

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE ATOMIC SAFETY & LICENSING BOARD

In the Matter of)

) Docket No. 50-320-LA-2

TMI-2 Solutions, LLC)

(License Amendment for Three Mile Island Nuclear
Station, Unit 2))

) November 28, 2022

**TMI-2 SOLUTIONS' ANSWER OPPOSING
PETITION FOR LEAVE TO INTERVENE AND HEARING REQUEST FILED BY
ERIC JOSEPH EPSTEIN**

Daniel F. Stenger
Amy C. Roma
Stephanie Fishman
HOGAN LOVELLS US LLP

Russell G. Workman
TMI-2 SOLUTIONS, LLC

Counsel for TMI-2 Solutions, LLC

TABLE OF CONTENTS

I. INTRODUCTION 1

II. BACKGROUND ON TMI-2 DECOMMISSIONING ACTIVITIES TO DATE 3

III. SUMMARY OF THE LICENSE AMENDMENT REQUEST..... 5

IV. PROCEDURAL HISTORY..... 6

V. PETITIONER HAS NOT DEMONSTRATED STANDING AS A MATTER OF
RIGHT OR AS A MATTER OF DISCRETION 8

 A. Legal Standards For Standing..... 8

 1. Traditional Standing..... 9

 2. Proximity-Based Standing 10

 3. Discretionary Intervention 12

 B. The Petitioner Has Failed to Meet the NRC’s Standing Requirements..... 13

VI. PETITIONER HAS NOT PROPOSED AN ADMISSIBLE CONTENTION 17

 A. Contention Admissibility Standards 17

 B. The Proposed Contentions Are Inadmissible..... 19

 1. The harms Petitioner asserts are entirely speculative and
 unsupported by any evidence or analysis..... 20

 2. NEPA does not require the NRC staff, or the Applicant, to
 consider speculative harms. 23

VII. CONCLUSION..... 25

TABLE OF AUTHORITIES

NRC Cases

Arizona Public Service Co. (Palo Verde Nuclear Generating Station, Units 1, 2 & 3),
LBP-82-117A, 16 NRC 1964, 1992 (1982)..... 23

Calvert Cliffs 3 Nuclear Project, LLC (Calvert Cliffs Nuclear Power Plant, Unit 3),
CLI-09-20, 70 NRC 911 (2009) 9, 11

Cleveland Elec. Illuminating Co. (Perry Nuclear Power Plant, Unit 1), LBP-92-4, 35
NRC 114, 122 (1992)..... 2

Commonwealth Edison Co. (Zion Nuclear Power Station, Units 1 & 2),
CLI-00-5, 51 NRC 90 (2000) 8

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

Commonwealth Edison Co. (Zion Nuclear Power Station, Units 1 & 2), LBP-98-27, 48
NRC 271, 276 (1998)..... 2

Consumers Energy Co. (Big Rock Point Independent Spent Fuel Storage Installation),
CLI-07-19, 65 NRC 423 (2007) 11

Consumers Energy Co. (Palisades Nuclear Power Plant),
CLI-07-18, 65 NRC 399 (2007) 10

Crow Butte Res., Inc. (In-Situ Leach Facility, Crawford, Nebraska),
CLI-09-9, 69 NRC 331 (2009) 9

Dominion Nuclear Conn., Inc. (Millstone Nuclear Power Station, Unit 2),
CLI-03-14, 58 NRC 207 (2003) 17, 22

Dominion Nuclear Conn., Inc. (Millstone Nuclear Power Station, Units 2 & 3),
CLI-01-24, 54 NRC 349 (2001) 17, 22, 25

DTE Electric Co. (Fermi Unit 2),
LBP-20-7, 6-7 (2020) 12, 16

Duke Energy Corp. (McGuire Nuclear Station, Units 1 & 2),
LBP-02-4, 55 NRC 49, 61 (2002)..... 8

Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station),
LBP-06-23, 64 NRC 257, 273 (2006)..... 18

Exelon Generation Co. (Peach Bottom Atomic Power Station, Units 2 & 3),
CLI-05-26, 62 NRC 577 (2005) passim

Exelon Generation Company, LLC (Three Mile Island Nuclear Station, Units 1 and 2),
LBP-20-2, 91 NRC 10 (2020)..... 14

Fla. Power & Light Co. (St. Lucie Nuclear Power Plant, Units 1 & 2),
CLI-89-21, 30 NRC 325 (1989) 10, 12

<i>Fla. Power & Light Co.</i> (Turkey Point Nuclear Generating Plant, Units 3 & 4), CLI-15-25, 82 NRC 389 (2015)	9
<i>Florida Power & Light Co.</i> (Turkey Point Nuclear Generating Plant, Units 3 & 4), LBP-08-18, 68 NRC 533, 538 (2008)).....	10, 14
<i>Ga. Inst. of Tech.</i> (Ga. Tech. Research Reactor), CLI-95-12, 42 NRC 111, 116-17 (1995).....	11
<i>Hydro Res., Inc.</i> , LBP-04-23, 60 NRC 441, 447 (2004)	23
<i>Int'l Uranium (USA) Corp.</i> (<i>White Mesa Uranium Mill</i>) LBP-01-15, 53 NRC 344, 349 (2001)	10, 14
<i>Molycorp, Inc.</i> (Washington, Pennsylvania, Temporary Waste Storage & Site Decommissioning Plan), LBP-00-10, 51 NRC 163, 167 (2000).....	2
<i>Northeast Nuclear Energy Co.</i> (Millstone Nuclear Power Station, Unit 3), LBP-98-22, 48 NRC 149, 155 (1998).....	2
<i>Northern States Power Co.</i> (Prairie Island Nuclear Generating Plant, Units 1 & 2), ALAB-455, 7 NRC 41, 48, 49 (1978)	23
<i>Nuclear Fuel Servs., Inc.</i> , LBP-05-8, 61 NRC 202, 208 (2005).....	23
<i>Pac. Gas & Elec. Co.</i> (Diablo Canyon Nuclear Power Plant, Units 1 & 2), CLI-02-16, 55 NRC 317 (2002)	19
<i>Philadelphia Electric Co.</i> (Peach Bottom Atomic Power Station, Units 2 & 3), ALAB-562, 10 NRC 437, 446 (1979).....	23
<i>PPL Bell Bend, LLC</i> (Bell Bend Nuclear Power Plant), CLI-10-7, 71 NRC 133 (2010)	15
<i>PPL Susquehanna LLC</i> (Susquehanna Steam Elec. Station, Units 1 & 2), LBP-07-10, 66 NRC 1 (2007).....	12, 16
<i>PPL Susquehanna, LLC</i> (Susquehanna Steam Elec. Station, Units 1 & 2), CLI-15-8, 81 NRC 500 (2015)	17, 18, 22
<i>Pub. Serv. Co. of N.H.</i> (Seabrook Station, Units 1 & 2), CLI-89-3, 29 NRC 234 (1989)	17, 19, 21
<i>Sequoyah Fuels Corp.</i> (Gore, Oklahoma Site), CLI-01-2, 53 NRC 9 (2001)	9
<i>Sequoyah Fuels Corp.</i> (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64 (1994)	9, 11, 14
<i>Susquehanna Nuclear, LLC</i> (Susquehanna Steam Elec. Station, Units 1 & 2), CLI-17-4, 85 NRC 59 (2017)	17, 18
<i>Texas Utils. Elec. Co.</i> (Comanche Peak Steam Electric Station, Unit 2), CLI-93-4, 37 NRC 156, 162-63 (1993).	10

<i>U.S. Enrichment Corp.</i> (Paducah, Kentucky Gaseous Diffusion Plant), CLI-01-23, 54 NRC 267 (2001)	8
<i>Westinghouse Elec. Corp.</i> (Temelin Nuclear Power Plants), CLI-94-7, 39 NRC 322, 331-32 (1994)	8
<i>Yankee Atomic Electric Co.</i> (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1 (1996)	15

