

TMI-2 CAP Meeting

Date: May 9, 2023

Time: 6:00pm – 7:30pm

**Location: Virtual via Microsoft Teams, accessible
through**

www.tmi2solutions.com

Dial In: +1 385-500-4880

With Conference ID 500079013#

Welcome & Attendance

Steve Letavic

Chairperson, TMI-2 Community Advisory Panel



Agenda

- Decommissioning Status Update
- Regulatory Update
- Oversight Comments
 - Decommissioning Nuclear Safety Review Board (DNSRB)
 - PADEP Bureau of Radiation Protection
 - Nuclear Regulatory Commission
- CAP Business & Open Discussion
- Community Q&A

Decommissioning Status Update

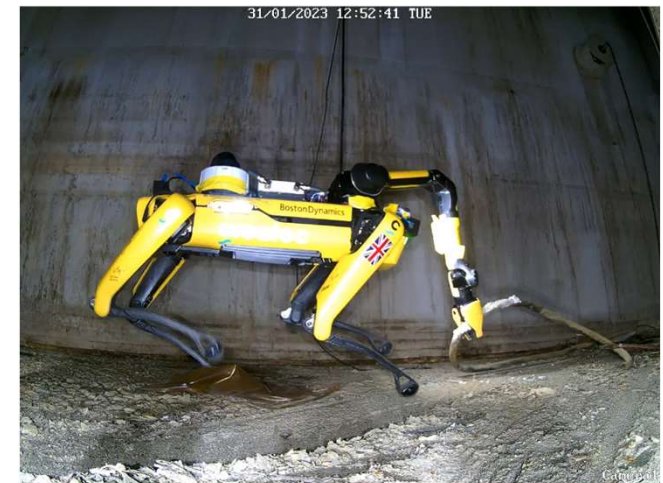
David Del Vecchio
TMI-2 Project Director



TMI-2 Project Update

- Project activities since last CAP meeting:
 - Continued D&D preparations
 - TMI-2 Reactor Building robotic surveys
 - Working closely with TMI-1 on site-wide environmental and monitoring programs and Emergency Plan implementation
 - Started modifications to CACE and Equipment Hatch
- Transitioned from PDMS to active decommissioning (DECON)
 - TMI-2 has been in PDMS since 1993
 - DECON - A phase of nuclear reactor decommissioning in which structures, systems and components that contain radioactive contamination are removed from a site and safely disposed of at a commercially operated low-level waste disposal facility or decontaminated to a level that permits the site to be released for unrestricted use
 - Public statement linked [here](#)


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Decommissioning Project Overview

- **Phase 1 – Planning, Engineering, Remediation**
 - Phase 1a – Preparation for Decommissioning
 - **Phase 1b – Fuel Bearing Material Recovery and Source Term Reduction (2023 - 2029)**
- Phase 2 – Typical Decommissioning and Dismantlement, Site Remediation, License Termination
- Phase 3 – Fuel Bearing Material Management

Phase 1b – Source Term Reduction

- Quantity of fuel remaining at TMI-2 is a small fraction of the initial fuel load --
 - ~99% of the damaged fuel was removed and transferred to the Department of Energy during the post-accident defueling and decontamination activities
- Phase 1b activities include:
 - Decommissioning Support Building (DSB) Construction
 - Independent Spent Fuel Storage Installation (ISFSI) Construction
 - Dose reduction and decontamination of locked High Radiation Areas
 - Packaging and transportation of Low-Level Radioactive Waste


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Phase 1b Timeline

Description	Start	End
Planning, Engineering, Regulatory	12/2020	11/2024
Phase 1 Long Lead Procurement	1/2021	3/2025
Infrastructure Upgrades & Modifications	1/2022	6/2025
Surveys, Shielding and Contamination Control	6/2022	12/2023
Rad Building Source Term Reduction	1/2023	9/2028
Waste Packaging, Transport & Disposal	6/2023	3/2029
Reactor Vessel Source Term Reduction	1/2025	3/2027
Large Component Source Term Reduction	6/2025	6/2027
Phase 1 Source Term Reduction Complete	9/2028	9/2028
Phase 1 Complete*	6/2029	6/2029

*Reduction of radiological conditions at TMI-2 to levels that are generally consistent with a plant at the end of its operational life



Information from Table 5-1 of the TMI-2 Post-Shutdown Decommissioning Activities Report

Accession # ML20013E535 PSDAR linked [here](#)

Near-Term Decommissioning Work

- Equipment Hatch – removal of hatch and enlarge opening for transfer of the waste containers
- Source term reduction in the TMI-2 Reactor Building:
 - Removal of legacy furniture/miscellaneous items
 - Core Flood Tank B segmentation and removal
 - Reactor Building Coolers



Radiation Monitoring

- Radiation monitors will be maintained to evaluate airborne radiological conditions
- Monitors provide necessary information to evaluate environmental and air quality conditions of the plant
- Radiological Environmental Monitoring Program (REMP)
 - Conducted in the vicinity of the TMI site
 - Verifies that levels of radiation are not higher than normal background based on effluent measurements and models of the environmental exposure pathways

Waste Planning for DECON

- Major part of decommissioning will be the packaging, transportation, and ultimate disposal of contaminated equipment, piping, concrete, and soil.
- Waste will be transported largely by railroad in standard and specialty bulk packages
- TMI-2 Waste Management Plan ([ML21085A692](#))


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Waste Planning for DECON cont.



