

TMI-2 Community Advisory Panel (CAP) Virtual Meeting

Welcome	Steve Letavic, TMI-2 CAP Chairman
Introductions of CAP members	All CAP Members
Introduction of DNSRB members	Bill Ostendorff, DNSRB Chairman
Decommissioning Overview	TMI-2 Decommissioning Project Director
Regulatory Overview	Gerry Van Noordennen, SVP Regulatory Affairs
PADEP Oversight	Dave Allard, Director, PA Bureau of Radiation Protection
TMI-2 <i>Solutions</i> Website Overview	Ralph DeSantis, TMI-2 <i>Solutions</i> Communications
CAP Open Discussion	Steve Letavic TMI-2 CAP Chairman
Community Participation	Q&A



TMI-2 Community Advisory Panel

The TMI-2 CAP is a volunteer, non-regulatory body formed to enhance open communication, public involvement and education about the Three Mile Island Unit 2 Nuclear Power Station decommissioning project. It will serve as a conduit for public information and as a formal channel of community involvement and communication related to the decommissioning project.

Decommissioning Nuclear Safety Review Board (DNSRB)



**The Honorable
William C. Ostendorff**
Former NRC Commissioner,
Retired Navy Officer & Attorney



James P. Tarzia
Executive Director,
Radiation Safety
& Control Services, Inc.



Larry W. Camper
USNRC Retired
Executive Nuclear
Safety Consultant

TMI-2 Decommissioning Overview

Scott Baskett
TMI-2 Project Director



TMI-2 *SOLUTIONS*

Safety Conscious Work Environment

- The NRC's policy statement, "Freedom of Employees in the Nuclear Industry to Raise Safety Concerns Without Fear of Retaliation"
- **Safety Conscious Work Environment (SCWE)** is described as a **work environment** where **employees** are encouraged to **raise safety concerns** and where **concerns are promptly reviewed**, given the proper **priority** based on their potential **safety significance**, and appropriately **resolved** with **timely feedback** to the **originator** of the concerns and to **other employees** as appropriate
- **SCWE** is an **attribute of safety culture**.
- **TMI-2 Solutions** is **committed** to the NRC's standards of safety and alignment with *EnergySolutions'* **Safety First** policy.

EnergySolutions Overview

- Industry leader in nuclear decommissioning
 - Non-replicable assets critical to nuclear decommissioning
 - Best-in-class intellectual property and workforce
 - Three completed Reactor D&D projects: Zion, La Crosse, and SEFOR
 - Three active projects: SONGS, Ft. Calhoun and TMI-2
- Industry leader in nuclear waste management for operating plants
 - Integrated waste management packaging, transportation, processing, recycling and disposal services
 - Nuclear utility Life-of-Plant (LOP) contracts with 79 of 99 operating reactors in the U.S.
 - 30+ years of experience
- Industry leading D&D/WM competitive advantages
 - Largest Class A Low Level Radioactive Waste (LLRW) disposal site
 - Largest Class A/B/C LLRW processing facility
 - Largest LLRW packaging & logistics company
 - Over a decade of continuous Reactor Decommissioning project experience
 - Front to end D&D service model with complimentary partnerships

Company Overview

- ▶ Headquartered in Salt Lake City
- ▶ 1200 employees
- ▶ 2020E Revenue: \$440M

Company History

- ▶ 1988: Founded as Envirocare of Utah
- ▶ 2006: Renamed EnergySolutions
- ▶ 2010: Awarded Zion
- ▶ 2015: Awarded La Crosse
- ▶ 2016: Awarded SONGS
- ▶ 2016: Awarded SEFOR
- ▶ 2019: Awarded Ft Calhoun
- ▶ 2020: Acquired TMI-2

EnergySolutions D&D Project History & Fixed Facilities



D&D Knowledge & Lessons Learned

Successful methods and lessons learned are transferred from one site to the next

- Consulting for D&D Planning / Transitioning
- Decommissioning Cost Estimates
- Decommissioning and Dismantlement
- Spent Fuel Transfer
- Site Restoration
- All Regulatory Filings