Federal Court Cases

<i>Dellums v. NRC</i> , 863 F.2d 968, 971 (D.C. Cir. 1988)	9
<i>Sierra Club. v. FERC</i> , 827 F.3d 36 (D.C. Cir. 2016).....	24
<i>Shoreham-Wading River Cent. Sch. Dist. v. NRC</i> , 931 F.2d 102, 105 (D.C. Cir. 1991).....	9
<i>Metro Edison Comp. v. People Against Nuclear Energy</i> , 460 U.S. 766, 774 (1983)	23, 24

Statutes

42 U.S.C. § 4321.....	2
42 U.S.C. § 2239.....	8

Regulations

10 C.F.R. § 2.309	passim
10 C.F.R. § 2.306.....	7

Federal Register Publications

Changes to Adjudicatory Process, 69 Fed. Reg. 2182, 2202 (Jan. 14, 2004)	passim
TMI-2 Solutions, LLC; Three Mile Island Station, Unit No. 2; 87 Fed. Reg. 51,454, 51,454-63 (Aug. 22, 2022)	6, 17

Other Authorities

NUREG-0683, “Final Supplement Dealing with Post-Defueling Monitored Storage and Subsequent Cleanup,” Supp. 3 (1989)	3
--	---

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE ATOMIC SAFETY & LICENSING BOARD

In the Matter of)	Docket No. 50–320-LA-2
)	
TMI-2 Solutions, LLC)	
)	
(License Amendment for Three Mile Island Nuclear Station, Unit 2))	November 28, 2022
)	
)	

**TMI-2 SOLUTIONS’ ANSWER OPPOSING
PETITION FOR LEAVE TO INTERVENE AND HEARING REQUEST FILED BY
ERIC JOSEPH EPSTEIN**

I. INTRODUCTION

Pursuant to 10 C.F.R. § 2.309, TMI-2 Solutions, LLC (“TMI-2 Solutions” or the “Applicant”) submits this Answer Opposing Petition for Leave to Intervene and Hearing Request (“Petition”) filed by Eric Joseph Epstein (“Petitioner”) on November 3, 2022.¹ The Petitioner seeks to intervene in the proceeding associated with TMI-2 Solutions’ license amendment request (“LAR”) submitted to the U.S. Nuclear Regulatory Commission (“NRC”) on February 19, 2021.²

In the LAR, TMI-2 Solutions requested, pursuant to 10 C.F.R. § 50.90, that the NRC amend its Possession Only License (“POL”) and Appendix A, Technical Specifications (“TS”), of POL No. DPR-73 (“License”) for Three Mile Island Nuclear Station, Unit 2 (“TMI-2”). Specifically, the proposed LAR would support the transition of TMI-2 from its current Post-Defueling

¹ Eric Joseph Epstein’s, *Pro se*, “Petition for Leave to Intervene and Hearing Request” (dated November 4, 2022) (filed November 3, 2022) (ML22307A225) (“Petition”).

² See TMI-2 Solutions, LLC, “License Amendment Request – Three Mile Island, Unit 2, Decommissioning Technical Specifications,” Attach. 1 (February 19, 2021) (ML21057A046) (“LAR”). The LAR was supplemented on May 5, 2021, January 7, 2022 (ML22013A177), March 23, 2022 (ML22101A079), April 7, 2022 (ML22101A080), and May 16, 2022 (ML22138A285).

Monitored Storage (“PDMS”) condition to that of a facility undergoing decommissioning pursuant to 10 C.F.R. § 50.82(a)(7), by revising the POL and TS to support Phase 1b and Phase 2 decommissioning activities. The LAR is limited in scope and is consistent with the TMI-2 decommissioning plans in place for a number of years.³

The Petitioner sets forth two substantially identical contentions alleging that the LAR is in violation of the National Environmental Policy Act (“NEPA”)⁴ for failing to consider potential harm to the surrounding area from airplane crashes, explosions, and fires or terrorist attacks.⁵

With respect to standing, as addressed in Section V below, the Petitioner fails to demonstrate standing to intervene in this proceeding, either as a matter of right or as a matter of discretion under 10 C.F.R. § 2.309(d) and § 2.309(e), respectively. Notably, the Petitioner fails to allege a particularized injury that could plausibly flow from the LAR, as is required under traditional standing,⁶ fails to meet the threshold for proximity standing due to the shutdown and defueled status of the TMI-2 plant, and cannot qualify for discretionary standing.

With respect to the proposed contentions, as demonstrated in Section VI below, the Petition must be rejected because the Petitioner’s proposed contentions fail to meet the contention admissibility criteria set forth in 10 C.F.R. § 2.309(f)(1). Notably, the harms Petitioner asserts are entirely speculative and unsupported by any evidence or analysis, and NEPA does not require the

³ See LAR at Attach. 1, 2; *see, e.g.*, Three Mile Island Unit 2 Environmental Regulatory Approach to TMI-2 Decommissioning, dated February 20, 2020 (ADAMS Accession No. ML20050H023). TMI-2 Solutions acquired the TMI-2 plant in 2020.

⁴ 42 U.S.C. § 4321 et seq. The NRC complies with NEPA under 10 C.F.R. Part 51.

⁵ See Petition at 22.

⁶ A petitioner must establish a causal nexus between the alleged injury and the challenged action. *See Cleveland Elec. Illuminating Co.* (Perry Nuclear Power Plant, Unit 1), LBP-92-4, 35 NRC 114, 122 (1992); *Northeast Nuclear Energy Co.* (Millstone Nuclear Power Station, Unit 3), LBP-98-22, 48 NRC 149, 155 (1998); *Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 & 2), LBP-98-27, 48 NRC 271, 276 (1998); *Molycorp, Inc.* (Washington, Pennsylvania, Temporary Waste Storage & Site Decommissioning Plan), LBP-00-10, 51 NRC 163, 167 (2000).

NRC staff, or the Applicant, to consider these speculative harms. As a result, the Petitioner does not mount either a material, or adequately-supported, challenge to the LAR at issue in this proceeding.

In summary, the Petitioner's failure to demonstrate standing or proffer an admissible contention provides the sufficient and independent grounds for the rejection of the Petition in its entirety.

II. BACKGROUND ON TMI-2 DECOMMISSIONING ACTIVITIES TO DATE

By way of background, on March 28, 1979, TMI-2 experienced an accident initiated by interruption of secondary feedwater flow, which led to a core heat up that caused fuel damage. As a result of this accident, small quantities of spent nuclear fuel, damaged core material, and high-level waste (known as "debris material") were transported through the reactor coolant system and the reactor building while a small quantity of debris material was transported to the auxiliary and fuel handling buildings. After the accident, TMI-2 underwent significant site cleanup and defueling.

The quantity of fuel remaining at TMI-2 is about 1 percent of the initial fuel load; approximately 99 percent of the TMI-2 fuel was successfully removed in the defueling, and large quantities of radioactive fission products contained in various systems and structures were removed as part of the waste processing activities during the TMI-2 cleanup program.⁷ The reactor coolant system was decontaminated to the extent practical to reduce radiation levels to as low as is reasonably achievable ("ALARA"). As part of the decontamination effort, water was removed to the extent practical from the reactor coolant system and the fuel transfer canal, and the fuel

⁷ See Final Supplement Dealing with Post-Defueling Monitored Storage and Subsequent Cleanup NUREG-0683, Supplement No. 3, US NRC (1989) (ML20247F778); see also TMI-2 Cleanup Program Report (1986) (ML20214S448).

transfer tubes were isolated. Radioactive wastes from the major clean-up activities have been shipped off-site or have been packaged and staged for shipment off-site.

