opportunity to request a hearing to contest Perry's renewal application.[2] On November 28, 2023, Petitioners jointly submitted a timely hearing request that proffered three contentions.[3]

The next day, the Secretary of the Commission referred Petitioners' hearing request to the Chief Administrative Judge of the Atomic Safety and Licensing Board Panel for further action.[4] On December 4, 2023, the Chief Administrative Judge designated this Licensing Board to rule on standing and contention admissibility matters and to preside at any hearing.[5]

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[1] Letter from Rob L. Penfield, Site Vice President, Energy Harbor, to Document Control Desk, Nuclear Regulatory Commission at 1–3 (July 3, 2023) (ADAMS Accession No. ML23184A081). The Energy Harbor renewal request consists of the license renewal application and five appendices. See id. encl. 1 ([Perry] License Renewal Application (rev. 0 July 2023)) [hereinafter LRA]. Of central importance to this proceeding is the final appendix to the LRA because that appendix contains the Environmental Report (ER). See LRA app. E ([Energy Harbor's ER], License Renewal Stage, Perry Nuclear Power Plant Unit 1 (May 2023)) [hereinafter ER].

[2] See Energy Harbor Corp.; Energy Harbor Generation LLC; [Energy Harbor]; Perry Nuclear Power Plant, Unit 1, 88 Fed. Reg. 67,373 (Sept. 29, 2023).

[3] See Petition of [ONFN] and [BN] for Leave to Intervene in Perry Nuclear Power Plant License Extension Proceeding, and Request for a Hearing (Nov. 28, 2023) [hereinafter Petition]. Petitioners also submitted an Appendix to their Petition that includes their members' declarations as well as other data that is referenced in the Petition. See Appendix of Exhibits (Nov. 28, 2023) (ADAMS Accession No. ML23332A786) [hereinafter Petition Appendix]. Petitioners use the term "exhibits" to refer to the attachments in their Petition Appendix, but as explained in the Licensing Board's December 7, 2023 Order (as amended), the term "exhibits" should be reserved for designating items submitted for an evidentiary hearing. See 10 C.F.R. § 2.304(g). Nevertheless, in this case, the Board did not require Petitioners to refile their Petition Appendix to correct this error. See Licensing Board Memorandum and Order (Initial Prehearing Order (amended)) (Dec. 7, 2023) at 4 n.12 (unpublished). Instead, we have referred to Petitioners' "exhibits" as "enclosures" while keeping the Petitioners' letter designations for each document.

[4] See Memorandum from Carrie M. Safford, Secretary of the Commission, to E. Roy Hawkens, Chief Administrative Judge (Nov. 29, 2023).

[5] See [Energy Harbor]; Establishment of Atomic Safety and Licensing Board 88 Fed. Reg. 85,666 (Dec. 8, 2023); Establishment of Atomic Safety and Licensing Board (Amended); [Energy Harbor], 88 Fed. Reg. 85,932 (Dec. 11, 2023).

Energy Harbor and the NRC Staff timely filed their answers[6] on December 22, 2023 and December 26, 2023, respectively, and Petitioners timely filed their reply to those answers on January 2, 2024.[7] In their reply, Petitioners declared they withdrew Contention 1.[8]

On January 30, 2024, this Board heard oral argument from counsel for Petitioners, the NRC Staff, and Energy Harbor regarding whether Petitioners have standing and whether their proffered contentions are admissible.[9] We address standing first.

II. STANDING

A. Legal Standard for Standing

To participate in an NRC adjudicatory proceeding, a petitioner must first establish standing.[10] NRC regulations on standing require that a hearing request include (1) the name, address, and telephone number of the petitioner; (2) the "nature of the [petitioner's] right under [the Atomic Energy Act (AEA) or the National Environmental Policy Act (NEPA)] to be made a party to the proceeding"; (3) the "nature and extent of the [petitioner's] property, financial, or other interest in the proceeding"; and (4) the possible effect on the petitioner's interest of any decision or order that may be issued in the proceeding.[11] Although the petitioner bears the

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[6] See Energy Harbor's Answer Opposing the Petition for Leave to Intervene and Request for Hearing of [ONFN] and [BN] (Dec. 22, 2023) [hereinafter Energy Harbor Answer]; NRC Staff's Answer Opposing [ONFN] and [BN] Hearing Request (Dec. 26, 2023) [hereinafter NRC Staff Answer].

[7] See [ONFN's] and [BN's] Combined Reply in Support of Petition for Leave to Intervene (Jan. 2, 2024) [hereinafter Reply].

[8] Id. at 3.

[9] See Tr. at 1–124.

[10] See 10 C.F.R. § 2.309(a).

[11] Id. § 2.309(d)(1).

