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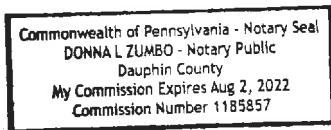
State of Pennsylvania

County of DAUPHIN

Signed (or attested) before me on February 10, 2022 by  
Date

ERIC J. EPSTEIN

Name(s) of Individual(s)



Donna L. Zumbo  
Signature of Notarial Officer

Donna L. Zumbo  
Printed Name of Notarial Officer

NOTARY PUBLIC  
Title of Office

Place Official Stamp/Notary Seal Above

My Commission Expires: 08.02.2022

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**Description of Attached Document**

Title or Type of Document: Request for Public Hearing / NRC

Document Date: 2/10/2022 Number of Pages: 69

Signer(s) Other Than Named Above: \_\_\_\_\_

**BEFORE THE UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

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**Docket ID NRC-2021-02320**

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**Eric Joseph Epstein's, *Pro se*, Request  
for a Public Hearing and Petition to Intervene,  
Re: Docket Nos. 50-295, 50-304, 72-1037, 50-320,  
50-409, 72-046, 030-39013, 11005620, and  
11005897; NRC-2021-0232**

**Zion Nuclear Power Station, Units 1 and 2;  
Three Mile Island Nuclear Station, Unit 2;  
La Crosse Boiling Water Reactor;  
EnergySolutions, LLC Radioactive Materials  
License; EnergySolutions, LLC Export Licenses;  
Consideration of Approval of  
Indirect Transfer of Licenses.**

February 10, 2022

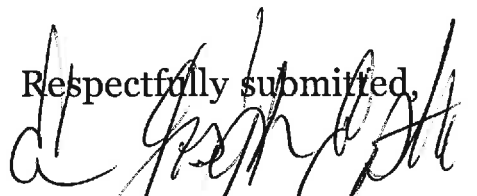
Secretary of the U.S. Nuclear Regulatory Commission  
U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555-0001

Dear Secretary:

Enclosed please find for filing an original of Eric Joseph Epstein's, *Pro se*, Request for a Public Hearing and A Petition Intervene Re: Notice of Consideration of Approval of Indirect Transfer of Licenses and Opportunity to Request a Hearing for a request for the indirect transfer of control of the EnergySolutions, LLC ("EnergySolutions") licenses for: Zion Nuclear Power Station ("ZNPS"), Units 1 and 2 and its on-site independent spent fuel storage installation ("ISFSI"); Three Mile Island Nuclear Station, Unit 2 ("TMI-2" or "unit-2"); La Crosse Boiling Water Reactor ("LACBWR") and its ISFSI; EnergySolutions Materials License 39-35044-01; and EnergySolutions Export Licenses XW010/04 and XW018/01.

Copies have been served upon all parties of record as shown on the attached Certificate of Service.

Respectfully submitted,



Eric Joseph Epstein, *Pro se*  
4100 Hillsdale Road  
Harrisburg, PA 17112  
(717)-635-8615  
epstein@efmr.org

## Certificate of Service

I hereby certify that on February 12, 2020 a copy of Petitioners' Request for a Public Hearing and Petition Intervene Re: Notice of Consideration of Approval of Indirect Transfer of Licenses and Opportunity to Request a Hearing for a request for the Indirect Transfer of control of the EnergySolutions, LLC ("EnergySolutions") licenses for: Zion Nuclear Power Station ("ZNPS"), Units 1 and 2 and its on-site Independent Spent Fuel Storage Installation ("ISFSI"); Three Mile Island Nuclear Station, Unit 2 ("TMI-2"); La Crosse Boiling Water Reactor ("LACBWR") and its ISFSI; EnergySolutions Materials License 39-35044-01; and EnergySolutions Export Licenses XW010/04 and XW018/01. was served by the Electronic Information Exchange on the following

The NRC's E-Filing system distributes an email that provides access to the document to the NRC's Office of the General Counsel and any others who have advised the Office of the Secretary

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## **I. Introduction.**

The NRC is considering the issuance of an order under 10 CFR 30.34(b), 50.80, 72.50, and 110.50(d) approving the indirect transfer of control of Facility Operating License Nos. DPR-39 and DPR-48 for Zion, Units 1 and 2, respectively, and the general license for the Zion ISFSI; Possession Only License No. DPR-73 for TMI-2; Possession Only License No. DPR-45 for La Crosse and the general license for the La Crosse ISFSI; Radioactive Materials License No. 39-35044-01; and Export Licenses XW010/04 and XW018/01 from the current principal shareholders of the Energy *Solutions* parent company Rockwell and other investors to a majority ownership by TriArtisan (“Applicant”). Rockwell is currently approximately 58 percent owned and controlled by passive investment funds affiliated with Energy Capital Partners GP II, LP and approximately 40 percent owned by passive investment funds affiliated with TriArtisan. As described in the application, through the proposed transaction, passive investment funds affiliated with TriArtisan would acquire majority ownership of Rockwell and governance control.

Corporate control of Energy*Solutions* is changing, requiring approval of an Indirect Transfer of the NRC licenses Energy*Solutions*. A minority owner/investor in Energy*Solutions* is assuming a majority ownership. That means corporate control of the company and the licenses would change from Rockwell, the previous majority owner of Energy*Solutions*, to TriArtisan, the new majority owner. NRC regulations require NRC to be notified of changes in corporate ownership/control by applying for an indirect license transfer.

Moreover, approximately 28% of the equity in the TriArtisan Entities is held by Foreign Passive Investors, prior to the Application. An increase in the percentage of ownership by a Foreign Passive Investor and/or control of nuclear decommissioning trust investments, poses a clear and present danger to the national security of the United States of America, solvency of the trust funds, and health and safety of reactor community. (1)

According to the application for approval filed by, EnergySolutions and its wholly owned subsidiaries that hold the referenced NRC licenses, EnergySolutions will maintain responsibility for all licensed activities at the facilities, including the responsibility to complete decommissioning and carry out spent nuclear fuel management in accordance with NRC regulations, and the proposed transaction would not affect their organizations or operations, nor would it have any material impact on their existing technical and financial qualifications.

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<sup>1</sup> TMI-2 Solutions is a wholly owned subsidiary of EnergySolutions, which in turn is a privately held company whose shares are directly owned by Rockwell Holdco, Inc. ("Rockwell"). Rockwell is 57% owned primarily by a number of affiliated passive investment funds controlled by Energy Capital Partners GP II, LP (the "Controlling Partner"): (i) Energy Capital Partners II, LP; (ii) Energy Capital Partners II-A, LP; (iii) Energy Capital Partners II-B, LP; (iv) Energy Capital Partners II-C (Direct IP), LP; and (v) Energy Capital Partners II-D, LP (collectively, the "ECP II Partnerships")...Approximately 37% of the equity in all of the ECP II Partnerships is held by Foreign Passive Investors. Approximately 28% of the equity in the TriArtisan Entities is held by Foreign Passive Investors (Application, p. 4) Foreign trustees "can make foreign investments, including investments to be maintained abroad; *provided, however*, that such authority is limited to those foreign jurisdictions in which the Trustee has selected a foreign custodian in accordance with Section 4.6 – hereof.

The NRC's regulations at 10 CFR 30.34(b), 50.80, and 72.50 state that no license, or any right thereunder, shall be transferred, directly or indirectly, through transfer of control of the license, unless the Commission gives its consent in writing. The NRC's regulations at 10 CFR 110.50(d) state that a specific export license may be transferred only with the approval of the Commission. The Commission will approve an application for the indirect transfer of a license, if the Commission determines that the proposed transfer will not affect the qualifications of the licensee to hold the license, and that the transfer is otherwise consistent with applicable provisions of law, regulations, and orders issued by the Commission.

## **II. Opportunity To Request a Hearing and Petition for Leave To Intervene.**

Within twenty ("20") days after the date of publication of this notice, i.e., January 21, 2022, any person ("Petitioner") whose interest may be affected by this action may file a request for a hearing and petition for leave to intervene ("Petition") with respect to the action. Petitions shall be filed in accordance with the Commission's "Agency Rules of Practice and Procedure" in 10 CFR part 2.

As required by 10 CFR 2.309(d) the Petition should specifically explain the reasons why intervention should be permitted with particular reference to the following general requirements for standing: (1) The name, address, and telephone number of the petitioner; (2) the nature of the petitioner's right to be made a party to the proceeding; (3) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (4) the possible effect of any decision or order which may be entered in the proceeding on the petitioner's interest.



In accordance with 10 CFR 2.309(f), the Petition must also set forth the specific contentions which the petitioner seeks to have litigated in the proceeding. Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the Petitioner must provide a brief explanation of the bases for the contention and a concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing. The Petitioner must also provide references to the specific sources and documents on which the petitioner intends to rely to support its position on the issue. The Petition must include sufficient information to show that a genuine dispute exists with the applicant or licensee on a material issue of law or fact. Contentions must be limited to matters within the scope of the proceeding. The contention must be one which, if proven, would entitle the petitioner to relief. A petitioner who fails to satisfy the requirements at 10 CFR 2.309(f) with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene. Parties have the opportunity to participate fully in the conduct of the hearing with respect to resolution of that party's admitted contentions, including the opportunity to present evidence, consistent with the NRC's regulations, policies, and procedures.

### III. Timing.

The NRC published a notice in the *Federal Register* 1, informing the public that it is considering the License Transfer Application (“LTA”) for approval, providing an opportunity for the public to submit written comments on the LTA, and offering an opportunity for persons whose interests may be affected by the approval of the LTA to file (within 20 days of the notice. The Agency/Docket Numbers are Docket Nos. 50-295, 50-304, 72-1037, 50-320, 50-409, 72-046, 030-39013, 11005620, and 11005897. The (ADAMS Package Accession No. ML21344A114), and the NRC Document Number 0232 A request for a hearing must be filed by February 10, 2022.

The Petitioner filed his Petition to Intervene and a request for a Hearing on February 10, 2022. The Hearing Opportunity Notice also contemplated that potential parties may need access to the Sensitive Unclassified Non-Safeguards Information (“SUNSI”) in the LTA for contention drafting purposes. Thus, it directed those potential parties to request access from EnergySolutions. Mr. Epstein executed a SUNSI Agreement with Energy Solutions.

Mr. Epstein’s request is timely based on Subpart C--Rules of General Applicability: Hearing Requests, Petitions to Intervene, Availability of Documents, Selection of Specific Hearing Procedures, Presiding Officer Powers, and General Hearing Management for NRC Adjudicatory Hearings:

#### **IV. History of Proceeding.**

The NRC received and is considering approval of a license transfer application filed by EnergySolutions, LLC (“EnergySolutions”) on December 7, 2021. The application seeks NRC approval of the indirect transfer of Facility Operating License Nos. DPR-39 and DPR-48 for Zion Nuclear Power Station (“Zion”), Units 1 and 2, respectively, and the general license for the Zion independent spent fuel storage installation (“ISFSI”); Possession Only License No. DPR- 73 for Three Mile Island Nuclear Station, Unit 2 (“TMI-2” or “Unit-2”); Possession Only License (“POL”) No. DPR-45 for La Crosse Boiling Water Reactor (“La Crosse”) and the general license for the La Crosse ISFSI; Radioactive Materials License No. 39-35044-01; and Export Licenses XW010/04 and XW018/01 from the current principal shareholders of the EnergySolutions parent company Rockwell Holdco, Inc. (“Rockwell”) and other investors to a majority ownership by TriArtisan ES Partners, LLC (“TriArtisan”). The application contains sensitive unclassified non-safeguards information (“SUNSI”).

The NRC published a notice in the *Federal Register* on January 21, 2022, informing the public that it is considering the LTA for approval, providing an opportunity for the public to submit written comments on the LTA, and offering an opportunity for persons whose interests may be affected by the approval of the LTA to file (within 20 days of the notice.