The TMI-2 cleanup to meet the NRC post-accident safe storage criteria was completed and accepted by the NRC, with TMI-2 entering into PDMS in 1993. The PDMS condition established an inherently stable and safe condition of the facility such that there was no risk to the public health and safety.⁸ The PDMS stage, approved by the NRC, is governed by a PDMS Safety Analysis Report, PDMS Technical Specifications, and PDMS Quality Program, which are all updated and reported in the frequently-submitted Post-Shutdown Decommissioning Activities Report (“PSDAR”).⁹ TMI-2 has permanently ceased operations, and the license was transitioned from an operating license to a POL in 1993.¹⁰

In 2020, TMI-2 Solutions acquired TMI-2 for purposes of decommissioning the facility, and it intends to substantially complete decommissioning of TMI-2 and release the site by 2037, except for an area set aside, as may be required, for debris material storage facilities.¹¹ Decommissioning activities will include the removal of the remaining residual fuel,

⁸ TMI-2 PDMS Safety Analysis Report (2013).

⁹ *See* Amended Post-Shutdown Decommissioning Activities Report (“PSDAR”), Rev. 5 (October 27, 2022) (ML21063A446) (referencing the PDMS status and history); PSDAR, Rev. 4 (March 17, 2021) (ML21084A229).

¹⁰ *See* Letter dated February 13, 2013 (ML12349A291), in which the NRC stated that September 14, 1993, is considered the date of TMI-2’s cessation of operations. The September 14, 1993, date also coincides with the issuance of License Amendment No. 45, which converted the TMI-2 operating license into a POL (ML20029E532).

¹¹ Letter TMI-19-112 from Halnon, G.H. (GPU Nuclear, Inc.), and Sauger J. (TMI-2 Solutions LLC), “Application for Order Approving License Transfer and Conforming License Amendments,” (November 12, 2019) (ML19325C600); Letter from USNRC to Sauger, J. (TMI-2 Solutions, LLC), “Three Mile Island Nuclear Station, Unit No. 2 - Issuance of Amendment No. 64 Re: Order Approving Transfer of License and Conforming License Amendment (EPID L-2019-LLA-0257),” (December 18, 2020) (ML20352A381) ; LAR, Attachment 1, at page 1.

decontamination of the structures, and dismantling the remaining equipment and facilities. Specifically, decommissioning TMI-2 will occur in three phases, described below.¹²

III. SUMMARY OF THE LICENSE AMENDMENT REQUEST

The LAR proposes to remove or revise certain license conditions and TS requirements to reflect current plant conditions and enable TMI-2 to move from the PDMS stage into the decommissioning stage, and to support Phase 1b and Phase 2 decommissioning activities.¹³ The TMI-2 decommissioning will occur in three phases (Phases 1a, 1b, 2, and 3). Phase 1a pertains to the preparation for decommissioning, which includes activities such as engineering, procurement of long-lead time items, and the installation and maintenance of temporary infrastructure.

Phase 1b and subsequent phases occur during the decommissioning phase and pertain to debris material recovery and source term reduction, which includes the recovery, packaging, and storage of debris material and the reduction of the overall radiological source term at TMI-2 to levels that are generally consistent with a nuclear plant toward the end of its operational life that has not experienced a core-damage accident.

Phase 2 refers to the decommissioning and dismantlement of the TMI-2 site to a level that permits the release of the site, except for an area potentially set aside for storage of debris material on the Independent Spent Fuel Storage Installation. Phase 3, which is not the subject of this LAR, involves core debris management, license termination, and site restoration.

In general, the LAR is limited in scope.¹⁴ Notably, the amendments would modify the TMI-2 Solutions POL and TS by deleting requirements that no longer reflect the current conditions

¹² LAR at Attach. 1, at p. 1.

¹³ *Id.*

¹⁴ LAR at Attach. 1, 2; Hearing Notice at 51,456-60. The LAR proposes the removal or revision of certain license conditions and TS requirements to reflect current plant conditions, deleting certain requirements that are no longer applicable to the facility; and relocating the content of administrative controls into the Decommissioning

and that are no longer applicable to a facility in decommissioning, while modifying the remaining portions to enable Phase 1b and Phase 2 decommissioning activities.

The LAR further noted that there are no design basis accidents (“DBA”) associated with TMI-2, as TMI-2 does not have a reactor coolant pressure boundary, 99 percent of the fuel has been removed from the site, and the facility is in a defueled condition.¹⁵ The remaining 1 percent consists of debris material primarily located in inaccessible areas of the reactor vessel and reactor coolant system. The capability to prevent or mitigate the consequences of a DBA is therefore not applicable to TMI-2. The LAR also noted that prior analysis shows that there are no postulated accidents that can occur during Phase 1b or Phase 2 decommissioning activities that could result in the dose at the site boundary exceeding the limits of 10 C.F.R. § 100.11.¹⁶

IV. PROCEDURAL HISTORY

On February 19, 2021, TMI-2 Solutions filed the subject LAR. The NRC staff requested additional information on July 29, 2022, and on September 29, 2022, TMI-2 Solutions filed its responses.¹⁷ On August 22, 2022, the NRC published a notice in the *Federal Register* informing the public that it is considering the LAR for approval, seeking public comments on the NRC’s proposal to determine a finding of “no significant hazards consideration” within 30 days of the notice, and providing an opportunity for potentially affected persons to file, within 60 days of the

Quality Assurance Program. *See also* Letter from Gerard van Noordennen (TMI-2 Solutions, LLC) to NRC Document Control Desk (Feb. 19, 2021), at 1-2 (Feb. 19, 2021) (ML21057A046).

¹⁵ LAR at Attach. 1, p. 2.

¹⁶ *Id.* at p. 2-7.

¹⁷ *See* Letter from the NRC Staff, “Request for Additional Information for Requested Licensing Action Regarding Decommissioning Technical Specifications” (July 29, 2022) (ML22210A087) (“NRC RAIs”); TMI-2 Solutions “License Amendment Request – Decommissioning Technical Specifications, Response to Request for Additional Information” (September 29, 2022) (ML22276A024) (“TMI-2 Solutions RAI Response”). Note that the TMI-2 Solutions RAI Response became publicly available on ADAMS on October 12, 2022.

notice, hearing requests and intervention petitions (“Hearing Notice”).¹⁸ The Hearing Notice specifically directed potential petitioners to address the standing and contention admissibility requirements in 10 C.F.R. § 2.309(d) and (f), and expressly noted that “[c]ontentions must be limited to matters within the scope of the proceeding.”¹⁹ On October 20, 2022, the Commission issued an Order extending the deadline for the Petitioner to request a hearing to November 4, 2022.²⁰ On November 3, 2022, the Petitioner filed the instant Petition.²¹ No other intervention petitions or hearing requests were filed in response to the Hearing Notice. On November 9, 2022, this Licensing Board was established to rule on standing and contention admissibility matters and to preside at any hearing in this proceeding.²²

TMI-2 Solutions timely files this Answer opposing the Petition in accordance with 10 C.F.R. §§ 2.306(a) and 2.309(i)(1). As set forth below, the Petitioner has neither established standing to intervene in this proceeding nor submitted an admissible contention. Accordingly, the Petition must be denied in its entirety.

¹⁸ See TMI-2 Solutions, LLC; Three Mile Island Station, Unit No. 2, 87 Fed. Reg. 51,454, 51,454-63 (Aug. 22, 2022) (“Hearing Notice”) (providing notice of opportunity to request a hearing and file petitions for leave to intervene regarding the license amendment application).

¹⁹ *Id.* The NRC’s contention admissibility criteria aim to “focus litigation on concrete issues and result in a clearer and more focused record for decision.” See *Changes to Adjudicatory Process*, 69 Fed. Reg. 2182, 2202 (Jan. 14, 2004).