"burden of setting forth a clear and coherent argument for standing,"[12] when assessing standing, "we construe the petition in favor of the petitioner."[13]

Further, where an organization, like ONFN or BN here, seeks to establish representational standing on behalf of its membership, the organization must show that (1) "at least one member has standing and has authorized the organization to represent [them] and to request a hearing on [their] behalf," (2) "the interests the representative organization seeks to protect [are] germane to its own purpose," and (3) "neither the asserted claim nor requested relief must require an individual member to participate in the organization's legal action."[14]

In determining whether a petitioner meets the first requirement for representational standing, the Commission has made clear that licensing boards are to apply "contemporaneous judicial concepts of standing" that require a showing of a concrete and particularized injury that is fairly traceable to the challenged action and that is likely to be redressed by a favorable decision.[15] However, in certain power reactor license proceedings, the Commission routinely applies a "proximity presumption."[16] The proximity presumption allows a petitioner to establish standing without the need to make an individualized showing of injury, causation, and

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[12] Commonwealth Edison Co. (Zion Nuclear Power Station, Units 1 & 2), CLI-99-4, 49 NRC 185, 194 (1999).

[13] Ga. Inst. of Tech. (Georgia Tech Research Reactor), CLI-95-12, 42 NRC 111, 115 (1995).

[14] S. Nuclear Operating Co., Inc. (Vogtle Electric Generating Plant, Unit 3), CLI-20-6, 91 NRC 225, 238 (2020).

[15] Calvert Cliffs 3 Nuclear Project, LLC, and UniStar Nuclear Operating Servs., LLC (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-09-20, 70 NRC 911, 915 (2009).

[16] Id.

redressability if that petitioner resides,[17] has frequent contacts,[18] or has a significant property interest[19] within 50 miles of the subject nuclear power reactor.[20]

B. Analysis

Although neither Energy Harbor nor the NRC Staff contest ONFN's or BN's standing to participate in this proceeding,[21] this Board nevertheless is charged with independently determining their standing.[22] In this regard, ONFN and BN each maintain that they satisfy representational standing requirements based on their members' proximity to, and frequent contacts with, the area near Perry.[23]

1. Analysis of ONFN's Standing

To demonstrate representational standing, ONFN proffers declarations from two of its members.[24] The first lives 17 miles from Perry and the second lives about 4 miles from Perry.[25] Both members designate ONFN to serve "as [their] representative in this proceeding,"[26] both

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[17] Id.

[18] See Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Unit 1), CLI-93-21, 38 NRC 87, 95 (1993).

[19] USEC, Inc. (American Centrifuge Plant), CLI-05-11, 61 NRC 309, 314 (2005).

[20] Calvert Cliffs, CLI-09-20, 70 NRC at 915.

[21] See Energy Harbor Answer at 2 n.4; NRC Staff Answer at 5–6.

[22] 10 C.F.R. § 2.309(d)(2); see also Exelon Generation Co., LLC (Peach Bottom Atomic Power Station, Units 2 & 3), LBP-19-5, 89 NRC 483, 491 (2019), aff'd on other grounds, CLI-20-11, 92 NRC 335 (2020).

[23] See Petition at 7–10.

[24] See Petition Appendix, encls. B & C.

[25] Id.

[26] Id.

state that they are concerned, among other things, with public and environmental health, and both maintain that the license for Perry should not be renewed.[27]

Additionally, an officer of ONFN provided a declaration that ONFN opposes Perry's relicensing and intends, on its members' behalf, to ensure that those members' interests in a "safe and healthy environment" are protected.[28] ONFN describes itself as "an unincorporated association dedicated to ending the use of commercial nuclear power in Ohio."[29] The organization is specifically "concerned about nuclear weapons, radioactive waste, and the radioactive contamination of air, water, and soil."[30]

Based on the two individual member declarations, the proximity presumption clearly affords both individuals standing to intervene in this proceeding and both have authorized ONFN to represent them in this proceeding. The ONFN declarations also establish that the interests it seeks to protect in this proceeding, i.e., the health and safety of the public and environment, are germane to ONFN's purpose. Lastly, neither ONFN's asserted claim, nor its requested relief, require that an individual member of ONFN participate in this proceeding because all members will benefit from the requested relief and no member has a unique injury requiring individualized proof.[31]

We therefore conclude that ONFN has established its representational standing in this proceeding.

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[27] See id.

[28] Id. encl. A.

[29] Id.

[30] Petition at 2.

[31] See Vogtle, CLI-20-6, 91 NRC at 238; see also Warth v. Seldin, 422 U.S. 490, 515–16 (1975) (holding that an organization could not seek damages for the profits and business losses of its members because "whatever injury might have been suffered is peculiar to the individual member concerned, and both the fact and extent of the injury would require individualized proof.").