Zion



La Crosse



SONGS



Ft. Calhoun



TMI-2

Energy Solutions D&D Video

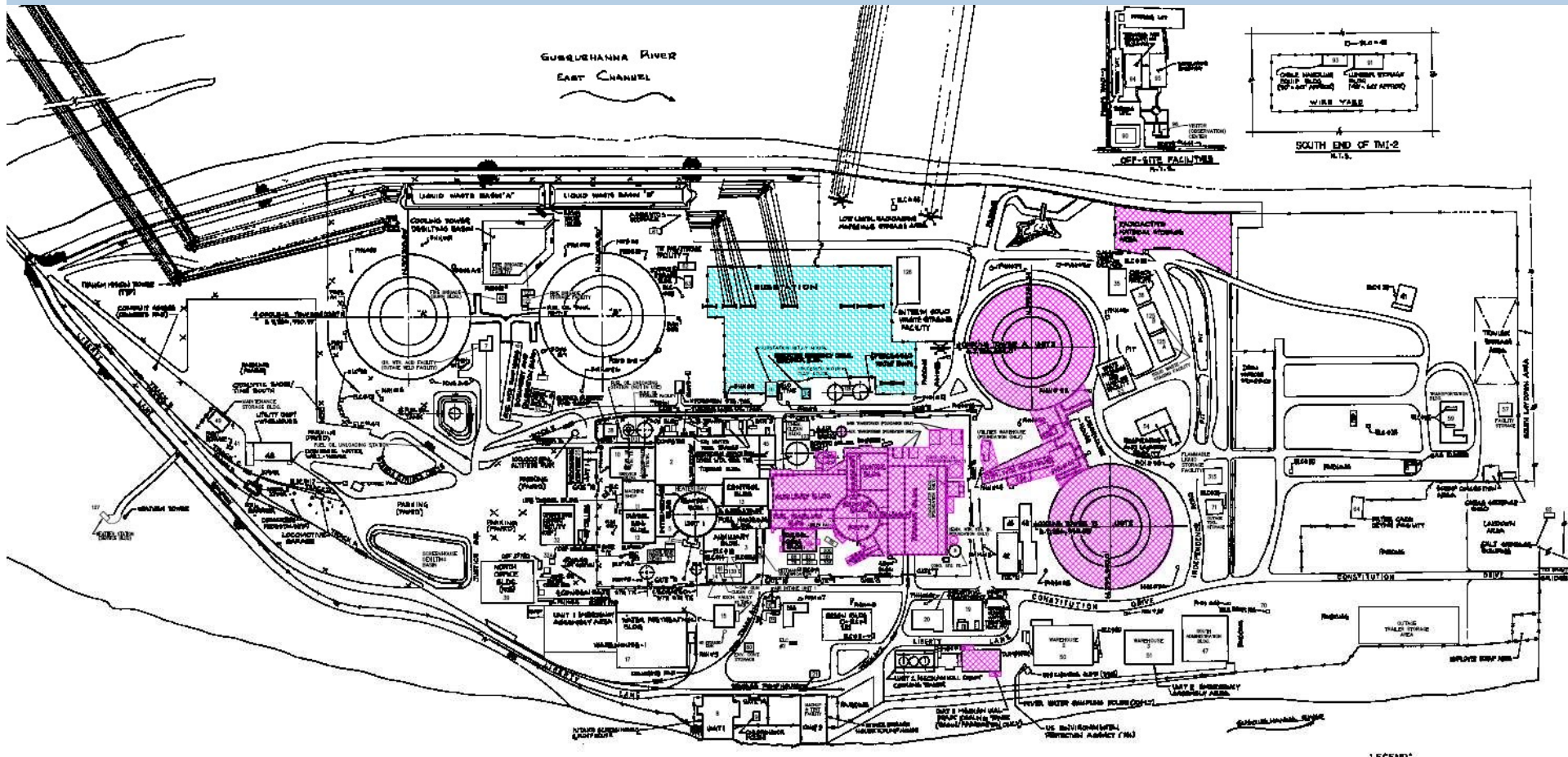
To View all Videos including the D&D video log on at www.tmi2solutions.com. Scroll to the bottom of the home page to view all D&D videos



TMI-2 *Solutions*

License Transfer & Asset Purchase

- Oct 2019: Agreement to acquire
- Nov 2019: License transfer application (LTA) submitted
- Dec 2, 2020: NRC approves LTA
- Dec 18, 2020: Sale closing



