

# TMI-2 CAP Meeting

**Date: September 12, 2024**

**Time: 6:00pm – 7:30pm**

## **Meeting Access**

**Virtual: Microsoft Teams through**

**[www.tmi2solutions.com](http://www.tmi2solutions.com)**

**Dial In: +1 385-500-4880**

**With Conference ID 377086967#**

**In-Person: Penn State Harrisburg**

**Madlyn L. Hanes Library, Morrison Gallery,  
351 Olmsted Drive, Middletown, PA 17057**

# Welcome & Attendance

**David Allard**  
Chairperson,  
TMI-2 Community Advisory Panel



## Agenda

- CAP Role Call
- Approval of Agenda
- Introduction of CAP and Members
- Decommissioning Status Update
- Regulatory Update
- TMI Environmental Monitoring Program
- Oversight Comments
  - TMI-2 Decommissioning Nuclear Safety Review Board
  - PADEP Bureau of Radiation Protection
  - Nuclear Regulatory Commission
- CAP Business, Approval of Previous Minutes, and Open Discussion
- Community Q&A

# TMI-2 CAP Introduction



- **What is the TMI-2 Community Advisory Panel?**
  - A volunteer, non-regulatory body formed to enhance open communication, public involvement and education about the TMI-2 Nuclear Power Station decommissioning project.
  - Serves as a conduit for public information and as a formal channel of community involvement and communication related to the decommissioning project.
  - Provides community feedback to TMI-2Solutions including any issues or concerns related to TMI-2 decommissioning activities.
  - Includes a broad cross-section of members who are appointed by various community, business, and government organizations from around Three Mile Island.

# TMI-2 CAP Introduction

- Thank you Marie-Louise Abram (who recently retired from PSU) !
- Thank you Hannah Pell !
- Both have provided great service to the CAP
- Current Members:>

## Community Advisory Panel Board Members

Dave Allard Board Chair Local Medical Health Physicist	Amy Burrell Manager, Royalton Borough	Todd Camp Member Senior Director of Administration, Penn State University.
Joyce Corradi Member Concerned Mothers of Middletown	Tim Devik Member Licensing Manager, TMI-2 Solutions	Robert Gildea Superintendent of Schools Lower Dauphin School District
Richard Kluskiewicz Councilman, Middletown Borough.	Bart Shellenhamer Chief, Londonderry Volunteer Fire Co.	Scott Miller Communications & Marketing Manager Harrisburg International Airport
Jay Ostrich District Director, U.S. Congressman Scott Perry's office	Shen Kreiser Nuclear Planner York County	

# Introduction of the new Chairperson

- Medical Health Physicist
- Short Bio -



In July of 2022 Mr. Allard retired from his position as the Pennsylvania DEP's Director of the Bureau of Radiation Protection. He was responsible for the: accelerator, X-ray, environmental surveillance, nuclear safety, radiological emergency response, radioactive materials, radon, NORM/TENORM, decommissioning / site clean-up, and low-level radioactive waste programs within the Commonwealth. During his 23+ years with DEP, he has also served as acting Deputy Secretary for Waste, Air, Radiation & Remediation on two occasions. Mr. Allard continues in leadership roles within his professional organizations, and serves as a chairperson, member, expert or advisor on several national and international radiation protection committees. He has been involved in the various aspects of governmental, industrial, reactor, medical and academic radiation protection for over 47 years. And, has authored or coauthored numerous professional papers and reports, and frequently lectures on a wide variety of radiation protection topics and concerns.

# Introduction of the new Chairperson



- As Chair, I do not represent the organizations or official policies/positions of those noted below.