2. Analysis of BN's Standing

Like ONFN, BN provides a member's declaration to demonstrate representational standing.[32] This member states that he lives, and actively farms, approximately 11 miles from Perry and that he designates BN to serve as his representative in this proceeding.[33] This member also states that he is concerned, among other things, that renewing Perry's license will adversely impact safety, public health, and the environment.[34]

Additionally, an officer of BN provided a declaration stating that BN opposes the renewal of the Perry operating license and that BN intends to ensure its members' interests in a safe and healthy environment.[35] BN further explains that it is a "not-for-profit public policy, research, [and] education organization . . . that advocates the immediate expansion of renewable energy sources to replace commercial nuclear power generation."[36]

Based on the declaration of this BN member, the proximity presumption clearly affords him individual standing to intervene in this proceeding and he has authorized BN to represent him in this proceeding. And the declaration of an officer of BN also establishes that the interests BN seeks to protect in this proceeding, i.e., the health and safety of the public and the environment, are germane to BN's purpose. Lastly, neither BN's asserted claim, nor its requested relief, require that an individual member of BN participate in this proceeding because all members will benefit from the requested relief and no member has a unique injury requiring individualized proof.[37]

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[32] See Petition Appendix, encl. E.

[33] Id.

[34] See id.

[35] Id. encl. D.

[36] Petition at 4.

[37] See Vogtle, CLI-20-6, 91 NRC at 238; see supra note 31.

We therefore conclude that, like ONFN, BN has established its representational standing in this proceeding.

III. CONTENTION ADMISSIBILITY

A. Legal Standard for Contention Admission

For a hearing to be granted, a petitioner not only must establish standing to intervene, but also must proffer at least one admissible contention.[38] To be admissible, a contention must:

> (i) Provide a specific statement of the issue of law or fact to be raised or controverted . . .;
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> (ii) Provide a brief explanation of the basis for the contention;
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> (iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;
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> (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;
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> (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]
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> (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 . . . .[39]

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[38] 10 C.F.R. § 2.309(a).

[39] Id. § 2.309(f)(1).

A petitioner's failure to comply with any of these requirements renders a contention inadmissible.[40] The contention admissibility regulations are "strict by design"[41] in order to exclude vague, unparticularized, or unsupported contentions.[42] While petitioners need not prove their contentions at the admissibility stage, the contention admissibility standards do require petitioners to "proffer at least some minimal factual and legal foundation in support of their contentions."[43] Contentions must be based on a genuine material dispute, rather than mere disagreement with an application.[44]

B. Analysis

1. Contention 1

Petitioners' first contention alleges that the Severe Accident Mitigation Analysis in Energy Harbor's Environmental Report (ER) is inadequate.[45] However, in their Reply, Petitioners withdrew Contention 1[46] and they confirmed their withdrawal of Contention 1 during the January 30 oral argument.[47]

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[40] See Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 & 3), CLI-05-24, 62 NRC 551, 567 (2005).

[41] Entergy Nuclear Operations, Inc. (Indian Point, Unit 2), CLI-16-5, 83 NRC 131, 136 (2016) (citing Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001)).

[42] See North Atl. Energy Serv. Corp. (Seabrook Station, Unit 1), CLI-99-6, 49 NRC 201, 219 (1999).

[43] Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, & 3), CLI-99-11, 49 NRC 328, 334 (1999).

[44] See USEC, Inc. (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 480 (2006) ("Contentions . . . must be based on a genuine material dispute, not the possibility that petitioners, if they perform their own additional analyses, may ultimately disagree with the application.").

[45] Petition at 12.

[46] Reply at 3.

[47] See Tr. at 15 (Lodge).

Accordingly, Contention 1 is no longer at issue in this proceeding.

2. Contention 2

Petitioners' second contention concerns the no-action alternative analysis in Energy Harbor's ER.[48]

NRC rules require that an applicant's ER provide a "sufficiently complete" discussion of alternatives to its proposed action (here, renewal of the Perry license) in order to aid the NRC in its NEPA review.[49] At the same time, however, an ER is not required to discuss every conceivable alternative.[50] Rather NEPA mandates only the consideration of reasonable alternatives that are capable of meeting the purpose and need of the proposed action.[51]

In addition, NRC rules demand that the ER evaluate the environmental costs and benefits that would flow from not approving a project,[52] the so-called "no-action" alternative. Discussions of the no-action alternative can be brief and can incorporate by reference other sections of the ER that address adverse consequences from the proposed project.[53] The no-action alternative, like all NEPA requirements, is governed by a "rule of reason."[54] In evaluating the sufficiency of no-action alternatives, licensing boards are not to "flyspeck" environmental

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[48] See Petition at 21. NRC regulations direct petitioners that "[o]n issues arising under [NEPA], participants shall file contentions based on the applicant's [ER]." 10 C.F.R. § 2.309(f)(2).

[49] 10 C.F.R. § 51.45(b)(3) (citing 42 U.S.C. § 4332(2)(H)).

[50] See 42 U.S.C. § 4332(2)(C)(iii), (F).

[51] Sacramento Municipal Utility District (Rancho Seco Nuclear Generating Station), CLI-93-3, 37 NRC 135, 144–45 (1993); Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), CLI-91-2, 33 NRC 61, 71 (1991).