One island, two owners and licensees

- UNIT 2 PROPERTY AND IMPROVEMENTS
- UNIT 1 FACILITIES USED BY FIRST ENERGY MAIN SUBSTATION EASEMENT AREA

TMI-2 D&D Partnerships



Parent company and owner of waste management assets



General contractor and construction manager

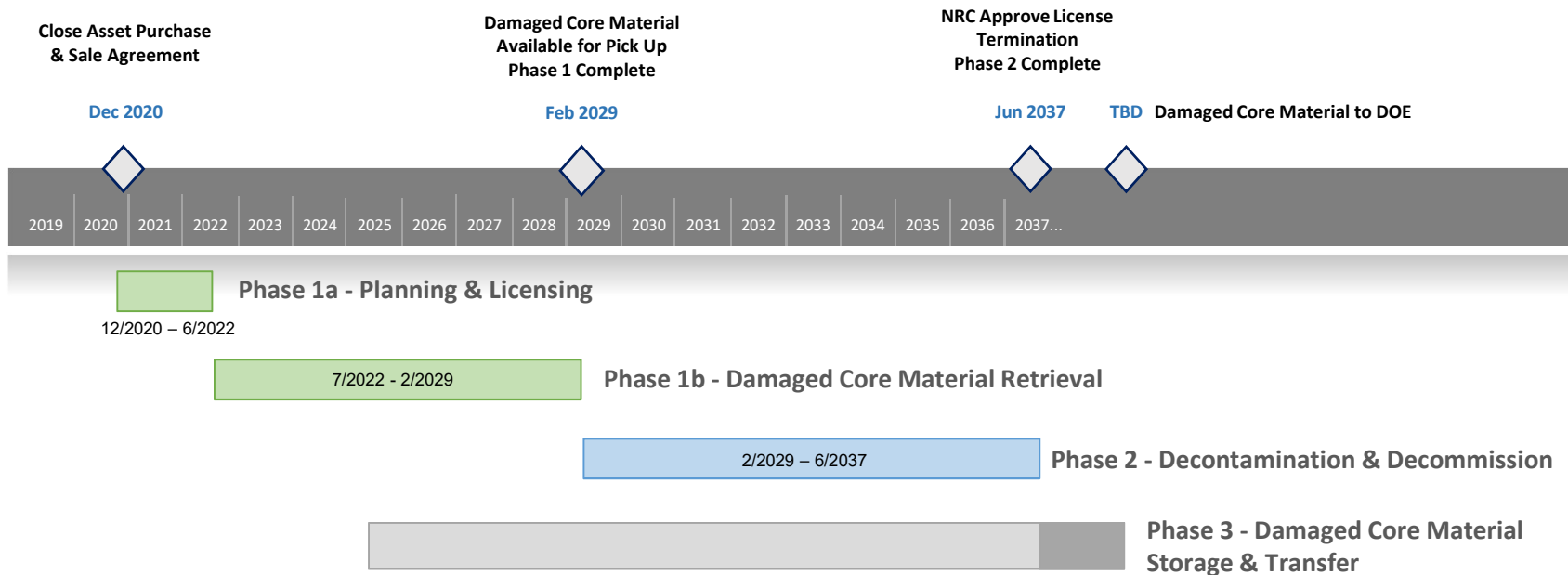


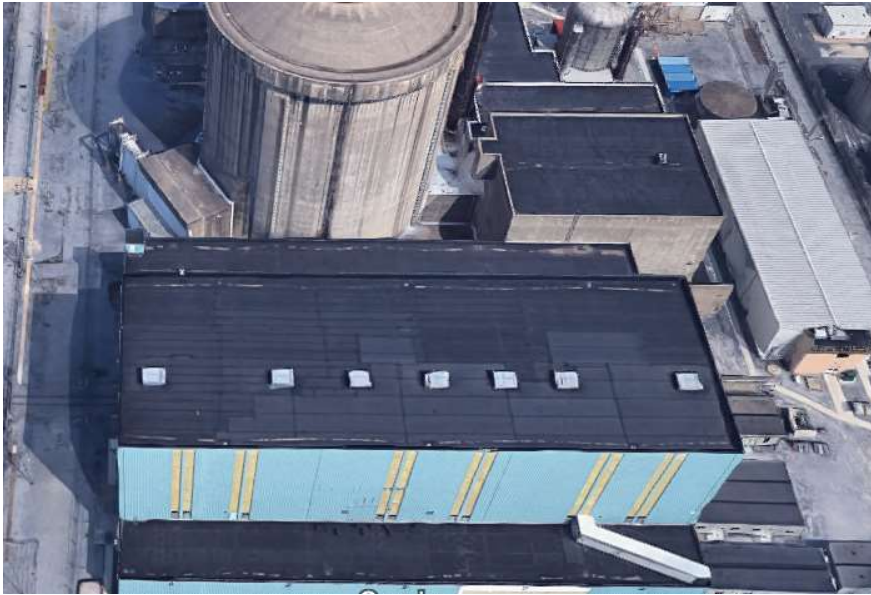
Subsidiary, owner, and licensee of TMI-2



