



*Idaho Cleanup Project Progress
Citizens Advisory Board
September F'Y 2011 Status*

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



EM *Environmental Management*

Idaho Cleanup Project Scope – ARRA Work Included

- 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

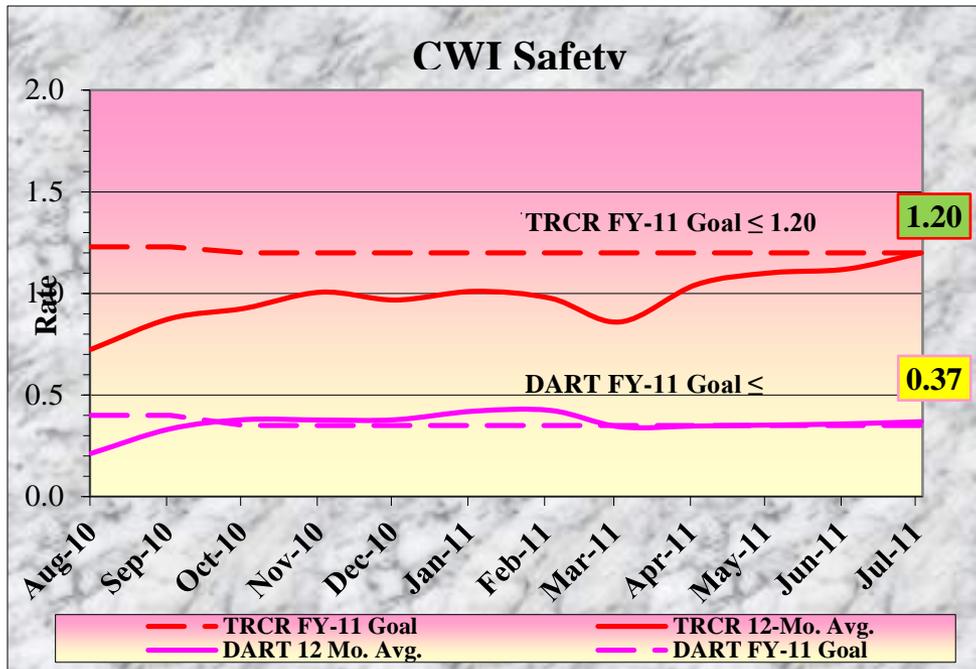


Idaho Cleanup Project Scope ARRA Work Included (con't)

- Decontamination and Decommissioning
 - Test Area North (Completed)
 - Reactor Technology Complex (RTC)
 - Idaho Nuclear Technology and Engineering Center (INTEC)
 - Radioactive Waste Management Complex (RWMC) (Completed)
 - Power Burst Facility (ARRA) (Completed)
 - Materials and Fuels Complex (MFC)
- Nuclear Materials Completion (Completed)
- Integrated Waste Treatment Unit (Sodium-Bearing Waste)
- INTEC Liquid Waste Treatment Facility (Tank Farm Closure)
- Spent Nuclear Fuel Disposition
- Calcine Disposition



CWI Safety Performance – July



- EM-ID--CWI-IWTU-2011-0007 , Damaged 240 Volt Energized Electrical Cable Found During Repair Of Temporary Building 2C(2) SC 3
- EM-ID--CWI-IWTU-2011-0008, Phase Rotation Meter Incorrectly Connected to Waste Feed Pump Circuit 2C(2) SC 3

July 2011

Ten First Aid Cases and Two Recordable Injuries

- IWTU Operator fractured left wrist while moving a bolt tensioner
- IPO Electrician lacerated left thumb while removing springs inside a junction box.

