

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:

ENERGY HARBOR NUCLEAR CORP and
ENERGY HARBOR NUCLEAR
GENERATION LLC

(Perry Nuclear Power Plant, Unit No. 1)

Docket No. 50-440-LR

December 22, 2023

**ENERGY HARBOR'S ANSWER OPPOSING THE PETITION FOR LEAVE TO
INTERVENE AND REQUEST FOR HEARING OF OHIO NUCLEAR-FREE
NETWORK AND BEYOND NUCLEAR**

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I. INTRODUCTION

Pursuant to 10 C.F.R. § 2.309(i)(1), Energy Harbor Nuclear Corp. (“Energy Harbor”) submits this Answer opposing the Petition for Leave to Intervene and Hearing Request (“Petition”) filed by Ohio Nuclear-Free Network and Beyond Nuclear (collectively, “Petitioners”) on November 28, 2023.¹ Petitioners seek to intervene in the above-captioned proceeding and request a hearing to challenge the license renewal application (“LRA”) submitted by Energy Harbor (operator) on its own behalf and for Energy Harbor Nuclear Generation LLC (owner)² to the U.S. Nuclear Regulatory Commission (“NRC”) on July 3, 2023, requesting renewal of the facility operating license for Perry Nuclear Power Plant, Unit 1 (“PNPP”).³ As explained below, the Petition should be denied because the Petitioners have not submitted an admissible contention, as required by 10 C.F.R. § 2.309(a).

Petitioners proffer three proposed contentions. But, as detailed in Section III below, none of Petitioners’ proposed contentions is admissible. First, Petitioners claim the Severe Accident Mitigation Analysis (“SAMA”) is inadequate. However, those claims are inadmissible because nothing in the contention even acknowledges, much less disputes, the relevant analysis. Second, Petitioners attack the Environmental Report’s (“ER’s”) consideration of purchased power as an alternative to the proposed action, primarily because it fails to present a “need for power” analysis. But that challenge also is inadmissible because NRC regulations expressly state that “need for power” analyses are not required in license renewal proceedings. Finally, Petitioners

¹ Petition of Ohio Nuclear-Free Network and Beyond Nuclear for Leave to Intervene in Perry Nuclear Power Plant License Extension Proceeding, and Request for a Hearing (Nov. 28, 2023) (ML23332A785) (“Petition”).

² Petitioners claim that Energy Harbor is “doing business as Energy Harbor Nuclear Generation LLC.” *Id.* at 1, 10. But that is incorrect. Energy Harbor Nuclear Corp. and Energy Harbor Nuclear Generation LLC are separate legal entities. The former is the licensed operator of PNPP, whereas the latter is the licensed owner.

³ License Renewal Application for the Perry Nuclear Power Plant (July 3, 2023) (ML23184A081) (“LRA”).

argue that the ER and LRA allegedly fail to consider certain environmental and safety information related to tritium releases. But, as noted below, the allegedly omitted information is in fact presented in the application—Petitioners simply disregard it. Ultimately, none of the three contentions satisfies all six admissibility criteria in 10 C.F.R. § 2.309(f)(1). Accordingly, pursuant to 10 C.F.R. § 2.309(a), the Petition should be denied.⁴

II. BACKGROUND

A. License Renewal Reviews

The NRC’s review of license renewal applications for nuclear power reactors consists of both a safety review and an environmental review, which are primarily governed by the requirements of 10 C.F.R. Parts 54 and 51, respectively.

1. Safety Review

The objective of the NRC’s license renewal safety review “is to ensure that the licensee can successfully manage the detrimental effects of aging.”⁵ Accordingly, “the license renewal regulations in 10 C.F.R. Part 54 focus on whether the licensee can manage the effects of aging on certain long-lived, passive components that are important to safety.”⁶ Those Aging Management Programs (“AMPs”) are at the core of the NRC’s license renewal safety framework. The NRC has published guidance (known as the “GALL Report”) that analyzes aging management issues

⁴ Energy Harbor does not oppose the Petitioners’ assertion of administrative standing on the basis of the proximity presumption. However, because the Petitioners have not proffered an admissible contention, the question of whether the Petitioners has satisfied the standing requirements in 10 C.F.R. § 2.309(d) is immaterial to adjudication of the Petitioners’ Petition. See 10 C.F.R. § 2.309(a); *DTE Elec. Co.* (Fermi 2), CLI-21-5, 93 NRC 131, 143 (2021).

⁵ *Entergy Nuclear Operations, Inc.* (Indian Point, Units 2 & 3), CLI-15-6, 81 NRC 340, 347 (2015).

⁶ *Id.*; see also 10 C.F.R. §§ 54.21, 54.29(a).

generically and contains AMPs that may be used by applicants to satisfy aging management requirements in Part 54.⁷

Importantly, “[t]he license renewal [safety] review is not intended to duplicate the NRC’s ongoing oversight of operating reactors.”⁸ In particular, a plant’s Current Licensing Basis (“CLB”)⁹ is beyond the limited scope of license renewal and cannot be challenged in a license renewal adjudicatory proceeding.¹⁰ The Commission determined that re-assessments of CLB safety issues at the license renewal stage would be “unnecessary and wasteful”¹¹ because those issues are “effectively addressed and maintained by ongoing agency oversight, review, and enforcement.”¹²

2. Environmental Review

The NRC’s license renewal environmental regulations in Part 51 are based, in large part, on the Generic Environmental Impact Statement for License Renewal of Nuclear Plants (“GEIS”), which summarizes the findings of a systematic inquiry (accomplished through notice and comment rulemaking) into the potential environmental consequences of license renewal.¹³ Based on these analyses, the GEIS delineates two types of environmental issues:

⁷ See NUREG-1801, Rev. 2, Generic Aging Lessons Learned (GALL) Report (Dec. 2010) (ML103490041) (“GALL Report”).

⁸ *Indian Point*, CLI-15-6, 81 NRC at 347.

⁹ See 10 C.F.R. § 54.3 (defining the CLB).

¹⁰ *Fla. Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 & 4), CLI-01-17, 54 NRC 3, 7–9 (2001).

¹¹ *Id.* at 7.

¹² *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Units 2 & 3), CLI-04-36, 60 NRC 631, 638 (2004) (citation omitted).

¹³ See NUREG-1437, Rev. 0, Generic Environmental Impact Statement for License Renewal of Nuclear Plants (May 1996) (Vol. 1, ML040690705); NUREG-1437, Rev. 1, Generic Environmental Impact Statement for License Renewal of Nuclear Plants (June 2013) (Vol. 1, ML13106A241). As used in this brief, “GEIS” refers to Rev. 1 unless otherwise noted. The NRC is currently working on Rev. 2 of the GEIS and corresponding changes to 10 C.F.R. Part 51, but that effort is only at the proposed rule stage and imposes no requirements here.

- Generic “Category 1” issues, for which the NRC made “generic conclusions applicable to all existing nuclear power plants”; and
- Plant-Specific “Category 2” issues, for which site-specific analyses are required for each individual license renewal proceeding.