Decommissioning general contractor, an EnergySolutions and Jingoli joint venture

TMI-2 Schedule





Future site activity

- Considerations to clean out Turbine Building
- Legacy rad material shipments to reclaim space
- North Bridge truck traffic to deliver supplies

Cooling Tower Demolition

- TMI-2 *Solutions* is evaluating demolition of both cooling towers in 2021.
- Benefits of early demolition:
 - Fewer staff on-site
 - Less active footprint use
 - Removes future obstacle for Unit 1 & 2 missions
- Non-radiological forward progress



Decommissioning Overview



CAP Board Comments/Questions



Regulatory Overview

Gerry Van Noordennen
SVP, Regulatory Affairs



TMI-2 *SOLUTIONS*

Regulatory Oversight

Nuclear plant decommissioning is regulated by:

- **U.S. Nuclear Regulatory Commission** – Nuclear safety, radiological cleanup standards
- **Pennsylvania Department of Environmental Protection** – Air and water permits, backfill permit, site remediation program
- **U.S. Environmental Protection Agency** – Groundwater limits for radionuclides
- **Dauphin County** – Stormwater management
- **Londonderry Township** – Demolition and building permits, stormwater management

Compliance

- TMI-2 *Solutions* is committed to meet all Federal, State and Local regulations that apply to decommissioning.
- Staff includes specialists in licensing and permitting to ensure compliance with nuclear and environmental regulations
- The NRC conducts inspections on site
- The PA DEP has onsite staff to oversee decommissioning and conduct inspections
- An internal audit group conducts inspections on radiological and nuclear safety
- Any potential issue or concern is entered into the Corrective Action Program
- Decommissioning Nuclear Safety Review Board (DNSRB)

Continuing Interactions with PADEP and NRC

- Our goal is to have no surprises as we share information with PADEP and NRC
- Meeting invitations extended to PADEP and NRC
 - Plan of the Day Meeting
 - TMI-2 Decommissioning Nuclear Safety Review Board meetings
- Coordination of onsite sampling, surveys, as requested
- Primary goal to keep the lines of communications open



Approvals Needed

- While in Post-Decommissioning Monitored Storage (PDMS) comply with PDMS Technical Specifications
- Requested NRC approval to delete Technical Specifications that are not applicable for decommissioning the Reactor Building.

Near-term:

- Demolition permits to take down structures
- Stormwater permits
- Air and water permits to support decommissioning

Environmental Impacts

- Conducted an environmental review to determine impacts on environment to decommission TMI-2
- One area with a large impact is the fact that TMI-2 is eligible for the National Register due to the accident.
- Working with the PA State Historic Preservation Office to preserve documents, photos, artifacts and other records
- Work with PA Game Commission and US Fish and Wildlife Service to relocate peregrine falcon nest

Post-Shutdown Decommissioning Activities Report (PSDAR)

- PSDAR contains:
 - Describes major decommissioning activities
 - Provides cost and schedule information
 - Updates environmental impacts
 - CAP Board Member Comments and Questions



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Bureau of Radiation Protection