Three ORPS Reportable Occurrences

- EM-ID--CWI-IWTU-2011-0009, IWTU-Inappropriate Lockout/Tag-out (LO/TO) Application on the Exhaust Blowers 10(2) SC4
- EM-ID--CWI-IWTU-2011-0010, Personnel Injury During Bolt Tensioning Evolution 2A(6) SC3
- EM-ID--CWI-BIC-2011-0005, The Lid of a 55 Gallon Drum Pops Up Approximately 18-24 Inches Upon Opening (ARRA) 10(2) SC4

June 2011

Six First Aid Cases and No Recordable Injuries

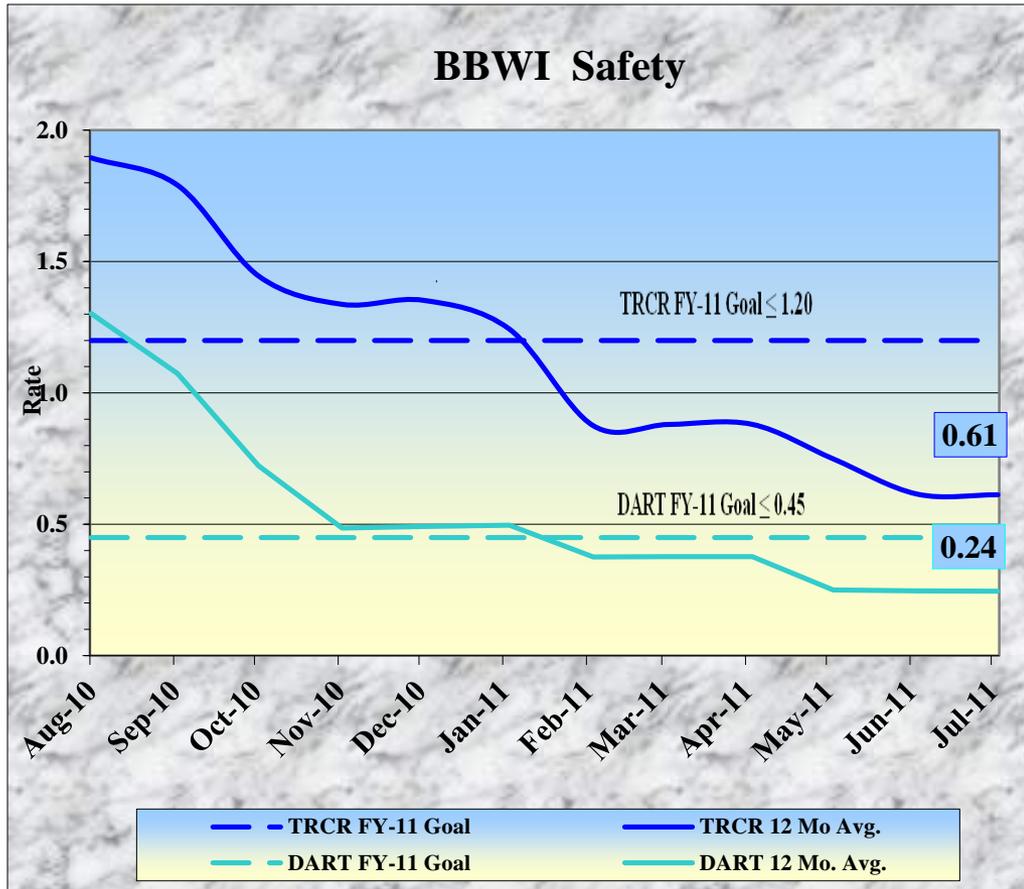
Four ORPS Reportable Occurrences

- EM-ID--CWI-BIC-2011-0003 , Hydraulic Oil Drained From Main Reservoir to the Ground After Hydraulic Hose Failed (ARRA) 5A(4) SC 4
- EM-ID--CWI-BIC-2011-0004 , Employee Receives a Static Shock While Removing Lead Shielding Windows From a Hot Cell 2C(1) SC 2



EM Environmental Management

BBWI Safety Performance - July



June 2011

Four First Aid Cases and One Recordable Injury

- Worker rolled ankle in October 2010. Medical treatment was applied this month as a result of the injury causing a reclassification to OSHA recordable.