## **V. Regulatory Framework for NRC License Transfers.**

Under Section 184 of the Atomic Energy Act (AEA”) of 1954, as amended, an NRC reactor license, or any right under it, may not be “transferred, assigned[,] or in any manner disposed of, either voluntarily or involuntarily, directly or indirectly, through transfer of control of [the] license to any person,” unless the NRC first gives its written approval. 20§ 184 (codified as amended at 42 U.S.C. § 2234).

This statutory requirement is codified in 10 C.F.R. § 50.80 and applies to both direct and indirect license Transferring control may involve either the licensed operator or any individual licensed owner of the facility. The NRC review focuses on the “potential impact on the licensee’s ability both to maintain adequate technical qualifications and organizational control and authority over the facility[,] and to provide adequate funds for safe operation and decommissioning (1)

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<sup>1</sup> Final Policy Statement on the Restructuring and Economic Deregulation of the Electric Utility Industry, 62 Fed. Reg. 44,071, 44,077 (Aug. 19, 1997); 10 C.F.R. §§ 50.80(b)(1)(i), (c)(1); *see also* NUREG-1577, Rev. 1, Standard Review Plan on Power Reactor Licensee Financial Qualifications and Decommissioning Funding Assurance (Feb. 1999) (ML013330264).

To grant a license transfer application, the NRC must find a “reasonable assurance” of financial qualifications. (2) License transfer applicants for reactors that will be permanently shut down at the time of the transfer may rely *solely* on the adequacy of the NDT to demonstrate reasonable assurance.

The AEA requires that the NRC offer an opportunity for hearing on a license transfer. (3) Subpart M of 10 C.F.R. Part 2 (10 C.F.R. §§ 2.1300 to 2.1331) authorizes the NRC to use a streamlined license transfer process with informal legislative-type hearings, rather than formal adjudicatory hearings. Subpart M covers direct or indirect license transfers for which NRC approval is required, including those transfers that require license amendments and those that do not.

## **VI. Standing.**

Under the 10 CFR NRC, Section 50: 80 § 2.309 Hearing Requests, Petitions to intervene, and requirements for standing, and contentions are clearly stated . Eric Joseph Epstein (“Epstein,” “Mr. Epstein,” or “the Petitioner,”) is a resident of Lower Paxton Township, Pennsylvania and lives and operates a business in “close proximity,” i.e., 12 miles northeast of Three Mile Island.

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<sup>2</sup> See, e.g., Oyster Creek License Transfer Safety Evaluation Report at 7-10 (June 20, 2019) (ML19095A457); Pilgrim License Transfer Safety Evaluation Report at 7- 15 (Aug. 23, 2019) (ML19235A300).

<sup>3</sup> AEA § 189.a(1)(A) (codified as amended at 42 U.S.C. § 2239(a)(1)(A)) (“In any proceeding under this chapter, for . . . application to transfer control, . . . the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding.”)

I, Eric Joseph Epstein, am formally requesting a public hearing in regard to the proposed Indirect License Transfer of Three Mile Island-2 to an which is composed of unidentified Active and Foreign Passive Investors, which may own a majority of TriArtisan also control or dominate the decommissioning funds.

A request for hearing or petition for leave to intervene must state:

(i) The name, address and telephone number of the requester or petitioner;

Eric Epstein resides and works at  
4100 Hillsdale Road,  
Harrisburg, PA 17112,  
Telephone number: 717-635-8615.

(ii) The nature of the requester's/petitioner's right under the Act to be made a party to the proceeding;

The proposed Indirect Licensee Transfer will result in undue risk to public health and safety, could be inimical to common defense and security, and is inconsistent with the Atomic Energy Act, and Nuclear Regulatory Commission regulations.

(iii) The nature and extent of the requester's/petitioner's property, financial or other interest in the proceeding; and,

The proposed Indirect Licensee Transfer will result in undue risk to properly value, pose an ongoing public health and safety threat, could be inimical to common defense and security, and is inconsistent with the Atomic Energy Act, and Nuclear Regulatory Commission regulations.

(iv) The possible effect of any decision or order that may be issued in the proceeding on the requester's/petitioner's interest.

Accordingly, the proposed Indirect License Transfer will result in undue risk to public health and safety. The proposed Application will be inimical to the common defense and security of the United States of America. In its current form, the Indirect License Transfer of Three Mile Island-1 violates with the Atomic Energy Act and NRC regulations.

The standing requirements for NRC hearings derive from the Atomic Energy Act, which requires the NRC to provide a hearing “upon the request of any person whose interest may be affected by the proceeding.” (4) U.S.C. § 2239(a)(1)(A). *See also Yankee Atomic Elec. Co.* (Yankee Nuclear Power Station), 48 N.R.C. 185, 195 (1998). In determining whether a petitioner has established the “necessary ‘interest’” under the statute, the NRC “has long looked for guidance to judicial concepts of standing.” *Id.* (Citing *Quivira Mining Co.* (Ambrosia Lake Facility, Grants, New Mexico), CLI-98- 11, 48 N.R.C. 1, 5-6 (1998); *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 N.R.C. 111, 115 (1995)).

The Commission has indicated that where petitioners make technically meritorious contentions based upon diligent research and supported by valid information, the requirement for an adequate basis is more than satisfied.

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<sup>4</sup> *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))

## **V. Eric Joseph Epstein Has Standing.**

Eric Joseph Epstein (“Epstein” or “Mr. Epstein”) has standing to intervene as an individual in this proceeding, a Petitioners should also be granted discretionary intervention under 10 C.F.R. § 2.309(e). (1)

Mr. Epstein has established standing to intervene in this proceeding as a matter of right under 10 C.F.R. § 2.309(d). The Petitioners have the ability to “assist in developing a sound record” due to the “unavoidable and extreme circumstances” - and offer extensive support and justification for the requested extension.

### **A. Legal Standards For Standing.**

To determine whether a petitioner presents a cognizable interest to intervene in a proceeding, the Commission applies contemporaneous judicial concepts of standing. (5) The petitioner bears the burden to provide facts sufficient to establish standing. (6) As relevant here, a petitioner may satisfy that burden in one of three ways.

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<sup>5</sup> *Fla. Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 & 4), CLI-15-25, 82 NRC 389, 394 (2015) (citation omitted). 262 *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)).

<sup>6</sup> *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)).



## **B. Proximity-Based Standing.**

A petitioner may use the proximity presumptions the Commission has created to simplify standing requirements for individuals who reside within or have frequent contact with a geographic zone of potential harm. The petitioner has the burden to show that the proximity presumption applies. (7) To establish proximity standing, a petitioner must provide “fact-specific standing allegations, not conclusory assertions,” as the Commission “cannot find the requisite ‘interest’ based on . . . general assertions of proximity.” (8)

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 may be granted only when at least one petitioner has established standing and at least one contention has been admitted for hearing. (9) In addition to addressing the factors in 10 C.F.R. § 2.309(d)(1), a petitioner who seeks intervention as a matter of discretion (if it is determined that standing as a matter of right is not demonstrated) must specifically address in his or her initial petition the six factors set forth in

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7     *Energy Seabrook, LLC*, (Seabrook Station, Unit 1), LBP-17-7, 86 NRC 59, 75 (2017).

8     *Palisades*, CLI-07-18, 65 NRC at 410. 17.

9     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.”)

10 C.F.R. § 2.309(e), which the Commission will consider and balance. (10)  
Of the six factors, primary consideration is given to the first factor -  
assistance in developing a sound record. (11)

### **C. Mr. Epstein Has Demonstrated Standing.**

Mr. Epstein has individual standing because he lives and operates a business in close proximity to Three Mile Island. Epstein intervened in the defueling of TMI-2 (1992) and transition to Post-Defueling Monitored Storage (“PDMS”) (12), the TMI-1 license transfer application (2008), proposed TMI-2 license transfer application (2020), as well as numerous proceedings relating to TMI before the NRC. Mr. Epstein’s “economic stake as a business owner, homeowner, and taxpayer are impacted

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<sup>10</sup> Factors weighing in favor of allowing intervention include: (i) the extent to which the petitioner’s participation would assist in developing a sound record; (ii) the nature of petitioner’s property, financial or other interests in the proceeding; and (iii) the possible effect of any decision or order that may be issued in the proceeding. *See* 10 C.F.R. § 2.309(e)(1)(i)-(iii). Conversely, factors weighing *against* allowing intervention include: (i) the availability of other means whereby the petitioner’s interest might be protected; (ii) the extent to which petitioner’s interest will be represented by existing parties; and (iii) the extent to which petitioner’s participation will inappropriately broaden the issues or delay the proceeding. *See id.* § 2.309(e)(2)(i)-(iii).

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<sup>11</sup> *See Gen. Pub. Utils. Nuclear Corp.* (Oyster Creek Nuclear Generating Station), LBP-96-23, 44 NRC 143, 160 (1996).

<sup>12</sup> The NRC is a signatory to the Settlement Agreement between Eric Epstein and GPU Nuclear relating to Post-Defueling Monitored Storage, 1992.

a non-regulated amorphous company to maintain the decommissioning funds. Additional radioactive releases from dry casks, spent fuel pools (13), or unusual weather events (14), as well as converting Three Mile Island into a permanent, high-level radioactive waste site as planned by EnergySolutions, Rockwell and now TriArtisan, would be harmful to Mr. Epstein's health and financial interests.

Post-deregulation corporate entities seek to erase the past, but capture historic rate contributions from hostage rate payers. Rockwell and TriArtisan must be held to the same standards as the Petitioners, and make a fresh standing demonstration in each proceeding. Clearly, this proposed corporate jellyfish is the very definition of fluid circumstances that "change from one proceeding to the next."

The information required by 10 C.F.R. § 2.309(d) is straight forward, and states that a petition for leave to intervene "must" state: (1) the name, address, and telephone number of the requester or petitioner; (2) the nature of the petitioner's right under the Act to be made a party to the proceeding; (3) the nature and extent of the petitioner's property, financial or other interest in the proceeding; and (4) the possible effect of any decision or order that may be issued in the proceeding on the petitioner's interest.

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13 The proposed cask storage are will be located on the former parking lot and does not conform to Hardened On-Site Storage standards. (Three Mile Island License Amendment Request, July 1, 2019, ADAMS Accession No. ML19182A182).

14 The spent fuel pools at TMI-1 lacked sufficient spent fuel capacity. AmerGen and Exelon were forced to re-rack spent fuel cells to accommodate off-core fuel loads creating a high-density arrangement. (AmerGen and Exelon Meeting at the Three Mile Island, January 23, 2003.)

### **E. Eric Joseph Epstein Meets Standing Requirements.**

**(1) The name, address, and telephone number of the requester or Petitioners.**

**(2) The nature of the petitioner's right under the Act to be made a party to the proceeding;**

**(3) The nature and extent of the petitioner's property, financial or other interest in the proceeding; and,**

**(4) The possible effect of any decision or order that may be issued in the proceeding on the petitioner's interest.**

### **D. Eric Joseph Epstein Meets Standing Requirements 2,3, and 4.**

Eric Joseph Epstein is a resident of Harrisburg, Pennsylvania, and lives and operates a business in "close proximity" to the Three Mile Island Nuclear Generating Station. He is also a signatory to the Exelon merger settlement, which confers contractual obligation that are being threatened and undermined by the proposed License Transfer Agreement.

Mr. Epstein has taught, worked, and raised a family in the Harrisburg area dating back to 1982. Epstein has a direct, immediate, and proximate interest in the proposed application to directly transfer the NRC Possession-Only License No. DPR-73 for TMI-2, currently held by the TMI-2 Solutions.

Mr. Epstein has lived within the shadow of TMI continuously since Three Mile Island-1 began operations in 1974. Personal and professional obligations pierce the five mile veil around TMI on a regular basis.