**Retired Director, of the PA DEP Bureau of Radiation Protection**



**Past Chairman and Commissioner of the interstate ASLLRWC**



**Fellow, Past Officer, and Emeritus Member of the HPS**



**Past Chairman, Board, and (now) Life Member of the CRCPD**

# TMI-2 Decommissioning Status Update

**Jason Norville**  
TMI-2 Operations Director

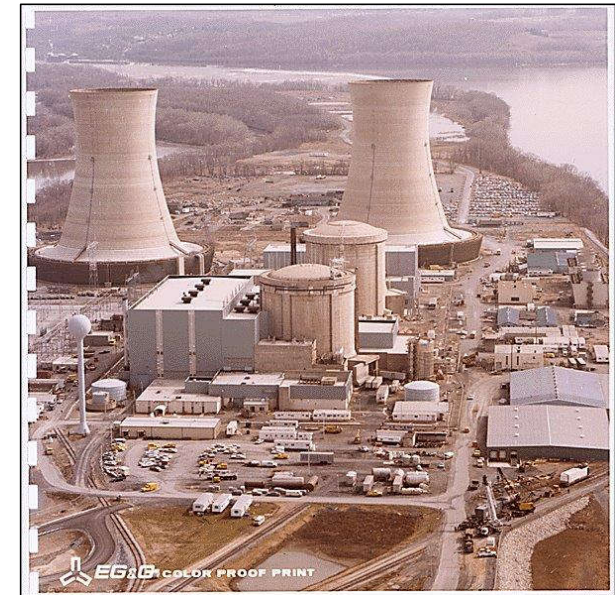




# TMI-2 Background

- **December 30, 1978:** TMI-2 commissioned, began producing power
- **March 28 – April 1, 1979:** Accident at TMI-2
  - [NRC Backgrounder on TMI-2 Accident](#)
- **1980 – 1993:** Defueling and Cleanup Efforts
  - ~99% of the damaged fuel was removed and transferred to the Department of Energy
  - [GPU Nuclear 1990 Defueling Completion Report](#)
- **December 1993:** TMI-2 placed in Post-Defueling Monitored Storage (PDMS) to allow residual radioactivity to decay
- **December 2020:** License and ownership transferred to TMI-2Solutions after nearly 30 years of monitored storage
- **May 2023:** Transition to DECON
  - **DECON** – The equipment, structures, and portions of the facility and site that contain radioactive contaminants are removed or decontaminated to a level that permits termination of the license after cessation of operations

  
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# TMI-2 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 Activities

## **Phase 1b activities include:**

- Decommissioning Support Building (DSB) Construction
- Removal, packaging, and storage of remaining Fuel Bearing Material
- Independent Spent Fuel Storage Installation (ISFSI) Construction for interim storage of remaining Fuel Bearing Material
- Dose reduction and decontamination of locked High Radiation Areas
- Packaging and transportation of Radioactive Waste (class A, B/C, and FBM)
- Decontamination of radioactive systems and components



# Phase 1b Schedule

- **PSDAR / Schedule**
  - Post-Shutdown Decommissioning Activities Report (PSDAR) requires a schedule for completing major decommissioning activities and project milestones
  - TMI-2 PSDAR Rev. 6, Submitted March 28, 2024: [ML24088A012](#)
- **TMI-2 has unique challenges...**
  - Source of remaining radiation at TMI-2 is distributed throughout the Reactor Building (RB) and portions of the Auxiliary and Fuel Handling buildings
  - Some activities may require re-sequencing based on new information acquired from characterization of areas in the RB that were previously inaccessible
- **TMI-2's preparations and planning includes...**
  - Performing mockups of plans/decommissioning activities,
  - Procuring and training on specialized tooling,
  - Continuing characterization efforts to ensure the most up-to-date and comprehensive radiological information is available, and
  - Assessing innovative technologies and chemical decontamination methods



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TMI-2 provided answers to NRC Request for Additional Information on the PSDAR Rev. 6 which updated the NRC with current information and plans.

# Decommissioning Activities

## Reactor Building Air Cooler Demolition

- Remove significant source term near Reactor Building entrance.
- Currently removing internal cooling coils

## Spent Fuel Pool Preparation

- Removed items in and around the Spent Fuel Pool A (SFP-A)
- Filling SFP-A to provide a resource for decontamination water and processing

## Radioactive Water Treatment

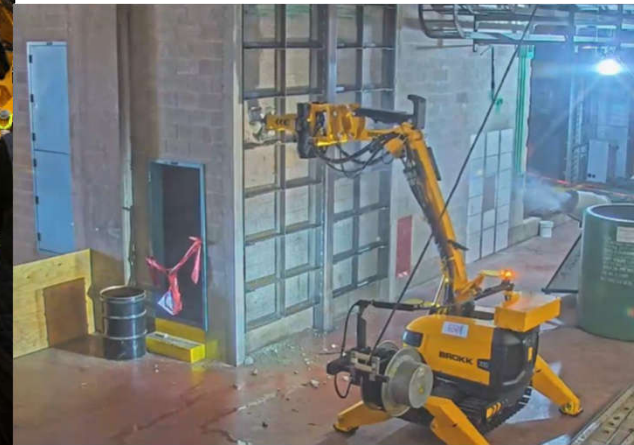
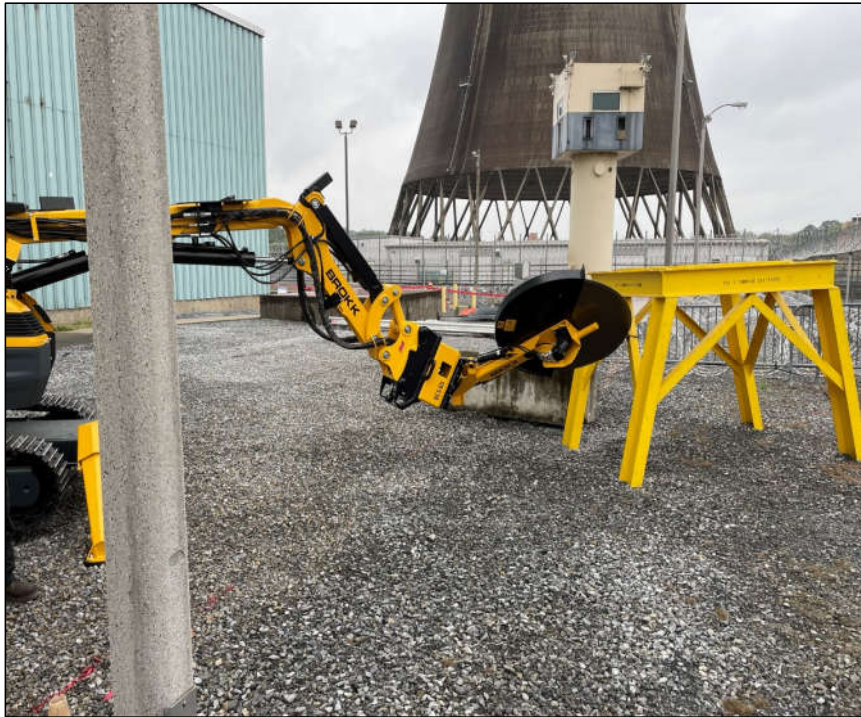
- Setting up water treatment pathways to use SFP-A and filtration unit to support decontamination of materials prior to shipment