For Category 1 issues, the GEIS assigns impact levels (SMALL, MODERATE, or LARGE), which are codified in 10 C.F.R. Part 51, Subpart A, Appendix B. Because those Category 1 findings are codified, they are not subject to challenge in individual adjudicatory proceedings.¹⁴ As part of an initial license renewal application,¹⁵ applicants must submit an “environmental report” considering all Category 2 issues on a plant-specific basis.¹⁶ Applicants need not replicate the GEIS analyses of Category 1 issues in an ER.¹⁷ Ultimately, the NRC Staff draws upon the applicant’s ER, the GEIS, and other sources of information to produce a plant-specific Supplemental Environmental Impact Statement (“SEIS”) for each license renewal application.¹⁸

B. The LRA and Procedural History

Energy Harbor submitted the PNPP LRA, including the required ER attached thereto as Appendix E, to the NRC on July 3, 2023.¹⁹ The LRA has been publicly available on the NRC’s Agencywide Documents Access and Management System (“ADAMS”) since July 12, 2023.²⁰

¹⁴ See 10 C.F.R. § 2.335 (prohibiting challenges to NRC regulations absent a waiver from the Commission); *Entergy Nuclear Vt. Yankee, LLC* (Vt. Yankee Nuclear Power Station), CLI-07-3, 65 NRC 13, 17–18 (2007) (“Because the generic environmental analysis was incorporated into a regulation, the conclusions of that analysis may not be challenged in litigation.”).

¹⁵ The Commission’s recent decision that the GEIS and codified analyses in 10 C.F.R. Part 51, Subpart A, Appendix B do not apply to *subsequent* license renewals, see *Fla. Power & Light Co.* (Turkey Point Nuclear Generating Units 3 and 4), CLI-22-02, 95 NRC 26 (2022), does not affect this proceeding, which pertains to an *initial* license renewal.

¹⁶ See 10 C.F.R. §§ 51.41, 51.45, 51.53(c)(3)(ii).

¹⁷ See *id.* § 51.53(c)(3)(i). Licensees may incorporate by reference those analyses and the codified impact findings from Appendix B. See *id.* § 51.53(a).

¹⁸ See *generally* GEIS at 1-16 to 1-19.

¹⁹ See LRA, App. E (“ER”).

²⁰ See *Web-based ADAMS*, <https://adams.nrc.gov/wba/> (“Date Added” property for Accession Number ML23184A081).

The NRC then published, in the *Federal Register*, a notice of receipt of the LRA on August 9, 2023,²¹ and a separate notice on September 29, 2023, offering an opportunity for members of the public to file hearing requests and petitions to intervene in the above-captioned proceeding by November 28, 2023.²² Petitioners filed their Petition on November 28, 2023. Energy Harbor hereby files its timely answer to the Petition.

C. Legal Standards for Hearing Requests & Contention Admissibility

Pursuant to 10 C.F.R. § 2.309(a)(1), a hearing request and petition to intervene may be granted only if the presiding officer determines that the petitioner has demonstrated standing and has proposed at least one admissible contention that meets all six of the threshold admissibility criteria in 10 C.F.R. § 2.309(f)(1).²³ Failure to satisfy any one of these six admissibility criteria requires that a proposed contention be rejected.²⁴ These criteria are “strict by design.”²⁵ The rules were “toughened . . . in 1989 because in prior years ‘licensing boards had admitted and litigated numerous contentions that appeared to be based on little more than speculation.’”²⁶ The

²¹ Energy Harbor Corp.; Energy Harbor Generation LLC.; Energy Harbor Nuclear Corp.; Perry Nuclear Power Plant, Unit 1, 88 Fed. Reg. 53,933 (Aug. 9, 2023).

²² Energy Harbor Corp.; Energy Harbor Generation LLC; Energy Harbor Nuclear Corp.; Perry Nuclear Power Plant, Unit 1, 88 Fed. Reg. 67,373 (Sept. 29, 2023).

²³ A proposed 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 is within the scope of the proceeding; (iv) demonstrate that the issue raised 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, including references to the specific sources and documents that support the petitioner’s position and upon which the petitioner intends to rely; and (vi) provide sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. 10 C.F.R. § 2.309(f)(1).

²⁴ *See id.*; Changes to Adjudicatory Process; Final Rule, 69 Fed. Reg. 2,182, 2,221 (Jan. 14, 2004); *see also Private Fuel Storage, LLC* (Indep. Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 325 (1999).

²⁵ *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Units 2 & 3), CLI-01-24, 54 NRC 349, 358 (2001).

²⁶ *Id.* (quoting *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, & 3), CLI-99-11, 49 NRC 328, 334 (1999)).

petitioner alone bears the affirmative burden to satisfy these criteria.²⁷ Thus, where a petition fails to do so on its face, the Board may not cure a deficiency or fill a gap by supplying the information that is lacking or making factual assumptions that favor the petitioner.²⁸ Key aspects of the six admissibility criteria are summarized below.

Basis and Specificity: In simple terms, a contention must articulate the specific legal or regulatory requirement that it claims to be unsatisfied, and then it also must explain the basis for that claim. That is because the parties are “entitled to be told at the outset, *with clarity and precision*, what arguments are being advanced and what relief is being” sought,²⁹ and must set forth their contentions “with particularity.”³⁰

Scope: The subject matter of all contentions is limited to the scope of the proceeding delineated by the Commission in its hearing notice and referral order delegating to the Licensing Board the authority to conduct the proceeding.³¹ Challenges to NRC rules are prohibited as outside the scope of a proceeding because, absent a waiver, “no rule or regulation of the Commission...is subject to attack...in any adjudicatory proceeding.”³² This includes challenges

²⁷ See *Entergy Nuclear Operations, Inc.* (Palisades Nuclear Plant), CLI-15-23, 82 NRC 321, 325, 329 (2015) (stating “[t]he proponent of a contention is responsible for formulating the contention and providing the necessary support to satisfy the contention admissibility requirements” and “it is Petitioners’ responsibility, not the Board’s, to formulate contentions and to provide the necessary information to satisfy the basis requirement for admission”) (citation omitted); see also *DTE Elec. Co.* (Fermi Nuclear Power Plant, Unit 2), CLI-15-18, 82 NRC 135, 149 (2015) (“the Board may not substitute its own support for a contention or make arguments for the litigants that were never made by the litigants themselves.”).

²⁸ See *Fermi*, CLI-15-18, 82 NRC at 149.

²⁹ *Kansas Gas & Elec. Co.* (Wolf Creek Generating Station, Unit No. 1), ALAB-279, 1 NRC 559, 576 (1975) (emphasis added).

³⁰ *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-10-15, 71 NRC 479, 482 (2010) (citation omitted).

³¹ *Fla. Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 & 4), CLI-00-23, 52 NRC 327, 329 (2000); *Duke Power Co.* (Catawba Nuclear Station, Units 1 & 2), ALAB-825, 22 NRC 785, 790 (1985).

³² 10 C.F.R. § 2.335(a).

to the generic environmental analyses and conclusions codified in 10 C.F.R. Part 51, Subpart A, Appendix B.³³

Materiality: A “material issue” is one that would “make a difference in the outcome of the licensing proceeding.”³⁴ The petitioner must demonstrate that the application deficiency asserted in the contention “would impact the grant or denial” of the pending application.³⁵

Adequate Support: Presiding officers must scrutinize documents and expert opinions to confirm that they support a proposed contention.³⁶ A petitioner’s imprecise reading of a document cannot support a litigable contention.³⁷ Likewise, a document or expert opinion that merely states a conclusion, “without providing a reasoned basis or explanation for that conclusion,” is insufficient to satisfy this criterion.³⁸ Furthermore, “bare assertions and speculation,” even by experts, are incapable of providing the requisite support for a proposed contention.³⁹

Genuine Dispute: The Commission has stated that petitioners must “read the pertinent portions of the license application . . . state the applicant’s position and the petitioner’s opposing view,” and explain why the petitioner disagrees with the applicant.⁴⁰ In other words, a

³³ *Vt. Yankee*, CLI-07-3, 65 NRC at 17–18.