Epstein's economic stake as a business owner, homeowner, and taxpayer are immediately impacted by lack of funding managed by a unidentified corporate entity located at an unspecified address. Additional radioactive releases - planned and unplanned - as well as converting Three Mile Island into high-level radioactive waste sites on the Susquehanna River is harmful to Mr. Epstein's financial interests. (15)

Mr. Epstein monitored the defueling of Three Mile Island Unit-2, and was an active participant in the NRC's TMI Advisory Panel. He has a vested interest in making sure the TMI-2 decommissioning fund is adequate to complete a full and complete decommissioning. TMI-2 is the site of a defueling process that was brought to an abrupt halt in 1993 despite public opposition, as evidenced at the Nuclear Regulatory Commission's TMI Advisory Panel meetings.

In September, 1992, GPU and the NRC agreed to a negotiated settlement on the Post-Defueling Monitored Storage ("PDMS") of TMI-2 with Eric Epstein. The Agreement stipulates GPU Nuclear will provide equipment and resources to independently monitor radioactive levels at TMI-2; \$700,000 for remote robotics research to assist in the cleanup and minimize worker exposure; and, guarantees that TMI-2 will never operate or serve as a radioactive waste repository for any radioactive waste generated off the Island.

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<sup>15</sup> The Susquehanna watershed encompasses 27,510 square miles and extends from New York to Pennsylvania to the Chesapeake Bay in Maryland – where nearly 4 million people live...Of the 1,400 communities in the river basin, 1,160 have residents who live in flood-prone areas." ("7th Annual Susquehanna River Symposium," Bucknell University, October 12-13, 2012.)

Epstein is also the Coordinator of the EFMR Monitoring group, a non-partisan community based organization established in 1992 EFMR has undertaken educational activities relating to energy production in Pennsylvania, initiated advocacy actions on behalf of the safety of nuclear plant neighbors, including the evacuation of day care centers in emergency preparedness plans, and the distribution of potassium iodide pills to the general public.

EFMR has worked with Carnegie-Mellon University, Dickinson College, Exelon, the Environmental Protection Agency, GPU , Los Alamos National Laboratories (SWOOPE Program), the Nuclear Regulatory Commission, Peach Bottom REMP Program, Pennsylvania Center for Environmental Education, and the University of Tennessee, as well as other national and international organizations. A description of the organization can be found at: <https://www.efmr.org>

As the Commission has applied this standard, an individual demonstrates an interest in a licensing proceeding sufficient to establish standing by showing that their residence is within the geographical area that might be affected by an accidental release of fission products. This "proximity approach" presumes that the elements of standing are satisfied if an individual lives within the zone of possible harm from the source of radioactivity. *See Virginia Elec. And Power Co.*, 9 NRC 54, 56 (1979) ("close proximity [to a facility] has always been deemed to be enough, standing alone, to establish the requisite interest" to confer standing). The Commission's "rule of thumb" in reactor licensing proceedings is that "persons who reside in or frequent the area within a 50-mile radius of the facility" are presumed to have standing. *Sequoyah Fuels Corp.*, 40 NRC 64.75 n.22 (1994); *See also, Duke Energy Corp.*, 48 NRC 381, 385 n.1 (1998).

In *Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), LBP-93-5, 37 NRC 96 (1993), *aff'd*, CLI-93-16, 38 NRC 25 (1993), the Nuclear Regulatory Commission approved standing for a petitioner living 35 miles from the plant one week per month. In the CFC Logistics proceeding, the Atomic Safety and Licensing Board (“ASL&B”) “hasten[ed] to add...that the ‘obvious potential’ aspect of ‘proximity-plus’ standing is not a concept that can be applied with engineering or scientific precision...” (NRC 475, 485 (2004), p. 487. )

Mr. Epstein has established an immediate, proximate and long standing stake in the Three Mile Island community as well as a direct charge for numerous family members, staff, students, and taxpayers.

“[A] minor exposure to radiation, even one within regulatory limits, is sufficient to state an injury in fact” for standing purposes. *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-01-35, 54 NRC 403, 417 (2001), *rev'd* on other grounds, CLI-02-24, 56 N.R.C. 335 (2002) (citing *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI- 96-7, 43 NRC 235, 247-48 (1996)); see also *id.* at 420 (standing inquiry does not require precision regarding probability of petitioner receiving unwanted dose of radiation). The asserted harm – injury to the health and safety – is clearly encompassed by the health and safety interests protected by the Atomic Energy Act. *Id.* at 417; see also 42 U.S.C. § 2013.

This proceeding is unique in so much of the community has already been exposed to radiation releases from fission products, subsequent illegal krypton venting, and an extended evaporation of accident generated tritiated water.

The standing requirements for Nuclear Regulatory Commission adjudicatory proceedings derive from the Atomic Energy Act which requires the NRC to provide a hearing "upon the request of any person whose interest may be affected by the proceeding." (42 U.S.C. 2239(a)(1)(A)).

Mr. Epstein also has over three decades of experience in publishing, researching and actively intervening before the Nuclear Regulatory Commission, the Pennsylvania Public Utility Commission, and the Susquehanna River Basin Commission on the cleanup, defueling and decommissioning of Three Mile Island. Clearly, his participation would add insight, institutional memory, and perspective.

Mr. Epstein should be granted standing because his participation may reasonably be expected to assist in developing a sound record, as he has demonstrated by his participation in numerous NRC proceedings at the Three Mile Island Nuclear Generating Station. Mr. Epstein, as a private citizen and has an indisputable interest in ensuring that the Three Mile Island is maintained, operated, and provide financial assurances that the sites will be cleaned up to the NRC-established Greenfield standard.

Pursuant to 10 C.F.R. § 2.309(f), Mr. Epstein has standing and should be granted leave to intervene because his "interest[s] may be affected by the proceeding." Those interests will not be adequately represented in this action if he is denied intervention. In Pebble Springs, (4 NRC at 614-617. See *Infra*, § II. A.5.) the Commission also held that even if a petitioner for intervention could not satisfy the strict judicial standing test, intervention could still be allowed as a matter of discretion.



Mr. Epstein also qualifies for the presumption of injury-in-fact for persons residing within that zone (see Houston Lighting & Power Co. (South Texas Project, Units 1 & 2), LBP-79-10, 9 NRC 439, 443 (1979); Detroit Edison Co. (Enrico Fermi Atomic Power Plant, Unit 2), LBP-79-1, 9 NRC 73, 78 (1979); and Entergy Nuclear Generation Co. & Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), LBP06-23, 64 NRC 257, 270 (2006). That presumption is well-founded here.

For the above stated reasons, and with the accompanying supporting evidence, Eric Joseph Epstein satisfies the NRC's proximity, presumption of injury-in-fact requirements, and because his participation will assist in developing a sound record.

This License Transfer Application is entirely about changed circumstances brought about by voodoo economics. Post-deregulation corporate nuclear ownership seeks to erase the past, but capture historic rate contributions from hostage rate payers. EnergySolutions new majority owner, has no nuclear experience. but is skilled in the entertainment and food industries. The new financial management team will include familiar household names like: Cannery Casino Resorts; Creating Culinary Communities, Eight O'Clock Coffee; Paddock Swimming Pools P.F. Chang's China Bistro; Sara Lee European Meats, and Sur La Table. It is not in the community's interest to have Three Mile Island cleaned up a black jack dealer, a croissant, and a fortune cookie.

The Applicants must be held to the same standards as the Petitioners, and make a fresh standing demonstration in each proceeding. Clearly, this proposed corporate jellyfish is the very definition of fluid circumstances that "change from one proceeding to the next."

The consistent theme is that the Petitioners continue to endure adverse outcomes - through no fault of their own - due to the decided fiscal mismanagement of the corporate critical mass known as Three Mile Island Unit-2: Metropolitan Edison became General Public Utilities which melted into GPU Nuclear which was absorbed into FirstEnergy which substantiated staffing to Exelon. FirstEnergy became Energy Harbor due to financial mismanagement, and TMI-2 and the \$800 million decommissioning trust fund was raised by EnergySolutions.

Therefore, the same “freshness” standard must apply to entities in the direct and indirect license transfers who seek to deflect liabilities, and transfer assets to an unidentified and non-regulated corporate shell. The Foreign Passive owner, who can control the management of the trust funds, has not been identified.

The fact that Mr. Epstein, who has been associated with Three Mile Island for forty years, has to prove “standing” while the Applicants “purchased standing” is appalling. The Applicant in this proceeding, EnergySolutions is based in Salt Lake City, Utah (2,046 miles from Middletown), and its proposed new owner, TriArtisan, is a financial raider hustling out of New York City is located 171 miles from Middletown.

In other words, TGI Friday will be heading the cleanup of Three Mile Island, and leaning on its experience in caning spam, cleaning pools, and dealing blackjack to decontaminate the highly radioactive reactor vessel.

The Nuclear Regulatory Commission is processing an application from *EnergySolutions* that would transfer ownership of several shuttered nuclear plants to the new majority shareholders of the decommissioning company's parent organization. If approved, the licenses for the former Zion Nuclear Power Station and the La Crosse Reactor in Wisconsin as well as the damaged reactor at Three Mile Island Unit-2; would be transferred to New York-based capital market company TriArtisan from Energy Capital Partners ("ECP"). Prior to the transaction, ECP was the majority shareholder of Rockwell, the parent company of Salt Lake City-based *EnergySolutions*. TriArtisan acquired the company in November, 2021, according to a November 18, 2021 press release from *EnergySolutions*.

Mr. Epstein has established standing to intervene in this proceeding as a matter of right under 10 C.F.R. § 2.309(d). The Petitioner clearly have the ability to "assist in developing a sound record" due to the "unavoidable and extreme circumstances"— and offer extensive support and justification for the requested extension. The Petitioners have also established Proximity-Based Standing.

## **VII. Contentions:**

There are specific contentions which the petitioner seeks to have litigated in the proceeding. Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner must provide a brief explanation of the basis for the contention and a concise statement of the alleged facts which supports the contention on which the petitioner intends to rely in proving the contention at the hearing. The petitioner must also provide references to the specific sources and documents which will support the petitioner's position. The petition must include sufficient information to show that a genuine dispute exists with the applicant or licensee on a material issue of law or fact. Contentions must be limited to matters within the scope of the proceeding. The contention must be one which, if proven, would entitle the petitioner to relief. A petitioner who fails to satisfy the requirements at 10 CFR 2.309(f) with respect to at least one contention will not be permitted to participate as a party.

In order to bring a contention before the Commission, Mr. Epstein must "[p]rovide a specific statement of the issue of law or fact to be raised or controverted. 10 C.F.R. Section 2.309(f)(1)(i). At this preliminary stage, Mr. Epstein need not submit admissible evidence to support his contention, rather he has to "[p]rovide a brief explanation of the basis for the contention," 10 C.F.R. Section 2.309(f)(1)(ii), and "a concise statement of the alleged facts which support the...petitioner's position." 10 C.F.R. Section 2.309(f)(1)(v).

The contention must be one that, if proven, would entitle the petitioner to relief. A Petitioner who fails to satisfy the requirements at 10 CFR 2.309(f) with respect to at least one contention will not be permitted to participate as a party.

In accordance with 10 CFR 2.309(f), the petition must also set forth the specific contentions that the petitioner seeks to have litigated in the proceeding. Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted.

In addition, the Petitioner must provide a brief explanation of the bases for the contention and a concise statement of the alleged facts or expert opinion that supports the contention and on which the petitioner intends to rely in proving the contention at the hearing.

The Petitioner must also provide references to the specific sources and documents on which the petitioner intends to rely to support its position on the issue.

The petition must include sufficient information to show that a genuine dispute exists with the applicant or licensee on a material issue of law or fact. Contentions must be limited to matters within the scope of the proceeding.