²⁰ See Order Extending Deadline to Request for Hearing (October 20, 2022) (unpublished). This Order was issued in response to Petitioner’s request for a two-week extension to the October 21, 2022 deadline for filing a hearing request and petition for leave to intervene in the TMI-2 LAR.

²¹ See Petition at 22, 28.

²² See Establishment of Atomic Safety and Licensing Board (Nov. 9, 2022).

V. PETITIONER HAS NOT DEMONSTRATED STANDING AS A MATTER OF RIGHT OR AS A MATTER OF DISCRETION

The Petitioner asserts that he has proximity-based standing to intervene in this proceeding and also requests that he be granted discretionary intervention under 10 C.F.R. § 2.309(e).²³ As demonstrated below, the Petitioner has not established standing to intervene in this proceeding as a matter of right under 10 C.F.R. § 2.309(d), nor has he satisfied the requirements for discretionary intervention under 10 C.F.R. § 2.309(e). The Petitioner’s failure to demonstrate standing is a fatal flaw in the Petition that requires that the Petition be denied outright.²⁴

A. Legal Standards For Standing

Under 10 C.F.R. § 2.309(d), in order to be admitted into a proceeding as a right, a petitioner must first demonstrate standing. “A petitioner’s standing, or right to participate in a Commission licensing proceeding, is grounded in Section 189(a) of the Atomic Energy Act, 42 U.S.C. § 2239 (a)(1)(A), which requires the NRC to provide a hearing ‘upon the request of any person whose interest may be affected by the proceeding.’”²⁵

Standing is not a mere legal technicality, it is an essential element in determining whether there is any legitimate role for an adjudicatory body in dealing with a particular grievance.²⁶

The Petitioner bears the burden to provide facts sufficient to establish standing.²⁷ As relevant here, the Petitioner may satisfy that burden in one of three ways, namely, by traditional

²³ See Petition at 15, 16 (referencing 10 C.F.R. § 2.309(e) and claiming Mr. Epstein’s participation would “assist in developing a sound record”).

²⁴ 10 C.F.R. § 2.309.

²⁵ *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 & 2; Catawaba Nuclear Station, Units 1 & 2), LBP-02-4, 55 NRC 49, 61 (2002).

²⁶ *Westinghouse Elec. Corp.* (Nuclear Fuel Export License for Czech Republic –Temelin Nuclear Power Plants), CLI-94-7, 39 NRC 322, 331-32 (1994).

²⁷ See *U.S. Enrichment Corp.* (Paducah, Kentucky Gaseous Diffusion Plant), CLI-01-23, 54 NRC 267, 272 (2001) (citing *Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 & 2), CLI-00-5, 51 NRC 90, 98 (2000)).

standing or proximity standing, or, alternatively, through discretionary intervention allowed under 10 C.F.R. § 2.309(e). On each point, the Petitioner has failed to meet his burden.

1. Traditional Standing

To determine whether a petitioner presents a cognizable interest to intervene in a proceeding, the Commission applies contemporaneous judicial concepts of standing,²⁸ which provide that a petitioner must show: (1) that he has personally suffered, or will suffer, a distinct and palpable harm that constitutes injury-in-fact; (2) that the injury fairly can be traced to the challenged action, which is protected by governing statutes²⁹—here the Atomic Energy Act of 1954, as amended (“AEA”) and NEPA; and (3) that the injury is likely to be redressed by a favorable decision.³⁰

These criteria are known as injury-in-fact, causality, and redressability. Although a petitioner need not show that the injury flows directly from the challenged action, when asserting standing in a license amendment proceeding, it is incumbent upon the petitioner to provide some “plausible chain of causation” explaining how the proposed license amendments would result in a distinct, substantiated new harm or threat that will lead to offsite radiological consequences.³¹ Finally, a petitioner must show that “its actual or threatened injuries can be cured by some action of the tribunal.”³²

²⁸ *Fla. Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 & 4), CLI-15-25, 82 NRC 389, 394 (2015) (citation omitted).

²⁹ *Calvert Cliffs 3 Nuclear Project, LLC* (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-09-20, 70 NRC 911, 915 (2009).

³⁰ *Dellums v. NRC*, 863 F.2d 968, 971 (D.C. Cir. 1988); *Shoreham-Wading River Cent. Sch. Dist. v. NRC*, 931 F.2d 102, 105 (D.C. Cir. 1991).

³¹ *Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 & 2), CLI-99-4, 49 NRC 185, 191 (1999); *Sequoyah Fuels Corp.* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 75 (1994); *see also Crow Butte Res., Inc.* (In-Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 345 (2009).

³² *Sequoyah Fuels Corp.* (Gore, Oklahoma Site), CLI-01-2, 53 NRC 9, 14 (2001).

To constitute an adequate showing of injury-in-fact within a cognizable sphere of interest, “pleadings must be something more than an ingenious academic exercise in the conceivable. A plaintiff must allege that he has or will in fact be perceptibly harmed by the challenged agency action, not that he can imagine circumstances in which he could be affected by the agency’s action.”³³ A petitioner has an affirmative duty to demonstrate that he has standing in each proceeding in which he seeks to participate since a petitioner’s status can change over time and the bases for its standing in an earlier proceeding may no longer apply.³⁴

2. Proximity-Based Standing

In certain limited NRC proceedings with significant new impacts, such as an initial reactor licensing proceeding, a petitioner may use proximity presumptions that the Commission has created to simplify standing requirements for individuals who reside within or have frequent contacts with a geographic zone of potential harm. Such proximity standing, however, generally does not apply in proceedings with limited impacts. For example, for licensing proceedings involving reactors, the NRC generally applies proximity standing only in significant licensing actions for operating nuclear power plants when “those cases involve [] the construction or operation of the reactor itself, with *clear implications for the offsite environment*, or major alterations to the facility with a *clear potential for offsite consequences*.”³⁵

To establish proximity standing, a petitioner has the burden to provide “*fact-specific standing allegations*, not conclusory assertions,” as the Commission “cannot find the requisite

³³ *Int’l Uranium (USA) Corp.* (White Mesa Uranium Mill), LBP-01-15, 53 NRC 344, 349 (2001) (citing *United States v. Students Challenging Regulatory Agency Procedures (SCRAP)*, 412 U.S. 669, 688-89 (1973)); *Fla. Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 & 4), LBP-08-18, 68 NRC 533, 538 (2008)).

³⁴ *See Texas Utils. Elec. Co.* (Comanche Peak Stream Electric Station, Unit 2), CLI-93-4, 37 NRC 156, 162-63 (1993).

³⁵ *Fla. Power & Light Co.* (St. Lucie Nuclear Power Plant, Units 1 & 2), CLI-89-21, 30 NRC 325, 329-30 (1989) (emphasis added).

‘interest’ based on . . . general assertions of proximity.”³⁶ In such proceedings, “proximity” standing rests on the presumption that an accident associated with the new nuclear facility reactor could adversely affect the health and safety of people working or living offsite but within a certain distance of that facility.³⁷

The initial issue in deciding a question of “proximity standing” is whether the kind of action at issue, when considered in light of the radioactive sources at the plant, justifies a presumption that the licensing action “could plausibly lead to the offsite release of radioactive fission products from...the...reactors.”³⁸ The petitioner carries the burden of making this showing. If the petitioner fails to show that a particular licensing action raises an “obvious potential for offsite consequences,” then the standing inquiry reverts to a “traditional standing” analysis of whether the petitioner has made a specific showing of injury, causation, and redressability.³⁹

Importantly, however, the Commission has held that in a license amendment case, such as this one, “a petitioner cannot base his or her standing simply upon a residence or visits near the plant, unless the proposed action quite ‘obvious[ly]’ entails an increased potential for offsite consequences.”⁴⁰ In such a case, “[w]hether and at what distance a petitioner can be presumed to be affected must be judged on a case-by-case basis, taking into account the nature of the proposed

³⁶ *Consumers Energy Co.* (Palisades Nuclear Power Plant), CLI-07-18, 65 NRC 399, 410 (2007) (emphasis added).

