



U.S. DEPARTMENT OF  
**ENERGY**

OFFICE OF  
**ENVIRONMENTAL  
MANAGEMENT**

# **Idaho Cleanup Project**

## **Congressional Nuclear Cleanup Caucus**

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# The Idaho Site Background

- 890 Square Miles
- Remote location in the southeast region of Idaho
- Established in 1949 as the Naval Gunnery Range
  - Currently referred to as the **Idaho National Laboratory**
- Provided an isolated location where 52 first-of-a-kind test reactors could be designed, built and tested with one still in operation (Advanced Test Reactor)
- **EM's Idaho Cleanup Project** conducts its business within the boundary of the Idaho National Laboratory
- **The Idaho Site mission is divided into three contracts:**
  - **Idaho Cleanup Project**- managed by the Office of Environmental Management
  - **Advanced Mixed Waste Treatment Project** – managed by the Office of Environmental Management
  - **Idaho National Laboratory** – managed by the Office of Nuclear Energy (Lead Program Secretarial Office)



# EM-Idaho's Mission & Priorities

- Maintain a safe, secure, and compliant posture in the EM complex
- Complete High Level Waste tank treatment and closure
- Disposition remote and contact handled transuranic waste pursuant to the Idaho Settlement Agreement
- Continue soil and groundwater remediation
- Complete excess facility deactivation and decommissioning
- Receive foreign and domestic research reactor fuel in support of nonproliferation goals
- Continue safe spent fuel storage



Removal of Transuranic waste drum from over pack



Spent Fuel Movements

# EM-Idaho Mission Work Scope Status

Cleanup was focused at six major geographic areas, now only three:

- **Advanced Test Reactor Complex**
  - **cleanup completed**
- **Power Burst Facility (PBF)**
  - **cleanup completed**
- **Test Area North (TAN)**
  - **Soil cleanup completed**
  - **Decontamination & Decommissioning completed**
- **Idaho Nuclear Technology and Engineering Center**
- **Radioactive Waste Management Complex**
- **Materials and Fuels Complex**

**Idaho Nuclear Technology & Engineering Center**

- ✓ Deactivate & Demolish (D&D) all facilities and structures that have no future mission
- Complete the Resource Conservation and Recovery Act (RCRA) closure of the final four High Level Waste Tanks (resulting in RCRA closure of all 15 tanks in Idaho)
- ✓ Complete treatment and disposition of remaining RH –TRU waste containers
- Transfer EBR II Spent Nuclear Fuel to MFC

**Test Area North**

- ✓ Completed D&D of all EM facilities and structures
- ✓ Complete CERCLA remediation work
- Complete ground water remediation

✓ **Advanced Test Reactor Complex (Completed)**

- ✓ Complete D&D of all EM facilities and structures
- ✓ Complete all CERCLA Remediation work

**Radioactive Waste Management Complex (location of the Advanced Mixed Waste Treatment Project)**

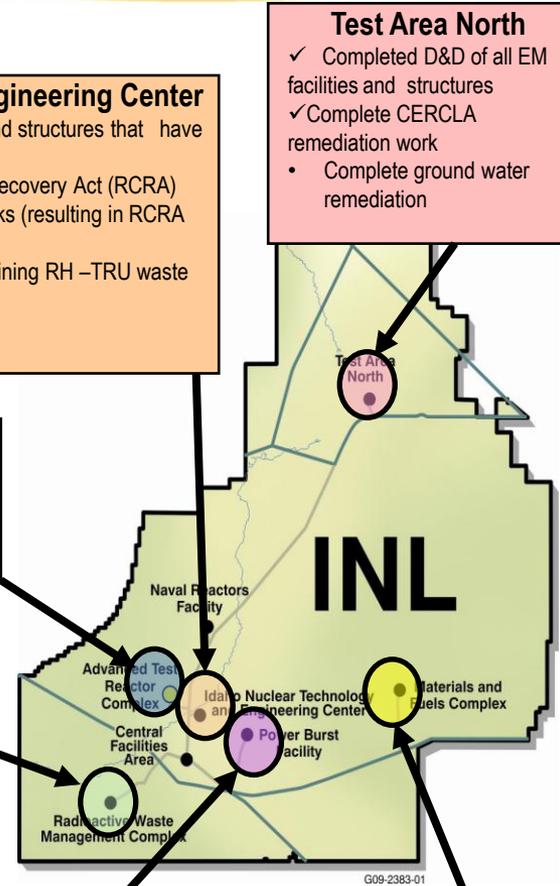
- Complete Disposition of 65,000 m<sup>3</sup> of stored TRU waste (53,000+ m<sup>3</sup> completed)
- Complete exhumation of 5.69 acres of targeted buried waste (3.22 acres completed)