[52] See Louisiana Energy Services, L.P. (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 97–99 (1998).

[53] See Hydro Resources, Inc. (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 54 (2001) ("[f]or the 'no-action' alternative, there need not be much discussion"); Claiborne, CLI-98-3, 47 NRC at 98 ("We do not find the [final environmental impact statement's] incorporation by reference approach unreasonable as such.").

[54] Claiborne, CLI-98-3, 47 NRC at 97.

documents or add nuances.[55] In fact, as long as "the [ER] on its face 'comes to grips with all important considerations' nothing more need be done."[56]

For purposes of this proceeding, the no-action alternative assumes that Perry's proposed renewal of its current operating license would not be granted, that Perry's current operating license would expire on November 7, 2026, that Energy Harbor would transition to decommissioning Perry,[57] and that Perry's "baseload power would not be available for distribution in Ohio."[58] Consequently, Energy Harbor's ER evaluates over a dozen options to replace Perry's power.[59] These options include new power plants, new solar facilities, new wind generation, conservation, and purchasing replacement power from nearby generating facilities.[60] Energy Harbor considered some of these options reasonable and others not reasonable.[61]

Even though Petitioners frame Contention 2 as a dispute with the ER's discussion of the no-action alternative, in fact Contention 2 only mounts a challenge to one portion of this discussion—the "Purchased Power" alternative in section 7.2.2.1 of the ER.[62] This section of the ER evaluates the option of replacing Perry's power generation with power purchased from

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[55] See Exelon Generation Co. (Early Site Permit for Clinton ESP Site), CLI-05-29, 62 NRC 801, 811 (2005) (quoting Systems Energy Resources, Inc. (Early Site Permit for Grand Gulf ESP Site), CLI-05-4, 61 NRC 10, 13 (2005)).

[56] See Exelon, CLI-05-29, 62 NRC at 811.

[57] See ER at 7-1 to -3.

[58] Id. at 7-1.

[59] See id. at 7-3 to 7-10.

[60] See id.

[61] See, e.g., id. at 7-3 (finding natural gas alternative is reasonable) and id. at 7-8 (finding geothermal energy alternative is not).

[62] See, e.g., Petition at 23.

other states,[63] and concludes that this purchased power option is unreasonable—and therefore, that it requires no further evaluation.[64] Energy Harbor provides three separate reasons for deeming the purchased power option unreasonable: (1) "uncertainty in energy reliability"; (2) uncertainty created by ongoing closure of coal-fired plants; and (3) adverse environmental impacts from purchased power.[65]

In Contention 2, Petitioners object to the brevity of section 7.2.2.1 and characterize the content of this ER section as being "fact-averse."[66] Specifically, Petitioners argue that (1) Energy Harbor's analysis of the environmental harms arising from the purchased power alternative are unsupported by data; and (2) Energy Harbor's ER creates an exaggerated perception of Perry's role as a power producer because Perry's contribution is "redundant and not needed."[67] It is noteworthy that in raising these arguments, Petitioners never challenge any of the three reasons Energy Harbor provides in section 7.2.2.1 for considering the purchase power option to be unreasonable.

Likewise, Petitioners do not challenge Energy Harbor's evaluation that a shutdown of Perry would require the state of Ohio to replace its energy generation with purchased power from other states that would produce "greater uncertainties in energy reliability that are not within Energy Harbor's control."[68] Nor do Petitioners challenge Energy Harbor's assessment that the ongoing closure of coal-fired plants will create even more uncertainty in energy

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[63] See ER at 7-3 to -4.

[64] See id. at 7-4.

[65] Id. at 7-3 to -4.

[66] Petition at 22.

[67] Id.

[68] ER at 7-3.

reliability as well as changes to the availability of baseload generation.[69] And Petitioners do not challenge Energy Harbor's argument that the adverse environmental impacts of the purchased power alternative "could be substantial" due to increased air emissions, greater water use, degraded water quality, and impaired land use.[70]

Because Petitioners failed to challenge the reasons Energy Harbor posits for concluding that the purchased power alternative is unreasonable, they run afoul of our contention admissibility rules. We require petitioners to explain how their claims call into question the adequacy of an existing analysis, not merely suggest other details that could have been included in an analysis.[71] For this reason alone, Contention 2 fails to raise a genuine dispute with the relevant portion of the application.[72]

Despite Petitioners' failure to dispute Energy Harbor's analysis in ER section 7.2.2.1, they claim Contention 2 is nevertheless admissible for economic reasons. As a general rule, an ER is to address the environmental impacts of alternatives, and it need not discuss either the economic costs and benefits of such alternatives or the need for power.[73] To work around this, Petitioners attempt to invoke 10 C.F.R. § 51.53(c)(2), which states that an economic analysis

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[69] See id.

[70] Id. at 7-4.

[71] See NextEra Energy Seabrook, LLC (Seabrook Station, Unit 1), CLI-12-5, 75 NRC 301, 323–24 (2012) ("[T]he proper question is not whether there are plausible alternative choices for use in the analysis, but whether the analysis that was done is reasonable under NEPA.")