No ORPS Reportable Occurrences

July 2011

Three First Aid Cases and No Recordable Injuries

Two ORPS Reportable Occurrences

- EM-ID--BBWI-AMWTF-2011-0008, Higher Than Anticipated Density for Fissile Material Identified in the AMWTF Zone 3 Boundary 3B(2) and 3B(1) SC 2
- EM-ID--BBWI-AMWTF-2011-0009, Idaho DEQ Issues Warning Letter for Two Instances of Failure to Record a Completed Inspection in Log 9(2) SC4



EM Environmental Management

Transuranic Waste Disposition

Key Activities/Actions:

- Shipped a total of 4,669 m³ (of 5,108m³) of CH-TRU to WIPP
- Completed transfer of TRU Laboratory to AMWTP/BBWI
- Bridge Scope for FY12 EM RH-TRU work under development

Metric	Planned (FY11)	Actual (FY11)	Goal
Ship contact-handled TRU waste to WIPP	779 m ³	1409 m ³	920 m ³
Ship remote-handled TRU waste to WIPP	19m ³	10.34 m ³	27 m ³

Remaining Milestone(s)	Completed	Target Date
Complete Disposition of EM RWMC RH-TRU	✓	3/31/2011
Complete ARRA RH-TRU Repackaging		June 2012
Complete Disposition of 65,000 m ³ CH-TRU		Sep-15

Upcoming Activities:

- Continue accelerated CH TRU shipments
- Continue transport, treatment, and disposal of LLW/MLLW offsite



Facility Transfer Container containing a large liner being positioned for placement within CPP-666 hot cell



Advanced Mixed Waste Treatment Project

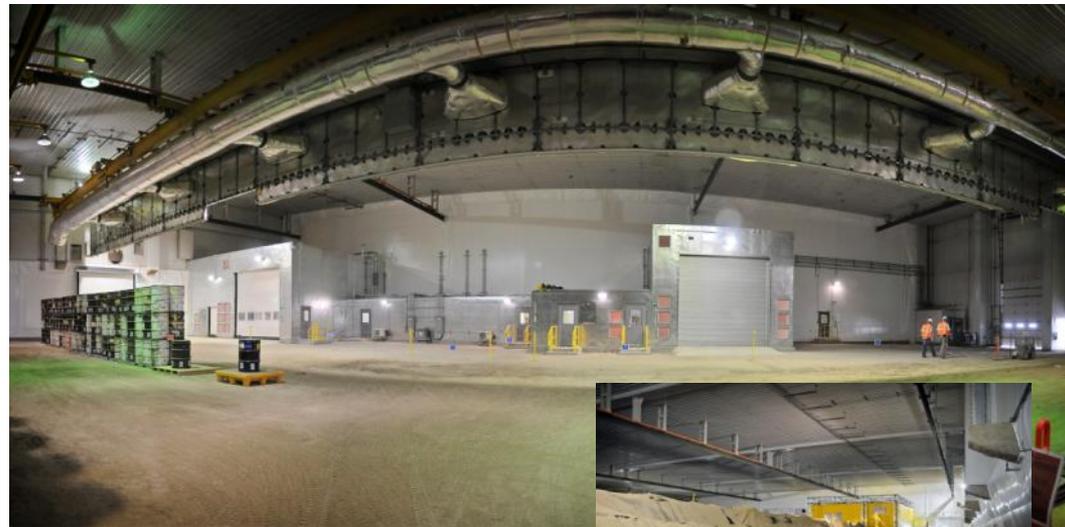
Key Activities/Actions:

- AMWTP contract awarded to Idaho Treatment Group
- Construction of Retrieval Contamination Enclosure
- First macroencapsulation shipment of MLLW waste made July 26
- Final shipment of Hanford offsite waste made August 4

Upcoming Activities:

- Complete transition of AMWTP contract to Idaho Treatment Group by Sept. 30, 2011

Metric	Planned (FY11)	Actual (FY11) As of 8/20/11	Goal (FY 11)
Ship Stored Transuranic Waste Out of Idaho	4413 m ³	2471 m ³	5000 m ³



A 180-degree view of the front of the completed Retrieval Contamination Enclosure, located inside Transuranic Storage Area-Retrieval Enclosure.