✓ **Power Burst Facility (Completed)**

- ✓ Completed D&D of EM facilities

**Materials and Fuels Complex**

- ✓ Completed retrieval of RH – TRU waste transfer to INTEC
- Complete D&D of EBR-II Reactor Complex



# Idaho Site Funding

Appropriation	FY 2014 Current	FY 2015 Cong. Request
Defense Environmental Cleanup	387,000	367,203
Non-Defense Environmental Cleanup	4,993	4,900
<b>Total, Idaho</b>	<b>391,993</b>	<b>372,103</b>

*Dollars in thousands*

## FY 2015 Request

### Transuranic and Mixed / Low-Level Waste Disposition

\$191,800

- Process, ship contact-handled / remote-handled TRU Waste
- Continue disposition of mixed low-level and low-level waste out of Idaho

### Soil and Groundwater Remediation

\$75,443

- Continue ground water remediation activities
- Continue exhumation of targeted buried waste

### Radioactive Tank Waste Stabilization and Disposition

\$84,650

- Complete sodium-bearing waste operations and work towards RCRA closure of INTEC Tank Farm

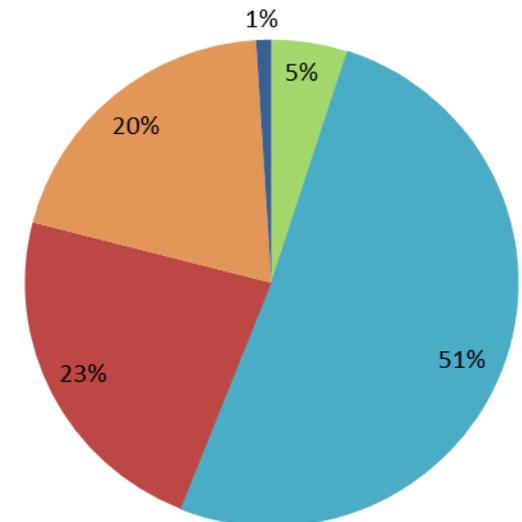
### Spent Nuclear Fuel

\$17,300

- Continue Spent Nuclear Fuel operations and facility management

### Community and Regulatory support - \$2,910

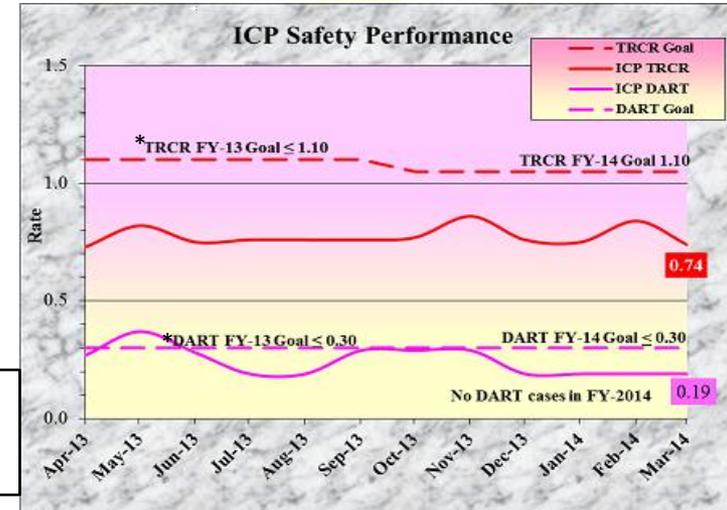
- Community and Regulatory Support Activities



## Idaho Cleanup Project

- Reduced recordable injuries by 70 percent since contract inception (May 2005)
- Voluntary Protection Program (VPP) Star of Excellence
- VPP Legacy of Stars

