



*Idaho Cleanup Project Progress  
Citizens Advisory Board  
November FY 2013 Status*

**James Cooper**  
**Department of Energy**  
**Idaho Operations Office**



***EM*** *Environmental Management*

# *Idaho Cleanup Project Scope*

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- Transuranic Waste Disposition
- Advanced Mixed Waste Treatment Project
- CERCLA Remediation
  - Waste Area Group 1 – Test Area North
  - Waste Area Group 3 – Idaho Nuclear Technology and Engineering Center
  - Waste Area Group 7 – Radioactive Waste Management Complex
  - Waste Area Group 10 – Site-wide Miscellaneous Sites/Snake River Plain Aquifer
- Idaho CERCLA Disposal Facility



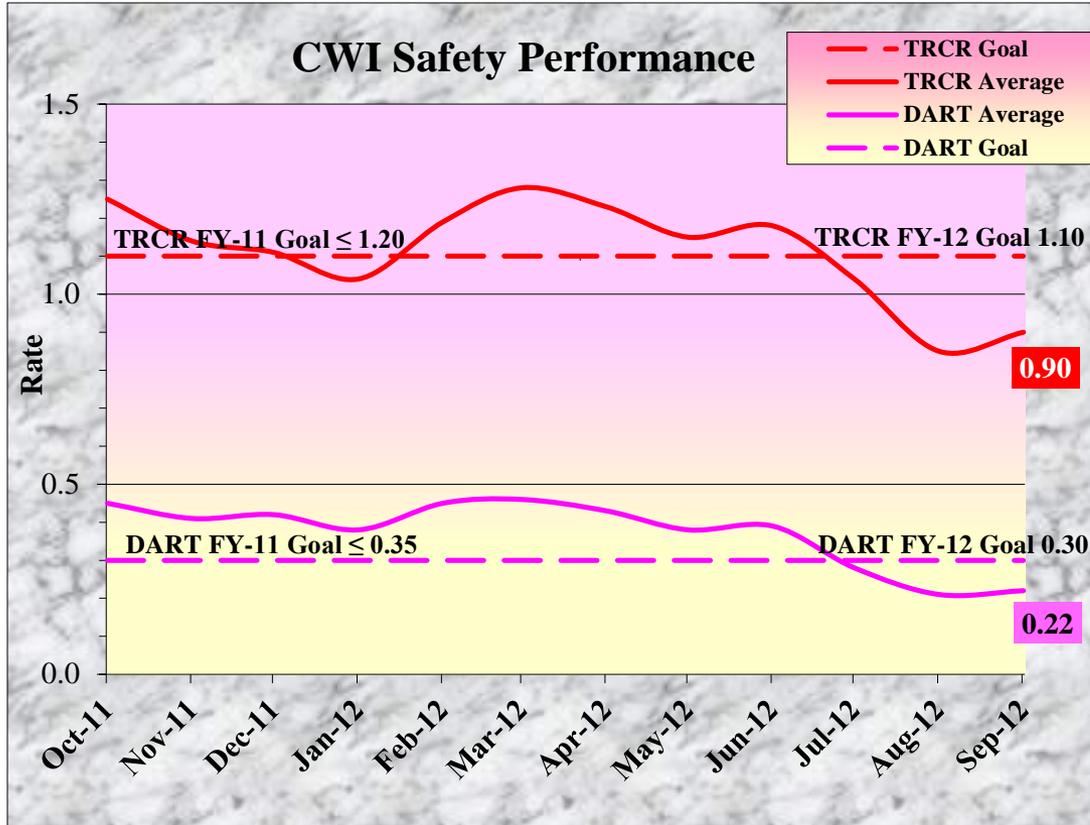
# *Idaho Cleanup Project Scope*

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- Decontamination and Decommissioning
  - Test Area North (Completed)
  - Advanced Test Reactor (ATR) (Completed)
  - Idaho Nuclear Technology and Engineering Center (INTEC) (Completed)
  - Radioactive Waste Management Complex (RWMC) (Completed)
  - Power Burst Facility (ARRA) (Completed)
  - Materials and Fuels Complex (MFC) D&D
  - ARP I & VI D&D (Completed)
- Nuclear Materials (Completed)
- Integrated Waste Treatment Unit Construction (Sodium-Bearing Waste)
- INTEC Liquid Waste Treatment Facility (Tank Farm Closure)
- Spent Nuclear Fuel Dry Storage(Completed)
- Calcine Disposition



# ICP Safety Performance – November 2012



## August 2012

### Five First Aid Cases and One Recordable Injury:

- Worker pinched his finger while securing a structural support, requiring sutures.