[72] See 10 C.F.R. § 2.309(f)(1)(vi).

[73] Office of Nuclear Reactor Regulation, NRC, NUREG-1437, Generic Environmental Impact Statement (GEIS) for License Renewal of Nuclear Plants, Main Report, Final Report at 1-15 (rev. 1 June 2013) (ADAMS Accession No. ML13106A241) ("The NRC will not make a decision or any recommendations on the basis of information presented in this GEIS regarding the need for power at nuclear power plants [whose applicants are seeking a renewal of an operating license]. The regulatory authority over licensee economics (including the need for power) falls within the jurisdiction of the States and, to some extent, within the jurisdiction of FERC.") [hereinafter 2013 GEIS].

can be appropriate in an ER where the costs and benefits of the alternatives are "essential for a determination regarding the inclusion of an alternative in the range of alternatives considered."[74]

Although Petitioners seek to hang their hat on this language in section 51.53(c)(2), they provide no basis for their claim that such an economic cost and benefit analysis is essential here. All Petitioners offer is the mere assertion that "[a] comprehensive understanding of the costs as well as the benefits of the power generated by Perry is essential to determine whether purchased power affords a viable alternative and has been adequately considered."[75] But under our contention admissibility rules, Petitioners bear the responsibility of setting forth their grievances clearly.[76] By failing to provide any facts to support their claim that an economic cost and benefit analysis is essential here, Petitioners have not established that the substance of this contention, even if true, is material to the findings the NRC must make relative to the Energy Harbor application.

Based on the above analysis, the Board concludes that Contention 2 is inadmissible.

3. Contention 3

Petitioners' third contention concerns releases of tritium from Perry and the potential adverse environmental effects of such releases.[77] In this regard, Petitioners assert the following claims: (1) Energy Harbor's LRA "is inadequate because it fails to include considerable information on the release of tritium and other radionuclides" from Perry; (2) Energy Harbor's LRA omits analyses of pipe leaks or breakage from an aging nuclear reactor that may occur in

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[74] 10 C.F.R. § 51.53(c)(2).

[75] Reply at 4.

[76] See Zion, CLI-99-4, 49 NRC at 194 ("We do not expect our adjudicatory Boards, unaided by the parties, to sift through the parties' pleadings to uncover and resolve arguments not advanced by litigants themselves. The burden of setting forth a clear and coherent argument for standing and intervention is on the petitioner. . . . Boards should not speculate about what a pleading is supposed to mean.") (internal quotation marks omitted).

[77] See Petition at 31.

the future, as well as any resultant radiation releases; (3) Energy Harbor's LRA omits any "discussion of the additive or synergistic relationships that might exist between tritium and other leaked radionuclides and the biocide chemicals" used to kill aquatic organisms; (4) Energy Harbor's LRA omits analyses of cumulative radiological impacts and the resulting potential health risks from operating Perry for an additional 20 years; and (5) Energy Harbor's LRA "omit[s] to take cognizance of or to analyze the potential health impacts to workers and the communities surrounding Perry" including any cumulative impacts.[78]

Because Contention 3 asserts that information is missing from the ER, it is characterized as a contention of omission. To establish the admissibility of a contention of omission, a petitioner must show what specific information is missing and explain why that information is required to be included in an environmental document, such as the ER here.[79] Taking each claim in turn, we begin with Petitioners' argument that Energy Harbor's ER does not include information related to the release of tritium. As explained below, this portion of Contention 3 is not admissible because Petitioners fail to demonstrate that a genuine dispute exists as to a material issue of law or fact.[80]

In this regard, Petitioners refer us to no law or regulation mandating the inclusion of this information in an ER. In fact, Petitioners admitted during oral argument that they were unaware of any requirement that such release information be addressed in an ER.[81] Actually, there is such a rule. It is 10 C.F.R. § 51.53(c)(3)(ii)(P), which requires that inadvertent releases of

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[78] Id.

[79] See 10 C.F.R. § 2.309(f)(1)(vi); see also Duke Energy Corp. (McGuire Nuclear Station, Units 1 & 2; Catawba Nuclear Station, Units 1 & 2), CLI-02-28, 56 NRC 373, 382–83 (2002) ("There is, in short, a difference between contentions that merely allege an 'omission' of information and those that challenge substantively and specifically how particular information has been discussed in a license application.").

[80] 10 C.F.R. § 2.309(f)(1)(vi).