³⁴ *Oconee*, CLI-99-11, 49 NRC at 333–34 (citation omitted).

³⁵ *Entergy Nuclear Operations, Inc.* (Indian Point, Units 2 & 3), LBP-08-13, 68 NRC 43, 62 (2008) (citation omitted).

³⁶ *See Vt. Yankee Nuclear Power Corp.* (Vt. Yankee Nuclear Power Station), ALAB-919, 30 NRC 29, 48 (1989), *vacated in part on other grounds and remanded*, CLI-90-4, 31 NRC 333 (1990).

³⁷ *See Ga. Inst. of Tech.* (Ga. Tech Research Reactor, Atlanta, Ga.), LBP-95-6, 41 NRC 281, 300 (1995).

³⁸ *See USEC, Inc.* (Am. Centrifuge Plant), CLI-06-10, 63 NRC 451, 472 (2006).

³⁹ *Fansteel, Inc.* (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 203 (2003) (quoting *GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 208 (2000)).

⁴⁰ Rules of Practice for Domestic Licensing Proceedings; Procedural Changes in the Hearing Process; Final Rule, 54 Fed. Reg. 33,168, 33,170 (Aug. 11, 1989) (“Procedural Changes”); *see also Millstone*, CLI-01-24, 54 NRC at 358.

contention of sufficiency that does not directly controvert specific text within the application is subject to dismissal.⁴¹ And for contentions of omission, the petitioner must demonstrate two things: (a) that the applicant had a legal obligation to provide the allegedly-omitted information, and (b) that such information is, in fact, absent from the application.⁴²

III. THE PETITION SHOULD BE DENIED BECAUSE THE PETITIONERS FAILED TO PROPOSE AN ADMISSIBLE CONTENTION

Petitioners propose three contentions. But, as explained below, none of those proposed contentions satisfy the admissibility criteria in 10 C.F.R. § 2.309(f). Accordingly, the Petition should be denied.

A. Proposed Contention 1 (SAMA) Is Inadmissible

In Proposed Contention 1, Petitioners allege that the SAMA analysis in the ER is inadequate.⁴³ However, across the entirety of the discussion of Proposed Contention 1, Petitioners do not challenge—or even acknowledge—a *single word* of the comprehensive SAMA analysis in the LRA apart from its ultimate conclusion. Petitioners simply pronounce that conclusion as incorrect, without benefit of further explanation. As explained below, far more is required to demonstrate a genuine dispute. And because Petitioners have not done more here, Proposed Contention 1 is inadmissible.

⁴¹ See *S.C. Elec. & Gas Co.* (Virgil C. Summer Nuclear Station, Units 2 & 3), CLI-10-1, 71 NRC 1, 21–22 (2010); *Tex. Utils. Elec. Co.* (Comanche Peak Steam Electric Station, Unit 2), LBP-92-37, 36 NRC 370, 384 (1992), *vacated as moot*, CLI-93-10, 37 NRC 192 (1993).

⁴² See *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Units 2 & 3), LBP-04-15, 60 NRC 81, 95 (2004) (explaining that if the allegedly missing information is indeed in the license application, then the contention does not raise a genuine dispute).

⁴³ Petition at 12.

1. Petitioners Disregard, Rather Than Dispute, The Relevant Discussion in the ER and Therefore Fail to Demonstrate a Genuine Dispute

Summarized in Section 4.15 of the ER, Energy Harbor used the longstanding, NRC-approved guidance in NEI 05-01 to perform its SAMA analysis.⁴⁴ Consistent with that guidance, Energy Harbor performed a Phase I screening of SAMA candidates based on defined criteria.⁴⁵ SAMA candidates that were not screened-out in Phase I were subjected to a rigorous assessment in Phase II using a sophisticated cost estimate and risk model involving a Level 3 probabilistic risk assessment (“PRA”).⁴⁶ Notably, the PNPP PRA includes a detailed seismic hazard assessment.⁴⁷

Furthermore, Energy Harbor’s PRA model incorporated updated information regarding “population density within 50 miles of the PNPP site, economic data reflecting recent cost data, meteorological data, and plant emergency response information” as inputs to the MELCOR Accident Consequence Code System 2 (MAACS2), based on nuclide release information that reflects the current fission product inventory and frequency information for plant source term categories.⁴⁸ In all, Energy Harbor considered a total of 157 SAMAs,⁴⁹ evaluated 32 source term categories (which were grouped into eleven release categories), and executed 11 additional WinMACCS sensitivity cases.⁵⁰ A detailed assessment reflecting the disposition of each SAMA

⁴⁴ ER at 4-44.

⁴⁵ *Id.*

⁴⁶ *Id.* at 4-45.

⁴⁷ *Id.* at 4-48. The PNPP PRA core damage frequency (CDF), large early release frequency (LERF), and population dose for the seismic hazard are detailed in ER Table 4.15-3. *Id.* at 4-50.

⁴⁸ *Id.* at 4-45.

⁴⁹ *Id.* at 4-46.

⁵⁰ *Id.*, App. G at G-49 to G-50.

candidate, and further details regarding the various assumptions, models, and inputs used in the assessment, is documented in Appendix G to the ER.

Remarkably, notwithstanding the extensive and detailed technical evaluation provided across more than 100 pages of the ER, Petitioners do not engage with or attempt to dispute the analysis or disposition of even a *single* SAMA candidate. Instead of engaging with the SAMA *analyses*, Petitioners merely attack the *conclusion* (*i.e.*, that all SAMA candidates ultimately were screened out).⁵¹ Petitioners imply—without explanation—that this conclusion *per se* shows that the SAMA analysis was inadequate. However, this conclusory assertion falls far short of demonstrating a genuine dispute with the application. The codified admissibility criteria require a petitioner to:

provide sufficient information to show that a genuine dispute exists with the applicant/licensee 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 dispute⁵²

Thus, on its face, Proposed Contention 1 does not satisfy this criterion because it fails to mention, reference, summarize, analyze, or challenge any “specific portion” of the SAMA analysis or offer a single “supporting reason” that some unspecified portion of that disregarded analysis is deficient in any way. The Commission has long held that “merely stat[ing] a conclusion (*e.g.*, the application is ‘deficient,’ ‘inadequate,’ or ‘wrong’) without providing a reasoned basis or explanation for that conclusion is inadequate” for an admissible contention.⁵³ Accordingly, Proposed Contention 1 is inadmissible for failure to satisfy 10 C.F.R. § 2.309(f)(1)(vi).

⁵¹ Petition at 21.

⁵² 10 C.F.R. § 2.309(f)(1)(vi) (emphasis added).

⁵³ See *USEC, Inc. (Am. Centrifuge Plant)*, CLI-06-10, 63 NRC 451, 472 (2006) (citation omitted).

2. Petitioners' General Commentary on Regional Geology and Selective Historical Documents Provides Inadequate Support

As alleged support for Proposed Contention 1, Petitioners offer only a report from a geologist, Julie Weatherington-Rice, Ph.D. However, that report contains no discussion—whatsoever—of the SAMA analysis that Petitioners purport to challenge. Dr. Weatherington-Rice does not claim to have reviewed the SAMA analyses (or any other portion of the LRA).⁵⁴ And Petitioners otherwise make no attempt to connect any particular claim in that report to any specific alleged deficiency in the SAMA analyses. The Commission's admissibility requirements demand far more to supply adequate support for a contention.