³⁷ *Calvert Cliffs 3 Nuclear Project, LLC* (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-09-20, 70 NRC 911, 915 (2009) (citations omitted).

³⁸ *Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 & 2), CLI-99-4, 49 NRC 185, 191 (1999).

³⁹ *Consumers Energy Co.* (Big Rock Point Independent Spent Fuel Storage Installation), CLI-07-19, 65 NRC 423, 426 (2007) (quoting *Exelon Generation Co.* (Peach Bottom Atomic Power Station, Units 2 & 3), CLI-05-26, 62 NRC 577, 580-81 (2005)).

⁴⁰ *Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 & 2), CLI-99-4, 49 NRC 185, 191 (1999) (rejecting proximity presumption argument in license amendment proceeding due to plant’s shutdown and defueled status) (alteration in original).

action and the significance of the radioactive source.”⁴¹ The smaller the risk of offsite consequences, the closer a petitioner must be for a realistic threat to exist.⁴² In other words, a petitioner seeking to intervene in a license amendment proceeding “must assert a specific injury-in-fact associated with the challenged license amendment, not simply a general objection to the [action].”⁴³ The petitioner “cannot seek to obtain standing . . . simply by enumerating the proposed license changes and alleging without substantiation that the changes will lead to offsite radiological consequences.”⁴⁴

3. Discretionary Intervention

Pursuant to 10 C.F.R. § 2.309(e), the Commission may consider a request for discretionary intervention where a party lacks standing to intervene as a matter of right under 10 C.F.R. § 2.309(d)(1). Discretionary intervention, however, may be granted *only* “when at least one requestor/petitioner has established standing and at least one admissible contention has been admitted so that a hearing will be held.”⁴⁵

⁴¹ *Ga. Inst. of Tech.* (Ga. Tech. Research Reactor), CLI-95-12, 42 NRC 111, 116-17 (1995); *see Sequoyah Fuels Corp. and Gen. Atomics* (Gore, Okla. Site), CLI-94-12, 40 NRC 64, 75 n.22 (1994) (“[A] presumption based on geographic proximity is not confined solely to Part 50 reactor licenses, but is also applicable to materials cases where the potential for offsite consequences is obvious.”).

⁴² *DTE Electric Co.* (Fermi Unit 2), LBP-20-7, 6-7 (2020).

⁴³ *Zion*, CLI-99-4, 49 NRC at 188 (emphasis in original; citations omitted); *see also St. Lucie*, CLI-89-21, 30 NRC at 329-30 (“Absent situations involving such obvious potential for offsite consequences, a petitioner must allege some specific ‘injury in fact’ that will result from the action taken”).

⁴⁴ *Commonwealth Edison Co.* (Zion Nuclear Power Station, Unit 1 & 2), CLI-99-4, 49 NRC 185, 191, 192 (1999) (rejecting proximity presumption argument in license amendment proceeding due to plant’s shutdown and defueled status) (alteration in original) (citation omitted).

⁴⁵ 10 C.F.R. § 2.309(e). *See also PPL Susquehanna LLC* (Susquehanna Steam Elec. Station, Units 1 & 2), LBP-07-10, 66 NRC 1, 21 n.14 (2007) (“[D]iscretionary standing [is] only appropriate when one petitioner has been shown to have standing as of right and [there is an] admissible contention so that a hearing will be conducted.”).

B. The Petitioner Has Failed to Meet the NRC’s Standing Requirements

The Petitioner has failed to demonstrate either traditional standing or proximity standing. Nor can the Petitioner be granted discretionary intervention, as there are no other petitioners in this proceeding, and therefore discretionary intervention *per se* cannot apply. Because the Petitioner has failed to demonstrate standing on multiple fronts, the Petition must be denied.

The Petitioner claims to have standing because he lives and operates a business 12 miles from TMI-2. The Petitioner argues, without any evidentiary support, that he “will suffer actual, concrete, particularized, and imminent injuries directly resulting from granting the challenged LAR” and that much of the community “has been exposed to radiation releases”⁴⁶ and that his longstanding connection to the community justifies his participation in this proceeding.⁴⁷

First, the Petitioner’s arguments are insufficient to establish traditional standing to intervene as the Petitioner never squarely addressed the “injury” element of standing. While the Petitioner claims that the license amendment will result in adverse health and safety risks to him personally,⁴⁸ he has failed to provide any evidentiary support or plausible connection to demonstrate such an injury is more than speculative or somehow traceable to the actions requested in LAR—especially since TMI-2 is permanently defueled, and has already undergone significant radiological decontamination. Here, the Petitioner, who, despite being a *pro se* litigant, is familiar with the NRC’s standing requirements by virtue of his involvement in prior proceedings,⁴⁹ fails to explain how the proposed LAR could cause him the radiological harms that he claims.

⁴⁶ *Id.* at 18.

⁴⁷ *Id.* at 11-15.

⁴⁸ *See* Petition at 11, 13.

⁴⁹ Petition at 14 (Mr. Epstein touting his “over three decades of experience . . . intervening before . . . the Nuclear Regulatory Commission.”).

Notably, the Petitioner also fails to show a “plausible chain of causation” explaining how the proposed license amendments would result in a distinct, substantiated harm or threat to the Petitioner—such as his “personal, property, or financial interests.”⁵⁰ The NRC has denied standing when the threat of injury was too speculative.⁵¹ And as a previous Licensing Board noted, to constitute an adequate showing of injury-in-fact within a cognizable sphere of interest, “pleadings must be something more than an ingenious academic exercise in the conceivable.”⁵² Rather, a petitioner must allege that he has or will in fact be perceptibly harmed by the license amendment request, “not that he can imagine circumstances in which he could be affected by the agency’s action.”⁵³ On this, the Petitioner has patently failed.

Notably, in LBP-20-02, the same Petitioner, Mr. Epstein, similarly attempted to intervene and request a hearing in another license amendment proceeding for TMI-2 and the petition included substantially similar arguments for proximity standing as the present Petition.⁵⁴ The then-Licensing Board determined that this Petitioner’s standing arguments were unsuccessful, and that “[p]utting aside the question of whether his various assertions about the nature of his interests and contacts relative to the TMI facility are cognizable as ‘proximity’ elements sufficient to establish his standing, he has not made any effort in the context of this LAR proceeding to show there is an ‘obvious potential for offsite radiological consequences’ arising from the proposed licensing

⁵⁰ *Exelon Generation Co., LLC* (Peach Bottom Atomic Power Station, Units 2 & 3), CLI-05-26, 62 NRC 577, 579-83 (2005).

⁵¹ *See e.g., Sequoyah Fuels Corp. & Gen. Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 72 (1994) (standing was denied when the threat of injury was too speculative).

⁵² *Int’l Uranium (USA) Corp.* (White Mesa Uranium Mill) LBP-01-15, 53 NRC 344, 349 (2001).

⁵³ *Id.* (citing *United States v. Students Challenging Regulatory Agency Procedures*, 412 U.S. 669, 688-89 (1973); *Fla. Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 & 4), LBP-08-18, 68 NRC 533, 538 (2008)).

⁵⁴ *Exelon Generation Company, LLC* (Three Mile Island Nuclear Station, Units 1 and 2), LBP-20-2, 91 NRC 10 (2020).

action’.”⁵⁵ The Licensing Board further concluded that the Petitioner had “not provided a credible showing of any offsite releases in the face of this LAR analysis”.⁵⁶ The present Petition falls short in the same way.