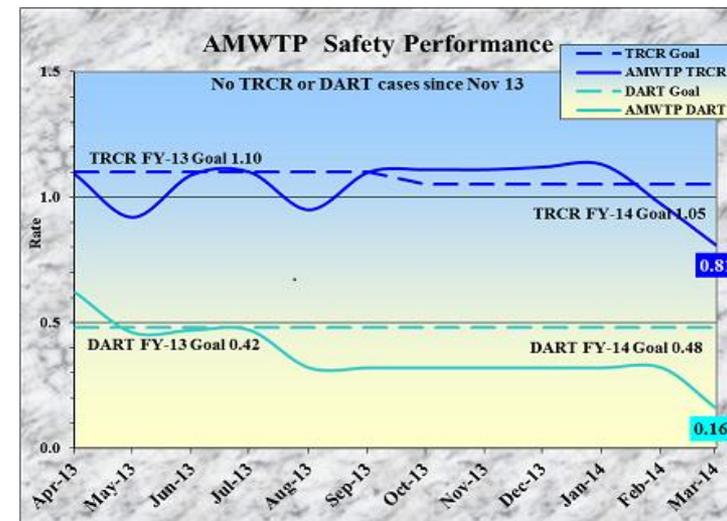
**TRCR**- Total Recordable Case Rate  
**DART**- Days Away, Restricted or Transferred



Idaho Cleanup Project's March Safety Performance Chart

## Advanced Mixed Waste Treatment Project

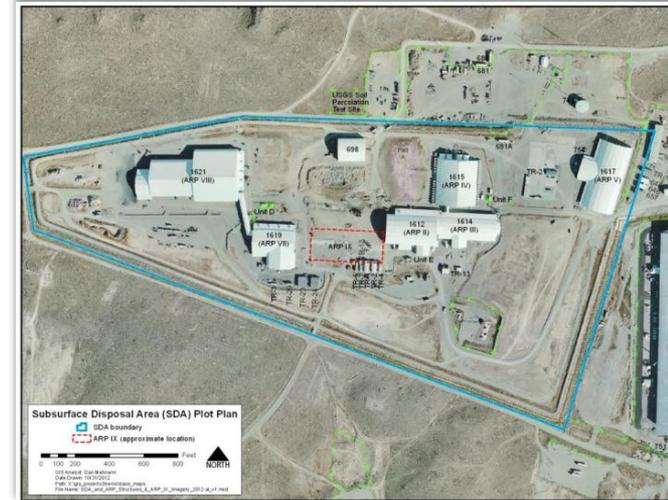
- Zero Accidents or Lost Time Injuries since October 2011
- Employees achieved 15 million hours worked without a lost time injury on December 7, 2013
- VPP Star of Excellence



AMWTP's March Safety Performance Chart

# Accomplishments

- Exhumed 3.24 acres of targeted buried waste out of a total 5.69 acres
- Completed targeted buried waste exhumations in the first six Accelerated Retrieval Project (ARP) facilities (from a total of 9 facilities)
- Completed Deactivation and Demolition of ARP-I and ARP-VI to make way for the construction of the final ARP-IX facility
- Transferred EM used nuclear fuel from wet to dry storage
- Completed CERCLA ordnance remediation at the Idaho site covering over 208,000 acres
- Pursuant to the Idaho Settlement Agreement, completed disposition of over 53,000 m<sup>3</sup> of transuranic waste from 65,000 m<sup>3</sup>
- Idaho retained its status as the largest shipper of CH-TRU and RH-TRU waste to WIPP, over 49% of all shipments to WIPP come from Idaho



Plan view of Subsurface Disposal Area



Retrieval of drums from container at AMWTP

# In Support of the Cleanup Mission

- Complete processing of the remaining 900,000 gallons of High Level Waste by December 31, 2014
- Remain the largest shipper of transuranic waste to WIPP in support of the Idaho Settlement Agreement
- Continue the transfer of used nuclear fuel from wet to dry storage pursuant to the Idaho Settlement Agreement
- Continue the retrieval, processing, and shipment of targeted buried waste from the Subsurface Disposal Area to protect the Snake River Plain Aquifer
- Continue compliance with the Idaho Settlement Agreement



Transuranic Waste Shipment Headed for WIPP



Exhumation in ARP-VIII at the Subsurface Disposal Area

# Technical Challenges

- Complete the processing of the remaining 900,000 gallons of tank waste by December 31, 2014
- Complete the Advanced Mixed Waste Treatment Project mission by the end of 2018
- Maintain acceptable performance against regulatory milestones



Personnel donning PPE for entry into the tank farm



Pyrophoric material encountered during transuranic waste processing at AMWTP

# Idaho is a Sound Investment

- We continue to maintain excellent rapport with our Regulators through timely successful completion of regulatory milestones and open communications
- We receive outstanding support from our Tribal Nations and local stakeholders through up front communications and involvement
- Idaho's performance has proven that substantial cleanup progress can be achieved within cost and ahead of schedule
- Idaho provides successful results with a priority on safety and a value to the taxpayer
- Idaho's work is essential to the health of our local communities and in the protection of the environment



Idaho site employees working as a team