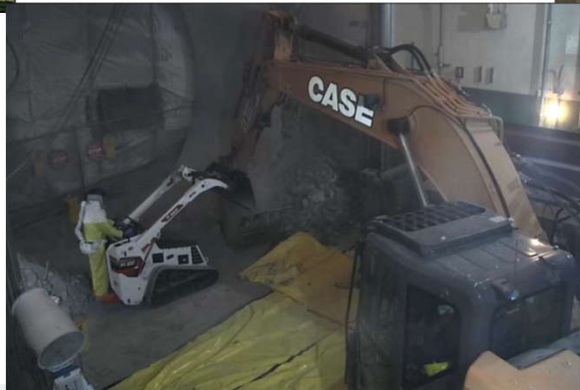
## Robotics, Instrumentation, Systems, & Tooling (RIST) Committee

- New Technologies
- Chemical Decontamination proof of concept
- Use of Robotics



## Decommissioning Work: Robotic Equipment and Training



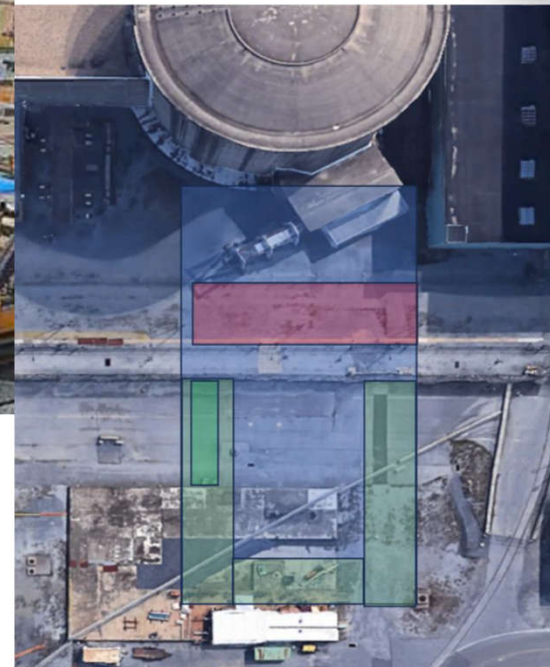


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## Decommissioning Work: Equipment Hatch Enlargement

# Decommissioning Work: Decommissioning Support Building (DSB)

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# Decommissioning Work: Vertical Concrete Cask Construction

  
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# Waste Planning and Shipments

- TMI-2 Independent Spent Fuel Storage Installation (ISFSI) Design and Preparations
  - ISFSI is at the beginning stages of construction. For more information about ISFSIs and storage of spent nuclear fuel: <https://www.nrc.gov/waste/spent-fuel-storage.html>
- Low-Level Radioactive Waste Shipments (Class A) to Clive facility
  - 22 shipments so far in 2024
  - 18 shipments remaining
- Expect Two (2) Class B shipments this year to Waste Control and Storage Specialists (WCS) in Texas

  
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*EnergySolutions' Waste Facility in Clive, Utah*



# Regulatory Update

Joe Lynch  
Regulatory Affairs Director, D&D



# **NRC Inspection Status**

- **Inspection Results for Q1 & Q2 2024**
  - Routine / Baseline decommissioning inspection
    - One minor violation (non-cited) for RP practices
    - Follow-up on Radiological Protection Technical Report Rigor
- **Inspection Activities for Q3 2024**
  - NRC Inspectors expected to be onsite at least two times
    - Met with new Radiation Protection Manager
    - Four (4) ISFSI Inspectors review of ISFSI area September 4<sup>th</sup>
      - Planning to witness concrete placement in late September
    - Next Baseline Inspection: September 23 - 26, 2024
      - Fire Protection Program and Radiological Practices