Dr. Weatherington-Rice merely provides general commentary on the regional geology around PNPP and remarks on “the historical geological backgrounding that was performed in preparation for construction of [PNPP] in the 1970s and 1980s.”⁵⁵ She provides no discussion of the SAMA analyses in the ER, either generally or to those related to seismic events. As noted above, Petitioners make no attempt to connect this discussion to the disposition of any particular SAMA, the use of any particular SAMA input, or the execution of any particular SAMA modeling code. And no such connection is obvious here.

Moreover, the Commission has long refused to require licensing boards to “sift through” lengthy documents in an attempt to “uncover and resolve arguments not advanced by the litigants themselves.”⁵⁶ Accordingly, this report provides insufficient support for the proffered

⁵⁴ Petition, Exh. F at 4–8 (“Material reviewed for this evaluation”).

⁵⁵ *Id.* at 16.

⁵⁶ *Pac. Gas & Elec. Co.* (Diablo Canyon Nuclear Power Plant, Units 1 & 2), CLI-02-16, 55 NRC 317, 337 (2002) (quoting *Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 & 2), CLI-99-4, 49 NRC 185, 194 (1999)).

contention, and fails to demonstrate a genuine material dispute with the SAMA analysis, contrary to 10 C.F.R. § 2.309(f)(1)(v) and (vi).

3. In Addition to Supplying No Basis for an Admissible Contention, Petitioners' Claims Are Factually Inaccurate and Demonstrably Untrue

Despite the fact that the proposed contention is summarily inadmissible, Energy Harbor nevertheless offers two additional observations to correct the record regarding factually inaccurate claims made in the description of Proposed Contention 1.

First, Petitioners suggest that certain issues related to site geology and seismic hazards have not been evaluated since the initial licensing of PNPP to account for “latter-day science.”⁵⁷ As a procedural matter, such issues are addressed through existing regulatory requirements and ongoing oversight that are part of the plant’s CLB,⁵⁸ and therefore are beyond the narrow scope of this license renewal proceeding.⁵⁹

And as a factual matter, Petitioners’ suggestion that such safety-related matters have been disregarded since initial plant licensing is mistaken. Seismic and other safety issues are subject to rigorous and continuing NRC evaluation and oversight throughout the life of the plant. Dr. Weatherington-Rice only purports to have reviewed four documents related to PNPP, primarily from the initial plant licensing stage.⁶⁰ In contrast, the NRC’s document management system is

⁵⁷ Petition at 16–17.

⁵⁸ See 10 C.F.R. § 54.3 (defining the CLB).

⁵⁹ The license renewal safety review is limited to certain aging management matters. 10 C.F.R. §§ 54.21, 54.29(a); see also *Fla. Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 & 4), CLI-01-17, 54 NRC 3, 7–8 (2001). The Commission determined that re-assessments of CLB safety issues at the license renewal stage would be “unnecessary and wasteful” because they are “effectively addressed and maintained by ongoing agency oversight, review, and enforcement.” *Id.* at 7; *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Units 2 & 3), CLI-04-36, 60 NRC 631, 638 (2004) (citation omitted).

⁶⁰ Petition, Exh. F at 4–8 (“Material reviewed for this evaluation”) (purporting to have reviewed only four documents related to PNPP: the 1982 Safety Evaluation Report for initial plant licensing and a 1986 supplement thereto, the January 2003 version of chapter 2 of the plant’s Updated Final Safety Analysis Report, and a 2011 email).

full of countless other publicly-available documents related to NRC inspections, oversight, and re-evaluations of PNPP seismic matters over the decades since initial plant licensing—none of which Petitioners acknowledge.

As particularly relevant here, following the accident at the Fukushima Dai-ichi Nuclear Power Station in 2011, the NRC directed each operating power reactor licensee to complete various actions, including a comprehensive reevaluation of the seismic hazard that could affect their sites using “updated seismic hazard information and present-day regulatory guidance and methodologies.”⁶¹ The re-evaluation for PNPP spanned several years and included detailed technical evaluations and extensive expert analysis.⁶² Given that they reviewed none of the numerous relevant documents, Petitioners appear to be entirely unaware of this process, which resulted in the NRC re-confirming that the seismic design basis of PNPP (which is part of the CLB), continues to provide adequate protection of the public health and safety.⁶³ Quite simply, Petitioners’ claims that seismic issues have not been evaluated using “latter-day science”⁶⁴ are uninformed, demonstrably untrue, and beyond the scope of license renewal.

Second, the Petition presents various off-hand remarks suggesting a patent disregard for the effects of “aging” and degradation of plant structures and the absence of “serious investigations of existing conditions.”⁶⁵ Again, Petitioners appear to be unaware that aging

⁶¹ See Letter from R. Bernardo, NRC, to F. Payne, Energy Harbor, “[PNPP] - Documentation of the Completion of Required Actions Taken in Response to the Lessons Learned from the Fukushima Dai-Ichi Accident” at 7 (Aug. 17, 2020) (ML20219A129) (“Close-Out Letter”).

⁶² See *id.*, Encl. at 6, tbl. 5 (cataloging the various reports and correspondence).

⁶³ Close-Out Letter at 8 (“The staff confirmed that the conclusions in the various staff assessments continue to support a determination that no further regulatory actions are required for Perry.”).

⁶⁴ Petition at 17.

⁶⁵ *Id.* at 19.

management is the *primary focus* of the license renewal process.⁶⁶ The LRA presents a comprehensive and systematic analysis of aging issues across more than 1,600 pages of content that fully complies with applicable NRC requirements and guidance. The LRA also includes forty-four separate “aging management programs” that will be implemented during the license renewal term to monitor, identify, and manage the effects of aging on plant systems, structures, and components.⁶⁷ Petitioners neither acknowledge nor challenge any portion of this “serious investigation” of aging issues, which fully complies with NRC requirements in 10 C.F.R. Part 54. Again, Petitioners’ claims are uninformed, demonstrably untrue, and fail to dispute any information in the LRA.

Ultimately, Proposed Contention 1 fails to provide a sufficient basis for an admissible contention. Accordingly, it should be ruled inadmissible for failure to satisfy 10 C.F.R. § 2.309(f)(1)(v) and (vi).

B. Proposed Contention 2 (Purchased Power Alternative) Is Inadmissible

In Proposed Contention 2, Petitioners argue that the ER’s conclusion that the Purchased Power alternative is not a reasonable discrete alternative is “conclusory and nonfactual” and should be rejected because it presents an “exaggerated perception of the centrality of Energy Harbor as a power producer in the multistate regional grid.”⁶⁸ But this contention is inadmissible for multiple reasons. First, at its core, Contention 2 attacks the ER for not presenting an adequate analysis of the need for power from PNPP in the regional grid. However, the Commission has expressly declined to require a “need for power” analysis at the license renewal

⁶⁶ See 10 C.F.R. §§ 54.21, 54.29(a).

⁶⁷ See generally LRA, App. B (“Aging Management Programs”); see also, e.g., LRA, App. B at B-119 to B-126 (§ B.2.43, “Structures Monitoring Program”).

