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TMI2-RA-COR-2023-0001

10 CFR 50.90  
10 CFR 50.91

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

Three Mile Island Nuclear Station, Unit 2 (TMI-2)  
NRC Possession Only License No. DPR 73  
NRC Docket No. 50-320

Subject: License Amendment Request – Three Mile Island, Unit 2, Decommissioning  
Technical Specifications, Response to Request for Additional Information  
Regarding Historical and Cultural Resources

References:

- (1) Letter from Doell, M. V. (U.S. NRC) to Devik, T. (TMI-2 Solutions, LLC), "NRC Request for Additional Information Related to the TMI-2 PDMS Transition License Amendment Request," dated December 22, 2022 (ML22357A014)
- (2) Letter TMI2-RA-COR-2021-0002 from van Noordennen, G. P. (TMI-2 Solutions, LLC) to Document Control Desk (U.S. NRC), "License Amendment Request – Three Mile Island, Unit 2, Decommissioning Technical Specifications," dated February 19, 2021 (ML21057A046)

This letter provides TMI-2 Solutions' responses to the Request for Additional Information (RAI) issued by the NRC on December 22, 2022 (Reference 1) to support the ongoing review of the License Amendment Request (LAR) (Reference 2, as supplemented).

Attachment 1 is a boundary survey map depicting the TMI-2 owned and controlled parcels on Three Mile Island. Attachment 2 shows a map of the TMI-2 Historic District (Key No. 156047) above-ground resource which is accessible via the Pennsylvania Historic & Archaeological Resource Exchange (PA-SHARE).

In accordance with 10 CFR 50.91(b)(1), a copy of this submittal has been sent to the Commonwealth of Pennsylvania.

I declare under penalty of perjury that the foregoing is true and correct. Executed on 20 January 2023.

Sincerely,

Amy C  
Hazelhoff

Digitally signed by Amy C  
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**Request for Additional Information**

**Related to a Proposed License Amendment  
to Possession-Only License No. DPR-73  
Changes to the Post-Defueling Monitored Status**

**TMI-2 Solutions, LLC**

**Three Mile Island Nuclear Station, Unit 2**

**Docket No. 50-320**

TMI-2 Solutions, LLC (TMI-2 Solutions) submitted a license amendment request (LAR) on February 19, 2021 (Agencywide Document Access and Management System (ADAMS)) Package Accession No. [ML21057A047](#); Application [ML21057A046](#)), as supplemented on May 5, 2021 ([ML21133A264](#)), January 7 ([ML22013A177](#)), March 23 ([ML22101A079](#)), April 7 ([ML22101A077](#)), May 16 ([ML22138A285](#)), September 29 ([ML22276A024](#)), and October 29, 2022 ([ML22307A082](#)), to revise the possession-only license (POL) No. DPR-73 for Three Mile Island Nuclear Station, Unit 2 (TMI-2). POL No. DPR-73 was issued pursuant to Part 50, "Domestic Licensing of Production and Utilization Facilities," of Title 10 of the *Code of Federal Regulations* (10 CFR). Specifically, TMI-2 Solutions requested the removal of license conditions that have already been fulfilled; the movement of some Technical Specifications (TSs) to the quality assurance program; the deletion of TSs that only apply to the Post-Defueling Monitored Status (PDMS) for TMI-2; and the updating of the fuel mass safety limit. TMI-2 is currently in decommissioning.

In its LAR, TMI-2 Solutions states that if the amendment is approved it would support decommissioning activities at TMI-2. TMI-2 Solutions describes the TMI-2 decommissioning approach in three Phases: Phase 1a, Phase 1b, and Phase 2. Phase 1a is currently underway, with Phase 1b and Phase 2 to follow in the future. In addition, TMI-2 Solutions states that Phase 2 "includes typical decommissioning and dismantlement activities for a power reactor." The LAR also states that "during Phase 1b and Phase 2, major decommissioning activities as defined in 10 CFR 50.2, "Definitions," will be performed."

