



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION



Office of Waste, Air, Radiation & Remediation

Three Mile Island Unit 2 Decommissioning

Low Level Waste Advisory Committee
Meeting

September 27, 2024

Bryan Werner

Decommissioning and Environmental
Surveillance Manager
Bureau of Radiation Protection

Josh Shapiro, Governor

Jessica Shirley, Acting Secretary

Bureau of Radiation Protection Involvement

- This presentation is from the viewpoint of the Bureau of Radiation Protection (BRP)
- BRP does not have regulatory authority of the radiological licensed activities for the decommissioning. That role is with the Federal Nuclear Regulatory Commission (NRC)

Bureau of Radiation Protection Involvement

- The Radiation Protection Act requires us to provide a comprehensive environmental monitoring program as well as involvement with waste tracking at the site

TMI Status – Unit 1

- Owned by Constellation
- Shut down September 2019
- Fuel moved to ISFSI December 2022
- Remains in SAFSTOR until 2075
- License Termination 2079
- Site Restoration 2081
- Exploring possibility of restarting Unit 1

TMI Status - Unit 2

- Owned by TMI-2 Solutions, a subsidiary of EnergySolutions
- Partnered with Jingoli to help manage the decommissioning construction aspects
- Transitioned to active decommissioning in 2023
- This phase is for the recovery of the fuel bearing material and source term reduction. Expected to last into 2029

TMI Status - Unit 2

- Fuel Bearing Material to be stored on ISFSI adjacent to Unit 1 until DOE will take possession.
- Additional source term reduction in this phase will see waste of various types packaged and shipped offsite for disposal.
- The first LLRW shipments were made the week of August 14, 2023
 - Segmented sections of a Core Flood Tank

TMI Status - Unit 2

- Construction of ISFSI for fuel bearing material is currently ongoing
 - Planning for 14 casks
 - Expected completion in 2025
- Continuing to widen the equipment hatch to allow access with larger equipment
- Constructing a Decommissioning Support Building

TMI Status - Unit 2

- Have begun remediating some high radiation areas to reduce source term and dose rates using remote equipment – Reactor Building has already been down-posted from Very High Radiation Area (500 rad/hr @ 1m), to Locked High Radiation Area (Possible Deep Dose > 1 rem/hr @ 1m but less than 500 rad/hr)

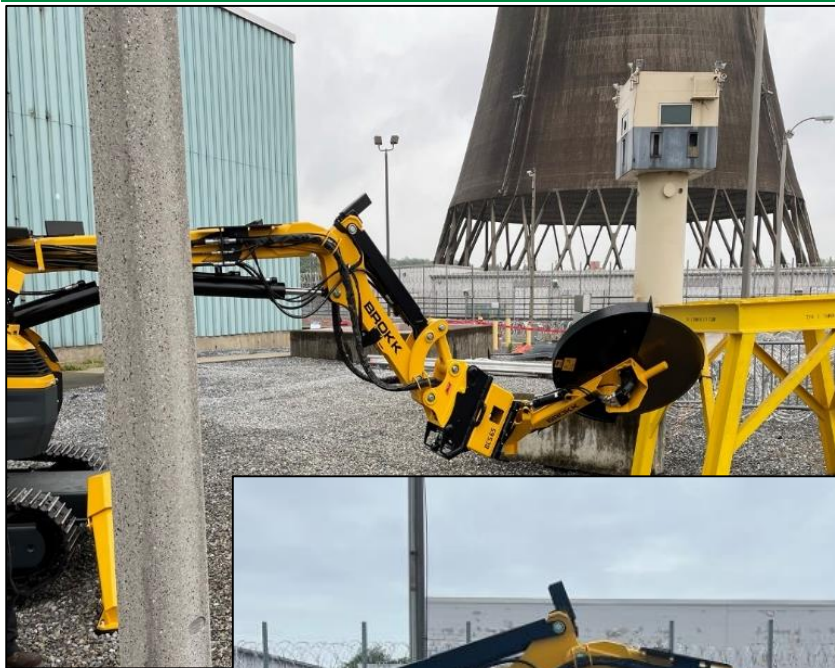
Equipment Hatch



Remote Operated Equipment



▶ Remote Operated Equipment Tools



▶ Radioactive Waste Shipments

- **LLRW** shipments have continued to EnergySolutions Facility in Clive, Utah
- In the last year, roughly 40 shipments have already been made – mostly intermodals (25 cu. yard)
- May ship as many as 20 additional in 2024
- Anticipating even more shipments to be made in 2025 as they gain better access into the reactor building