### No ORPS Reportable Occurrences

## September 2012

### Seven First Aid Cases and One Recordable Injury:

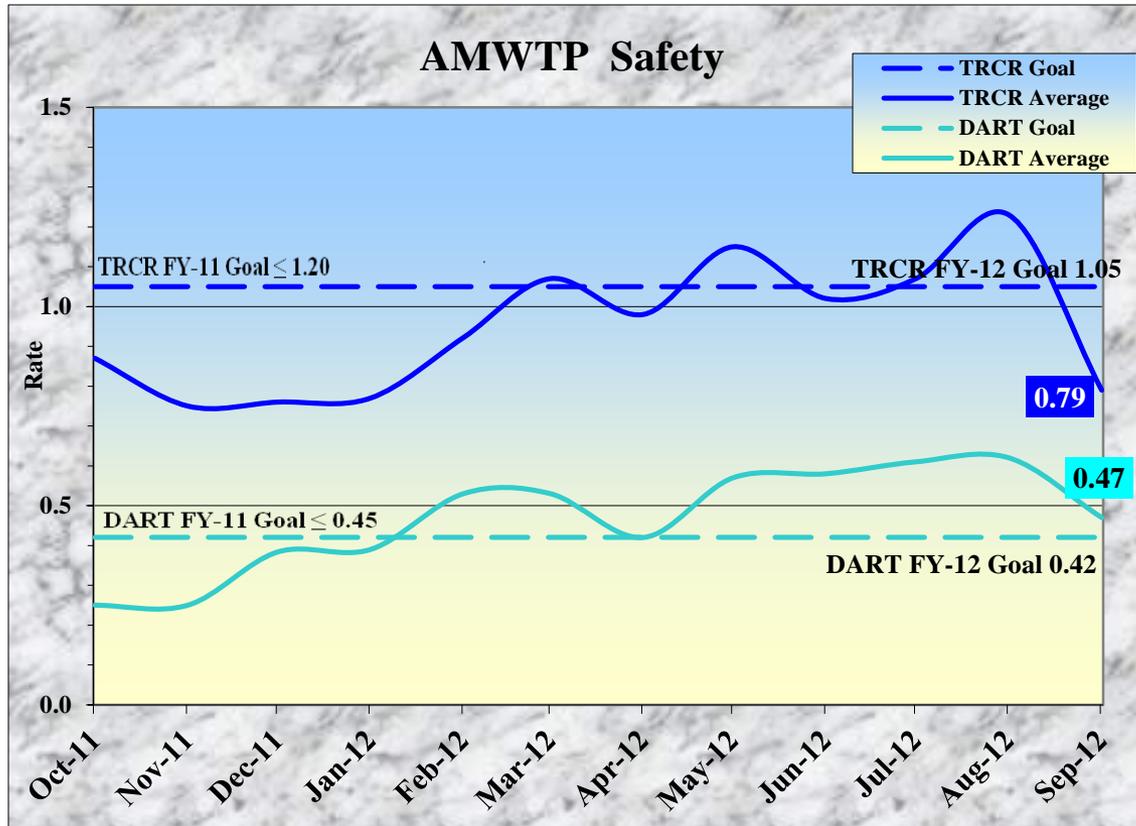
- Worker injured shoulder adjusting vehicle side mirror, requiring prescription medication.

### Two ORPS Reportable Occurrences:

- IWTU – Failure to follow confined space entry process requirements
- IWTU – Facility emissions reported to Idaho Department of Environmental Quality (DEQ)



# AMWTP Safety Performance – November 2012



## August 2012

### **One First Aid Case and One Recordable Injury**

- Driver of a Golf Cart was injured when it overturned, pinning his leg and foot to the ground

### **One ORPS Reportable Occurrence:**

- Golf Cart overturned when it struck a cinder block, injuring the driver

## September 2012

### **No First Aid Cases and No Recordable Injuries**

### **Two ORPS Reportable Occurrences:**

- RTR enclosure entered without proper hazardous energy control
- Equipment installed without using a Lockout/Tagout