In the Three Mile Island Nuclear Power Station, Unit 2 Post-Shutdown Decommissioning Activities Report (PSDAR) Revision 5 ([ML22306A051](#)), which was submitted to the U.S. Nuclear Regulatory Commission (NRC) on October 27, 2022, TMI-2 Solutions describes "major decommissioning activities" as occurring in Phase 1b and Phase 2, including "demolishing plant structures to nominally three feet below grade" (PSDAR Section 3.2). PSDARs are not submitted for formal NRC approval; references to the TMI-2 PSDAR, Revision 5, in these RAIs are intended to contextualize the need for the additional clarifying information requested in support of the ongoing review of the LAR. Separately, additional RAIs may be forthcoming regarding the TMI-2 PSDAR, Revision 5, as an outcome of that separate review.

The NRC staff has the following RAIs related to the potential cultural and historic impacts of the proposed action to facilitate the NRC staff's continued review of the LAR. The requests include clarifying information so the NRC can better assess National Environmental Policy Act (NEPA) and National Historic Preservation Act (NHPA) requirements for this LAR, including whether a Section 106 consultation under NHPA is needed and, if so, when.

**RAI Environmental (ENV)-1 - Impacts to National Register of Historic Places (NRHP)-eligible structures**

**Background**

In its LAR, TMI-2 Solutions describes the decommissioning approach in three Phases. The LAR states that Phase 2 "includes typical decommissioning and dismantlement activities for a power reactor." TMI-2 Solutions also states in the LAR that "during Phase 1b and Phase 2, major decommissioning activities as defined in 10 CFR 50.2 will be performed."

Additionally, TMI-2 Solutions states in Section 6.1.14 of the TMI-2 PSDAR, Revision 5, that "TMI-2 was classified as a historic structure eligible for listing on the NRHP in 2010." TMI-2 Solutions further states in the PSDAR that "...TMI-2 is a typical mid-twentieth century light water reactor" and that "... it is unexceptional from a design or engineering perspective."

In Revision 5 of the TMI-2 PSDAR, TMI-2 Solutions points to the Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities, NUREG-0586, Supplement 1, Regarding the Decommissioning of Nuclear Power Reactors (Decommissioning GEIS), Section 4.3.14.3 statement that "... activities conducted within the operational areas are not expected to have a detectable effect on important cultural resources because these areas have normally been highly degraded during facility construction and operation." TMI-2 Solutions concludes in the PSDAR, Revision 5, that because TMI-2 Solutions plans to conduct activities within the operational area and will establish a Cultural Resources Protection Plan, "... the impacts on the demolition of TMI-2 structures eligible for the NRHP will be small."

However, it is not clear how the discussion in the Decommissioning GEIS bounds potential cultural and historic impacts of activities associated with Phases 1a, 1b, and 2 of decommissioning at TMI-2 to the NRHP-eligible TMI-2 historic structure.

Section 4.3.14.2 of the Decommissioning GEIS states:

In a few situations, the nuclear facility itself could be potentially eligible for inclusion in the National Register of Historic Places, especially if it is older than 50 years and represents a significant historic or engineering achievement. In this case, appropriate mitigation would be developed in consultation with the SHPO [State Historic Preservation Officer]. Even for buildings that are less than 50 years old, the processes and engineering that were employed may be of interest and may be eligible for the Historic American Engineering Record.

The Decommissioning GEIS provides a generic environmental impact conclusion of SMALL, accounting for mitigation having already been developed with the SHPO (Decommissioning GEIS Section 4.3.14.2 - "In this case, appropriate mitigation would be developed in consultation with the SHPO"). TMI-2 Solutions notes in the TMI-2 PSDAR, Revision 5, that the TMI-2 Historic Survey Form for the TMI-2 district is being revised and that the Cultural Resources Protection Plan should be completed by December 31, 2022 (PSDAR, Revision 5, List of Regulatory Commitments). TMI-2 Solutions also discusses in the PSDAR coordination with the SHPO "to determine which documents, models, and artifacts should be preserved and turned over to state historic collections to ensure mitigation of impacts to the TMI-2 historic structures during decommissioning," thereby indicating this coordination is ongoing.