Another prior Commission decision, CLI-05-26, stemming from this same Petitioner, Mr. Epstein’s, failed attempt to intervene in a license transfer proceeding involving another plant, underscores the instant Petition’s deficiencies in arguing his claim for traditional standing. In the *Peach Bottom* proceeding, the Commission noted that “the Petitioner must demonstrate (among other things) that the proposed [action] would injure his *financial, property, or other interests*.”⁵⁷ The Commission found, as the Licensing Board should in this case, that “the Petitioner never squarely addresses this ‘injury’ requirement.”⁵⁸ In so doing, the Commission noted that the Petitioner’s involvement in various activities related to or near the plant, “both personal and through organizations,” does “not demonstrate injury.”⁵⁹ Here the Petitioner relied on the same insufficient support, and does not explain how the proposed LAR could cause him injury.

Rather the Petitioner’s standing claims merely raise generalized historical concerns about the site and generalized grievances about decommissioning the facility. The Petitioner fails entirely to establish a “plausible nexus” between the *specific* license amendment at issue in this

⁵⁵ *Id.* at 15.

⁵⁶ *Id.* at 16-17.

⁵⁷ *Exelon Generation Co., LLC* (Peach Bottom Atomic Power Station, Units 2 & 3), CLI-05-26, 62 NRC 577, 579-83 (2005) (emphasis added).

⁵⁸ *Peach Bottom*, CLI-05-26, 62 NRC at 579 (citing 10 C.F.R. § 2.309(d); *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1, 6 (1996)).

⁵⁹ *Id.* at 579-80; *cf. PPL Bell Bend, LLC* (Bell Bend Nuclear Power Plant) CLI-10-7, 71 NRC at 140 (“Mr. Epstein’s additional claim that he is on the board of directors of two organizations with interests within 50 miles of the site is likewise insufficiently specific to articulate the requisite pattern of regular contacts with the area.”) (citation omitted).

proceeding and any injury to the Petitioner.⁶⁰ Therefore, the Petitioner fails to meet the traditional elements of standing.

Second, insofar as the Petitioner relies on the concept of proximity standing by virtue of his being an “area resident,” he still fails to establish standing to intervene in this proceeding. As stated above, there is no presumed distance for proximity standing applied in this proceeding. Rather, the issue will be decided on a “case by case” basis taking into account the radioactive sources at the plant, which are very limited given the defueled status of the plant and the significant decontamination activities done to date, as explained in Section II above. The smaller the risk of offsite consequences, the closer a petitioner must be for a realistic threat to exist.⁶¹ Given the limited radiation sources at the site, the limited scope of the LAR, the fact that the LAR itself could not result in the “obvious potential for offsite consequences,” then the Petitioner’s claim for proximity standing must be denied, just as his past arguments for proximity standing have been denied in similar proceedings.⁶²

Finally, the Petitioner’s request for discretionary intervention must be denied. Discretionary intervention is only available “when at least one requestor/petitioner has established standing and at least one admissible contention has been admitted so that a hearing will be held.”⁶³ There is no other petitioner in this proceeding, and therefore the Petitioner does not qualify for consideration of discretionary standing.

⁶⁰ *Zion*, CLI-99-4, 49 NRC at 188.

⁶¹ *DTE Electric Co.* (Fermi Unit 2), LBP-20-7, 6-7 (2020).

⁶² *Exelon Generation Co., LLC and PSEG Nuclear, LLC* (Peach Bottom Atomic Power Station, Units 2 & 3), CLI-05-26, 62 NRC 577, 581 (2005).

⁶³ 10 C.F.R. § 2.309(e). *See also PPL Susquehanna LLC* (Susquehanna Steam Elec. Station, Units 1 & 2), LBP-07-10, 66 NRC 1, 21 n.14 (2007) (“[D]iscretionary standing [is] only appropriate when one petitioner has been shown to have standing as of right and [there is an] admissible contention so that a hearing will be conducted.”).

For the foregoing reasons, the Petitioner's grievances have failed to demonstrate that the Petitioner has any form of standing, and therefore the Petition should be denied.

VI. PETITIONER HAS NOT PROPOSED AN ADMISSIBLE CONTENTION

To grant the Petition, the Licensing Board must find that the Petitioner has not only met the NRC standing requirements but has also submitted at least one contention that satisfies each of the six admissibility criteria in 10 C.F.R. § 2.309(f)(1). The Petitioner has not done so here. Accordingly, the Petition must be denied.

A. Contention Admissibility Standards

To warrant an adjudicatory hearing, the NRC requires petitions to intervene to “set forth with particularity” the contentions a petitioner seeks to have litigated in a hearing,⁶⁴ and that the proposed contentions have “some reasonably specific factual or legal basis.”⁶⁵ The six requirements for an admissible contention are set forth in 10 C.F.R. § 2.309(f)(1) and are also described in the Hearing Notice.⁶⁶ Importantly, a proposed contention cannot refer to general reports to “support” the claims of the Petitioner that would require this Licensing Board or the Applicant to “search for a needle that may be in a haystack.”⁶⁷

The NRC's six contention admissibility requirements are “strict by design.”⁶⁸ The strict contention rules serve multiple functions, including: (1) focusing the hearing process on real

⁶⁴ See *PPL Susquehanna, LLC* (Susquehanna Steam Elec. Station, Units 1 & 2), CLI-15-8, 81 NRC 500, 503-04 (2015) (quoting 10 C.F.R. § 2.309(f)(1)); *Susquehanna Nuclear, LLC* (Susquehanna Steam Elec. Station, Units 1 & 2), CLI-17-4, 85 NRC 59, 74 (2017).

⁶⁵ *Id.* (quoting *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 58 NRC 207, 213 (2003)).

⁶⁶ See Hearing Notice, 87 Fed. Reg. at 3,374.

⁶⁷ *Pub. Serv. Co. of N.H.* (Seabrook Station, Units 1 & 2), CLI-89-3, 29 NRC 234, 240-41 (1989) (citations omitted).

⁶⁸ *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Units 2 & 3), CLI-01-24, 54 NRC 349, 358 (2001). The six criteria aim to “focus litigation on concrete issues and result in a clearer and more focused record for decision.” See *Changes to Adjudicatory Process*, 69 Fed. Reg. 2182, 2202 (Jan. 14, 2004).

disputes that can be resolved in adjudication; (2) giving all parties in the proceedings notice regarding a petitioner’s grievances, as well as a good sense of the claims they will either support or oppose; and (3) ensuring that adjudicatory hearings are triggered only by petitioners able to provide minimum factual and legal foundations in support of their contentions.⁶⁹ The requirements thus reflect a “deliberate effort to prevent the major adjudicatory delays caused in the past by ill-defined or poorly-supported contentions that were admitted for hearing although ‘based on little more than speculation.’”⁷⁰

Under 10 C.F.R. § 2.309(f)(1), a petitioner must explain the “basis” for each proffered contention by stating alleged facts or expert opinions that support the petitioner’s position and on which the petitioner intends to rely in litigating the contention.⁷¹ To be admissible, the issue raised must (1) fall within the scope of the proceeding⁷² and (2) be material to the findings that the NRC must make with respect to the licensing action.⁷³ A contention must also provide sufficient information to show a genuine dispute exists with the licensing action on a material issue of law or fact.⁷⁴ A contention must refer to the “specific portions of the [a]pplication. . . that the petitioner disputes,” along with the “supporting reasons for each dispute; or, if the petitioner believes that an

⁶⁹ *Entergy Nuclear Generation Co. & Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), LBP-06-23, 64 NRC 257, 273 (2006); *see also Changes to Adjudicatory Process*, 69 Fed. Reg. 2182, 2202 (Jan. 14, 2004).

⁷⁰ *Susquehanna*, CLI-15-8, 81 NRC at 504 (quoting *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, & 3), CLI-99-11, 49 NRC 328, 334 (1999)).