# Section 106 Process - Completed

- **What is Section 106?**
  - Review under National Historic Preservation Act that seeks to accommodate historic preservation concerns with the needs of Federal undertakings
  - Determines how adverse effects to historic properties can be mitigated through various preservation options (e.g., documentation, records, educational materials)
- **NRC and consulting parties finalized a Programmatic Agreement (PA)**
  - PA includes actions to preserve components (TMI-2 Main Control Room Panels and Reactor Building Model) as well as requirements for treatment of historical items that may be found during decommissioning.
  - This was part of the License Amendment Request for addressing Historical / Cultural reviews of activities.
  - LAR was approved by NRC in August of 2024

  
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# Licensing Activities Update



Licensing Area	Description of Activities	Accession #s / Links
<b>Section 106</b>	Programmatic Agreement Approved and License Amendment for Historical / Cultural Reviews approved.	<a href="#">ML24117A258</a>
<b>PSDAR</b>	TMI-2Solutions submitted an updated PSDAR (Revision 6) in March 2024, incorporating updated schedule and cost information.  NRC issued Request for Additional Information (RAIs) which were answered on 8/27/24, clarifying the information in the PSDAR.	<a href="#">ML24088A012</a>  <a href="#">ML24157A367</a> ML24242A220
<b>Security</b>	Exemption from implementing NRC Final Rule, “Enhanced Weapons, Firearms Background Checks, and Security Event Notifications,” <a href="#">88 FR 15864</a> granted.	<a href="#">ML24135A197</a>
<b>ISFSI</b>	NRC will be monitoring the construction of the ISFSI pad that will be used to store accident debris which must be transferred to U.S. DOE possession for shipment offsite.	

# Receive Links for Public Documents for TMI-2 via Email

- Go to [www.nrc.gov](http://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 \(Middletown, PA\)](#)

# TMI-2 Environmental Monitoring Program

Mark Cambra

TMI-2 Environmental Manager





# Environmental Monitoring Program

Constellation continues to maintain and administer the site-wide Permits & Programs:

- Offsite Dose Calculation Manual (ODCM)
- TMI Radiological Environmental Monitoring Program (REMP)
- Groundwater Protection Program including monitoring
- National Pollutant Discharge Elimination System (NPDES) Permit - Environmental Emergency Response Plan (EERP), Spill Prevention, Control, and Countermeasure Plan (SPCC), Stormwater Management Plan (which include Erosion and Sediment Control)



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# Environmental Monitoring Program

All task-specific permits (e.g., NPDES for Construction Activities, Building, Demolition, Air Permits) are acquired by TMI-2S/ESJ.

- Londonderry Township Building Permits:
  - Temporary Power Units
  - Decommissioning Support Building (DSB)
  - Others as required
- NPDES Stormwater Discharge General Permit for DSB and ISFSI Construction, which includes:
  - E&S Design Plans;
  - Installation and Maintenance of E&S Controls.
- Adherence to CEG's Spill Prevention, Control, and Countermeasure Plan (SPCC) with the installation and maintenance of secondary containment beneath appropriate equipment.

  
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# Oversight Comments

**Bill Ostendorff, Chairperson  
Decommissioning Nuclear Safety Review Board**

**Dwight Shearer, Director  
PADEP Bureau of Radiation Protection**

**Amy Snyder, Senior Project Manager  
Nuclear Regulatory Commission**



**TMI-2 SOLUTIONS**

The logo for TMI-2 SOLUTIONS features a stylized graphic of two curved lines, one blue and one green, arching over the text. The text "TMI-2" is in a bold, blue, sans-serif font, and "SOLUTIONS" is in a bold, black, serif font.

# CAP Business & Discussion

David Allard  
Chairperson,  
TMI-2 Community Advisory Panel

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**TMI-2** *SOLUTIONS*

# TMI-2 CAP Business



- TMI-2 CAP Membership
  - New Members
    - Todd Camp, Sr. Director of Administration, PSU Harrisburg
    - Robert Gildea, Superintendent of Schools, Lower Dauphin Sch. District
    - Timothy Devik, TMI-2S Licensing Manager, ES Representative
- January 18, 2024 CAP Meeting Minutes Approval
- Open Discussion and any Issues or Concerns from Members
- Next CAP Meeting
  - Solicit input from CAP Members

# Community Q&A

Please contact **Timothy Devik** at [trdevik@energysolutions.com](mailto:trdevik@energysolutions.com)  
with any additional questions or requests for information.