The Pennsylvania Historical and Museum Commission (PHMC), in its November 9, 2021 (ML22343A161), email related to the decommissioning of TMI-2, indicates that mitigation measures have not yet been defined. Correspondence from the Pennsylvania SHPO on September 12<sup>th</sup>, September 16<sup>th</sup>, and November 17, 2022 (ML22343A148, ML22343A149, and ML22343A141, respectively), indicate discussions with TMI-2 Solutions regarding the area of potential effects (APE) and the evaluation of resources are ongoing. It should be noted that the NRC has not initiated a Section 106 consultation under NHPA at this time and has not defined the APE for Three Mile Island Nuclear Station, Unit 2.

**TMI-2 Solutions Background Information:**

TMI-2 Solutions is the licensee over TMI-2, and the scope of the responses in these RAIs is limited to the TMI-2 owned and controlled parcels shown in Attachment 1. TMI-2 Solutions does not own the land on Three Mile Island and is therefore subject to restrictions regarding land-disturbing activities by the landowner.

**NRC Questions**

- a) **Explain how potential impacts to historic properties from activities associated with Phases 1a, 1b, and 2 of the decommissioning of the TMI-2 facility have been considered, including impacts from the dismantlement and demolition of structures.**

**TMI-2 Solutions RAI ENV-1a Response:**

Potential impacts – those that meet the criteria of adverse effect as described in 36 CFR 800.5(a)(1) – from activities associated with Phase 1a (Preparation for Decommissioning) have been considered as part of ongoing discussions with SHPO since TMI-2 Solutions requested input from SHPO in a letter dated September 24, 2020 (ML21084A229, Attachment 4) regarding concerns for TMI-2 historic and cultural resources. Mitigation measures that have been considered and performed thus far are described in the RAI ENV-1d response.

Potential impacts (adverse effects) from activities associated with Phase 1b (Fuel Bearing Material Recovery and Source Term Reduction) and Phase 2 (Decommissioning and Dismantlement) to historic properties, as defined in 36 CFR 800.16(l)(1), will be considered through the TMI-2 Cultural Resources Protection Plan and associated environmental implementing procedure(s). The Cultural Resources Protection Plan requires reviews of major decommissioning activities, as defined in 10 CFR 50.2, prior to their execution to ensure that the activities as planned will not cause an adverse effect that diminishes the historical integrity of the TMI-2 owned and controlled buildings or historic resources (e.g., TMI-2 Main Control Room) until applicable historic and cultural reviews are complete. The Cultural Resources Protection Plan and associated environmental implementing procedure(s) will be made effective as part of implementation of the LAR currently under review, once approved.

Demolition of some of the TMI-2 owned and controlled structures or historic resources may have the potential to diminish the integrity of the historic property. Therefore, TMI-2 Solutions proposes the following License Condition to limit the scope of major decommissioning activities that will be allowed under this LAR:

TMI-2 Solutions, the licensee for TMI-2, will not perform major decommissioning activities which would diminish the historic integrity of the TMI-2 owned and controlled buildings until the applicable historic and cultural reviews are completed by the Nuclear Regulatory Commission.

- b) **Explain how the potential impacts to historic and cultural resources from activities associated with Phases 1a, 1b, and 2 of decommissioning are bounded by the Decommissioning GEIS, or by any other document such as the Final Programmatic Environmental Impact Statement (PEIS) related to the decommissioning and disposal of radioactive wastes resulting from the March 28, 1979, accident at Three Mile Island Nuclear Station, Unit 2 (NUREG-0683).**

**TMI-2 Solutions RAI ENV-1b Response:**

Potential environmental impacts from activities associated with Phases 1a and 1b of decommissioning are bounded by the PEIS and its supplements. The NRC concluded in their review of the TMI-2 Post Shutdown Decommissioning Activities Report (PSDAR) prepared by GPU Nuclear (ML13190A366) that potential environmental impacts associated with TMI-2 decommissioning activities are bounded by the PEIS since the decommissioning activities are similar to the activities previously conducted to bring the TMI-2 facility to its current PDMS state following the accident (ML13266A285).