[81] See Tr. at 85 (Lodge) (stating "I would have included [the legal requirement], . . . had I been able to find anything.").

radionuclides into groundwater be assessed in the ER and that such "assessment must also include a description of any past inadvertent releases and the projected impact to the environment . . . during the license renewal term."[82] To comply with this rule, Energy Harbor addressed Perry's historical releases in ER section 3.6.4.2,[83] and it addressed the potential impacts of these releases during Perry's license renewal term in ER section 4.5.5.4.[84]

Petitioners assert, however, that the ER fails to include information regarding a liquid release containing detectable quantities of tritium that occurred after Energy Harbor had prepared its ER.[85] But as Energy Harbor makes clear in its Answer, nothing in the Petition demonstrates that the inclusion of this one recent release in the ER is material to the findings the NRC must make to support the action in accordance with 10 C.F.R. § 2.309(f)(1)(iv).[86] A disputed issue "is material if its resolution would make a difference in the outcome of the licensing proceeding."[87] Petitioners have not established that, relative to the completeness of the ER or otherwise, the failure to include this information would make a difference in the outcome of this licensing proceeding.

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[82] 10 C.F.R. § 51.53(c)(3)(ii)(P).

[83] ER at 3-93 to -94.

[84] Id. at 4-15 to -16.

[85] See Petition at 40.

[86] Energy Harbor Answer at 24 n.106. Notably, Petitioners also say nothing in their Reply to dispute this information in Energy Harbor's Answer addressing the subject release.

[87] Holtec International (HI-STORE Consolidated Interim Storage Facility), CLI-20-4, 91 NRC 167, 190 (2020) (internal quotation marks omitted).

Petitioners' second claim in Contention 3 asserts the ER contains no analysis of possible future pipe leaks or breakage that may result in a release of radiation.[88] Again, however, Petitioners' argument fails to raise a genuine dispute with the application.

Under 10 C.F.R. § 54.29(a), the applicant is required to provide reasonable assurance that it will manage "the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review."[89] As Energy Harbor explains in its Answer, the LRA "presents a comprehensive and systematic analysis of aging issues across more than 1,600 pages of content."[90] In addition, the LRA includes 44 "aging management programs" that Energy Harbor plans to implement at Perry during the license renewal term "to monitor, identify, and manage the effects of aging on plant systems, structures, and components."[91]

Though Petitioners acknowledge that the LRA contains such aging management information,[92] they maintain the LRA should have additionally evaluated possible future pipe leaks or other breakage.[93] Yet Petitioners cite no law or regulation obligating Energy Harbor to include an environmental analysis of potential future pipe leaks and breakage to support the agency's NEPA review. With no citation to a specific deficiency in the ER, much less to any environmental impacts that may result from Energy Harbor's aging management program

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[88] See Petition at 31. Petitioner clarified during oral argument that this contention is not a safety contention but is strictly an environmental one. See Tr. at 86 (Lodge).

[89] 10 C.F.R. § 54.29(a)(1).

[90] Energy Harbor Answer at 14.

[91] Id.

[92] See Petition at 31 (stating that "[t]here is mention of pipe leaks or other breakage that has led to some radiation releases.").

[93] Id. ("[T]there is no analysis of similar pipe leaks or breakage that may occur in the future and the related radiation release increase that could result in aging nuclear reactors.")

described in detail in the LRA, Petitioners have not raised a genuine dispute with the application and so their argument fails to support an admissible contention.[94] Further, Petitioners provide no factual support for their claim that there could be leakage under the plant or that the tritium contamination will worsen in the future.[95] As such, both assertions are mere speculation and cannot support an admissible contention.

Petitioners' third claim in Contention 3 criticizes the ER for not addressing the "additive or synergistic effects of tritium."[96] As for any purported absence of any discussion of the additive effects of tritium, we note that Energy Harbor did examine what Petitioners consider "additive" effects of radioactive releases in the ER's cumulative impacts analysis. The ER states that there are only two other NRC-licensed operating facilities within 50 miles of Perry and that both are currently undergoing decommissioning.[97] Accordingly, the ER concludes that operating Perry "for an additional 20-year period would not cause an increase in annual radioactive effluent releases."[98]

With respect to the absence of any discussion of the alleged synergistic effects of tritium, Petitioners rely on language in Kleppe v. Sierra Club regarding "consideration of 'cumulative or synergistic environmental impact[s].'"[99] On closer reading, however, Kleppe cannot support Petitioners' assertion that Energy Harbor's ER must contain an evaluation of tritium's possible synergistic effects at Perry.

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[94] See 10 C.F.R. § 2.309(f)(1)(vi).

[95] See Petition at 43.

[96] Id. at 31.

[97] ER at 4-41. The two facilities are Advanced Medical Systems, which is approximately 35 miles southwest of Perry and the Whittaker Corporation, which is approximately 48 miles southeast of Perry.

[98] Id.

[99] Petition at 46 (citing Kleppe v. Sierra Club, 427 U.S. 390, 410 (1976)); Tr. at 76.