⁷¹ 10 C.F.R. § 2.309(f)(1)(ii), (v).

⁷² The scope of permissible contentions is normally bound by the scope of the particular proceeding itself. *See Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), LBP-08-9, 67 NRC 421 (2008); *PPL Susquehanna, LLC* (Susquehanna Steam Electric Station, Units 1 & 2), LBP-07-4, 65 NRC 281, 304 (2007).

⁷³ *Id.* § 2.309(f)(1)(iii)-(iv); *Susquehanna*, CLI-17-4, 85 NRC at 74.

⁷⁴ *Id.* § 2.309(f)(1)(v), (vi); *Susquehanna*, CLI-17-4, 85 NRC at 74.

application fails altogether to contain information required by law, the petitioner must identify each failure, and provide supporting reasons for the petitioner's belief."⁷⁵

Petitioners may not incorporate by reference voluminous documents or affidavits with conclusory assertions to support a contention. As the Commission has explained:

Commission practice is clear that a petitioner may not simply incorporate massive documents by reference as the basis for or as a statement of his contentions. . . . Such a wholesale incorporation by reference does not serve the purposes of a pleading. . . . The Commission expects parties to bear their burden and to clearly identify the matters on which they intend to rely with reference to a specific point. The Commission cannot be faulted for not having searched for a needle that may be in a haystack.⁷⁶

The Commission has refused to "sift through the parties' pleadings to uncover and resolve arguments not advanced by the litigants themselves."⁷⁷

Here, the Petitioner proposes two essentially identical contentions, which challenge the sufficiency of the NEPA analysis for the LAR because it fails to consider the impacts of accidents stemming from airplane crashes, explosions, fire, or terrorist attacks, including risks of "recriticality".⁷⁸ As explained below, the contentions fail to satisfy the required contention admissibility criteria, for a number of reasons, and therefore they both must be rejected as inadmissible.

B. The Proposed Contentions Are Inadmissible

The Petitioner argues: (1) that TMI-2 Solutions' LAR violates NEPA for failing to consider the potential harm to the surrounding area from airplane crashes, explosion and fires or terrorist

⁷⁵ *Susquehanna*, CLI-17-4, 85 NRC at 74 (citing 10 C.F.R. § 2.309(f)(1)(vi)).

⁷⁶ *Pub. Serv. Co. of N.H.* (Seabrook Station, Units 1 & 2), CLI-89-3, 29 NRC 234, 240-41 (1989) (citations omitted).

⁷⁷ *Id.*; *Pac. Gas & Elec. Co.* (Diablo Canyon Nuclear Power Plant, Units 1 & 2), CLI-02-16, 55 NRC 317, 337 (2002) (quoting *Zion*, CLI-99-4, 49 NRC at 194).

⁷⁸ Petition at 22, 28.

attacks; and (2) that TMI-2 Solutions' LAR violates NEPA for failing to consider the potential harm to the surrounding area *from recriticality* due to airplane crashes, explosions and fires or terrorist attacks. The only textual difference between the two contentions is that the second proposed contention includes the phrase "from recriticality", but we would note the Petitioner makes the recriticality argument in both contentions. Accordingly, since the arguments contained in both contentions are essentially identical, we addressed the contentions together.

To support his proposed contentions, the Petitioner asserts, generally:

Despite TMI's history of fires, security vulnerabilities, and proximity to an international airport, the Applicant ignored these safety challenges. Significant and reasonably foreseeable environmental harm could result in recriticality from an airline crash, explosion, fire or terrorist attack. An attack could result in radiation releases that could cause significant adverse environmental and health effects and property damage. The failure to take account of these risks violates NEPA's requirement that environmental decisions must contain an evaluation of those aspects of a proposed action that will affect the quality of the human environment in a significant manner or to a significant extent not already considered.⁷⁹

The Petitioner's proposed contentions are inadmissible because they fail to satisfy the requirements set forth in 10 C.F.R. 2.309(f)(1). More specifically, the contentions are speculative, vague, and not possible, as explained in more detail below, and are otherwise beyond the specific scope of the LAR and this proceeding.

1. The harms Petitioner asserts are entirely speculative and unsupported by any evidence or analysis.

The Petitioner's claims are highly speculative, vague, and not supported by any expert opinion or factual data.⁸⁰

⁷⁹ See Petition at 22, and the essentially identical wording on 28.

⁸⁰ 10 C.F.R. § 2.309(f)(1)(v) requires a proposed contention include a concise statement of the alleged facts or expert opinions which support the petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents.

To support the contentions, the Petitioner references a variety of U.S. government reports, such as reports on the events of September 11, 2001, a U.S. General Accounting Office report on NRC security at commercial nuclear power plants, and NUREG/CR-2859 titled “Evaluation of Aircraft Crash Hazards of Nuclear Power Plants” from 1982.⁸¹

These reports are irrelevant to the scope of this proceeding, or TMI-2, and fail to provide the evidentiary expert support for the Petitioner’s claims under 10 C.F.R. § 2.309(f)(1)(v). Notably, that expert opinion for purposes of 10 C.F.R. § 2.309(f)(1) needs to be directly connected to the issue at hand—that is, it would need to show the claims the Petition makes are plausible for a nuclear power plant that has been defueled, and significantly decontaminated already, and it would need to show that the claims are connected to the present licensing action. Citing general reports and incorporating them into a contention basis is not acceptable for purposes of meeting the contention admissibility standards. As noted before, it is not incumbent on this Licensing Board—or the Applicant—to search for a needle that may be in a Petition’s haystack.⁸²

For example, the Petitioner makes the argument a number of times that his range of proposed hypothetical accidents could cause “recriticality.”⁸³ Not only is the alleged harm unsupported and speculative, it is not possible.

TMI-2 Solutions has stated that the result of its calculations demonstrates that the entire mass of the core debris material cannot be configured into an arrangement whereby a criticality event is possible.⁸⁴ The NRC staff reviewed this analysis, found its assumptions reasonable, and

⁸¹ Petition at 25-28.

⁸² *Pub. Serv. Co. of N.H.* (Seabrook Station, Units 1 & 2), CLI-89-3, 29 NRC 234, 240-41 (1989) (citations omitted) (“The Commission cannot be faulted for not having searched for a needle that may be in a haystack.”).

⁸³ Petition at 22, 28.

⁸⁴ LAR at Attach. 1, 5.

therefore preliminarily agreed with this conclusion.⁸⁵ As explained in the official TMI-2 decommissioning reports and correspondence with the NRC, 99 percent of the fuel has been recovered from the plant and removed from the site, and the facility is in a defueled condition; the remaining 1 percent consists of debris material primarily located in inaccessible areas of the reactor vessel and reactor coolant system, and there is no credible possibility of nuclear criticality. Any potential for significant release of radioactivity has been evaluated and eliminated, and there is especially no possibility of this happening based on the specific LAR.⁸⁶

Despite TMI-2 Solutions' and the NRC's staff's analysis, the Petitioner claims—with no evidence or supporting analysis—his widely speculative claims that it is possible. Wild claims cannot provide the basis for an admissible contention in this proceeding.

By failing to provide any evidentiary support, the Petitioner's arguments are purely vague, conclusory statements, and highly misinformed assertions. Vague assertions of speculated harm from hypothetical accidents do not come anywhere near the "strict by design" contention admissibility requirements,⁸⁷ nor do they raise "*genuine, substantive safety and environmental issues*"⁸⁸ to be adjudicated before this Licensing Board. The Petitioner here seeks to return back to the prior days of NRC litigation, where "ill-defined or poorly-supported contentions [] were admitted for hearing [despite being] 'based on little more than speculation.'"⁸⁹ In fact, this type of contention—the very kinds the Petitioner seeks to admit now—is what the Commission was

⁸⁵ See generally Hearing Notice.