⁶⁸ Petition at 22.

stage.⁶⁹ Thus, Petitioners' criticism is fundamentally immaterial. Moreover, Petitioners' other comments on the Purchased Power alternative fail to challenge or dispute Energy Harbor's conclusion. Second, Petitioners purport to challenge the "purpose and need" statement for the proposed action. However, that statement is not subject to challenge here because it was generically developed by the NRC and is applicable to *all* license renewal proceedings. Accordingly, as detailed below, Proposed Contention 2 is inadmissible for failure to satisfy multiple admissibility criteria.⁷⁰

1. Petitioners' Criticisms of the ER's Discussion of the "Purchased Power" Alternative Fail to Support an Admissible Contention

Energy Harbor determined that the "Purchased Power" alternative (*i.e.*, replacing all of the energy generation and capacity provided by PNPP with power purchased in the open market) was not a reasonable discrete alternative.⁷¹ Petitioners purport to attack that conclusion for two main reasons: because it does not present an analysis of the need for power from PNPP and because it allegedly disregards excess power capacity available in the regional grid. However, as explained below, neither of those arguments support an admissible contention.

⁶⁹ 10 C.F.R. §§ 51.45(c), 51.53(c)(2).

⁷⁰ As an initial matter, Petitioners include an extensive and irrelevant discussion regarding FirstEnergy Corp. Petition at 25-27. That discussion includes a counterfactual claim that "FirstEnergy renamed itself Energy Harbor when it emerged from bankruptcy in 2020." *Id.* at 25. But that is incorrect. FirstEnergy Corp. is a separate company that continues to exist following its emergence from bankruptcy. A portion of FirstEnergy Corp. was spun-off pursuant to the bankruptcy proceedings and became a new legal entity, Energy Harbor Corp. FirstEnergy Corp. and Energy Harbor Corp. have been separate, unaffiliated companies for nearly 4 years. Petitioners' discussion of the regional energy market frequently conflates these two companies and fails to distinguish their businesses (electric transmission/distribution versus electric generation), which undermines many of their claims at a fundamental level.

⁷¹ ER at 7-3 to 7-4.

a. *The “Need for Power” Analysis Demanded by Petitioners Is Not Required for License Renewal*

In Proposed Contention 2, Petitioners attack the ER’s discussion of the “purchased power” alternative for allegedly presenting an “exaggerated perception of the centrality of Energy Harbor as a power producer in the multistate regional grid.”⁷² Specifically, Petitioners criticize that discussion for failing to provide certain quantitative supply-and-demand analyses including:

- “statistical or factual analysis of the availability of electricity overcapacity within Ohio,”
- “the available export electricity in multiple states surrounding Ohio,” and
- “projections, pricing information, and [an] assessment of incoming new generation resources.”⁷³

Petitioners claim that, after analyzing such information, the ER should have concluded that energy from PNPP is “redundant and not needed.”⁷⁴ Based on their description, Petitioners effectively fault the ER for not including an economic “need for power” analysis. Indeed, the information Petitioners demand echoes NRC guidance on the content of a “need for power” analysis applicable to new plants,⁷⁵ which directs applicants to:

- “describe and characterize the . . . geographic . . . constraints which affect the current and forecast supply of and demand for power”;
- “demonstrate how the proposed project would supply some or all of the service area’s future need for power”;

⁷² Petition at 22.

⁷³ *Id.* at 23.

⁷⁴ *Id.* at 22.

⁷⁵ Regulatory Guide 4.2, Rev. 3, Preparation of Environmental Reports for Nuclear Power Stations at 19 (Sept. 2018) (ML18071A400) (explaining that Rev. 3 is for use by applicants for “new reactors”) (“Reg. Guide 4.2, Rev. 3”).

- “characterize[e] the service area’s most recent annual hourly peak . . . electricity demand”; and
- “provide information over sufficient historical and projected periods . . . to complete an independent assessment of the need for the power to be provided by the proposed project.”⁷⁶

That is exactly the type of information Petitioners contend is omitted from, but required to be presented in, the ER. However, as specified in 10 C.F.R. § 51.53(c)(2), a license renewal applicant’s ER “is *not required* to include discussion of need for power.”⁷⁷ As noted above, such analyses are only required for *new* plant applications.⁷⁸

The rulemaking history of this provision elaborates further on the Commission’s decision not to require such information at the license renewal stage. The statement of considerations explains that Part 51:

eliminates consideration of the need for generating capacity and of utility economics from the environmental reviews because these matters are under the regulatory jurisdiction of the States and are not necessary for the NRC’s understanding of the environmental consequences of a license renewal decision.⁷⁹

Thus, the omission of such information from the PNPP ER is not a material issue, and Petitioners’ claims fail to raise a material dispute, because the Commission has—by rule—determined that such information is “not necessary” in a license renewal proceeding. Accordingly, Proposed Contention 2 fails to satisfy 10 C.F.R. § 2.309(f)(1)(iv) and (vi).

⁷⁶ *Id.* at 143.

⁷⁷ Emphasis added.

⁷⁸ Compare Reg. Guide 4.2, Rev. 3 at 19 (explaining that Rev. 3 is for use by applicants for “new reactors”) *with id.* at 17 (“[a]pplicants for reactor license renewal should use [Regulatory Guide] 4.2, Supplement 1”). The new reactor version of Regulatory Guide 4.2 includes a chapter on “Need for Power,” *see id.*, Ch. 8, whereas the license renewal version does not. *See generally* Regulatory Guide 4.2, Supplement 1, Rev. 1, Preparation of Environmental Reports for Nuclear Power Plant License Renewal Applications (June 2013) (ML13067A354) (“Reg. Guide 4.2, Supp. 1, Rev. 1”).

⁷⁹ *See* Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 61 Fed. Reg. 28,467, 28,467 (June 5, 1996).

Furthermore, as support for Proposed Contention 2, Petitioners’ proposed expert, Mr. Ford, contends that, by failing to perform a need for power analysis, “the NRC is not apparently doing the proper sort of analysis.”⁸⁰ Given that the Commission expressly determined that such an analysis is not required—and the Commission codified that determination in Part 51—Mr. Ford’s criticism amounts to a collateral attack on NRC regulations. But, pursuant to NRC procedure, no rule or regulation of the Commission . . . is subject to attack . . . in any adjudicatory proceeding.”⁸¹ Accordingly, this impermissible challenge to NRC regulations is outside the scope of the proceeding, contrary to 10 C.F.R. § 2.309(f)(1)(iii).

b. Petitioners Fail to Dispute the ER’s Reasons for Concluding That Purchased Power Is Not a Reasonable Discrete Alternative

In Section 7.2.2.1 of the ER, Energy Harbor lists three main reasons for determining that Purchased Power is not a reasonable discrete alternative: uncertainties in energy reliability, uncertainties created by the closure of coal-fired plants, and the potential that the environmental impacts associated with purchased power could exceed the impacts of license renewal. Petitioners fail to challenge these assertions or otherwise explain any reason why Energy Harbor was required to reach a different conclusion. Thus, Petitioners have failed to raise a genuine dispute with the ER for this additional reason, contrary to 10 C.F.R. § 2.309(f)(1)(vi).

First, the ER points to “uncertainties in energy reliability that are not within Energy Harbor’s control” as a factor contributing to its conclusion that purchased power is not a reasonable discrete alternative.⁸² Although the Petition and the Ford Letter offer various comments on regional energy *capacity*, neither says a single word about the effect of the

⁸⁰ Petition, Exh. G at 1.