PA DEP BRP's Role at TMI

David J. Allard, MS, CHP

TMI Unit-2 CAP Meeting

April 7, 2021

Tom Wolf, Governor

Patrick McDonnell, Secretary

TMI Unit-2 CAP Meeting

Radiation Protection in PA



**DEP: X rays,
Accelerators,
Radon, and
Radioactive
Materials &
Emerg. Prep.**

TMI Unit-2 CAP Meeting

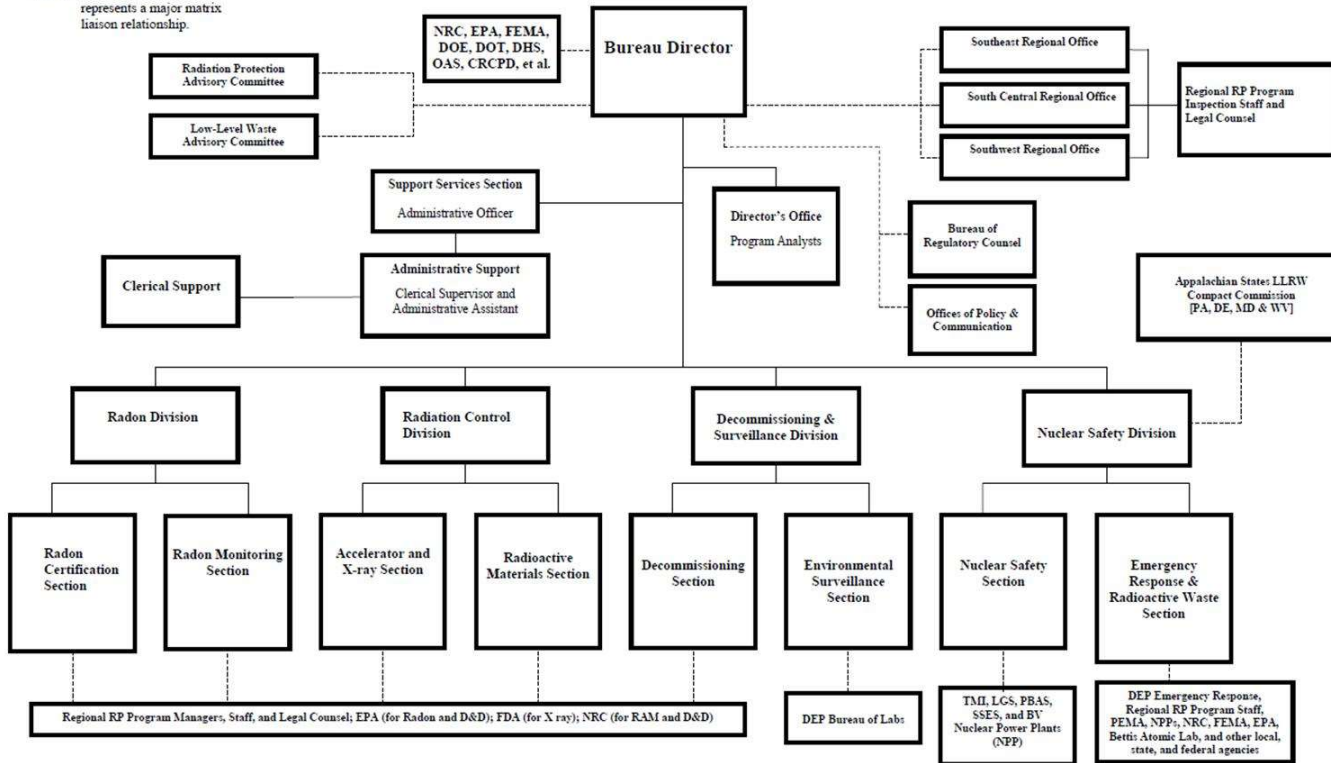
PA Rad. Protection Program Scope

- 8 Power Reactors; TMI U1&2; PB U1
- Nuclear Safety; EP/ER; Env. Surveillance
- 1 Research Reactor at PSU; EP/ER
- 1 Navy / DOE facility; Bettis Atomic Lab; EP/ER
- 2 Uranium tailings cells; several radium site clean-ups
- NRC AS w/ ~900 RAM licensees; complex D&D sites
- Several old rare earth processors with U / Th slag
- ~750 Certified radon testers, labs and mitigators
- ~250 Accelerators (medical and industrial)
- ~30,000 X-ray units in ~11,000 facilities
- ~380 FDA mammography units
- ~170 PA Solid Waste facilities monitoring for radiation; ER
- Numerous metal recyclers monitoring for radiation; ER
- Major transportation routes carrying RAM & SNF; EP/ER

TMI Unit-2 CAP Meeting

BUREAU RADIATION PROTECTION

NOTE: A dotted line represents a major matrix liaison relationship.



TMI Unit-2 CAP Meeting

Overview of BRP's Role at TMI

- TMI U2 accident response / recovery in 1979
- PA Radiation Protection Act 1984-147
- Independent NPP Oversight and Interface
- Emergency Response Program
- Environmental Surveillance Program
- Monitor Radioactive Waste Disposal



TMI Unit-2 CAP Meeting

Overview of BRP's Role at TMI

- Env. Reports since 1979 available online
- Recent LLRW Reports available online
- Enhanced Environmental Surveillance Program
- Independent interface with NRC and Licensee
- Assure public health and safety

<https://www.dep.pa.gov/Business/RadiationProtection/Pages/default.aspx>

Thank you!

Questions?

TMI-2 Solutions Website Review

Ralph DeSantis
TMI-2 Solutions Communications



CAP Open Discussion

Steve Letavic
TMI-2 CAP Chairman



Community Participation

Q&A