(f) Contentions. (1) A request for hearing or petition for leave to intervene must set forth with particularity the contentions sought to be raised. For each contention, the request or petition must:

(i) Provide a specific statement of the issue of law or fact to be raised or controverted, *provided further*, that the issue of law or fact to be raised in a request for hearing under 10 CFR 52.103(b) must be directed at demonstrating that one or more of the acceptance criteria in the combined license have not been, or will not be met, and that the specific operational consequences of nonconformance would be contrary to providing reasonable assurance of adequate protection of the public health and safety;

(ii) Provide a brief explanation of the basis for the contention;

(iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;

(iv) Demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding;

(v) Provide a concise statement of the alleged facts or expert opinions which support the requester's/petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the requester/petitioner intends to rely to support its position on the issue;

(vi) In a proceeding other than one under 10 CFR 52.103, 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 (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief; and,

The Proposed Indirect License Transfer merits a federal register posting and public hearings as required by 10 CFR 50.80. The Application is fatally flawed, and current corporate organization is unable to demonstrate that:

(1) License transfer applicants for reactors that will be permanently shut down at the time of the transfer may rely *solely* on the adequacy of the Nuclear Decommissioning Trust Fund to demonstrate reasonable assurance. TriArtisan Capital Advisors LLC does not possess the financial resources to decommission Three Mile Island Unit-2

(2) As result of TriArtisan's acquisition of a majority share of EnergySolutions, the owner of Three Mile Island Unit-2 may be, controlled, or dominated by a foreign corporations; and,

(3) The proposed Indirect License Transfer to TriArtisan Capital Advisors raises significant safety and regulatory issues, based on TriArtisan's complete lack of engineering, nuclear and technical skills.

## **Epstein-1.**

**TMI-2 Solutions fails to show adequate decommissioning financial assurance and/or adequate funding for spent nuclear fuel management in violation of 10 C.F.R. §§ 50.33(f) and (k)(1), 50.40(b), 50.54(bb), 50.75(b)(1) and (e)(1)(i), 50.80(b)(1)(i), 50.82(a)(8)(vii), and 72.30(b) because the TMI-2 Solutions' Amended PSDAR and decommissioning cost estimate underestimates license termination, site restoration and spent fuel management costs.**

### **Basis.**

1. Because the Applicants' decommissioning financial assurance representations are predicated on what it claims is a site-specific estimate of the costs to decommission Three Mile Island Unit-2 restore the site, and manage spent fuel in the manner set forth in its PSDAR - which is actually not a PSDAR - but a summary of previous studies by GPU and TLG - the accuracy of both the PSDAR and the accompanying cost estimate are directly relevant to the core question whether TMI-2 Solutions financially qualified to decommission Three Mile Island Unit 2 under applicable NRC rules.
2. The licensee reported that as of December 31, 2020, (ML21099A115) the radiological decommissioning costs at TMI-2 is **\$1,044,364,000**. However, according to the same report the amount needed, EnergySolutions, prior to the Indirect Transfer, has **\$862,549,586** in decommissioning trust funds. The Trustee for the decommissioning trust is the Bank of New York Mellon, which is incorporated in the State of Delaware. Prior to a human entry into TMI-2, the cleanup fund, the fund is underfunded by \$181 million and EnergySolutions has only pledged an additional \$100 million during the first phase of this nuclear crap shoot.



required of operating reactors. The most recent report, SECY-21-0108, “Summary of Staff Biennial Review and Findings of the 2021 Decommissioning Funding Status Reports from Operating and Decommissioning Power Reactor Licensees,” dated December 16, 2021, is the report referred to in the December 8, 2021, letter. The previous biennial report, SECY-20-0001, “Summary of Staff Review and Findings of the Decommissioning Funding Status Reports from Operating and Decommissioning Power Reactor Licensees,” was issued December 31, 2019.

3. TriArtisan’s showing of decommissioning financial assurance is deficient because TMI-2 Solutions’ cost estimates are inaccurate or otherwise defective, in at least the following ways:

A. The Amended PSDAR and cost estimate fail to account for the likely existence of - and cost to remediate - additional radiological and non-radiological contamination. Because the Applicant fails to account for these costs, they fail to show adequate decommissioning financial assurance as required under 10 C.F.R. §§ 50.75(b)(1) and (e)(1)(i).

B. The PSDAR and cost estimate fail to account for costs associated with repackaging spent nuclear fuel for transportation (as is required under the current DOE standard contract) or, in the event repackaging is ultimately not required, for reimbursements to DOE for packaging costs DOE has paid or will pay to licensees. (16) In fact, TMI-2 Solutions does not provide information about the long-term management plan of certain wastes referred to in the Application as Debris Material.” (17)

The Applicant. fails to carry their burden to establish adequate funding for on-site spent nuclear fuel management as required by 10 C.F.R. §§ 50.54(bb) and 50.82(a)(8)(vii)(B) and (C).

C. The PSDAR and cost estimate fail to account for costs associated with the disposal of the mixed waste currently stored at Unit 2, rendering the cost estimate inaccurate. Because TMI-2 Solutions fails to include these costs, they fail to show adequate decommissioning financial assurance as required under 10 C.F.R. §§ 50.75(b) (1) and (e)(1)(i). (20)

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16 “The cost estimates for Decommissioning provided above and in Enclosure 7 include the costs for recovery and packaging of the Debris Material. Beyond this, however, pursuant to 10 CFR 50.33(k) and 50.54(bb), funds must be set aside for long-term storage of the Debris Material. TMI-2 Solutions’ conservatively estimates that long-term storage of Debris Material after the completion of Phase 2 of Decommissioning, until DOE acceptance will cost approximately \$56 million (in 2019 dollars). This includes the cost of Decommissioning the storage facility after DOE acceptance. If necessary, at an appropriate time, TMI-2 Solutions will submit an exemption request to authorize the use of NDT funds for management of the Debris Material.” (Application, November 12, 2009, p. 12)

17 “The PSDAR does not provide information about the long-term management of certain wastes referred to in the Application as Debris Material, p. 8.

D. The Amended PSDAR projects a compressed time frame for SAFSTOR; delay at this early stage of the decommissioning process could increase project costs by tens or even hundreds of millions of dollars. The Amended PSDAR and cost estimate fail to account for costs associated with the disposal of mixed waste currently stored at Unit 2, rendering the cost estimate inaccurate. (18) TriArtisan fails to include these costs, they fail to show adequate decommissioning financial assurance as required under 10 C.F.R. §§ 50.75(b)(1) and (e)(1)(i).

4. For any or all of the foregoing reasons, TMI-2 Solutions cost estimate is unreasonably low. Because TriArtisan fails to include a meaningful contingency amount to address potential out-of-scope project costs, and in fact delays projections until an unidentified “appropriate time”, (Application, p.12) cost increases of the sorts described above are likely to cause a shortfall in the decommissioning, site restoration and/or spent fuel management funding. Accordingly, TMI-2 Solutions have failed to demonstrate adequate decommissioning financial assurance or adequate funding for spent fuel management as required under NRC rules.

TMI-2 Solutions and TriArtisan failed to demonstrate adequate decommissioning financial assurance or adequate funding for spent fuel management as required under NRC rules.

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<sup>18</sup> DEP Secretary asked NRC Chair, Kristine L. Svinicki, Chairman on April , 6, 2020: “ How will TMI-2 Solutions dispose of any contaminated lead shielding, which is now mixed waste, that may be present in TMI Unit 2?” (“DEP Expresses Serious Concerns About Rapid Decontamination Of Damaged Unit 2 Reactor At Three Mile Island Nuclear Plant,” April 9, 2020, <http://paenvironmentdaily.blogspot.com/2020/04/dep-expresses-serious-concerns-about.html>.)

6. The bases for Contention Epstein-2 are further developed below:

**B. Because the Amended PSDAR and cost estimate failed to account for the likely existence of and cost to remediate additional radiological and non-radiological contamination, TMI-2 Solutions failed to show financial qualification or adequate decommissioning funding assurance as required under 10 C.F.R §§ 50.33(f) and 50.75(b) and (e)(1)(i).**

**Basis.**

7. Mr. Epstein incorporates the allegations in subparts as fully set forth herein as well as “DEP Expresses Serious Concerns About Rapid Decontamination Of Damaged Unit 2 Reactor At Three Mile Island Nuclear Plant,” DEP Letter to the NRC, April 6, 2020, (Docket ID: NRC-2020-0082) “Three Mile Island Reports,” Penn State University Libraries, <https://libraries.psu.edu/about/collections/three-mile-island-2-recovery-and-decontamination/three-mile-island-reports>, Three Mile Island Nuclear Station, Unit 2 Docket No. 50-320, Possession Only License No. DPR-73 Post-Shutdown Decommissioning Activities Report Submittal, <https://www.nrc.gov/docs/ML1319/ML13190A366.pdf>.

8. In view of the long history of significant radiological releases at Three Mile Island Unit-2, and consistent with the plant’s “unique status” (19) as attested to by TMI-2 Solutions in their Application and Amended PSDAR, TMI-2 Solutions cost estimates unreasonably fail to account for the substantial likelihood that they will discover additional contamination once work has begun.

This cost expense and subsequent delay will be attributable to TMI-2 Solutions which refused to conduct a site survey and continues to rely on antiquated and questionable data culled from the Generic Environmental Impact Statement ("GEIS"), Programmatic Environmental Impact Statement ("PEIS"), (20) and boilerplate decommissioning studies. (21)

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19 Three Mile Island Nuclear Station, Unit-2, Docket No. 50-320, Possession Only License, No. DPR-73 Revision to Post-Shutdown (Decommissioning Activities Report, December 4, 2015, p. 13.

20 10 CFR 50.82(a)(4)(i) requires that the PSDAR Include "a discussion that provides the reasons for concluding that the environmental impacts associated with the site-specific decommissioning activities will be bounded by appropriate previously issued environmental impact statements ...The potential environmental impacts associated with the proposed decommissioning activities for TMI-2 were compared with similar impacts given in the PEIS related to post-accident cleanup activities resulting from the March 28, 1979 accident; and with NUREG-0586, "Generic Environmental Impact Statement on Decommissioning of Nuclear Power Facilities," dated August 1988 and Supplement 1, Volumes 1 and 2, dated November 2002 (Reference 10) (collectively known as GEIS) on decommissioning and radiological criteria for license termination. The following discussion provides the comparison. "

TMI-2 Solutions' copied and pasted previous data that was not updated but aligned with their limited decommissioning experience. TMI-2 Solutions relies on generic industry studies, and did not conduct a site inspection, site survey or an updated autopsy of TMI-2. TMI-2 Solutions' work force has limited experience tied to Big Rock Point (67 MW,) and La Crosse (50 MW). Both were boiling water reactors. Zion, which was placed in early retirement, is not comparable to TMI-2. At Zion, Energy Solutions spent down the Nuclear Decommissioning Trust, and the only accounting report was filed on June 30, 2012.

**TMI-2 Solutions fails to show adequate decommissioning financial assurance and/or adequate funding for spent nuclear fuel management in violation of 10 C.F.R. §§ 50.33(f) and (k)(1), 50.40(b), 50.54(bb), 50.75(b)(1) and (e)(1)(i), 50.80(b)(1)(i), 50.82(a)(8)(vii), and 72.30(b) because the TMI-2 Solutions' Amended PSDAR and decommissioning cost estimate underestimates license termination, site restoration and spent fuel management costs.**

9. Neither the Amended PSDAR nor the accompanying cost estimate (21) addresses the likely need for additional, expensive remediation of radiological and non-radiological hazardous substances contamination in the soils, fill, groundwater, plume pathways and Lake Fredric surrounding the plant and its properties. TMI-2 Solutions and TriArtisan fail to anticipate or plan for problems associated with Phase 1. "The PSDAR will not be updated for minor changes in anticipated decommissioning cost."  
(23)

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<sup>21</sup> TMI-2's decommissioning projections have been increasing at a rapid rate as evidenced in their Annual Reports. "In February 1996, the first TMI-2 site-specific decommissioning cost analysis was developed for GPU Nuclear. That analysis was updated in 2004, 2009, 2014 and 2018 to reflect current assumptions pertaining to the disposition of the nuclear unit and relevant industry experience in undertaking decommissioning."  
("Amended PSDAR," December 12, 2019, p. 9 )

<sup>22</sup> "A deviation exists in terms of the variables associated with transuranic fuel and higher source terms." (Application, p. 12).