⁸¹ 10 C.F.R. § 2.335(a). A limited exception to this prohibition is available if the Commission grants an express waiver. 10 C.F.R. § 2.335(b). However, Petitioners neither requested nor received such a waiver here.

⁸² ER at 7-3.

purchased power alternative on energy *reliability*.⁸³ Given that Petitioners do not acknowledge this portion of the analysis, they certainly have not disputed it.

Second, the ER explains that the “closure of coal-fired plants across the United States also changes the availability of baseload generation.”⁸⁴ But Petitioners do not challenge that assertion either. Petitioners claim that neighboring states, such as Kentucky and West Virginia, currently have excess power capacity.⁸⁵ But Petitioners also acknowledge that both of those states “produce *most* of their power from coal.”⁸⁶ Thus, their failure to engage with the ER’s acknowledgement of the accelerating pace of coal plant closures is conspicuous (and casts doubt on their various claims regarding future energy capacity). Again, given that Petitioners do not acknowledge the ER’s assertion regarding coal plant closures, they certainly have not disputed it.

Lastly, the ER notes that the “[p]otential environmental impacts associated with purchased power could be substantial and exceed the impacts associated with the continued operation of PNPP.”⁸⁷ Petitioners do not directly attack this assertion. And to the extent that any passing remark in the Petition (*e.g.*, noting the ER “generally alludes to the carbon releases” from alternative generation sources⁸⁸) could be viewed as criticizing the level of detail provided in ER Section 7.2.2.1, Petitioners fail to explain why anything more is required. Petitioners do not engage with the relevant analysis, including its discussion of the impacts associated with renewable energy generation (which include habitat, forest, and agricultural land conversion and

⁸³ Petitioners reference a PJM discussion of *transmission* reliability in light of certain “upgrades” that PJM would undertake in the event a PNPP shutdown. Petition at 26. However, that statement says nothing about *energy* reliability in the context of replacing PNPP’s baseload *generation* with purchased power.

⁸⁴ ER at 7-3.

⁸⁵ Petition at 28.

⁸⁶ *Id.* (emphasis added).

⁸⁷ ER at 7-4.

⁸⁸ Petition at 28.

the resultant adverse effects on wildlife and plant species) or those inherent in fossil fuel source generation (such as resultant carbon emissions, water use and quality issues, and land use impacts).⁸⁹ As noted above, Petitioners tout purported “excess capacity” in states such as Kentucky and West Virginia, which they acknowledge “produce most of their power from coal,” but offer no discussion of the inherent environmental concerns tied to fossil fuel generation.⁹⁰ And Petitioners certainly identify no reason why the ER was deficient for acknowledging this reality. At bottom, Petitioners offer no reason why the ER’s discussion of environmental impacts associated with purchased power requires anything further.⁹¹

In sum, Energy Harbor considered the purchased power alternative, determined it was not a discrete reasonable alternative, and listed several reasons to support that conclusion.⁹² Proposed Contention 3 fails to dispute any of those reasons. Accordingly, Petitioners have failed to proffer an admissible contention under 10 C.F.R. § 2.309(f)(1)(vi).

2. Petitioners’ Criticisms of the ER’s “Purpose and Need” Statement Fail to Raise a Genuine Dispute

Petitioners also attack the ER’s purpose and need statement. For example, they claim the purpose and need statement is “poorly-conceived” and “self-serving” because it overstates the need for PNPP’s continued operation.⁹³ However, the purpose and need statement in the ER merely quotes the purpose and need statement that has been generically determined by the Commission for all license renewal proceedings. Thus, it is not subject to challenge here.

⁸⁹ ER at 7-3 to 7-4.

⁹⁰ Petition at 28.

⁹¹ Agencies have “broad discretion ‘to keep their [NEPA] inquiries within appropriate and manageable boundaries.’” *Crow Butte Resources, Inc.* (Marsland Expansion Area), LBP-19-2, 89 NRC 18, 40 (2019) (quoting *La. Energy Servs., L.P.* (Claiborne Enrichment Ctr.), CLI-98-3, 47 NRC 77, 103) (1998).

⁹² ER at 7-3 to 7-4.

⁹³ Petition at 28–29.

Moreover, even if it were subject to challenge, Petitioners' criticism is based on claims that are incorrect as a matter of law. Thus, this portion of Proposed Contention 2 is both out-of-scope and fails to raise a genuine dispute, contrary to 10 C.F.R. § 2.309(f)(1)(iii) and (vi).

As an overarching matter, the NRC's rulemaking for the environmental review of license renewal applications generically established the purpose and need for license renewal. The Commission has clarified that the "purpose and need for the proposed action (renewal of an operating license) is to provide an option that allows for power generation capability beyond the term of a current nuclear power plant operating license to meet future system generating needs."⁹⁴ NRC guidance in Regulatory Guide 4.2, Supplement 1, "Preparation of Environmental Reports for Nuclear Power Plant License Renewal Applications," Revision 1, identifies the specific statement of purpose and need to be included in license renewal ERs that is consistent with the above statement from the Part 51 rulemaking.⁹⁵ And that purpose and need is also presented in the license renewal GEIS.⁹⁶

Consistent with the Part 51 rulemaking and the relevant regulatory guidance, Energy Harbor identified the purpose and need for PNPP license renewal in ER Section 1.0. Section 1.0 simply quotes the Commission-developed purpose and need statement.⁹⁷ Petitioners fault the ER's stated purpose and need for the proposed action, but do not explain how the statement fails to meet any applicable regulatory requirements. Petitioners identify no reason that Energy

⁹⁴ Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 61 Fed. Reg. 28,467, 28,472 (June 5, 1996) ("This definition of purpose and need reflects the Commission's recognition that, absent findings in the safety review required by the Atomic Energy Act of 1954, as amended, or in the NEPA environmental analysis that would lead the NRC to reject a license renewal application, the NRC has no role in the energy planning decisions of State regulators and utility officials.").

⁹⁵ Reg. Guide 4.2, Supp. 1, Rev. 1 at 11.

⁹⁶ See GEIS at S-3, 1-3 to -4.

⁹⁷ ER at 1-1.

Harbor erred in using the Commission-specified purpose and need statement (which is not subject to challenge here).

Even if Petitioners could challenge the Commission’s generic purpose and need statement in this site-specific proceeding, Petitioners’ criticisms fail to identify any defect therein. In essence, Petitioners allege that the purpose and need statement should not consider an applicant’s commercial interests.⁹⁸ But that line of argument is contrary to law. For federal actions in which the government is not the project sponsor (*e.g.*, entities seeking licenses or permits, such as Energy Harbor here), Courts have long recognized that agencies have a *legal duty* to consider the views of the applicant in evaluating the purpose and need for a proposed license.⁹⁹ In fact, the United States Court of Appeals for the District of Columbia Circuit has held that agencies should accord “substantial weight” to the applicant’s commercial objectives.¹⁰⁰

As support for their claims, Petitioners cite *Environmental Law & Policy Center v. NRC*, for the proposition that courts should not “accept out of hand a license applicant’s statement of purpose and need.”¹⁰¹ But that case does not support their challenge here for multiple reasons. First, Energy Harbor did not develop the purpose and need statement in the ER. As noted above, that statement was generically developed by the NRC; thus, the NRC did not accept anything

⁹⁸ *E.g.*, Petition at 29 (calling the purpose and need statement “self-serving”).