- Interim Waste Storage Facility (IWSF)
 - In-plant interim storage area that will contain concrete storage containers and liners
 - Located on the Turbine Deck
- Independent Spent Fuel Storage Installation (ISFSI)
 - Area for storage of recovered Fuel Bearing Material until DOE takes possession of material
 - Will be located next to TMI-1 ISFSI

Regulatory Update

Jim Byrne & Hannah Pell
Regulatory Affairs, TMI-2





Overview

- PDMS to DECON License Amendment Request (LAR) Status
- Emergency Plan Status
- TMI-2 Historic/Cultural Resources
- NRC Inspection Status
- Routine Licensing Submittals

PDMS to DECON License Amendment Request (LAR)


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- DECON LAR was approved 31 March 2023 ([ML23051A043](#))
- NRC Safety Evaluation ([ML23051A044](#))
- Transition from PDMS to active decommissioning (DECON) with approval of the LAR and implementation of its requirements
- Criticality Exemption ([ML23026A233](#))
 - Environmental Assessment/Finding of No Significant Impact ([ML23026A348](#))



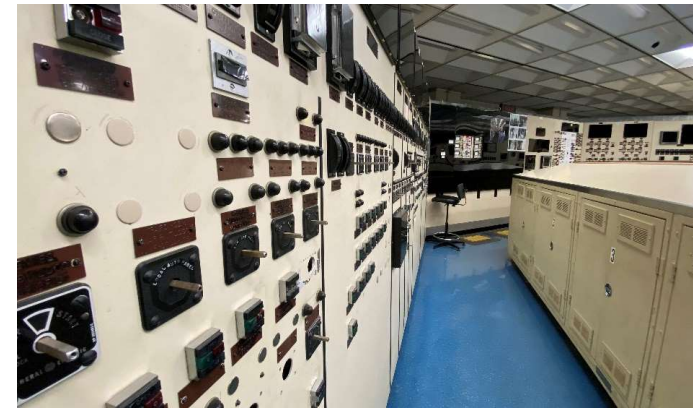
Emergency Plan

- TMI Emergency Plan
 - Site-wide plan applies to both TMI-1 and TMI-2
 - Previously reflected TMI-1 shutdown and all spent fuel in the Independent Spent Fuel Storage Facility and TMI-2 in PDMS
 - Revised Plan approved on May 2, 2023 reflects TMI-2 in active decommissioning (DECON)
 - Changed based on analysis which concluded that no potential incident at TMI-2 would result in an offsite release exceeding the threshold for an Emergency Action Level

TMI-2 Historic & Cultural Resources

- TMI-2 submitted a LAR on 22 February 2023 ([ML23058A064](#))
 - Requested NRC review of decommissioning activities which would impact the TMI-2 buildings previously deemed eligible for the National Register of Historic Places
 - Submitted in anticipation of the eventual and necessary demolition of the facility following Phase 1b source term reduction efforts
- NRC initiated acceptance review of the LAR on 31 March 2023 ([ML23062A737](#))
 - Review will include consultation under Section 106 of the National Historic Preservation Act (NHPA)
- TMI-2 submitted response to the Request for Additional information to support Environmental Assessment on 1 May 2023


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NRC Inspection Status

- NRC Inspection Activities – No issues of concern.
 - January 30 – February 2, 2023
 - Radiation Protection Program → NRC provided suggestions for improvement, captured in the Corrective Action Program and addressed
 - March 20 – 23, 2023
 - Engineering Evaluations/Work Packages
 - Inspection Report linked here: [ML23100A057](#)
 - NRC will be performing quarterly inspections – typical for sites in active decommissioning
- NRC Environmental Staff – TMI-2 Tour April 20, 2023
 - Walkdown of non-radiological TMI-2 historic buildings

Routine Licensing Submittals

Submittal	Date	Requirement(s)	Description	Accession # / Link
Decommissioning Trust Fund Report	3/30/2023	10 CFR 50.75 10 CFR 50.82	Annual report on status of decommissioning funding	ML23094A116
Annual Occupational Radiation Exposure Report (2022)	4/10/2023	10 CFR 20.2206(c)	Results of TMI-2 individual radiation monitoring for 2022	ML23102A038
Annual Property Insurance Notification	3/29/2023	10 CFR 50.54(w)	Report current levels and sources of property insurance	ML23090A169
Annual Radiological Environmental Operating Report (TMI-1 Submittal)	4/18/2023	Technical Specifications	Annual report on results of the Radiological Environmental Monitoring Program	ML23108A082
Annual Radiological Effluent Release Report (TMI-1 Submittal)	4/18/2023	Technical Specifications	Summaries of radioactive liquid and gaseous effluents released from site; solid waste shipped offsite	ML23108A080