<sup>23</sup> Amended PSDAR, p. 9.

10. Notwithstanding, Three Mile Island Unit-2's core meltdown, the lengthy history of radiological and non-radiological contamination is presently unknown. TMI-2 Solutions has not performed the rigorous site characterization - let alone a site survey - necessary to formulate an undated remedial plan.

**“Moreover, the Purchase Agreement does not foreclose TMI-2 Solutions from deferring active Decommissioning work, if necessary, to preserve or grow NDT funds.”** (Application, November 12, 2019, p. 11) **(Bold face type added.)**

These costs must be established prior to the beginning of site work. Instead, TMI-2 Solutions plans to characterize site contamination *after* the licenses transfer. (24)

TMI-2 Solutions gives no indication how it will ultimately conduct such a characterization, other than to say: “At an appropriate time, TMI-2 Solutions will submit to the NRC a plan for the management of Debris Material, which will provide more information about the long-term management plan for management of Debris Material at TMI-2 until DOE acceptance.” (25)

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24 Amended, PSDAR, p. 2.

25 Amended, PSADR, pp. 8-9.

11. In March, 1979, cooling water stopped entering the TMI 2 reactor vessel, the core melted, radioactive gases were released into the air and years later radioactive water was permitted to evaporate into the atmosphere. These events were not an accident. They were a direct response to mistakes made by the men and women of the NRC and the plant operator who failed to plan and pay attention to detail.

12. TMI-2 Solutions failure to thoroughly assess the extent of on-site contamination is exacerbated by its failure to account for out-of-scope risk. In a section of the PSDAR entitled... “Contingency,” the amount is woefully inadequate. (26) However, to the extent it considers them, TMI-2 Solutions’ cost estimate appears to assign virtually no value to costs associated with out-of-scope risks, including the likely discovery of additional radiological and non-radiological contamination.

13. TMI-2 Solutions treatment of contingency and risk undermines the validity of the cost estimate.

14. TMI-2 Solutions is unreasonably failing to account for the likelihood that it will encounter out-of-scope issues for the reactor’s “unique status” including, the discovery of additional contaminants and/or contaminants in unexpected concentrations and volumes.

15. By deferring full site characterization until *after* they had prepared their cost estimate and by failing to adequately account for out-of-scope risk, TMI-2 Solutions effectively ensures that unknown contamination, once discovered, will increase the project’s cost. Thus, increasing the likelihood that such costs will not be covered.

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26 Amended, PSDAR, p. 10.



Moreover, the amount of damaged fuel removed from TMI-2 is disputed by the petitioner.

16. Accordingly, the cost estimate fails to satisfy regulatory requirements. 10 C.F.R. §§ 50.33(f) and 50.75(b) and (e)(1)(i).

### **Supporting Evidence.**

17. Mr. Epstein incorporates the following documents as fully set forth herein. The President's Commission estimated about 15 million curies of radiation were released into the atmosphere. A review of dose assessments, conducted by Dr. Jan Beyea, (National Audubon Society; 1984) estimated that from 276 to 63,000 person-rem were delivered to the general population within 50 miles of TMI. (27 ) More recently, David Lochbaum of the Union of Concerned Scientists, estimated between 40 million curies and 100 million curies escaped during the accident. (28)

18. TMI-2 's long history of radiological and non-radiological releases led to significant site contamination.

19. Radioactive steam was illegally released directly into the atmosphere.

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27 Beyea J. A review of dose assessments at Three Mile Island and recommendations for future research. Philadelphia PA: Three Mile Island Public Health Fund, 1984.

28 Beyea J. Three Mile Island--six years later. Nuclear Medicine 26:1345-1346 (1985).

20. As a result of these and other contamination events, the full extent of on-site radiological contamination has yet to be determined.

21. Radioactive water was released directly into the Susquehanna River.

22. NRC records have documented caustic, chemical and petroleum spills.

23. NRC records have documented caustic, chemical and petroleum spills.

24. Fires at TMI-2 were well documented from 1987-2003. 33 (29)

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29 February 1987 : The NRC issued Violations for two fires that occurred in the Unit 2 reactor building. "According to a GPU News release, "one fire occurred when sparks from a welder's torch ignited rags, a plastic bucket and a hose inside a room used for toll decontamination. The second occurred five days later when sparks from a welder's torch ignited a canvass curtain."

February, 1988: GPU was cited by the NRC for failing to deploy a roving fire watch "when the Halon system for the cable and transformer rooms became inoperable" (*Patriot News*, May 19, 1988).

May 19, 1988 : GPU was cited again for violating fire regulations by the NRC. The Commission noted four deficiencies in the Program and added in a letter to the Company: "We are concerned that there has been a degradation in the overall control of your fire-protection program", Lee H. Bettenhauser, Chief, Reactor Division Projects

August 5, 1992: GPU "declared an event of potential public interest when the Unit-2 west cooling tower caught fire." The fire lasted for ten minutes. The Pennsylvania DER ordered GPU to remove the waffling from the TMI-2 cooling towers after the most recent fire.

On July 2, 2003, firefighters and the Pennsylvania State Police responded to the electrical fire that damaged the turbine building's switch gear room at TMI Unit 2. "Although a five-member AmerGen fire brigade also responded to the blaze, Akron, Ohio-based FirstEnergy is responsible for the operation of TMI Unit 2.

25. In addition, given the age, corrosion and embrittlement of the TMI-2 buildings, and the fact that the cement was soaked in high levels of radiation, cleanup work will be extremely hazardous.

26. Additional contamination after decommissioning begins is likely. For example, at Maine Yankee, the amount of asbestos-containing material removed for disposal was nearly triple the originally estimated amount.

27. Project cost overruns associated with the belated discovery of additional site contamination could be considerable. At Connecticut Yankee for example, the discovery of subsurface tritium and strontium-90 contamination required expensive characterization and, ultimately, remediation of affected soils and bedrock. (30) Remediation proved particularly difficult where fractures in the underlying bedrock allowed radionuclides to infiltrate deep underground.

28. Remediation is particularly difficult where fractures in the underlying bedrock may allow radionuclide infiltration. TMI-2 Solutions proposal does not consider karsting, limestone or shale formations.

29. Unforeseen radiological contamination at Connecticut Yankee required the excavation of an additional 1.17 million cubic feet of material, adding over \$55 million in direct costs and engendering significant delay. (31)

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30 See EPRI, Connecticut Yankee Decommissioning Experience Report at 9-1 (Nov. 2006).

31 See Pacific Northwest National Laboratory ("PNL"), Assessment of the Adequacy of the 10 C.F.R. § 50.75(c) Minimum Decommissioning Formula, at 4-5 (Nov. 2011) (ML13063A190).

While Connecticut Yankee's owner was able to fund an unexpected decommissioning and site restoration-related costs by obtaining a rate increase, (32) that option is unavailable at Three Mile Island Unit-2 which is out of the rate base.

30. Unless and until the Commission requires the provisioning of additional financial assurance as a condition of approving the license transfer, significant cost overruns at Indian Point could imperil the TMI-2 Solutions ability to complete the project, thus increasing the risk that Pennsylvania taxpayers will be required to shoulder the cost.

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<sup>32</sup> See EPRI, Connecticut Yankee Decommissioning Experience Report at 6-1.

**B. TMI-2 Solutions provide no basis for its failure to account either for costs associated with repackaging spent nuclear fuel for transport or, in the event repackaging is not required, for reimbursements to DOE of monies DOE paid or will pay to licensees for licensee packaging costs. TMI-2 Solutions therefore fails to demonstrate adequate funding for spent fuel management in violation of 10 C.F.R. §§ 50.54(bb) and 50.82(a)(8)(vii)(B) and (C).**

**Basis.**

31 . Mr. Epstein incorporates the allegations as if fully set forth herein from Patrick McDonnell, Secretary of the Pennsylvania Department of Environmental Protection, Letter to Kristine L. Svinicki, Chairman of the Nuclear Regulatory Commission, “Concerns with Three Mile Island Unit 2 License Transfer,” April 6, 2020.

32. TMI-2 Solutions fails to account for the need to repackage spent nuclear fuel into DOE-provided transportation casks in the event DOE refuses (33) to take title to the stored fuel at Three Mile Island Unit-2. (34)

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33 See New York v. Nuclear Regulatory Commn., 681 F.3d 471, 479 (D.C. Cir. 2012) (noting that NRC “apparently has no long-term plan [for spent nuclear fuel storage] other than hop- ing for a geologic repository” and that, “[i]f the government continues to fail in its quest to establish one, then [spent nuclear fuel] will seemingly be stored on site at nuclear plants on a permanent basis”).

34 Idaho's congressional delegation has called on the Department of Energy to take more steps to support the 1995 Settlement Agreement to remove spent nuclear fuel stored at the Idaho National Laboratory by 2035. The lawmakers said in a letter, "We encourage the Department to initiate activities needed to begin loading of spent nuclear fuel into a multi-purpose canister (MPC) at the Idaho National Laboratory using existing facilities." KIFI-TV/KIDK-TV/KXPI-TV (Idaho Falls, Idaho) (April 9, 2020.)

33. Under the Department of Energy (“DOE”) standard contract, it is DOE’s responsibility to “arrange for, and provide, [casks] and all necessary transportation of the [spent nuclear fuel] and/or [high-level waste]” from each reactor site to a repository. (35) As the Court of Appeals for the Federal Circuit has held, “[i]t is undisputed that under the [s]standard [c]contract[ ], the government will not allow . . . *storage* casks . . . to be used as transportation casks.” (36)

34. Because DOE cannot currently accept spent nuclear fuel that has been placed in non-DOE storage canisters, TMI-2 Solutions unreasonably fails to make provision in its cost estimate for the eventual need to “unload the spent nuclear fuel” in storage at the Indian Point ISFSI “and reload it into suitable transportation casks provided by [DOE].” (37)

35. Conversely, in the event DOE changes the standard contract to allow it to accept spent nuclear fuel in non-DOE casks, licensees may be required to pay back monies DOE has or will pay to licensees to compensate them for their packing-for- storage costs. This category of costs, too, is unreasonably omitted from TMI-2 Solutions’ cost estimate.

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35 10 C.F.R. § 961.11.

36 See *System Fuels, Inc. v. United States*, 818 F.3d 1302, 1306 (Fed. Cir. 2016) (the assumption “that the government will accept the canistered fuel as is when [it] performs [under the contract] in the future . . . is wholly unsupported”).

37 *Id.* at 1307.

36. Despite DOE’s partial breach of the standard contract, “[a]ll parties—the [utilities] and the government retain their substantive rights and obligations under the contract.” (38) The standard contract assigns to the utility the obligation to “arrange for, and provide, all preparation, packaging, required inspections, and *loading activities* necessary for the transportation of [spent nuclear fuel] and/or [high- level waste] to the DOE facility.” (39)

37. As the Court of Appeals for the Federal Circuit has upheld, utilities are responsible under the standard contract for the cost of loading spent fuel into dry casks. (40) Utilities have, however, recovered loading costs from DOE on the theory that DOE will eventually require them to reload spent fuel into DOE-provided transportation casks. (41) If DOE amends the standard contract and takes title to spent fuel in non-DOE casks, it will also be entitled to recover payments made to utilities for costs associated with packaging spent fuel for dry storage.

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38 Carolina Power & Light Co. v. United States, 573 F.3d 1271, 1277 (Fed. Cir. 2009).