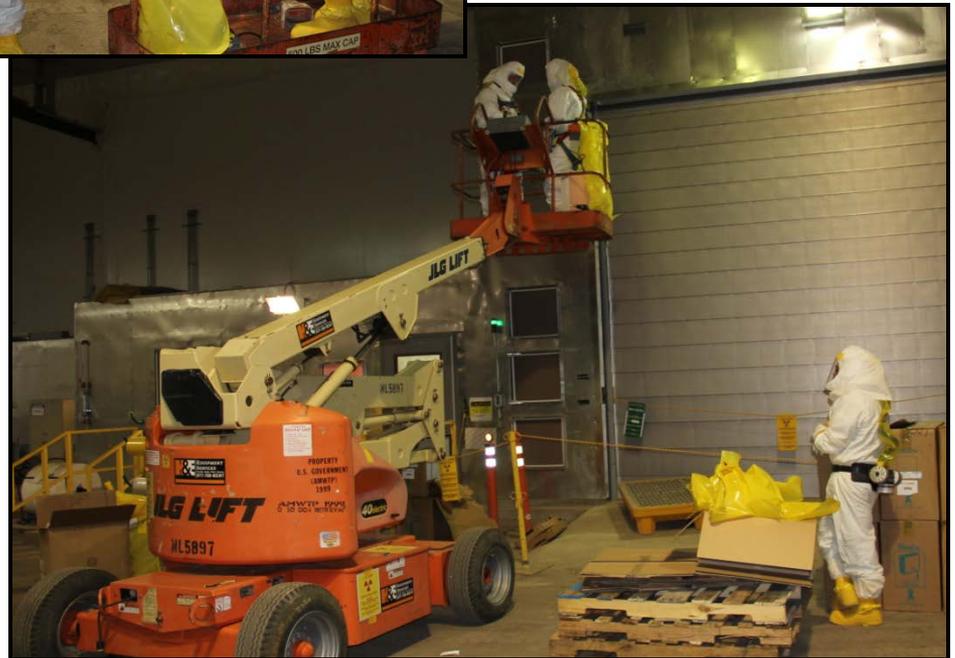
# Advanced Mixed Waste Treatment Project

## Key Activities/Actions:

- ITG employees have worked more than 1.3 million hours (13.7 million hours over life of the project) without a lost-time injury
- Received the ARP V RCRA permit for sludge repackaging from DEQ
- Received approval from DOE on ITG Project Execution Plan, Performance Measurement Baseline, and Production Recovery Plan
- Revised and successfully implemented AMWTP's Documented Safety Analysis and Technical Safety Requirements with no findings, or observations; DSA and TSRs describe how ITG keeps employees, the public and the environment safe during all operating conditions
- Completed FY12 with 3,200 cubic meters of stored legacy waste safely and compliantly shipped out of Idaho
- Continuing to meet all scheduled shipments of transuranic waste to WIPP



ITG employees ensure fall protection equipment is securely in place, left, before starting operations to change air filters on the Retrieval Containment Enclosure, below, which is located inside the Transuranic Storage Area-Retrieval Enclosure that houses the remaining stored legacy radioactive waste



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# *Transuranic Waste Disposition*

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## **Key Activities/Actions:**

- Through October 2012, packaged 5,771.8 m<sup>3</sup> (77.1%) of targeted SDA waste and shipped 5,666.5 m<sup>3</sup> (5,483 m<sup>3</sup> buried TRU, 164.4 m<sup>3</sup> LLW/MLLW) (75.4%) from ARP I-VII

## **Upcoming Activities:**



An Idaho State Police officer inspects an RH-TRU shipment before it leaves Idaho



# *CERCLA Remediation Project Objectives*

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- WAG 1: Test Area North
  - TAN Groundwater Remediation
- WAG 3: INTEC
  - Complete the OU 3-14 Record of Decision for the Tank Farm
  - Operate the ICDF to compliantly disposition CERCLA waste
- WAG 7: Radioactive Waste Management Complex
  - Exhume 5.69 acres of buried waste
  - Complete the OU 7-13/14 Record of Decision
- WAG 10: Site Wide
  - Maintain site wide institutional controls and operations and maintenance program
  - Maintain groundwater monitoring program
  - Maintain the New Site Identification Process for future CERCLA sites
  - Remediate Munitions and Explosives of Concern (MEC)



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# *CERCLA Remediation Projects*

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## **Key Activities/Actions:**

- Submitted two New Site Identification forms to the agencies for approval
- Transmitted the Annual WAG 2 Groundwater Monitoring Report to the agencies
- Transmitted the OU 3-14 Long Term Monitoring Plan to the agencies