⁸⁶ TMI-2 PDMS Safety Analysis Report (2013).

⁸⁷ *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Units 2 & 3), CLI-01-24, 54 NRC 349, 358 (2001). The six criteria aim to "focus litigation on concrete issues and result in a clearer and more focused record for decision." See *Changes to Adjudicatory Process*, 69 Fed. Reg. 2182, 2202 (Jan. 14, 2004).

⁸⁸ *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 58 NRC 207, 213 (2003) (quoting *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, & 3), CLI-99-11, 49 NRC 328, 334 (1999)) (emphasis added).

⁸⁹ *Susquehanna*, CLI-15-8, 81 NRC at 504 (quoting *Oconee*, CLI-99-11, 49 NRC at 334).

trying to stop when it raised the contention admissibility standards in the 2004 Part 2 rulemaking,⁹⁰ which established the contention requirements set forth in 10 C.F.R. § 2.309. Moreover, the claims must be connected to the specific licensing action at issue. Here the Petitioner has failed to show a relationship between his alleged harm and this specific LAR.

2. NEPA does not require the NRC staff, or the Applicant, to consider speculative harms.

Without providing any specific or relevant evidence, the Petitioner argues that the LAR violates NEPA for failing to specifically consider airplane crashes, explosions and fires or terrorist attacks.⁹¹ However, the Petitioner misunderstands NEPA and its requirements. NEPA does not obligate the NRC to evaluate the environmental impacts from events that are “remote and speculative” or “worst case scenarios.”⁹² Instead, the Supreme Court has made clear that an agency like the NRC need only consider events that have a reasonably close causal relationship to the agency’s requested action.⁹³

As part of requiring this causal relationship, environmental reviews mandated by NEPA are subject to a “rule of reason” and need not include all theoretically possible environmental

⁹⁰ The six contention admissibility criteria aim to “focus litigation on concrete issues and result in a clearer and more focused record for decision.” See *Changes to Adjudicatory Process*, 69 Fed. Reg. 2182, 2202 (Jan. 14, 2004).

⁹¹ Petition at 22, 28.

⁹² *Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2 & 3), LBP-82-117A, 16 NRC 1964, 1992 (1982), citing *State of Alaska v. Andrus*, 580 F.2d 465, 473 (D.C. Cir. 1978); *Nuclear Fuel Servs., Inc.*, LBP-05-8, 61 NRC 202, 208 (2005) (quoting *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-02-25, 56 NRC 340, 348-49 (2002)).

⁹³ *Metro. Edison*, 460 U.S. at 777; *Pub. Citizen*, 541 U.S. at 767; *Philadelphia Electric Co.* (Peach Bottom Atomic Power Station, Units 2 & 3), ALAB-562, 10 NRC 437, 446 (1979) (finding that “remote and speculative possibility need not be considered under NEPA”).

effects arising from an action, but rather are limited to those that have been shown to have a likelihood of occurring.⁹⁴

The Petitioner groups all possible “worst case” scenarios that he can imagine in the Petition.⁹⁵ However, to compel an agency to conduct a NEPA review, there must a “reasonably close causal relationship” between the proposed action and the alleged environmental harm.⁹⁶

The NRC preliminarily concluded that the proposed amendments to the TS “do[] not involve a significant increase in the probability or consequences of an accident previously evaluated” because the proposed TS amendments do not cause design function changes to the site.⁹⁷ Additionally, the NRC staff reviewed the LAR and supplemental filings and found there was “no significant increase in the potential for or consequences from radiological accidents” and did not identify any new types of accident sequences or increases in the likelihood or consequences beyond what had been previously evaluated when the TMI-2 decommissioning was first approved.⁹⁸

The Petitioner has not challenged the substance of the agency’s findings that granting the license amendment would create no significant impacts from the risk of accidents, nor shown how the NRC is otherwise “compelled” by NEPA to analyze his specific speculations. Therefore, the

⁹⁴ *Northern States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 & 2), ALAB-455, 7 NRC 41, 48, 49 (1978); *Hydro Res., Inc.*, LBP-04-23, 60 NRC 441, 447 (2004), review declined, CLI-04-39, 60 NRC 657 (2004).

⁹⁵ Petition at 22-23, 28.

⁹⁶ *Sierra Club v. FERC*, 827 F.3d 36, 47 (D.C. Cir. 2016) (quoting *Dep’t of Transp. v. Pub. Citizen*, 541 U.S. 752, 767 (2004)); *see also Metro. Edison Comp. v. People Against Nuclear Energy*, 460 U.S. 766, 774 n.7 (1983) (finding under NEPA courts must “draw a manageable line between those causal changes that may make an actor responsible for an effect and those that do not”).

⁹⁷ *See* Hearing Notice at 51,455, 51,456-57; *see also* LAR at Attach. 1, section 4.0 (stating that the proposed changes meet the criteria for categorical exclusion, citing 10 C.F.R. § 51.22(c)(9) and (10)).

⁹⁸ *Id.*

proposed contentions fail to meet the “strict by design” admissibility criteria of 10 C.F.R. § 2.309(f).⁹⁹

VII. CONCLUSION

The Petitioner has not demonstrated standing to intervene as required by 10 C.F.R. § 2.309(d) or met the requirements for discretionary intervention as required by 10 C.F.R. § 2.309(e). Nor has the Petitioner offered at least one admissible contention, as required by 10 C.F.R. § 2.309(f)(1). Failure to demonstrate standing and contention admissibility is a fatal flaw in the Petition. Accordingly, the Commission should reject the Petition in its entirety for either or both of these reasons.

⁹⁹ *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Units 2 & 3), CLI-01-24, 54 NRC 349, 358 (2001). The six criteria aim to “focus litigation on concrete issues and result in a clearer and more focused record for decision.” See *Changes to Adjudicatory Process*, 69 Fed. Reg. 2182, 2202 (Jan. 14, 2004).

Respectfully submitted,

Executed in Accord with 10 C.F.R. § 2.304(d)

Daniel F. Stenger
Amy C. Roma
Stephanie Fishman
HOGAN LOVELLS US LLP
555 Thirteenth Street, NW
Washington, DC 20004
(202) 637-5691
daniel.stenger@hoganlovells.com
amy.roma@hoganlovells.com
stephanie.fishman@hoganlovells.com

Executed in Accord with 10 C.F.R. § 2.304(d)

Russell G. Workman
TMI-2 SOLUTIONS, LLC
423 West 300 South, Suite 200
Salt Lake City, UT 841901
(801) 303-0195
rgworkman@energysolutions.com

Signed (electronically) by Stephanie Fishman

Stephanie Fishman
HOGAN LOVELLS US LLP
555 Thirteenth Street, NW
Washington, DC 20004
(202) 637-5691
stephanie.fishman@hoganlovells.com

Counsel for TMI-2 Solutions, LLC

Dated in Washington, DC
this 28th day of November 2022

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
)	Docket No. 50-320-LA-2
TMI-2 Solutions, LLC)	
)	
(License Amendment for Three Mile Island Nuclear Station, Unit 2))	November 28, 2022
)	

CERTIFICATE OF SERVICE

Pursuant to 10 C.F.R. § 2.305, I certify that, on this date, a copy of the foregoing “TMI-2 Solutions’ Answer Opposing Petition for Leave to Intervene and Hearing Request filed by Eric Joseph Epstein” was served through the Electronic Information Exchange (the NRC’s E-Filing System), in the above-captioned docket.

Signed (electronically) by Stephanie Fishman
Stephanie Fishman
HOGAN LOVELLS US LLP
555 Thirteenth Street, NW
Washington, DC 20004
stephanie.fishman@hoganlovells.com

Counsel for TMI-2 Solutions, LLC