In Kleppe, the United States Supreme Court considered whether NEPA required a federal agency to expand its analysis of the development of coal resources in a specific region into a comprehensive environmental impact statement (EIS) covering the area as a whole.[100] The Court concluded that no comprehensive EIS was required under NEPA because there was no existing or proposed plan in place to develop the region as a whole.[101] In holding that NEPA requires such a concrete proposed federal action in order to trigger a comprehensive EIS,[102] the Court explained that the situations requiring a comprehensive EIS include those where "several proposed actions are pending at the same time."[103]

Here, in an attempt to support their claim that the ER should address the cumulative or synergistic effects of tritium, Petitioners focus on one specific passage in Kleppe that explains when an agency is obligated to conduct a comprehensive EIS. That passage states: "when several proposals for coal-related actions that will have cumulative or synergistic environmental impact upon a region are pending concurrently before an agency, their environmental consequences must be considered together."[104]

It is difficult to see how this passage in Kleppe discussing multiple related agency actions could be deemed to obligate a nuclear power plant renewal applicant to consider the synergistic effects of tritium with other radionuclides or other chemicals. Significantly, during oral argument, Petitioners conceded they were not aware of any requirement for an applicant to

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[100] See Kleppe, 427 U.S. at 395.

[101] See id. at 414–15.

[102] See id.

[103] Id. at 409.

[104] Id. at 410.

consider synergistic effects,[105] and the NRC Staff confirmed that, while there is guidance on cumulative impacts, none exists on synergistic impacts.[106]

Although Petitioners did provide information about certain chemicals found in Lake Erie,[107] they offered no data or scientific studies showing there to be any synergistic effect of tritium with these chemicals.[108] With no factual support for their argument regarding the alleged synergistic effects of tritium, this claim is far too speculative to support an admissible contention.[109] Likewise, Petitioners have referred us to no law or regulation mandating that such information be included in an ER. As a consequence, Petitioners have failed to demonstrate that the issue is material or that there is a genuine dispute of law or fact.[110]

Next, Petitioners make several claims that the ER fails to include a cumulative impact analysis of potential future health risks posed to workers and to the communities surrounding Perry.[111] Significantly, however, Petitioners seek to adjudicate the very impacts and health risks of operating the plant for an additional 20 years that are designated as Category 1 issues in the 2013 Generic Environmental Impact Statement (GEIS) and in Table B-1 of Appendix B to

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[105] See Tr. at 76 (Lodge) (stating "I don't know of any guidance, but I do know that there are many qualified chemists in the country and that there is certainly an understanding within that profession of synergy and certainly the capability to analyze it.").

[106] See id. at 75 (Carpentier).

[107] See Petition at 45.

[108] When questioned about the lack of specific evidence of synergistic effects at Perry, Petitioners' counsel responded that "[w]e're basing our opinion on the . . . discussion in the [2013 GEIS]." Tr. at 88 (Lodge). In fact, however, neither "synergy" nor "synergistic" appear in the 2013 GEIS.

[109] See, e.g., GPU Nuclear, Inc. (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 208 (2000) (finding "bare assertions and speculation" insufficient to trigger a contested hearing).

[110] 10 C.F.R. § 2.309(f)(1)(iv), (vi).

[111] See Petition at 31.

Subpart A of 10 C.F.R. Part 51. In fact, during oral argument, counsel for Petitioners conceded as much.[112]

As is noted in the 2013 GEIS, the Commission's intent in issuing the GEIS was to determine which environmental impacts would result "in essentially the same (generic) impact at all nuclear power plants and which ones could result in different levels of impacts at different plants . . . . For those issues that could not be generically addressed, the NRC would prepare [a] plant-specific supplemental [EISs] to the GEIS."[113] Further, under the Commission's regulations governing the consideration of NEPA issues in a license renewal proceeding, those generic issues falling within the Category 1 designation in 10 C.F.R. Part 51, Subpart A, Appendix B, Table B-1 do not require further site-specific consideration in an applicant's ER or the Staff's GEIS supplement.[114]

Because these Category 1 issues have been so codified, they cannot be challenged in a licensing proceeding except where a petitioner first obtains a waiver under 10 C.F.R. § 2.335—which Petitioners have not done.[115] The Commission has made clear that Category 1 determinations "are not subject to site-specific review and . . . fall beyond the scope of individual license renewal proceedings."[116] In particular here, radiation doses to the public, radiation doses to plant workers, exposure of aquatic and terrestrial organisms to radionuclides, and

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[112] See Tr. at 51–52, 71 (Lodge) (conceding during oral argument that the 2013 GEIS addressed all of the claims originally plead in Petitioners Contention 3 except for the possible cumulative and synergistic effects of tritium with other substances). Petitioners also acknowledged during oral argument that their claim concerning inadequate monitoring frequency was resolved by Energy Harbor's Answer that explained Energy Harbor had made a clerical error in its LRA. See Tr. at 63–64 (Lodge); Energy Harbor Answer at 24 n.107.

[113] 2013 GEIS at S-1.

[114] See 10 C.F.R. § 51.53(c)(3)(i)–(ii).

[115] See, e.g., Exelon Generation Co., LLC (Limerick Generating, Units 1 & 2), CLI-12-19, 76 NRC 377, 384 (2012).