The Decommissioning GEIS (NUREG-0586, Supplement 1) states that "impacts to cultural, historical, or archaeological resources are considered detectable if the activity has a potential to have a discernable adverse effect on the resources. The impacts are destabilizing if the activity would degrade the resource to the point that it would be of significantly reduced value to the future generations, such as physically damaging structures or artifacts or destroying the physical context of the resource in its environment" (pg. 4-67). Demolition of some of the TMI-2 owned and controlled structures or historic resources may have the potential to have a discernable adverse effect on the resources. Therefore, TMI-2 Solutions proposes the following License Condition to limit the scope of major decommissioning activities that will be allowed under this LAR:

TMI-2 Solutions, the licensee for TMI-2, will not perform major decommissioning activities which would diminish the historic integrity of the TMI-2 owned and controlled buildings until the applicable historic and cultural reviews are completed by the Nuclear Regulatory Commission.

- c) **Provide the status and availability of the Cultural Resources Protection Plan.**

**TMI-2 Solutions RAI ENV-1c Response:**

The TMI-2 Cultural Resources Protection Plan has been developed and approved by the TMI-2 Project Operations Review Committee. The associated environmental implementing procedure(s) are being developed.

- d) Describe any mitigation being considered and what mitigation has already been performed to preserve the historic aspects of the TMI-2 facility.

**TMI-2 Solutions RAI ENV-1d Response:**

TMI-2 Solutions has been proactive in considering and performing mitigation actions to preserve the historic aspects of the TMI-2 facility.

Examples of mitigation measures considered thus far include:

- Coordination with the SHPO on a plan to salvage and transfer the TMI-2 Main Control Room panels to the State Museum (ML22343A161)
- Discussions regarding donation of the TMI-2 Reactor Building model to the Pennsylvania State Museum
- TMI-2 Solutions' development of a historic preservation training for TMI-2 project personnel planning and overseeing decommissioning activities
- Routinely generating documentation (e.g., photographs, videos) for the specific purpose of capturing the historic record of the TMI-2 decommissioning project as decommissioning activities are performed

Examples of mitigation measures performed thus far include:

- Donation of several hundred videotapes from the PDMS Library to the Pennsylvania State Archives under the Three Mile Island collection (Collection #MG-535, Series #MG-535-1)
- Formal agreement to transfer the rights and title to the TMI-2 Recovery and Decontamination Collection, which includes several thousand videotapes, reports, and photographs generated during the TMI-2 post-accident cleanup period donated by GPU Nuclear, to the Eberly Family Special Collections Library at The Pennsylvania State University following completion of decommissioning and license termination
- Proactive development of a Cultural Resources Protection Plan and environmental implementing procedure(s)
- Preparation of an updated Historic Resource Survey Form (HRSF) for TMI-2 (Key No. 156047) currently under review with the SHPO

TMI-2 Solutions recognizes the responsibility to ensure the historic record of the TMI-2 decommissioning project is captured. TMI-2 Solutions understands and has demonstrated the importance of a collaborative effort with stakeholders to ensure continued stewardship of TMI-2 historic and cultural resources as the decommissioning project progresses.

**RAI ENV-2 – Identification and Protection of Historic and Cultural Resources**

**Background**

In its LAR, TMI-2 Solutions describes the decommissioning approach in three Phases. The LAR states that Phase 2 "includes typical decommissioning and dismantlement activities for a power reactor." TMI-2 Solutions also states in the LAR that "during Phase 1b and Phase 2, major decommissioning activities as defined in 10 CFR 50.2 will be performed."

Additionally, TMI-2 Solutions indicates in Section 6.1.14 of the TMI-2 PSDAR, Revision 5, that TMI-2 Solutions anticipates decommissioning activities at TMI-2 will be confined to the operational

area, "except for the possible excavation of fill from onsite areas outside of the operational area to backfill the foundations of buildings and structures after demolition".

In addition to the NRHP-eligible TMI-2 structure, in Revision 5 of the TMI-2 PSDAR, TMI-2 Solutions describes one archaeological site within the TMI-1 and TMI-2 operational area, and six archaeological sites outside of the TMI-1 and TMI-2 operational area but within the property boundary, one of which was determined to be eligible for listing on the NRHP.

Backfill is anticipated to be sourced from onsite demolition activities, but if, during Phase 2, clean fill is needed it may be obtained from within or beyond the operational area. TMI-2 Solutions plans to develop an Archaeological Resources Monitoring Plan prior to excavation of backfill from onsite areas outside of the operational area to evaluate an area's archaeological sensitivity. In Revision 5 of the TMI-2 PSDAR, TMI-2 Solutions also states that "procedures will provide direction and contact information should an unanticipated cultural resource be encountered."