39 10 C.F.R. § 961.11

40 See Carolina Power & Light, 573 F.3d at 1277; see also System Fuels, 818 F.3d at 1306. 145

41 See System Fuels, 818 F.3d at 1306–07.

38. NRC regulations require that each licensee provide notice of the “program by which [it] intends to manage and provide funding for the management of all irradiated fuel at the reactor following permanent cessation of operation of the reactor until title to the fuel is transferred to the Secretary of Energy.”<sup>(42)</sup> The rules also require that each licensee “report on the status of its funding for managing irradiated fuel,” including “the projected cost of managing irradiated fuel until title to the fuel and cover the cost.” <sup>(43)</sup>

39. TMI-2 Solutions omitted the costs associated with repackaging fuel debris, irradiated cement and reactor components. TMI-2 Solutions fails to account for the possibility that DOE will seek to recover costs it may allocate for packaging spent fuel. Therefore, the current proposal’s cost projections are flawed.

40. The TMI-2 Solutions also failed to establish adequate funding for spent fuel management because they omit substantial costs associated with historic problems with the NUHOMS design in place in Idaho.

41. TMI-2 Solutions also failed and now TriArtisan to account for increasing costs based on the deteriorating condition of the NUHOMS-12 storage modules. In fact, decommissioning monies have already been used to remediate the problems occurring in Idaho. <sup>(44)</sup>

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<sup>42</sup> 10 C.F.R. § 50.54(bb).

<sup>43</sup> *Id.* §§ 50.82(a)(8)(vii), (vii)(B).

<sup>44</sup> See footnote on following page.



42. It is not unreasonable to conclude that future remediation work will occur for TMI-2's damaged fuel at INEL requiring more withdraws from the TMI-2 trust funds. GPU Nuclear and TMI-2 Solutions have made provisions for using limited decommissioning funds to repair aging, corroded and leaking casks. (45)

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45 The Three Mile Island, Unit 2 ISFSI uses NUHOMS-12 horizontal storage modules ("HSMs".) The HSMs were delivered to the Idaho National Laboratory site in 1999 as precast concrete. The storage system consists of an external rectangular reinforced concrete vault (i.e., HSM) with a storage canister resting horizontally on internal rails inside the HSM.

The prefabricated modules consist of a body and a roof joined together by anchor bolts. All sections were a minimum of 0.6-meters (2-feet) thick. In 2000, the licensee noted cracks in the HSMs, and concluded that they were cosmetic and insignificant. However, in 2007, the licensee observed continued cracking, crazing and spalling as well as increased efflorescence on the HSM surfaces.

The evaluation also recommended that the licensee retain the services of a company experienced and qualified in testing and evaluating concrete to determine the degradation mechanism and make recommendations both for repairs and to prevent further degradation. Although the cracking was discussed with the storage system vendor, the licensee chose an independent vendor to perform an evaluation of the HSMs and base mat concrete in 2009.

NRC, Office of Nuclear Material Safety and Safeguards, April 16, 2013  
NRC Information Notice 2013-07: Premature Degradation of Spent Fuel Storage Cask Structures and Components from Environmental Moisture.

## Supporting evidence.

43. Mr. Epstein incorporates the allegations as is fully set forth herein as “Three Mile Island Nuclear Station, Unit 2 Docket No. 50-320, License No. DPR-73 Decommissioning Funding Status Report for the Three Mile Island Nuclear Station, Unit 22,”

<https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML20066F494>, “Three Mile Island Unit-2 Independent Spent Fuel Storage Installation Application for 10 CFR 72 Specific License Renewal, Special Nuclear Material License Number SNM-2508 (Docket- No. 72-20) and “Three Mile Island Nuclear Station, Unit 2 Docket No. 50-320, Possession Only License No. DPR-73 Post-Shutdown Decommissioning Activities Report Submittal,”

<https://www.nrc.gov/docs/ML1319/ML13190A366.pdf>

44. Because TMI-2 Solutions fails to include costs associated with repackaging spent nuclear fuel, the license transfer application and supporting PSDAR appear to assume that DOE will take possession of the spent nuclear fuel at INEL and Three Mile Island Unit-2 as packaged.

45. If DOE requires that the fuel be repackaged for transport (as would be its right under the standard contract), TriArtisan will incur additional spent fuel management costs, none of which are accounted for in its cost estimate. The difficulty and expense associated with repackaging would be heightened because re- packaging would occur *after* TMI-2 Solutions had dismantled Three Mile Island Unit-2.

46. As a result, TMI-2 Solutions would be required either to transport (46) the fuel to another reactor or to construct an on-site dry transfer station. (47) The costs associated with spent fuel repackaging could total hundreds of millions of dollars. (48)

47. TMI-2 Solutions and TriArtisan ignores the possibility that the DOE will seek to recover the monies to reimburse them for their packaging costs.

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46 **Transportation:** EnergySolutions and its affiliates are well qualified to ship large volumes of radioactive waste, with experience using specially built gondola rail cars and large capacity trucks. (Application, p. 8).

47 TMI-2 Solutions appears to be ignorant of the GAO's findings regarding transportation problems with TMI-2 waste shipments." In March 1981 NRC issued an environmental impact statement which stated that the debris from the accident and subsequent cleanup should be removed from TMI because the site is not geologically suitable for the long-term storage of radioactive materials...According to DOE, between 20 and 40 train shipments over a 2- 12 year period will be required to transport the material to Idaho. The first shipment was made on July 20, 1986. After the second shipment, a series of reactor defueling problems, such as clogged debris containers, occurred which temporarily halted the shipments." (GAO, "Shipping Damaged Fuel from Three Mile Island to Idaho," August 1987, <https://www.gao.gov/assets/150/145542.pdf>).

48 "...TMI-2 Solutions has prepared Enclosure 7, *Schedule and Financial Information for Decommissioning*, which provides a projected schedule for Decommissioning TMI-2 by 2037 **(excluding long-term waste storage)**...**At an appropriate time, TMI-2 Solutions will separately submit an updated PSDAR for review by the NRC, to be made effective upon consummation of the license transfer. The updated PSDAR will provide further detail as to the Decommissioning plans for TMI-2, (Application, p. 10).**

**C. Because the Amended PSDAR and cost estimate fail to include disposal costs for the mixed waste products currently congealed, embedded and hidden, they underestimate waste disposal costs; TMI-2 Solutions fail to demonstrate adequate decommissioning financial assurance as required under 10 C.F.R. §§ 50.75(b) and (e)(1)(i).**

**Basis.**

48. Mr. Epstein incorporates the allegations is fully set forth herein as well as “Three Mile Island Nuclear Station, Unit 2 Docket No. 50-320, License No. DPR-73 Decommissioning Funding Status Report for the Three Mile Island Nuclear Station, Unit 22,”

<https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML20066F494>, “Three Mile Island Unit-2 Independent Spent Fuel Storage Installation Application for 10 CFR 72 Specific License Renewal, Special Nuclear Material License Number SNM-2508 (Docket- No. 72-20) and “Three Mile Island Nuclear Station, Unit 2 Docket No. 50-320, Possession Only License No. DPR-73 Post-Shutdown Decommissioning Activities Report Submittal,”

<https://www.nrc.gov/docs/ML1319/ML13190A366.pdf>

49. TMI-2 Solutions unreasonably fails to advance a plan for the disposal of — or even acknowledge the existence of - mixed waste currently stored at Unit 2. The failure to account for remediation and/or disposal costs associated with these wastes renders the decommissioning cost estimate inaccurate and so the TMI-2 Solutions fails to show adequate decommissioning financial assurance as required by 10 C.F.R. §§ 50.75(b) and (e)(1)(i).

## Supporting Evidence.

50. Mr. Epstein incorporates the allegations in subparts A through D of Epstein-2 as if fully set forth herein as well as “Three Mile Island Nuclear Station, Unit 2 Docket No. 50-320, License No. DPR-73 Decommissioning Funding Status Report for the Three Mile Island Nuclear Station, Unit 22,” <https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML20066F494>, “Three Mile Island Unit-2 Independent Spent Fuel Storage Installation Application for 10 CFR 72 Specific License Renewal, Special Nuclear Material License Number SNM-2508 (Docket- No. 72-20), and “Three Mile Island Nuclear Station, Unit 2 Docket No. 50-320, Possession Only License No. DPR-73 Post-Shutdown Decommissioning Activities Report Submittal,” <https://www.nrc.gov/docs/ML1319/ML13190A366.pdf>

51. Some of the hazardous waste generated is radiologically contaminated mixed waste.

52. DEP Secretary asked NRC Chair, Kristine L. Svinicki, Chairman on April , 6, 2020: “How will TMI-2 Solutions dispose of any contaminated lead shielding, which is now mixed waste, that may be present in TMI Unit 2?” (“DEP Expresses Serious Concerns About Rapid Decontamination Of Damaged Unit 2 Reactor At Three Mile Island Nuclear Plant,” April 9, 2020, <http://paenvironmentdaily.blogspot.com/2020/04/dep-expresses-serious-concerns-about.html>.)

53. TMI-2 Solutions fails to recognize the existence of the substantial quantity of mixed waste *already on site*.

54. Depending on the characteristics of this waste, it must be transferred to a qualified facility for compaction, isolation and/or stabilization .

55. Among the issues raised in DEP Secretary McDonnell's letter to Kristine L. Svinicki, Chairman, April 6, 2020, include:

- Are there volume and activity estimates of the Class B & C low-level radioactive waste that cannot be shipped to the EnergySolutions disposal site in Utah?
- Has the low-level radioactive waste disposal site in Texas agreed to accept the Class B & C waste?
- Is there any greater than Class C low-level radioactive waste in TMI Unit 2? If so, will that remain onsite?
- If asked by the licensee, will the NRC consider and approve very low-level radioactive waste to be disposed of in non-hazardous landfills in Pennsylvania?

56. Unless and until TriArtisan acknowledges these legacy wastes and accounts for the expense associated with their disposal, the Amended PSDAR and cost estimate under- estimate waste management-related project costs and the TMI-2 Solutions fail to carry their burden to demonstrate adequate decommissioning financial assurance.

**D. TMI-2 Solutions projects an unreasonably short timeframe for the normalization process referred to as Phase 1; because unaccounted-for delays associated with these activities could increase project costs over the current estimate, the TMI-2 Solutions fails to show adequate decommissioning financial assurance as required by 10 C.F.R. §§ 50.75(b) and (e)(1)(i).**

**Basis.**

57. Mr. Epstein incorporates the “Three Mile Island Nuclear Station, Unit 2 Docket No. 50-320, License No. DPR-73 Decommissioning Funding Status Report for the Three Mile Island Nuclear Station, Unit 2,” <https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML20066F494>, “Three Mile Island Unit-2 Independent Spent Fuel Storage Installation Application for 10 CFR 72 Specific License Renewal, Special Nuclear Material License Number SNM-2508 (Docket- No. 72-20) and “Three Mile Island Nuclear Station, Unit 2 Docket No. 50-320, Possession Only License No. DPR-73 Post-Shutdown Decommissioning Activities Report Submittal,” <https://www.nrc.gov/docs/ML1319/ML13190A366.pdf>

58. The Amended PSDAR and associated cost estimates assume that all radiological decommissioning and site restoration activities will be completed at Three Mile Island Unit-2 in 16.5 years. (49) TMI-2 Solutions time allotment is unreasonably short.

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49 TMI-2 Solutions anticipates completing Decommissioning TMI- 2 and releasing the TMI-2 site (except potentially for any onsite waste storage facilities) on a faster schedule, approximately 16.5 years after the License transfer. This would be seventeen years earlier than the current schedule. Application p, 3.

**TriArtisan allows itself a fail safe by moving from Decon back to SAFSTOR if funding challenges emerge. (50)**

60. Because the cost estimate fails to account for such cost increases, the TMI-2 Solutions have not carried their burden to show adequate decommissioning financial assurance as required under 10 C.F.R. §§ 50.75(b) and (e)(1)(i).