Receive Links for Public Documents for TMI-2 via Email

- Go to www.nrc.gov
- Select **Public Meetings and Involvement**
- Select **Subscribe to Email Updates**
- Scroll down to **Lyris Subscription Services**
 - Click the link to the **Decommissioning and Uranium Recovery Correspondence page**
- Add your name and email address and select **Three Mile Island Station, Unit 2 - 5000320 (Middletown, PA)**
 - As items are put on the docket, you will get an email notification


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Also, see the following **additional lists not on this page**:

- To subscribe to all outgoing public correspondence on operating reactors, see our [Operating Reactor Correspondence](#) page.
- To subscribe to all outgoing public correspondence on Decommissioning and Uranium Recovery, see [Decommissioning and Uranium Recovery Correspondence](#) page.

 [Three Mile Island Station, Unit 2 – 5000320 \(Middletown, PA\)](#)

Oversight Comments

Decommissioning Nuclear Safety Review Board
PADEP Bureau of Radiation Protection
Nuclear Regulatory Commission



CAP Business & Open Discussion

Steve Letavic

Chairman, TMI-2 Community Advisory Panel



Summary – NRC Best Practices

- **Charter Development**
- **Local Preferences for Engagement**
 - Panel should reflect the concerns and level of engagement of each community.
- **Membership Composition**
 - Panel should reflect the community surrounding the nuclear facility and include adequate consideration of demographics and a variety of technical expertise.
- **Licensee Participation**
 - Licensee participation such as providing site tours, conducting open houses, providing technical expertise, and communicating ongoing and planned activities is important to a fully-functioning community panel.
- **Meeting Frequency**
- **Public Engagement**
 - Other opportunities for engagement – websites, newsletters, annual reports.
- **Community Panel Use of Experts and Training**
- **Topics to be Brought Before the CAB**
 - Decontamination and dismantlement; NRC regulatory filings; NRC inspections; radiation monitoring; storage and disposal of waste; dry cask storage issues; environmental impacts


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BEST PRACTICES FOR ESTABLISHMENT AND OPERATION OF
LOCAL COMMUNITY ADVISORY BOARDS ASSOCIATED WITH
DECOMMISSIONING ACTIVITIES AT NUCLEAR POWER PLANTS

A Report for the Senate Committee on Environment and Public Works
and the House Committee on Energy and Commerce



By the U. S. Nuclear Regulatory Commission

Enclosure

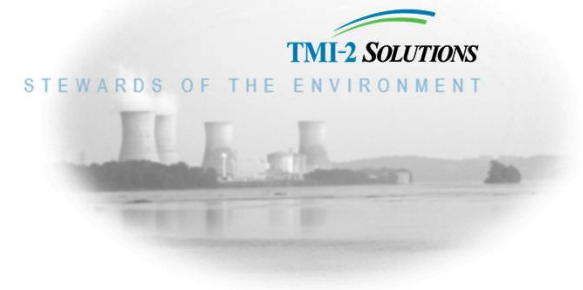
NRC Best Practices – Charter Development

- Issues addressed in a typical Community Advisory Board (CAB) Charter:
 - Purpose of the CAB
 - Selection of members
 - Operation -> logistics, budget, communications, record requirements
 - Procedure for meetings / voting
 - Requirements for licensee, community, and other stakeholder interactions and engagement
- Important consideration → life cycle of the CAB as the site goes through the decommissioning process (e.g., when funding will end, how a CAB's operations will evolve based on site conditions and community needs)
- Mechanism to periodically review and revise the CAB charter



CAP Charter – Proposed Revisions

- Added Record of Revisions.
- Appointment of new members responsibility updated to TMI-2 CAP Chairperson.
- Revised new member nomination process.
- Replaced TMI-2 Solutions Community Relations Associate/Manager duties with a locally based “TMI-2 Solutions CAP Representative.”
- Updated Purpose section to emphasize independence of the CAP.
- Updated guidelines with requirement that all meetings will include a virtual option and TMI-2 Solutions will provide funding for any necessary logistics.
- Reference section added for NRC Best Practice report.
- Standing agenda item for external oversight and regulatory agency participation.
- Updated “CAP Initial Term” to “CAP Evaluation” to include annual reviews of the Charter.
- Various editorial changes.



Next CAP Meetings

- Thursday, September 7, 2023 – 6pm-730pm (Hybrid)
- Thursday, January 11, 2024 – 6pm-730pm (Hybrid)
- All CAP meetings will continue to be virtually accessible

Community Q&A

Please contact Hannah Pell at hepell@energysolutions.com
with any additional questions or requests for information.