## **Upcoming Activities:**

- Submit draft OU 3-14 Phase I Remedial Action Report to the agencies
- Prepare OU 7-13/14 RD Work Plan Phase III



Inspecting the TAN injection well



# ***CERCLA Remediation Projects - ICDF***

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## **Key Activities/Actions:**

- Disposed of 2,576 cubic meters (4,350,551 pounds) of waste in the ICDF landfill (September 30, 2012)
- Received 21,710 gallons of aqueous waste into the ICDF Evaporation Ponds
- Completed transition of ICDF Complex operations from subcontractor to CWI staff
- Placed ICDF landfill in safe/stable configuration

## **Upcoming Activities:**

- Continue receipt and disposal of aqueous wastes in ICDF Evaporation Ponds
- Continue operation and maintenance of ICDF Complex processes and facilities



## *Waste Area Group (WAG) 7 Project Objectives*

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- Complete remediation work in accordance with the Record of Decision (ROD) for OU 7-13/14
- Conduct Targeted Waste Retrieval at the Accelerated Retrieval Projects (ARP) and disposition waste:
  - ARP I, II, III, IV, V, and VI (Completed)
  - ARP VII exhumation completed for FY2012 at 0.15 acres
  - ARP VIII being constructed
  - ARP I & VI D&D (Completed)
- Complete in situ grouting of 21 locations (completed)
- Subsurface solvent vapor extraction (OCVZ)
- Environmental monitoring and institutional controls



# WAG 7 Project

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## Key Activities/Actions:

- Packaged a total of 27,749 drums of targeted waste
- Installed all airlock equipment, Air movers, and breathing air unit.  
Completed passage way between VII and VIII.  
Completed AREA paving, fire water system upgrades and final grading.