While formal consultation under NHPA has not yet been initiated, there has been communication between TMI-2 Solutions and the Pennsylvania SHPO, as TMI-2 Solutions indicated in the TMI-2 PSDAR, Revision 5. A SHPO letter dated September 12, 2022, states that "the historically associated property is ALL of TMI [Three Mile Island]," not only TMI-2. A subsequent SHPO letter dated November 17, 2022, states that "while we understand that this project is limited to TMI-2, it is necessary to assess the property in its entirety due to potential effects." The SHPO also sent a letter on December 7, 2022 ([ML22343A150](#)) to the Three Mile Island Nuclear Station, Unit 1 (TMI-1) Site Decommissioning Director stating the need to "fully assess and evaluate the potential significance of the property in its entirety."

#### **NRC Questions**

- a) Describe the status of efforts to identify historic and cultural resources (e.g., architectural [i.e., aboveground] and archaeological) at TMI-2, and on Three Mile Island property more broadly (including TMI-1 and TMI-2), if any. Provide any associated documentation regarding such discussions as a supplement to the RAI response.**

##### **TMI-2 Solutions RAI ENV-2a Response**

TMI-2 Solutions is the licensee over TMI-2, and the scope of the responses in these RAIs is limited to the TMI-2 owned and controlled parcels shown in Attachment 1. TMI-2 Solutions does not own the land on Three Mile Island and is therefore subject to restrictions regarding land-disturbing activities by the landowner.

Efforts to identify historic and cultural resources (e.g., architectural [i.e., aboveground] and archaeological) at TMI-2 are ongoing. TMI-2 Solutions has proactively revised the HRSF for TMI-2 (Key No. 156047) which is currently undergoing review by the SHPO. TMI-2 Solutions has made a one-time Regulatory Commitment to submit a copy of the updated TMI-2 HRSF to the NRC under separate cover when accepted by the SHPO.

- b) Considering the Three Mile Island property more broadly (including TMI-1 and TMI-2), explain how impacts of activities associated with decommissioning Phases 1a, 1b, and 2 at TMI-2 on historic and cultural resources, including any impacts from decommissioning at TMI-2 on historic properties identified at TMI-1, have been considered, including the impacts from major decommissioning activities as defined in 10 CFR 50.2**



**TMI-2 Solutions RAI ENV-2b Response:**

TMI-2 Solutions is the licensee over TMI-2, and the scope of the responses in these RAIs is limited to the TMI-2 owned and controlled parcels shown in Attachment 1. Considering the Three Mile Island property more broadly, TMI-2 Solutions is not aware of any historic properties, as defined in 36 CFR 800.16(l)(1), other than those shown in Attachment 2. Therefore, TMI-2 Solutions cannot evaluate potential impacts from decommissioning TMI-2, including the impacts from major decommissioning activities as defined in 10 CFR 50.2, on such historic properties, if they exist.

- c) **Considering the Three Mile Island property more broadly (including TMI-1 and TMI-2), explain how impacts of activities associated with decommissioning Phases 1a, 1b, and 2 at TMI-2 on historic and cultural resources, including any impacts from decommissioning at TMI-2 on historic properties identified at TMI-1, are bounded by the Decommissioning GEIS, or any other environmental review document, such as the PEIS.**

**TMI-2 Solutions RAI ENV-2c Response:**

TMI-2 Solutions is the licensee over TMI-2, and the scope of the responses in these RAIs is limited to the TMI-2 owned and controlled parcels shown in Attachment 1. Considering the Three Mile Island property more broadly, TMI-2 Solutions is not aware of any historic properties, as defined in 36 CFR 800.16(l)(1), other than those shown in Attachment 2. Therefore, TMI-2 Solutions cannot evaluate if potential environmental impacts from decommissioning TMI-2 on historic properties considering the Three Mile Island property more broadly are bounded by the Decommissioning GEIS, or any other environmental review document, such as the PEIS, if they exist.