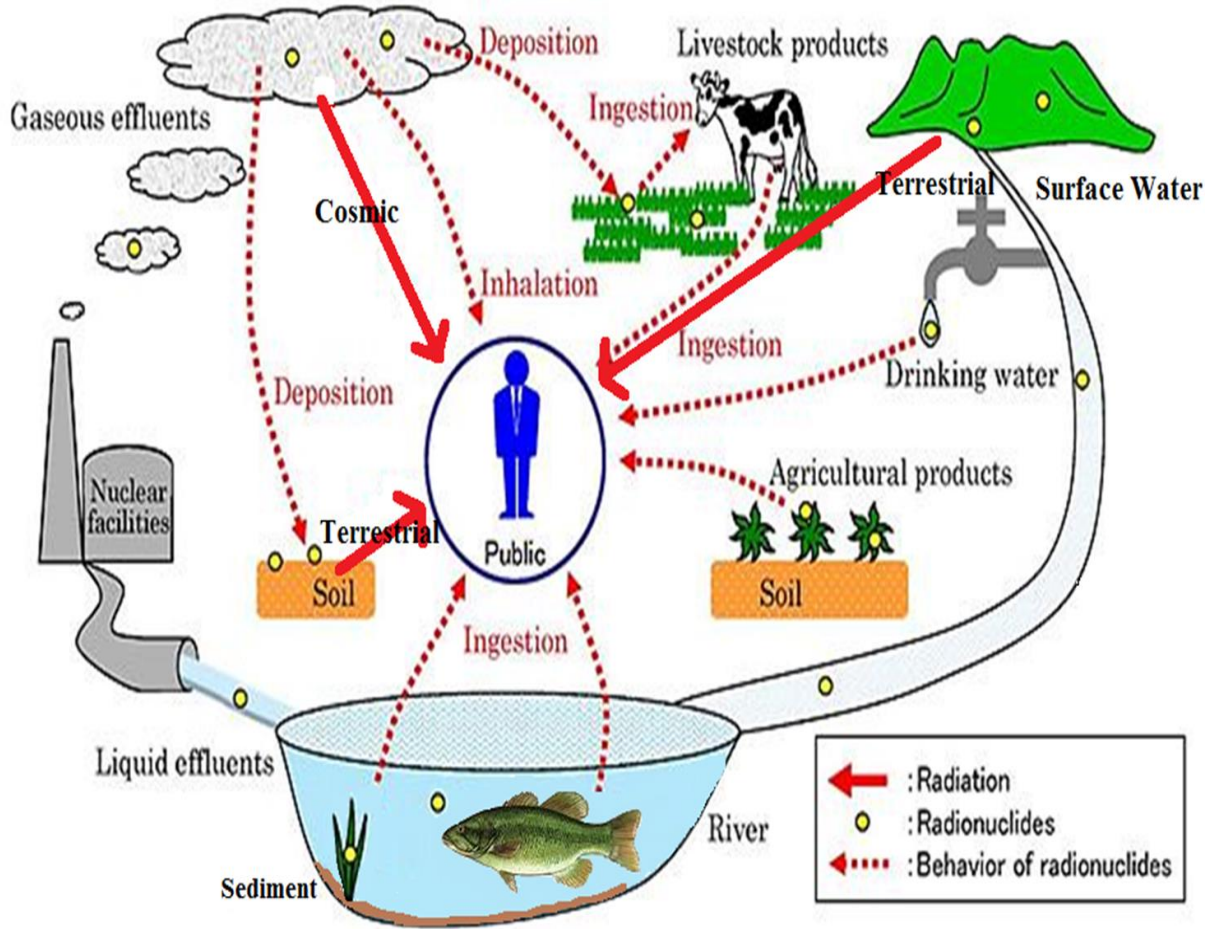
Bureau of Radiation Protection's Role

- Continuing to perform our routine Radiological Environmental Monitoring Program (REMP)
- Changes will be evaluated based on both unit's future REMF.
 - Currently Unit 1 remains the same as if operating
 - Unit 2 has a focused monitoring mostly in the areas of work

REMP Photos



REMP Photos



Bureau of Radiation Protection's Role

- Participates in routine meetings associated with the TMI2 cleanup including:
 - Daily Plan of the Day calls
 - Monthly meetings with NRC's project staff and inspectors
 - Decommissioning Nuclear Safety Review Board meetings

Bureau of Radiation Protection's Role

- Participates in routine meetings associated with the TMI2 cleanup including:
 - Community Advisory Panel Meetings
 - [Home | EnergySolutions TMI2 \(tmi2solutions.com\)](http://tmi2solutions.com)
 - Facilitate as needed between TMI2 and other regulatory parts of the Department



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Thank you. Questions?

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Bureau of Radiation Protection

Department of Environmental Protection

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