61. CDI and HDI recently announced a significant delay in the decommissioning work schedule at the Pilgrim Nuclear Power Station. Based on the cost information TMI-2 Solutions' submitted, a delay at Three Mile Island Unit-2 (similar to the delay for the Pilgrim project), could increase project costs leading to a funding gap. (51)

62. TMI-2 Solutions concedes that the "schedule proposed in the Application and Amended PSDAR constitute "the foundation for developing the [decommissioning cost estimate] model and the risk model..." This claim is unsupported by TMI Solutions own cost estimate (thus constituting a failure of proof of adequate decommissioning financial assurance) and at odds with recent developments at Pilgrim.

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50 Although TMI-2 Solutions will pursue an accelerated Decommissioning schedule after acquiring TMI-2, as demonstrated in Enclosure 7 the NDT will still provide sufficient funding for Decommissioning, accounting for fund growth up through 2037. Moreover, the Purchase Agreement does not foreclose TMI-2 Solutions from deferring active Decommissioning work, if necessary, to preserve or grow NDT funds. (Application, p. 11.)

51 Pilgrim License Transfer Application, encl. 2 (Request for Exemption) at E-4 (ML18320A031) (showing only a projected \$3.6 million surplus in the Pilgrim decommissioning trust fund at project completion).



## **Supporting Evidence.**

63. Mr. Epstein incorporates the allegations as if fully set forth herein as well as “Three Mile Island Nuclear Station, Unit 2 Docket No. 50-320, License No. DPR-73 Decommissioning Funding Status Report for the Three Mile Island Nuclear Station, Unit 22,”

<https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML20066F494>, “Three Mile Island Unit-2 Independent Spent Fuel Storage Installation Application for 10 CFR 72 Specific License Renewal, Special Nuclear Material License Number SNM-2508 (Docket- No. 72-20) and “Three Mile Island Nuclear Station, Unit 2 Docket No. 50-320, Possession Only License No. DPR-73 Post-Shutdown Decommissioning Activities Report Submittal,”

<https://www.nrc.gov/docs/ML1319/ML13190A366.pdf>

64. TMI-2 is a case study of cost overruns, delays and radiation releases directly into the environment.

65. The history of delays at other facilities decommissioned in the United States supports the conclusion that delays and cost-overruns are the norm rather than the exception during radiological decommissioning.

66. At Connecticut Yankee, where the licensee allotted one year for reactor internals and pressure vessel segmentation, what “proved to be a very challenging project” ultimately took nearly four years to complete, and resulted in significantly greater worker exposure than originally estimated.  
(52)

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52 PNL, Assessment of the Adequacy of the 10 C.F.R. § 50.75(c) Minimum Decommissioning Formula, at 4-4 to 4-5, 4-9 to 4-10 (Nov. 2011) (ML13063A190). 52

67. At Three Mile Island Unit-2, delays experienced at a Phase 1 of the Three Mile Island Unit-2 decommissioning process could delay later-stage activities and exhaust financial assurances per terms of the proposed Application.

68. Delay generally increases project costs, including costs for project management and carrying costs including property taxes, regulatory fees, and insurance premiums. Humboldt Bay, a 63 megawatt Boiling Water reactor, is on the same scale as Big Rock Point, a 67 megawatt, Boiling Water Reactor. Big Rock Point was decommissioned by Energy Solutions. At Humboldt Bay, unforeseen expansions of the project scope led to increases in project staffing costs totaling nearly \$70 million. That amount would almost exhaust TMI-2 Solutions reserve fund.

**E. The Applicant has failed to establish that the license transfer application will provide adequate decommissioning or spent fuel management funding assurance as required under 10 C.F.R. §§ 50.33(f) and (k)(1), 50.54(bb), 50.75(b)(1) and (e)(1)(i), and 72.30(b).**

69. The Amended PSDAR projects an short timeframe for SAFSTOR. Delay at this early stage of the decommissioning process could substantially increase project costs. Because TMI-2 Solutions' estimate fails to account for these costs, it jeopardizes adequate decommissioning financial assurance as required under 10 C.F.R. §§ 50.75(b)(1) and (e)(1)(i).

70. TMI-2 Solutions representations of decommissioning and spent fuel management funding assurance are based on the balances supplied by GPU Nuclear for the year ending December 31, 2019.

71. The TMI-2 Solutions showing of decommissioning and spent fuel management funding assurance are inadequate.

72. TMI-2 Solutions proposes to liberalize and minimize accountability for the Nuclear Decommissioning Trust once that have been transferred.

73. The licensee reported that as of December 31, 2020, (ML21099A115) the radiological decommissioning costs at TMI-2 is **\$1,044,364,000**. However, according to the same report the amount needed, *EnergySolutiuons*, prior to the Indirect Transfer, has **\$862,549,586** in decommissioning trust funds. The Trustee for the decommissioning trust is the Bank of New York Mellon, which is incorporated in the State of Delaware. Prior to a human entry into TMI-2, the cleanup fund, the fund is underfunded by \$181 million and EnergySolutions has only pledged an additional \$100 million during the first phase of this nuclear crap shoot.

74. **Financial Support Agreement:** Upon Closing, *EnergySolutions* will implement a Financial Support Agreement, the form of which is provided in this Enclosure, to the benefit of TMI-2 Solutions for the purpose of assuring Decommissioning completion. The value of the Financial Support Agreement will be equal to [        ]. Per its terms, the Financial Support Agreement will terminate upon the completion of Decommissioning, or upon completion of (i) milestones analogous to the completion of Phase 1 of TMI-2 Decommissioning

75. The license transfer application and supporting materials fails to account for these substantial losses.

76. Moreover EnergySolutions, the parent of TMI-2 Solutions, has likewise experienced an erosion in its financial health.

[https://markets.businessinsider.com/stocks/ces\\_energy\\_solutions-stock](https://markets.businessinsider.com/stocks/ces_energy_solutions-stock)

77. Accordingly, TMI-2 Solutions failed to establish adequate decommissioning and spent fuel management funding assurance as required under NRC rules.

78. Recent economic data indicates that trusts have declined in value. TMI-2 Solutions relies heavily on the trusts to demonstrate both financial qualification, and adequate funding assurance for radiological decommissioning and spent fuel management. GPU Nuclear's current Nuclear Decommissioning Trust funds' have materially depreciated, and are incongruent with the information provided in the Applicants' license transfer application on November 12, 2019.

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53 Amended Application, "Investment Guidelines" has the meaning set forth in Section 6.7.4.

## **Epstein-2.**

**The license transfer application and supporting materials fail to show TMI-2 Solutions is financially qualified within the meaning of 10 C.F.R. §§ 50.33(f), 50.40(b), 50.80(b), 50.82(a), and 72.30(b).**

### **Basis.**

1. Mr. Epstein incorporates the allegations in subparts A through D of Contention Epstein-1 as is fully set forth herein.
2. Under section 182(a) of the Atomic Energy Act and corresponding NRC regulations, proposed licensees must demonstrate that they are financially qualified to hold an NRC license. (54) In the present case, and based on past history, it also can not be assumed that technical skills are in place before and after the license transfer.
3. The Commission has long recognized that “inadequate or untimely consideration of decommissioning, specifically in the areas of planning and financial assurance, could result in significant adverse health, safety, and environmental impacts.” (55)
4. Since then, in view of its statutory duty to adequately protect public health and safety and in keeping with its risk-informed regulatory approach, the Commission has developed a set of financial qualifications,

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54 See 42 U.S.C. § 2232(a); 10 C.F.R. §§ 50.33(f), 50.40(b), 50.80(b)(1)(i).

55 General Requirements for Decommissioning Nuclear Reactors, 53 Fed. Reg. 24018, 24019 (June 27, 1988).

and decommissioning financial assurance requirements (56) designed to ensure that holders of NRC licenses possess the financial ability to manage risk associated with their decommissioning and related obligations. (57)

5. If the license transfer application is granted to the limited liability corporation, referred to as TMI-2 Solutions, then this entity will gain access to rate payer-funded decommissioning trusts.

6. In a recent order, the Commission noted that in the event of a decommissioning funding shortfall, NRC rules “require additional financial assurance to cover the estimated cost to complete the decommissioning.”) (58)

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56 See NRC, Consolidated Decommissioning Guidance: Financial Assurance, Recordkeeping, and Timeliness, NUREG-1757 at 31 (Feb. 2012); *see also* Briefing on Power Reactor Decommissioning Rulemaking at 9 (March 15, 2016) (ML16078A034) (noting that NRC’s “present decommissioning rules are performance-based and risk-informed).

57 See, e.g., 10 C.F.R. §§ 50.33(f), 50.75, 72.30.

58 Exelon Generation Co. (Oyster Creek Nuclear Generating Station), CLI-19-06, 2019 WL 2632851, at \*6 (2019); *see* 10 C.F.R. § 50.82(a)(8)(vi).

**7. The Commission’s observation reinforces the need to ensure that proposed licensees are currently financially qualified before authorizing a license transfer or granting an exemption allowing trust reimbursement for non-decommissioning expenses.** And proposed licensees’ financial qualifications cannot be predicated on access to existing decommissioning trusts, as the Applicants propose here. Instead, TMI-2 Solutions must be required to demonstrate to the Commission what the license transfer application currently fails to demonstrate: that TMI-2 Solutions and its parents are healthy corporate entities with access to the financial resources necessary to procure additional financial assurance, if needed presently, not at some indeterminate point in the future when exemptions have been granted and the trusts run short of funds. (59)

8. If the license transfer application is approved, Energy Solutions will bear the total risk of decommissioning Three Mile Island Unit-2 without access to parent company financing, a revenue stream generated by operating electrical power stations, or rate payer funding. Based on the materials submitted, it is unlikely the TMI-2 Solutions would be able to comply with the NRC rules requiring that they provide additional financial assurance in the event of a projected cost overrun. There is little reason to believe banks, insurers, or other purveyors of third-party financial assurance instruments. (60) would offer such instruments at a price

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59 See 10 C.F.R. § 50.33(f).

60 The NRC has shown no interest in exercising its limited authority to compel financial assurances.

accessible to limited liability entities saddled with environmental cleanup obligations in excess of their assets and with no stream of operating revenue. (61)

**9. Prudent risk management requires that regulators consider who will finance the consequences of industrial activities before those activities result in injury to the public. (62)**

Financial assurance models typically assume facility owners are revenue-generating concerns, capable of setting aside funds now to offset future decommissioning and site restoration obligations. Reflecting this view, the Commission has aptly described its financial assurance requirements as “a second line of defense,” to be called upon “if the financial operations of the licensee are insufficient . . . to ensure that sufficient funds are available to carry out decommissioning.” (63)

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61 Energy Harbor was not in a position to bailout out Energy Solutions after it emerged from bankruptcy. On April 4, 2019 a U.S. Bankruptcy Court ruled that FirstEnergy could not use its subsidiary’s bankruptcy filing to evade its environmental cleanup and remediation responsibilities.

62 TMI-2 experienced a loss of coolant accident on March 28, 1979. There were no decommissioning funds required by the NRC at the time of the meltdown. GPU received a \$987 million bailout to defuel the melted core. The current cost to decommission TMI-2 is totally funded by hostage rate payers who have no ownership share in TMI-2 Solutions.

63 Financial Assurance Requirements for Decommissioning Nuclear Power Reactors, 63 Fed. Reg. 50465, 50474 (September 22, 1998).



10. The transaction before the Commission is predicated on decommissioning and financial assurances in the form of rate payer-funded trusts. TMI-2 Solutions is a fictional company that exists on paper only. This a Utah based shell company, incorporated in Delaware, and specifically created as an investment vehicle. TMI-2 Solutions can not offer any financial guarantee based on its independent strength because it is a corporate aberration. (64)

11. TMI-2 Solutions' financial assurance is a glorified nuclear Maginot Line posing as a "second line of defense." In fact, hostage rate payers who contributed over \$800 million to the NDT have no ownership In TMI-2 Solutions. However, the "Trustee shall distribute the entire remaining amount of the Trust, including all accrued, accumulated, and undistributed net income, to TMI-2 Solutions." (Application, 3 B at 2.6.)