## Upcoming Activities:

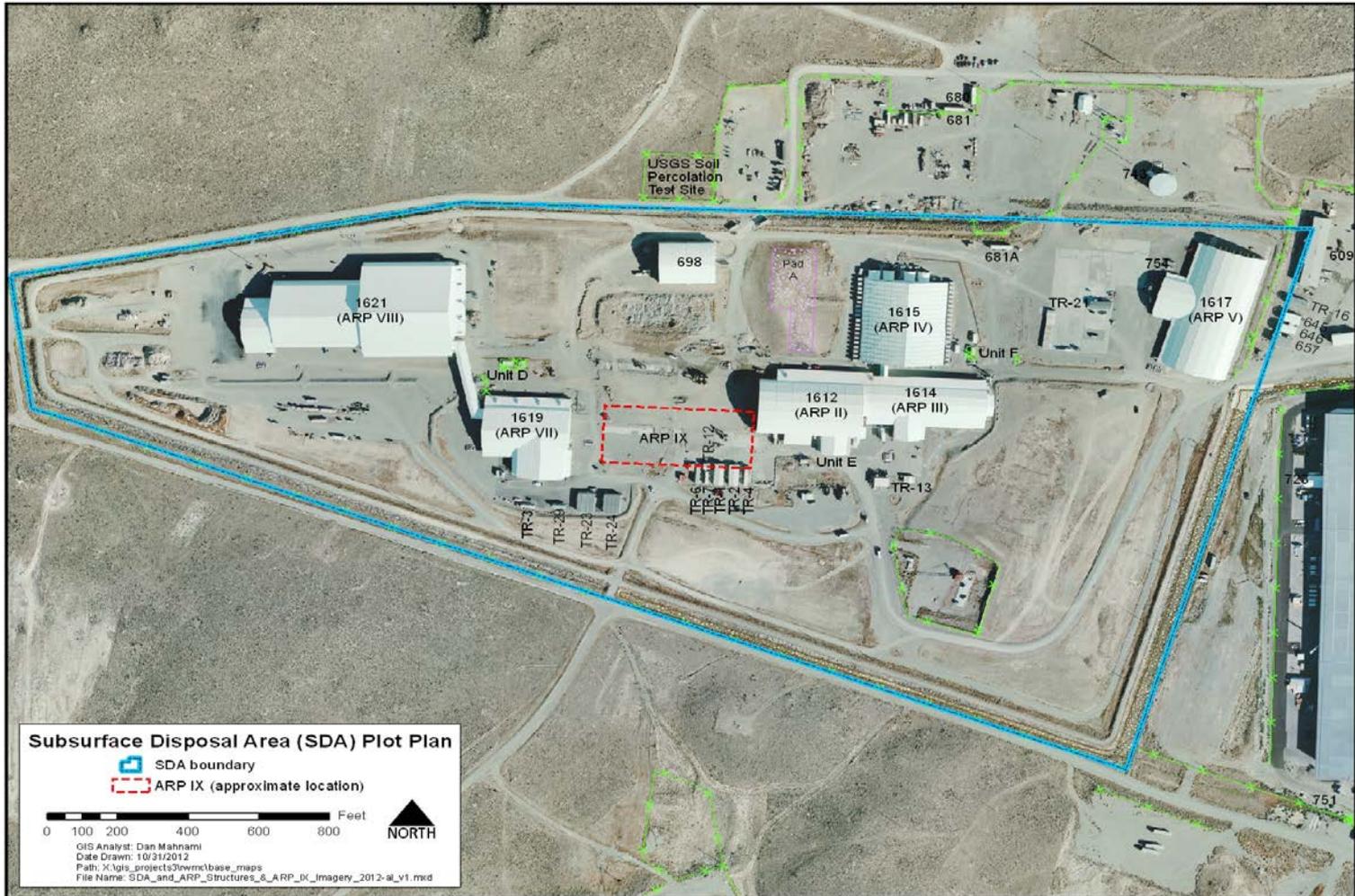
- Complete construction of ARP VIII



ARP VIII drum packaging equipment



# WAG 7 Project (cont'd)



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# *D&D Objectives*

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**ARP I demolition**

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# *D&D – RTC/RWMC Project*

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## **Key Activities/Actions:**

- Completed demolition and cleanup of debris at ARP I & VI
- Installed fabric wall on west end of ARP II

## **Upcoming Activities:**

- Complete EBR-II D&D, pending funding



ARP I demolition



# *D&D – INTEC Project*

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## **Key Activities/Actions:**

- Preparing closure plans for PEW and New Waste Calcine Facility

## **Upcoming Activities:**

- Complete closure plans



PEW building



# *D&D – Materials and Fuels Complex (MFC) Project*

## **Key Activities/Actions:**

- Completed deactivation of MFC-799 high bay and carbonate areas
- Completed characterization of MFC-799 sodium and caustic tanks
- Completed piping video inspections of MFC-766 sodium related piping
- Received RCRA closure certification for MFC-767 and MFC-766 sodium drain tank from DEQ

## **Upcoming Activities:**

- Complete RCRA closure of MFC-799



Grouting of the primary tank in July



# *Integrated Waste Treatment Unit (Sodium-Bearing Waste) Project Objectives*

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- Design, construct, test and operate the Sodium Bearing Waste Treatment Facility (Completed)
- Drain sodium-bearing waste material from tanks no later than December 31, 2012



# *Integrated Waste Treatment Unit (Sodium-Bearing Waste) Project*

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## **Key Activities/Actions:**

- Held a public meeting in Idaho Falls to discuss the required permit modification for the facility upgrades
- Continued making facility modifications and procedure upgrades

## **Upcoming Activities:**

- Complete modifications and resume facility heat-up testing in January
- Permit Modification Request to State/Region 10 EPA
- Document lessons learned



Removal of the Off Gas Filter head



# *INTEC Liquid Waste Facility (Tank Farm) Closure Project*

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## **Key Activities/Actions:**

- Completed management checklist for Tank Farm washing and sampling activities
- Completed vault wash of WM-190
- Performed mock-up of the sampling system for tank and vaults in CPP-1618, confirmed system capabilities, validated procedures. Completed training for these systems

## **Upcoming Activities:**

- Procure and fabricate materials tank grouting
- Perform the PEW sampling of WM-190



Tank Farm tents



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# *Spent Nuclear Fuel Disposition Project Objectives*

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- **Transfer legacy, EM-owned spent nuclear fuel (SNF) from wet storage to appropriate dry storage (completed)**
- **Receive and store SNF from the Advanced Test Reactor**
- **Receive Domestic and Foreign Research Reactor SNF for storage**
- **Prepare the SNF facilities for transition to another government entity by installing a segregation fence (completed)**
- **Provide safe, regulatory-compliant, routine operations for INTEC SNF handling and storage facilities**



# *Spent Nuclear Fuel Disposition Project*

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## **Key Activities/Actions:**