- d) **Describe any mitigation being considered or developed to resolve impacts from activities associated with Phases 1a, 1b, and 2 of decommissioning at TMI-2 to historic and cultural resources at TMI-1 or TMI-2.**

**TMI-2 Solutions RAI ENV-2d Response:**

TMI-2 Solutions is the licensee over TMI-2, and the scope of the responses in these RAIs is limited to the TMI-2 owned and controlled parcels shown in Attachment 1. For TMI-2, mitigation measures considered or performed thus far are described in the RAI ENV-1d response.

- e) **Provide the status and availability of the Archaeological Resources Monitoring Plan.**

**TMI-2 Solutions RAI ENV-2e Response:**

The Archaeological Resources Monitoring Plan has not yet been developed and remains a planned activity as described in the PSDAR.

- f) **Please clarify whether ground disturbing activities during each of the activities associated with Phases 1a, 1b, and 2 of decommissioning at TMI-2 will avoid areas identified as having high archaeological sensitivity.**

**TMI-2 Solutions RAI ENV-2f Response:**

Ground-disturbing activities are not planned to be conducted outside the operational area for activities associated with Phases 1a, 1b or 2. TMI-2 plans to avoid the archaeological areas as recommended by the SHPO in the letter dated October 26, 2020 (ML21084A229, Attachment 4). The TMI-2 Cultural Resource Protection Plan and environmental implementing procedure(s) require review of ground-disturbing activities to determine if SHPO consultation is needed and if any special protection measures should be implemented prior to their execution.

**RAI ENV- 3 - Decommissioning and Dismantling****Background**

In its LAR, TMI-2 Solutions describes the decommissioning approach in three Phases. The LAR states that Phase 2 "includes typical decommissioning and dismantlement activities for a power reactor." TMI-2 Solutions also states in the LAR that "during Phase 1b and Phase 2, major decommissioning activities as defined in 10 CFR 50.2 will be performed." Additionally, TMI-2 Solutions describes in Section 3.2 of the TMI-2 PSDAR, Revision 5, that "major decommissioning activities" will occur in Phase 1b and Phase 2, including "demolishing plant structures to nominally three feet below grade."

According to 10 CFR 50.2:

Major decommissioning activity means, for a nuclear power reactor facility, any activity that results in permanent removal of major radioactive components, permanently modifies the structure of the containment, or results in dismantling components for shipment containing greater than class C waste in accordance with § 61.55 of this chapter.

**NRC Question**

- a) Explain how this LAR and the major decommissioning activities planned in Phases 1a, 1b, and 2 of decommissioning at TMI-2, as described in the LAR and PSDAR, including dismantlement and demolition of plant structures, will be conducted to avoid prohibited activities under 10 CFR 50.82(a)(6)(ii), which states:

Licensees shall not perform any decommissioning activities, as defined in § 50.2, that... Result in significant environmental impacts not previously reviewed.

In other words, specifically explain how this LAR and activities related to each of Phases 1a, 1b, and 2 of decommissioning at TMI-2 will not impact the NRHP-eligible TMI-2 structure and the archaeological sites described in the TMI-2 PSDAR, Revision 5, and any mitigation measures being considered or developed.

**TMI-2 Solutions RAI ENV-3a Response:**

Considering the unique consequences of the historic event that occurred at TMI-2, the removal and remediation of contaminated, radioactive mechanical systems and components was and remains imperative to protection of public health and safety and maintaining environmental welfare. The LAR currently under review, upon approval, will revise the TMI-2 possession-only license and the associated Technical Specifications to support the transition of TMI-2 from a PDMS condition to that of a facility undergoing radiological decommissioning pursuant to 10

CFR 50.82(a)(7). As described in the LAR and the PSDAR, no major decommissioning activities will occur during Phase 1a. Mitigation measures being considered or developed are described in the RAI ENV-1d response.

For the reasons outlined in RAI ENV-1 and ENV-2, TMI-2 Solutions proposes the following License Condition to limit the scope of major decommissioning activities that will be allowed under this LAR:

TMI-2 Solutions, the licensee for TMI-2, will not perform major decommissioning activities which would diminish the historic integrity of the TMI-2 owned and controlled buildings until the applicable historic and cultural reviews are completed by the Nuclear Regulatory Commission.