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64 TMI-2 Solutions is a wholly owned subsidiary of *EnergySolutions*, which in turn is a privately held company whose shares are directly owned by Rockwell Holdco, Inc. ("Rockwell").

Rockwell is 57% owned primarily by a number of affiliated passive investment funds controlled by Energy Capital Partners GP II, LP (the "Controlling Partner"): (i) Energy Capital Partners II, LP; (ii) Energy Capital Partners II-A, LP; (iii) Energy Capital Partners II-B, LP; (iv) Energy Capital Partners II-C (Direct IP), LP; and (v) Energy Capital Partners I-D, LP (collectively, the "ECP II Partnerships")...Approximately 37% of the equity in all of the ECP II Partnerships is held by Foreign Passive Investors. Approximately 28% of the equity in the TriArtisan Entities is held by Foreign Passive Investors (Application, p. 4) Foreign trustees "can make foreign investments, including investments to be maintained abroad; *provided, however*, that such authority is limited to those foreign jurisdictions in which the Trustee has selected a foreign custodian in accordance with Section 4.6 - hereof."

12. The Applicant's over reliance on trust funds to demonstrate financial qualification does not meet regulatory standards. (65)

13. As the proposed license transfer is currently structured, corporate parent Energy Solutions, while nominally an Applicant, would assume no TMI-2 Solutions related liability. The Commission has affirmatively stated that it lacks the ability to shift unmet liabilities to the corporate parent.

(66) The license transfer application and supporting materials fail to demonstrate that TriArtisan's adequately capitalized to independently satisfy their regulatory obligations. Nor has there has been a showing that TMI-2 Solutions has the independent financial ability to meet its obligations under the decommissioning operator services agreement with Energy Harbor or Exelon. (67)

14. The Commission can and should require that the Applicants provide additional forms of financial assurance other than nuclear parlor games proposed by TMI-2 Solutions,. i.e. assets, collateral or real estate.

15. In the course of a prudency review, the ASLB should determine if TMI-2 Solution is financially qualified, i.e., whether they can satisfy their financial obligations as necessary and in the dollar amounts required. The license transfer application and supporting materials provide insufficient information upon which to make such a determination.

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65     *See* 10 C.F.R. § 50.33(f).

66     *See* NRC, Questions and Answers on Decommissioning Financial Assurance, SECY-11- 0133, encl. 5, at 2 (Sept. 28, 2011) (ML111940157).

67     Refer to unidentified service agreements between Exelon and FirstEnergy pp. 5, 8, 9, 13, and 1 B.

16. The license transfer application is predicated on the strength of TMI-2 Solutions' decommissioning cash flow analyses benchmarked against the projected growth of the decommissioning trusts. As discussed in Contention Epstein- 1, (70) the basis for which is incorporated as if fully set forth herein, the TMI-2 Solutions' DECON approach requires that they show full decommissioning funding *now*. Regardless, as part of its financial qualifications review and its assessment of the adequacy of the funds accumulated for decommissioning, the Commission has reserved to itself the right to review the rate of accumulation of decommissioning funds. (71) NRC rules also envision that "[a]ctual earnings on existing funds may be used to calculate future fund needs." (72) Because the Commission must determine whether TMI-2 Solutions is financially qualified to bear the risk, NRC staff should request and review historic fund valuation statements for each of the decommissioning trusts.

17. Because the actual rate of return on the trust funds will be impacted by the funds' tax treatment, NRC staff should request and review any private letter rulings obtained by the Applicants from the Internal Revenue Service. Staff should be particularly aware that the granting of an eventual exemption to allow the use of trust fund monies for non-decommissioning purposes could impact the tax rate applied to disbursements from the funds, potentially reducing the monies available to fund ongoing decommissioning and related activities.

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62 *See supra*, Epstein Contention-1, ¶¶ 3–15; *see also* 10 C.F.R. § 50.75(e)(1)(1). 234 *See* 10 C.F.R. § 50.75(e)(2).

63 *See* 10 C.F.R. § 50.75(e)(2).

64 *Id.* § 50.75(e)(1)(i).

18. In the likely event of a cost overrun, the license transfer application fails to establish that TriArtisan will be financially healthy enough to provide additional financial assurance as required pursuant to 10 C.F.R. §§ 50.82(a)(8)(vi) and (vii). (65)

19. Particularly in this period of extreme market volatility, TMI-2 Solutions' over reliance on the trust funds to show adequate financial qualification is unreasonable and fails to comply with NRC regulations.

20. TriArtisan has not demonstrated that, in the likely event that decommissioning, spent fuel management, and/or site restoration costs exceed estimates, they will have the financial ability to procure additional financial assurance.

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64 *See supra* Epstein Contention-1, the bases and supporting evidence for which are incorporated as if fully set forth herein.

## **Supporting Evidence.**

21. Firms that lack sufficient financial resources to conduct normal day-to-day business operations are less likely to be able to cope effectively with long-term environmental obligations. Lack of adequate financial qualification contributes to an increased risk of default and eventual bankruptcy. TMI-2 Solutions has created a corporate structure designed to insulate itself from the financial risk borne by its subsidiaries, a default by Energy Solutions or TriArtisan, could leave the task of funding any remaining decommissioning, site restoration, and/or spent fuel-related obligations at TMI-2 to the tax payers of the Commonwealth of Pennsylvania. Rate payers and tax payers would be forced to contribute to another bailout of Three Mile Island Unit-2.

22. The potential bankruptcy of a financially weak corporate entity with significant environmental liabilities poses a real risk to taxpayers. TMI-2 has already been bailed for \$1 billion by rate payers and taxpayers as part of the the Thornburgh Plan in July, 1981. FirstEnergy Corporation, the previous licensee, attempted to absolve itself of all environmental liability associated with its bankrupt subsidiary's fleet of coal and nuclear power plants. This attempt, ultimately rejected by the bankruptcy court, (65) extended even to regulatory enforcement actions. (66) In the Tronox matter, Kerr-McGee, wishing to shield itself from a stunning array of legacy environmental liabilities, created a new entity, Tronox, and saddled it with

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65 See Anya Litvak, Judge Rejects FirstEnergy's Plan to Get Rid of Subsidiary's Liabilities in Bankruptcy, Pittsburgh Post-Gazette (April 4, 2019).

66 See United States supp. reply brief, *In re FirstEnergy Solutions Corp.*, Case No. 50757 (Bankr. N.D. Ohio) (March 29, 2019), at ¶ 7, n.2.

Kerr-McGee's clean-up costs. (67) Tronox, severely undercapitalized and unable to cope with its environmental liabilities, almost immediately sought bankruptcy protection.

23. TMI-2 Solutions use of special purpose limited liability entities to isolate itself from legal and financial exposure is a risk-mitigation strategy designed to avoid providing additional financial assurance or committing additional capital. This structure, insofar as it shields corporate parents and their affiliates from liability, encourages riskier behavior and induces companies to underreport liabilities. Any failure to transparently disclose all liabilities undermines the Commission's ability to effectively and adequately assess financial qualifications.

24. TriArtisan's investment guidelines for the trusts encourages broad and permissive investment guidelines which can result in increased investment risk, which can in turn limit the availability of funds when resources are needed. Moreover, the trustee, in addition to limited prohibitions, is authorized to appoint and indemnify foreign custodians. (68) (Footnote 68 is on the following page.)

25. At the time TMI-2 Solutions filed the petition, it based its financial qualification and decommissioning and spent fuel management funding assurance analyses on the Applicants' representation that the Three Mile Island Unit-2 trusts contained approximately \$899,487,427 million as of December 31, 2019. As of December 31, 2020, of the \$862,549,586 in decommissioning trust funds for TMI-2, 100% are considered qualified funds.

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67 See *In re Tronox Inc.*, 503 B.R. 293, 249–63 (Bankr. S.D.N.Y. 2013).

26. The value in the GPU Nuclear trust has significantly declined. TMI-2 Solutions relies heavily on the trusts to demonstrate both financial qualifications and adequate funding assurance for radiological decommissioning and spent fuel management. The Trusts are materially different from the information provided in the license transfer application.

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#### 4.3 Prohibited Investments.

The Trustee shall assure that the assets of the Trust are not invested or reinvested in the following Prohibited Investments:

- (a) Any securities or other obligations of Energy Solutions, Inc. or affiliates thereof, or their successors or assigns; or
- (b) Any securities or other obligations of any entity owning or operating one or more nuclear power plants; provided, however, that the foregoing restriction shall not prevent investments tied to market indices or other non-nuclear sector mutual funds; or
- (c) Any investment which would contravene any Future Orders in effect at the time such investment or reinvestment is made and previously furnished to the Trustee with reference to the Trust; or,
- (d) Any investment not permitted under Section 468A of the Code; *provided, however*, that the with respect to the securities and obligations prohibited under clauses (a) and (b), TMI-2 Solutions provides a list of such securities and obligations and their issuer code and/or CUSIPs.

#### 4.6 Foreign Custodians

- (a) The Trustee shall have the power to appoint foreign custodians as agent of- the Trustee to custody foreign securities holdings of the Trust or any investment manager account Custody of foreign investments shall be maintained with foreign custodian selected by the Trustee.

The Trustee shall have no responsibility for losses to the Trust resulting from the ads or omissions of any foreign custodian appointed by the Trustee unless due to the foreign custodian's fraud, negligence or willful misconduct.

27. As the Commission has long recognized, financial qualification and decommissioning funding assurance issues “go to the very heart” of the license transfer proceeding, and so fall well within the scope of the present proceeding. (77) Either independently or in conjunction with the remaining bases in Contention Epstein-2, the erosion decommissioning funding assurances raise a material dispute of fact with the Applicants. The substantial erosion of trust reinforces the Epstein’s argument, set forth in Contention Epstein-2, that trust dependent TMI-2 Solutions, lacks the resources necessary to provide additional financial assurances.

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67 North Atlantic Energy Serv. Corp. (Seabrook Station, Unit 1), 49 N.R.C. 201, 219(1999).<sup>40</sup> See 10 C.F.R. § 2.309(f)(1)(iii). <sup>41</sup> See *id.* §§ 2.309(f)(1)(iv), (vi).



## VIII. Conclusions.

For the reasons discussed above, the proposed Indirect License Transfer will:

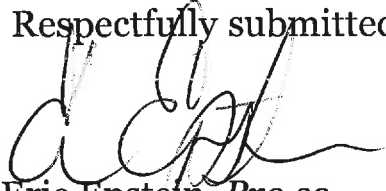
- (1) Have an adverse impact on the decommissioning of the referenced nuclear stations;
- (2) Adversely affect the managerial or technical qualifications of *EnergySolutions*, the licensee of the nuclear stations;
- (3) Impair *EnergySolutions*' financial qualifications as the owner and operator of the nuclear stations; or,
- (4) Will result in any foreign ownership, control or domination of the decommissioning trusts.

Accordingly, the proposed Indirect License Transfer will result in undue risk to public health and safety. The proposed Application will be inimical to the common defense and security of the United States of America. In its current form, the Indirect License Transfer of Three Mile Island-1 violates with the Atomic Energy Act and NRC regulations.

The NRC can not selectively distance itself from its statutory mission "to protect public health and safety," erase history, and fail to "protect the environment." Not only does Mr. Epstein provide the only connective tissue to the body of nuclear power operations at Three Mile Island, but his presence and active litigation predates FirstEnergy's ownership of these reactors. *EnergySolutions* selective desire to vacuum out people, places and events, is an effort to rewrite history and minimize the Company's inglorious history and whitewash the meltdown.

For the reasons stated, the Commission should grant Mr. Epstein  
Petition to intervene and associated request for hearing.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Eric Epstein', written over the typed name.

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