- Completed inspection, loading and shipping of 77 TRIGA FHUs to Austria

## **Upcoming Activities:**

- Prior to 12/31/2012, receive TRIGA fuel from Austria
- Resume ATR fuel Suspend FRR/DRR receipts 1/1/2013 per Idaho Settlement Agreement
- Continue EBR-II fuel transfers, pending funding
- Continue ATR Receipts

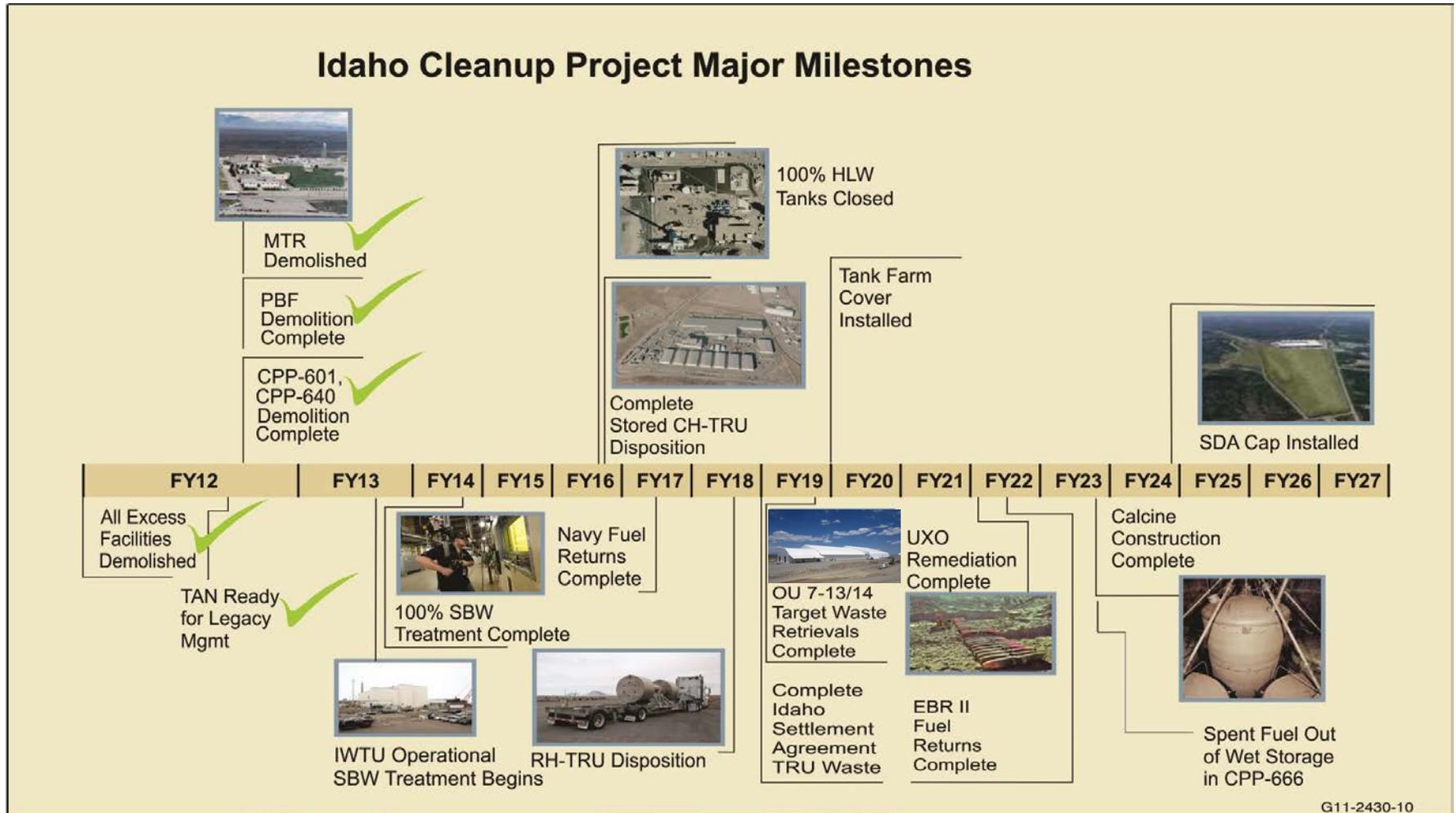


FRR fuel transfer at CPP-603



# Idaho Project Milestones

## Idaho Cleanup Project Major Milestones



G11-2430-10



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