[116] Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 & 4), CLI-01-17, 54 NRC 3, 12 (2001); see 10 C.F.R. § 51.53(c)(3)(i)–(ii).

cooling tower impacts on vegetation have all been deemed Category 1 issues with an impact level of "SMALL."[117] Energy Harbor has incorporated these generic analyses of Category 1 issues by reference in its ER.[118] Because Petitioners have not requested a 10 C.F.R. § 2.335 waiver, they are precluded from challenging these Category 1 issues here. Accordingly, any claim that radiological and health impacts were not analyzed in the ER fails to raise a genuine dispute with Energy Harbor's application and falls beyond the scope of this proceeding. Because Petitioners' argument fails to meet section 2.309(f)(1)(iii) and (vi) of our contention admissibility standards, it does not support an admissible contention.

Nevertheless, even were we to construe Petitioners' argument as implicating cumulative impacts that are site-specific (i.e., Category 2 issues under the 2013 GEIS), Petitioners' argument still fails to raise a genuine dispute with the application. NRC regulations require that an applicant provide information about site-specific cumulative impacts, defined as "other past, present, and reasonably foreseeable future actions occurring in the vicinity of the nuclear plant that may result in a cumulative effect."[119]

Moreover, and contrary to Petitioners' assertion, Energy Harbor's ER does include such a cumulative impacts analysis.[120] Specifically, section 4.12 of the ER, titled "Cumulative Impacts," includes discussions on air quality, water resources, surface water, ground water, ecological resources, and human health, to name only a few.[121] For surface water quality, Energy Harbor concludes that Perry complies with its National Pollutant Discharge Elimination

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[117] 10 C.F.R. pt. 51, subpart A, app. B, tbl. B-1.

[118] See ER at 4-2, 6-1.

[119] 10 C.F.R. § 51.53(c)(3)(ii)(O).

[120] See ER at 4-34 to -42.

[121] Id. Note that ER section 4.12.2.1 addresses cumulative impacts on air quality, ER section 4.12.5.1 addresses cumulative impacts on terrestrial species, ER section 4.12.5.2 addresses cumulative impacts on aquatic species, and ER section 4.12.8 addresses cumulative impacts on human health.

System permits, that Perry's operations do not contribute to nearby tributary impairment, and therefore, that "the cumulative impact to surface water quality would be SMALL."[122]

Likewise, section 4.12.8 of the ER, titled "Human Health," discusses both radiological and non-radiological cumulative human health impacts.[123] Specifically, the ER states,

> Operating [Perry] for an additional 20-year period would not cause an increase in annual radioactive effluent releases. The cumulative impact of [Perry]'s Unit 1 operation, and the decommissioning activities in the region, would be expected to be SMALL because the plant and [its associated Independent Spent Fuel Storage Installation] are designed to maintain doses [as low as reasonably achievable], and all routine releases and occupational exposure would be subject to federal regulations.[124]

From this, the ER concludes that "[t]he cumulative impacts on human health are expected to be SMALL."[125]

Petitioners neither challenge this cumulative impacts analysis nor explain how it is in any way deficient. Because analyses of cumulative impacts are included in the ER, Petitioners have not raised a genuine dispute of material fact or law and, as such, fail to satisfy 10 C.F.R. § 2.309(f)(1)(vi).

Based on the above analysis, the Board concludes that Contention 3 is inadmissible.

IV. CONCLUSION

For the reasons set forth in section II, Petitioners have established their representational standing in this initial license renewal proceeding for Perry Nuclear Power Plant Unit 1. For the reasons described in section III, however, we conclude that, under the applicable standards of

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[122] ER at 4-38.

[123] Id. at 4-41.

[124] Id.

[125] Id. at 4-42.

10 C.F.R. § 2.309(f)(1), Petitioners have failed to establish the grounds for admitting any of their three contentions.

Accordingly, Petitioners' hearing request is denied.

For the foregoing reasons, it is the thirteenth day of March 2024, ORDERED that:

1. The November 28, 2023 hearing request of petitioners Ohio Nuclear-Free Network and Beyond Nuclear is denied and this proceeding is terminated.

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

THE ATOMIC SAFETY
AND LICENSING BOARD

/RA/

Michael M. Gibson, Chair
ADMINISTRATIVE JUDGE

/RA/

Dr. Gary S. Arnold
ADMINISTRATIVE JUDGE

/RA/

Nicholas G. Trikouros
ADMINISTRATIVE JUDGE

Rockville, Maryland

March 13, 2024

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
ENERGY HARBOR NUCLEAR CORP.	)	Docket No. 50-440-LR
	)	
(Perry Nuclear Power Plant, Unit 1)	)	
	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing **MEMORANDUM and Order (Denying Intervention Petition and Terminating Proceeding) (LBP-24-04)** have been served upon the following persons by Electronic Information Exchange.

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Dated at Rockville, Maryland,
this 13th day of March 2024.