The following definitions and explanation are intended to contextualize the license condition as proposed.

**Definitions:**

“Major decommissioning activities” is in accordance with the 10 CFR 50.2 definition as follows: any activity that results in permanent removal of major radioactive components, permanently modifies the structure of the containment, or results in dismantling components for shipment containing greater than class C waste in accordance with § 61.55 of this chapter.

“Historic integrity” means the unimpaired ability of a property to convey its historical significance.

“Historically significant” or “historical significance” applies to a property that has been shown to meet one or more of the four Criteria for Evaluation of the National Register of Historic Places.

“Historic resource” means a building, site, district, object, or structure evaluated as historically significant.

“Property” means the subset of TMI-2 owned and controlled parcels shown in Attachment 1, that are also highlighted in Attachment 2.

**Explanation:**

An adverse effect is found when an undertaking<sup>1</sup> may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the property’s integrity (36 CFR 800.5(a)(1)). Integrity is the ability of a property to convey its significance and is evaluated through seven aspects: location, setting, feeling, association, workmanship, materials,

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<sup>1</sup> 36 CFR 800.16(y): Undertaking means a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of a Federal agency; those carried out with Federal financial assistance; and those requiring a Federal permit, license or approval.

and design (National Register Bulletin, How to Apply the National Register Criteria for Evaluation Part VIII; 36 CFR 800.5(a)(1)). It is not necessary for a property to retain all its historic physical features or characteristics; however, the property must retain the essential physical features that enable it to convey its historic identity. The 2010 HRSF for the TMI-2 Historic District (ML21084A229, Attachment 4) concluded that the TMI-2 property "...retains integrity, for it has been in non-operating status since the accident. While between 1985 and 1990 an extensive program to defuel the reactor vessel and decontaminate the facility occurred...and the unit was placed in post-defueling monitored storage... no significant dismantlement has occurred."

As stated above, the removal and remediation of contaminated, radioactive mechanical systems and components was and remains imperative to protection of public health and safety and maintaining environmental welfare. Under most circumstances, alteration of a property, including hazardous material remediation that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines, would function to degrade a historic property's overall integrity. However, considering the unique consequences of the historic event that occurred at TMI-2, the extant character-defining features of the TMI-2 owned and controlled buildings are sufficient to convey historical integrity. As stated in the 2010 HRSF (ML21084A229, Attachment 4), "while the removal of the equipment that was the 'heart' of the unit has been removed in part due to contamination and requirements of 'monitored storage,' it is still possible to get a sense of the overall feeling and association of a nuclear power plant."

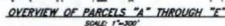
TMI-2 Solutions is planning to perform physical modifications to structures to support source term reduction activities. The TMI-2 Cultural Resources Protection Plan and associated environmental implementing procedure(s) outline the guidance and requirements for reviewing such major decommissioning activities prior to their execution to ensure that the activity as planned would not diminish the integrity of the TMI-2 owned and controlled historic resources. The Cultural Resources Protection Plan and associated environmental implementing procedure(s) will be made effective as part of implementation of the LAR currently under review, once approved.

**ATTACHMENT 1 to TMI2-RA-COR-2023-0001**

Request for Additional Information Regarding Historic and Cultural Resources

Boundary survey map depicting the TMI-2 owned and controlled parcels on Three Mile Island

LONDONDERRY TOWNSHIP, DAUPHIN COUNTY, PENNSYLVANIA



SWEET & CONTENTS

PARCEL	DEED BOOK	PAGE	EXCEPTION #
34	3079	155-156	1

I Herely Certify that this is an accurate map prepared under my direction, from an actual field survey.

*(Signature)* \_\_\_\_\_ Date \_\_\_\_\_

			SCALE: 1"=300'
			DATE: APR 22, 2020

THREE MILE ISLAND

IN  
LONGMONT TOWNSHIP, DAKELM COUNTY, BOUND 1884

2-21-1964 HQ 68-546

**ATTACHMENT 2 to TMI2-RA-COR-2023-0001**

Request for Additional Information Regarding Historic and Cultural Resources

Map of the TMI-2 Historic District above-ground resource from the Pennsylvania Historic & Archaeological Resource Exchange (PA-SHARE)