The inset picture shows the top of the Inner Contamination Enclosure that will be positioned over the area where crews conduct retrieval operations. Of the original 65,000m³ originally stored in TSA-RE only ~5,900m³ remains to be retrieved.



EM Environmental Management

CERCLA Remediation Project Objectives

- WAG 1: Test Area North
 - TAN Groundwater Remediation
- WAG 3: INTEC
 - Complete Phase I, II and III of the OU 3-14 Record of Decision
 - Operate the ICDF to compliantly disposition CERCLA waste from CERCLA and D&D Actions
- WAG 7: Radioactive Waste Management Complex
 - Exhume 5.69 acres of buried waste
- WAG 10: Site Wide
 - Maintain site wide Institutional Controls
 - Maintain Groundwater Monitoring program
 - Maintain the site wide CERCLA Ecological Monitoring program
 - Maintain the New Site Identification Process for future CERCLA sites
 - Remediate Munitions and Explosives of Concern



EM *Environmental Management*

CERCLA Remediation Projects

Key Activities/Actions:

- Completed construction of OU 3-14 Phase I Tank Farm paving
- Completed surficial clearance at the Mass Detonation Area (MDA)
- Completed D&D of the MDA Explosives Bunker
- Finalized OU 1-07B In-Situ Bioremediation Test Plan and consolidated ground water monitoring plan.
- Completed ARP V exhumations

Upcoming Activities:

- Complete OU 3-14 Phase II design – November 2011

Remaining Milestone(s)	Completed	Target Date
Complete 10-04 MDA Surficial Cleanup	✓ (8/2011)	9/2011
Complete INTEC Tank Farm Remedial Action Phase I	✓ (8/2011)	9/2011
Complete INTEC Tank Farm Remedial Action Phase II		Post 2012



OU 3-14 Phase I paving



MDA surficial clearance



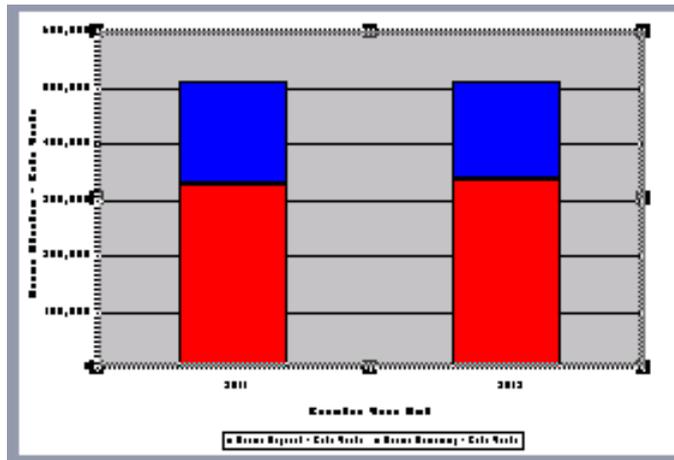
CERCLA Remediation Projects - ICDF

Key Activities/Actions:

- Completed disposal of CPP-602 D&D debris
- Completed disposal of TRA- 632 Hot Cell #3 waste



ICDF Project Landfill Utilization



Upcoming Activities:

- Disposition debris from the Advanced Test Reactor and Materials and Fuels Complex D&D projects
- Disposition the TRA-632 Hot Cell to the ICDF landfill – 1.5 million pounds (Sept 2011)



Waste Area Group (WAG) 7 Project Objectives

- 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 and V (Completed)
 - ARP VI, VII
- Complete in situ grouting of 21 locations (completed)
- Continue subsurface solvent vapor extraction (OCVZ)
- Continue environmental monitoring and institutional controls



WAG 7 Project

Key Activities/Actions:

- Completed waste exhumation of 2.74 acres
- Packaged ~ 25,098 drums of targeted waste
- Commenced turnover and startup of ARP VII
- Site preparation under way on ARP VIII

Upcoming Activities:

- Begin exhumation at ARP VII
- ARP VI will be completed in October

Metric	Actual (CTD)	Goal
Exhume m3 of waste zone materials	3,976 m3	6,238 m3
Targeted Waste Packaged (m3)	5,074 m3	7,485 m3
Acres Remediated	2.74 acres	5.69 acres

Remaining Milestone(s)	Completed	Target Date
Complete current contract WAG 7 Target Waste Retrieval volume		9/2012
Continue Exhumations		Post 2012
Complete Cap Per ROD		Post 2012



ARP VIII piling installation



D&D Objectives : ARRA & Base Project Objectives

Metric	Planned (CTD)	Actual (CTD)	Goal
Total Facilities Demolished	194	219	223
Facilities D&D Base	106	131	131
Facilities D&D ARRA	88	88	92



EM *Environmental Management*

ARRA D&D – RTC/PBF/RWMC Project



Remaining Milestone(s)	Completed	Target Date
Demo MTR main structure	✓	9/2011
Complete D&D of 27 RTC/PBF excess facilities and 4 high-risk facilities (started)	✓	9/2012

- Completed Demolition of TRA-632, TRA-Hot Cell
- Completed Demolition and re-route of TRA-610 Fan House

Key Activities/Actions:

- Completed Demolition of TRA-603, MTR reactor building
- Completed Demolition of the TRA Retention Basin (3 facilities - TRA-712, 760, 612)

Upcoming Activities:

- Closeout Activities



EM Environmental Management

EA Milestone *

D&D – INTEC Project

Key Activities/Actions:

- Complete CPP-1635 and CPP-1656 demolitions
- Complete CPP-654 demolition

Remaining Milestone(s)	Completed	Target Date
Complete 601/640 Demolition	✓	9/2011
Demo 36 excess buildings (Completed)	✓	9/2011
Contract demolition complete	✓	9/2011



Upcoming Activities:

- Complete project close-out documents



EM Environmental Management

ARRA D&D – Materials and Fuels Complex (MFC) Project

Key Activities/Actions:

- Completed installation of MFC-766 sodium treatment system
- Completed “Melt and Drain” operations in MFC-766

Remaining Milestone(s)	Completed	Target Date
Demo 5 Facilities (started)		6/2012
Complete MFC 767* (started)		3/2012

* Revised forecast 7/2012 due to the preferred process selected for the MFC-767 building demolition will not likely be during the winter months.



Upcoming Activities:

- Complete project close-out documents



EM Environmental Management

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

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



Integrated Waste Treatment Unit (Sodium-Bearing Waste) Project

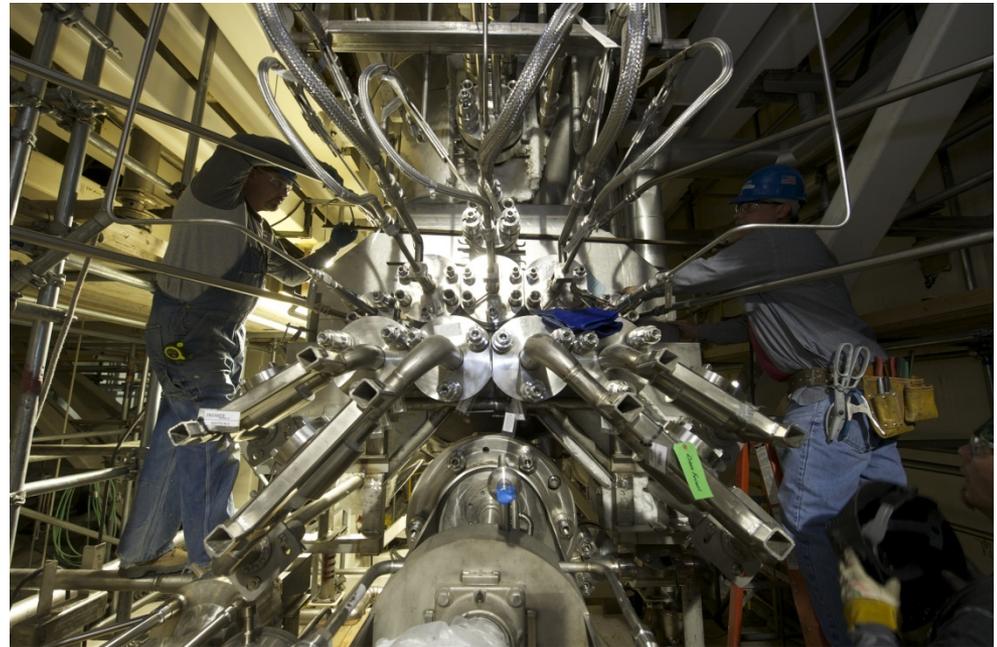
Key Activities/Actions:

- All systems in testing
- Contractor Management Self Assessment (MSA) initiated.
- Hot Nitrogen Integrated Systems test initiated

Upcoming Activities:

- Complete Hot Nitrogen testing
- Complete MSA
- Contractors Operational Readiness Review
- DOE Operational Readiness Review

Remaining	Milestone(s)	Completed	Target Date
	Construction Turnover Complete	(6/3/2011)	12/01/2011
	Commence Operations of treatment facility	✓	1/30/2012
	Complete SBW Treatment		10/30/2012



INTEC Liquid Waste Facility (Tank Farm) Closure Project

Key Activities/Actions:

- Pending start of IWTU operations

Remaining Milestone(s)	Completed	Target Date
West Side of Tank Farm Ready for D&D and closure	✓	7/2011
Complete Tank Farm Grouting		(Post - 2012)

Upcoming Activities:

- Begin placement of tents for containment during cleaning activities
- Begin design work for closure of last four tanks (grouting and washing) -- October



Spent Nuclear Fuel Disposition Project Objectives

- 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 SNM 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

Key Activities/Actions:

- Completed EBR-II fuel loading training, dry and wet runs in preparation for initial cask transfer to MFC in September
- Received and unloaded first seven(56 elements) Advanced Test Reactor fuel casks from RTC
- Received NRC license extension (first issued to the Department of Energy for a facility storing spent nuclear fuel) for Fort St. Vrain in Colorado
- Initiated NRC TMI Pad repairs

Remaining Milestone(s)	Completed	Target Date
Complete receipt of ATR fuel to CPP-666		(9/30/12)

Metric	Planned (FYTD)	Actual (FYTD)	Goal
FRR/DRR Receipts	2	2	2

Upcoming Activities:

- Transfer initial two EBR II casks to MFC
- Receive remaining 5 ATR casks from RTC
- Complete TMI Pad repairs

