Office of Environmental Management Technology Program Update

August 29, 2024

United States Nuclear Waste Technical Review Board

Summer 2024 Board Meeting

U.S. DEPARTMENT OF ENERGY | **OFFICE OF ENVIRONMENTAL MANAGEMENT**

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Topics

❖ **Office of the Chief Technology Officer**

❖ **Current Portfolio of Technology Projects**

Organization

Office of Field Operations EM-3
Associate Principal Deputy Assistant Secretary
Greg Sosson

Office of the Chief Technology Officer EM-3.2

Chief Technology Officer
Vacant

Lab Policy Office
Ming Zhu

Chief Engineer
John Moon (Acting)

Office of Technology Operations EM-3.21
Director
Rod Rimando

❖ **Office of the Chief Technology Officer (CTO), EM-3.2**

- Centralizes headquarters leadership for the technology program.

- Develops strategies, policy, and guidance for the technology program in support of the EM mission.

- Promotes increased collaboration with other federal executive departments, independent agencies, and the international community to foster information and technology sharing.

Current Budgets

Fiscal Year 2024 Enacted Budget: $8,482M

- Spent Nuclear Fuel/Special Nuclear Materials: $563M (6%)
- Tank and Liquid Radioactive Waste: $3,157M (37%)
- Transuranic Waste, Solid Radioactive Waste: $1,073M (13%)
- Facility Decontamination and Decommissioning: $1,682M (20%)
- Soil and Water Remediation: $540M (6%)
- Site Services: $1,495M (18%)

Technology Projects Portfolio: $102.82M

- Spent Nuclear Fuel/Special Nuclear Materials: $11.40M (11%)
- Tank and Liquid Radioactive Waste : $54.82M (54%)
- Transuranic Waste, Solid Radioactive Waste : $0.88M (1%)
- Facility Decontamination and Decommissioning: $6.16M (5%)
- Soil and Water Remediation: $17.10M (17%)
- Enabling and Cross-Cutting Technologies: $12.46M (12%)

Technology Projects Portfolio

Technology Maturation Progression: Phases and Technology Readiness Level (TRL) Scale

Discovery Phase		Design Phase		Demonstration Phase			Deployment Phase	
TRL 1	TRL 2	TRL 3	TRL 4	TRL 5	TRL 6	TRL 7	TRL 8	TRL 9

132 Technology Projects

89 Projects	39 Projects	4 Projects

Lead Principal Investigators

National Labs: 21 Projects Universities: 68 Projects	National Labs: 37 Projects Universities: 2 Projects	Nat'l Labs: 3 Projects NuVision: 1 Project

Summary

❖ **Office of the Chief Technology Officer**

- Centralizes headquarters leadership for the technology program

- Promotes increased collaboration

❖ **Current Portfolio of Technology Projects**

- Diverse portfolio supporting all EM mission areas

- Reflects operational imperatives

- Includes strategic investments to reduce technical risk and environmental liability