⁹⁹ *See, e.g., Louisiana Wildlife Fed’n, Inc. v. York*, 761 F.2d 1044, 1048 (5th Cir. 1985) (“not only is it permissible for the [agency] to consider the applicant’s objective; the [agency] has a duty to take into account the objectives of the applicant’s project. Indeed, it would be bizarre if the [agency] were to ignore the purpose for which the applicant seeks a permit and to substitute a purpose it deems more suitable.”).

¹⁰⁰ *City of Grapevine, Tex. v. Dep’t of Transp.*, 17 F.3d 1502, 1506 (D.C. Cir. 1994) (“where a federal agency is not the sponsor of a project, ‘the Federal government’s consideration of alternatives may accord substantial weight to the preferences of the applicant and/or sponsor in the siting and design of the project. In formulating the EIS requirement, the Congress did not expect agencies to determine for the applicant what the goals of the applicant’s proposal should be.’” (quoting *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 199 (D.C. Cir. 1991)).

¹⁰¹ Petition at 29.

“out of hand.” Second, in the cited case, the court in fact *affirmed* the Commission’s adoption of an applicant’s goal of generating baseload energy in light of the nature of the license applicant’s commercial objectives and the limited scope of NRC authority.¹⁰² So too here. Energy Harbor is an independent power producer in the business of providing carbon-free “baseload energy generation,” and the ER’s purpose and need reflects as much. Accordingly, even if the Commission’s generically-determined purpose and need statement were subject to challenge here (it is not), Petitioners’ claims still would fail to present a genuine dispute, contrary to 10 C.F.R. § 2.309(f)(1)(vi).

C. Proposed Contention “3” (Tritium) Is Inadmissible

In Proposed Contention 3, Petitioners argue that the ER fails to include adequate information and analyses related to the release of tritium and other radionuclides from PNPP.¹⁰³ As discussed below, this contention is inadmissible for multiple reasons. First, to the extent Petitioners attack the ER’s discussion of historical effluents, they fail to explain why the ER (which fully complies with NRC guidance) was required to provide anything more. Second, Petitioners allege that the LRA and the ER omit various analyses of radiological impacts and certain safety analyses related to aging management. However, those analyses are in fact presented in the application—Petitioners just disregard them. Ultimately, none of these claims raise a genuine dispute with the ER and Proposed Contention 3 is inadmissible for failure to satisfy 10 C.F.R. § 2.309(f)(1)(vi).

¹⁰² *Env’t L. & Pol’y Ctr. v. NRC*, 470 F.3d 676, 683–84 (7th Cir. 2006) (“Because [the applicant] was a private company engaged in generating energy for the wholesale market, the Board’s adoption of baseload energy generation as the purpose behind the [application] was not arbitrary, capricious, an abuse of discretion or otherwise not in accordance with law.”).

¹⁰³ Petition at 31.

1. Petitioners Fail to Raise a Genuine Dispute with the ER’s Consideration of Historical Effluents

Petitioners argue that the ER “fails to include” unspecified information regarding historical tritium releases and alleges that the ER only provides an “incomplete” and “partial” history.¹⁰⁴ The relevant discussion is presented in ER Sections 3.6.4.2 and 3.6.4.2.1. But Petitioners do not identify any *specific* deficiency therein. For that reason alone, these vague arguments fail to raise a genuine dispute with the application.

The information ER Chapter 3 is provided to comply with the requirement in 10 C.F.R. § 51.53(c)(2) to describe the “affected environment” around the plant. According to longstanding NRC guidance, to satisfy this requirement, the applicant should “[p]rovide a list of documented leaks, spills, or accidental releases, including their nature, location, date, and amount spilled and/or released.”¹⁰⁵ The ER provides this information.¹⁰⁶ But Petitioners do not engage with that information or attempt to explain why anything further was required to satisfy 10 C.F.R. § 51.53(c)(2).¹⁰⁷ Far more is required for an admissible contention.

Controlling case law has long recognized that the NRC’s contention admissibility criteria do not permit petitioners to “file a vague, unparticularized contention, followed by an endeavor

¹⁰⁴ *Id.*

¹⁰⁵ Reg. Guide 4.2, Supp. 1, Rev. 1 at 17.

¹⁰⁶ *See, e.g.*, ER at 3-93 (list and discussion of “liquid releases” reported in 2020 and 2021). The Petition references elevated tritium levels discovered on June 22, 2023. Petition at 40. Petitioners do not expressly attack the list on ER page 3-93 for not mentioning this discovery. However, its omission is not surprising, given that the discovery occurred only a few days before the LRA was filed. And, in any event, Petitioners do not assert or explain how the omission is material to any particular analysis or conclusion in the ER.

¹⁰⁷ Petitioners claim that the ER contains contradictory assertions regarding the frequency of groundwater monitoring. Petition at 37. Energy Harbor acknowledges that the text on ER page 3-87 contains a clerical error (it does not distinguish the monitoring frequency of wells MW-2C and MW-3C versus the other groundwater monitoring wells), whereas the information on ER page 3-92 is correct. In any event, Petitioners fail to identify any portion of the underlying analysis that relies on the clerical error on ER page 3-87 or explain why that unidentified analysis is somehow materially deficient as a result thereof.

to flesh it out” later.¹⁰⁸ The Commission has stated that petitioners must “read the pertinent portions of the license application . . . state the applicant’s position and the petitioner’s opposing view.”¹⁰⁹ That obligation is “ironclad.”¹¹⁰ But Petitioners have not satisfied that obligation here. Accordingly, Proposed Contention 3 fails to raise a genuine dispute as required by 10 C.F.R. 2.309(f)(1)(vi).

2. The Allegedly Omitted Analyses Are In Fact Presented in the Application, Whereas Petitioners Fail to Acknowledge or Dispute Them

Petitioners claim that various analyses related to radiological impacts and aging management are omitted from the LRA. But, as explained below, potential radiological impacts from the proposed action, potential cumulative impacts, and aging management issues are all considered in the LRA to the full extent required by NRC regulations and guidance. Petitioners simply disregard and fail to dispute the relevant information, which is insufficient for an admissible contention.

a. Potential Radiological Impacts from the Proposed Action Are Analyzed or Otherwise Incorporated in the ER

Petitioners allege that some unspecified portion of the ER fails to analyze various radiological impacts. For example, Petitioners allege that the ER “omit[s] to take cognizance of or to analyze the potential health impacts to workers and the communities surrounding Perry Nuclear Power Plant for an additional 20 years.”¹¹¹ Petitioners also claim that the ER provides “no recognition” of the potential impacts of radionuclides on “aquatic beings,” and provide a

¹⁰⁸ *Duke Power Co.* (Catawba Nuclear Station, Units 1 & 2), ALAB-687, 16 NRC 460, 468 (1982).

¹⁰⁹ Procedural Changes, 54 Fed. Reg. at 33,170; *see also Millstone*, CLI-01-24, 54 NRC at 358.

¹¹⁰ *Catawba*, ALAB-687, 16 NRC at 468.