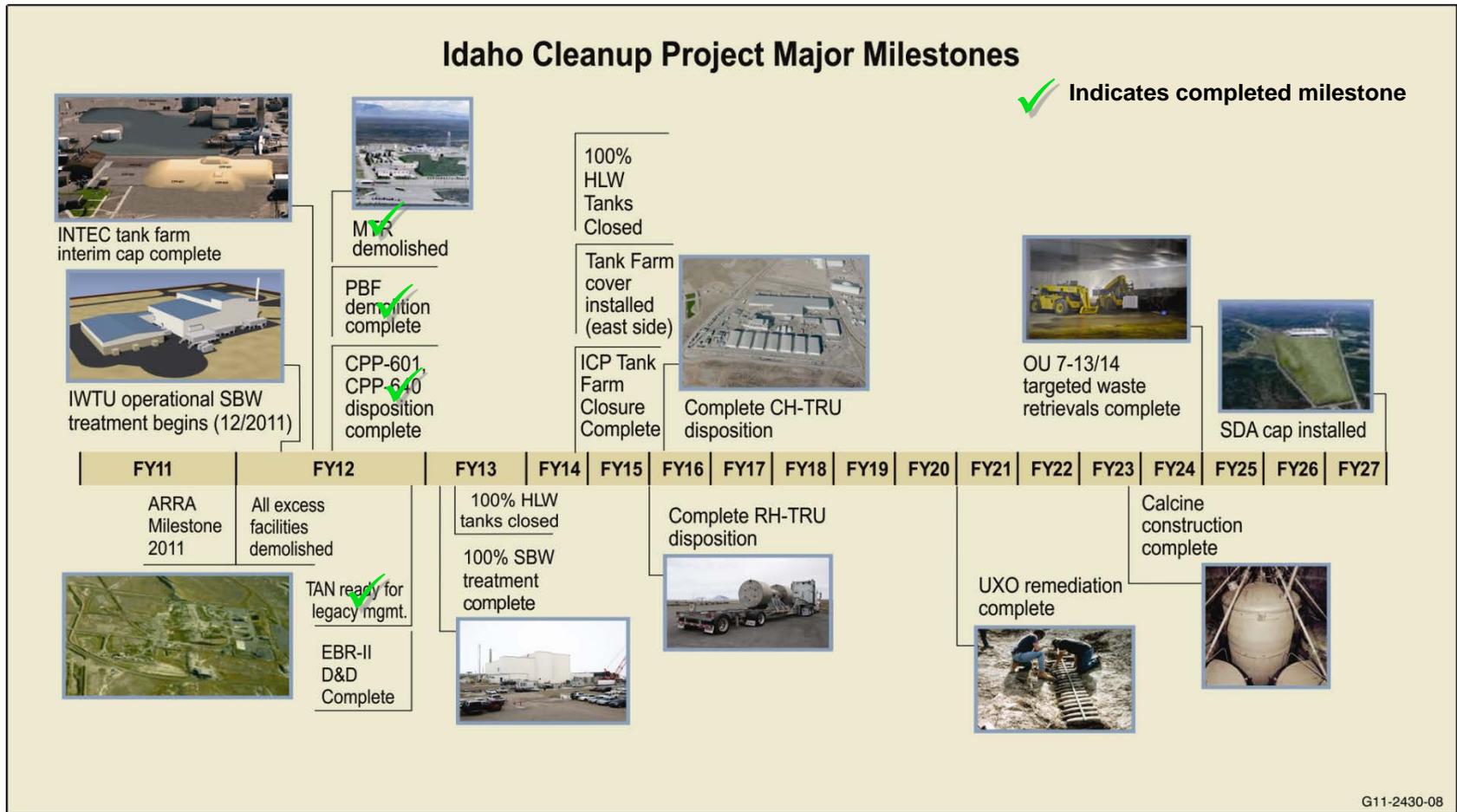


ARRA Status

PBS/Project Name	Completion Date	Highlight Concern
ID-0013.R1 TRU Waste	Sep-11	Completed
ID-0013.NEW.R1 TRU Waste	Sep-11	CTD Ahead of Schedule
ID-0030B.R1.1 Buried Waste	Sep-11	On Schedule (No Performance Metrics in IPABS)
ID-0030B.R1.2 In-situ Grouting	11-Feb	Completed
ID-0030B.R1.3 Soil and Ground Water Operations	Sep-11	CTD Ahead of Schedule
ID-0040B.R1.1 D&D (NTB)	Sep-11	Completed Ahead of Schedule
ID-0040B.R1.2 D&D (OPER)	Sep-11	Completed
ID-0040B.NEW.R1.3 D&D NE Facilities (NEW)	Sep-12	CTD On Schedule (EBR-II D&D extended to 2012)



Idaho Project Milestones



G11-2430-08



Items of Potential Interest

- EM Idaho Staffing Changes
- Workforce Layoffs
- Funding Constraints