¹¹¹ Petition at 31.

general discussion of potential radiological impacts to terrestrial organisms.¹¹² However, Petitioners' suggestion that those issues have not been analyzed is demonstrably untrue. Each of those topics has been analyzed, and the relevant analyses are included or incorporated by reference in the ER. For example, the GEIS plainly includes multiple analyses related to these topics, including, among others, analyses of:

- Radiation Exposures to the Public,¹¹³
- Radiation Exposures to Plant Workers,¹¹⁴
- Exposure of Aquatic Organisms to Radionuclides¹¹⁵, and
- Exposure of Terrestrial Organisms to Radionuclides.¹¹⁶

The NRC analyzed each of those issues generically for all plants in the GEIS as Category 1 issues and concluded that the environmental impacts are SMALL in each area. And the ER squarely “adopts by reference” those analyses.¹¹⁷ Thus, Petitioners' assertions that the ER “fails” to include analyses of these issues is verifiably incorrect. Petitioners simply overlook those analyses and fail to raise a genuine dispute with the ER.

Furthermore, the Commission has designated those topics as “Category 1” issues and codified the analyses and impact conclusions in 10 C.F.R. Part 51, Subpart A, Appendix B. Thus, to the extent that Petitioners' criticisms seek to challenge one or more of those codified analyses, Proposed Contention 3 also raises an impermissible challenge to NRC regulations. Pursuant to 10 C.F.R. § 2.335(a), Commission regulations are not “subject to attack” in

¹¹² *Id.* at 31, 36–37.

¹¹³ *See, e.g.*, GEIS at 3-97 to 3-136, 4-140 to 4-146.

¹¹⁴ *See, e.g., id.* at 3-97 to 3-136, 4-135 to 4-139.

¹¹⁵ *See, e.g., id.* at 3-68 to 3-76, 4-105 to 4-107.

¹¹⁶ *See, e.g., id.* at 3-63 to 3-68, 4-61 to 4-64.

¹¹⁷ ER at 4-2, 8-10, 8-11, 8-15.

adjudicatory proceedings. Further, to the extent Petitioners attack the ER for not republishing those Category 1 analyses or providing new analyses of those issues, that argument is immaterial, beyond the scope of the proceeding, and fails to raise a genuine dispute with the application because the NRC's regulations, at 10 C.F.R. § 51.53(c)(3)(i), unambiguously say that is "not required."

Additionally, the ER presents an analysis of the Category 2 issue "Radionuclides Released to Groundwater."¹¹⁸ To the extent Proposed Contention 3 could be interpreted to claim that analysis has been omitted, that claim is also plainly wrong. Moreover, that analysis fully complies with the requirements of 10 C.F.R. § 51.53(c)(3)(ii)(P), and Petitioners do not claim (much less, demonstrate) otherwise. They do not engage with that analysis. They do not identify any assertion or conclusion in that analysis that is being challenged. And they certainly do not explain why any such unspecified assertion or conclusion is allegedly deficient in some material way. Thus, as to this Category 2 issue, Petitioners have not identified a genuine dispute as required by 10 C.F.R. § 2.309(f)(1)(vi).

b. Potential Cumulative Radiological Impacts Are Considered in the ER

In Proposed Contention 3, Petitioners also claim that the ER fails to analyze "cumulative [radiological] impacts" with respect to radiological releases and emissions and the potential health impacts of operating PNPP for an additional 20-year license term.¹¹⁹ However, the ER provides a plant-specific analysis of cumulative impacts that considers impacts from other activities in combination with impacts from the proposed action,¹²⁰ as required for Category 2 issues. Petitioners criticize that discussion for allegedly failing to consider the "cumulative"

¹¹⁸ ER at 4-14 to 4-16.

¹¹⁹ Petition at 44.

¹²⁰ See ER at 4-34 to 4-42.

radiological impacts of long-term exposure to radionuclides. However, that issue has in fact been analyzed.

Radiological dose limits for protection of the public and workers have been developed by the EPA and the NRC.¹²¹ As noted in the ER, these limits were expressly developed to consider the “*cumulative* impacts of acute and long-term exposure to radiation and radioactive material.”¹²² In line with regulatory requirements, PNPP prepares annual radiological environmental operating reports and annual radiological effluent reports, which are monitored by the NRC.¹²³ The reports for 2016–2021 indicate that doses to members of the public were controlled within NRC and EPA radiation protection standards and the 3-year (2017–2019) average annual occupational dose was well below the annual limit.¹²⁴ As a result, the ER concludes that the cumulative impacts of operating PNPP on human health are expected to be SMALL.¹²⁵ Thus, the ER plainly does not “fail” to include a “cumulative radiological impacts” analysis. In contrast, Petitioners fail to acknowledge or engage with this analysis or articulate any specific reason why it is somehow inadequate. Accordingly, this argument fails to raise a material issue or identify a genuine supported dispute with the ER on a material issue of law or fact, contrary to 10 C.F.R. § 2.309(f)(1)(iv)-(vi).

c. Aging Management Issues Are Analyzed in the LRA

Lastly, Petitioners note the requirement in 10 C.F.R. § 54.29(a) regarding consideration of the effects of aging in license renewal proceedings,¹²⁶ and assert that the LRA provides “no

¹²¹ See 10 C.F.R. § 20; 40 C.F.R. § 190.

¹²² ER at 4-41 (emphasis added).

¹²³ *Id.*

¹²⁴ 10 C.F.R. § 20.1201(a)(1).

¹²⁵ ER at 4-42.

¹²⁶ Petition at 34.

analysis” of “pipe leaks or breakage that may occur in the future” as a result of “aging nuclear reactors.”¹²⁷ However, that is demonstrably untrue. Petitioners simply disregard, rather than dispute, the relevant safety analysis in the LRA.

As noted above,¹²⁸ the LRA presents over 1,600 pages of information and analysis regarding Energy Harbor’s aging management review, including forty-four separate aging management programs. Petitioners do not acknowledge, discuss, or even attempt to criticize any specific portion of that information. By way of example, the LRA contains a “Buried and Underground Piping and Tanks Program” intended, among other things, to monitor and manage the “loss of material, cracking, and changes in material properties of external surfaces of piping and tanks exposed to a buried environment.”¹²⁹ Thus, consideration of this issue obviously has not been omitted from the LRA. And Petitioners fail to attack any specific portion of this (or any other) aging management analysis in the LRA. Accordingly, Petitioners’ vague criticism related to plant aging fails to raise a genuine dispute with the LRA safety analysis, contrary to 10 C.F.R. § 2.309(f)(1)(vi).

IV. CONCLUSION

Pursuant to 10 C.F.R. § 2.309(a), the Petition should be DENIED because the Petitioners failed to propose an admissible contention.

¹²⁷ *Id.* at 31.

¹²⁸ *See supra* Section III.A.3.

¹²⁹ LRA, App. B at B-33 to B-36 (§ B.2.8).

Respectfully submitted,

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Dated in Washington, D.C.
This 22nd day of December 2023

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:

ENERGY HARBOR NUCLEAR CORP and
ENERGY HARBOR NUCLEAR
GENERATION LLC

(Perry Nuclear Power Plant, Unit No. 1)

Docket No. 50-440-LR

December 22, 2023

CERTIFICATE OF SERVICE

Pursuant to 10 C.F.R. § 2.305, I certify that, on this date, a copy of the foregoing “ENERGY HARBOR’S ANSWER OPPOSING THE PETITION FOR LEAVE TO INTERVENE AND REQUEST FOR HEARING OF OHIO NUCLEAR-FREE NETWORK AND BEYOND NUCLEAR” was served upon the Electronic Information Exchange (the NRC’s E-Filing System), in the above-captioned docket.

Signed (electronically) by Ryan K. Lighty
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