

Idaho Cleanup Project Progress Citizens Advisory Board June FY 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
- Idaho CERCLA Disposal Facility
 - Waste Area Group 7 (Radioactive Waste Management Complex)
 - Waste Area Group 10 – Site-wide Miscellaneous Sites/Snake River Plain Aquifer

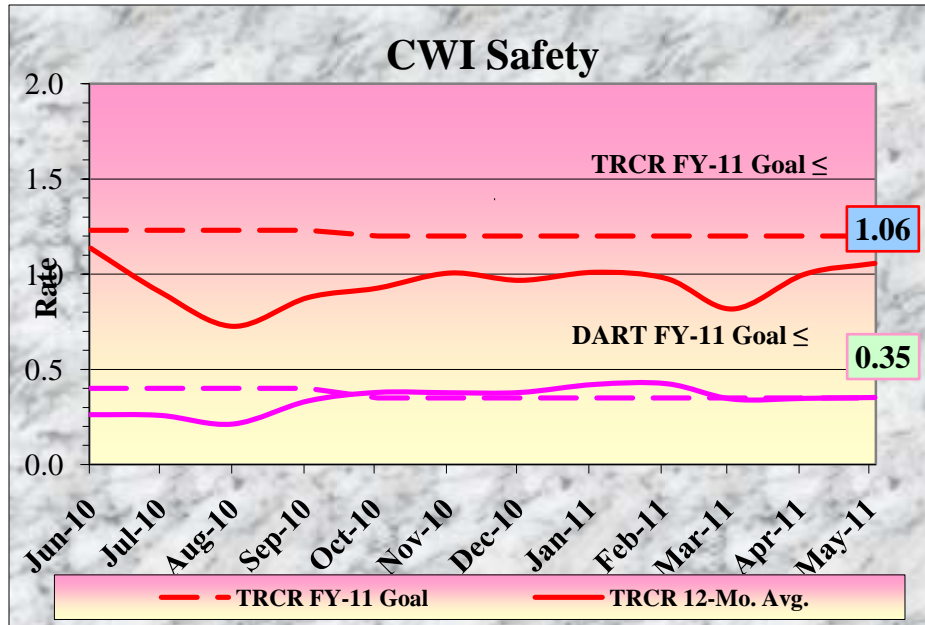


Idaho Cleanup Project Scope ARRA Work Included (con't)

- Decontamination and Decommissioning
 - Test Area North (Completed)
 - Reactor Test Complex (RTC)
 - Idaho Nuclear Technology and Engineering Center (INTEC)
 - Radioactive Waste Management Complex (RWMC)
 - Power Burst Facility (ARRA) (Completed)
 - Materials and Fuels Complex (ARRA)
- 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 – May



April 2011

Seven First Aid Cases and Five Recordable Injuries

- Worker injured finger while placing bolts into a vessel
- URS iron worker slipped and fell hitting head
- URS laborer fell from ladder and fractured right foot
- Worker fractured leg on grating while exiting forklift
- Health Physicist fell on knee after foot became tangled in rebar

Five ORPS Reportable Occurrences

- EM-ID--CWI-ICPWM-2011-0002, Employee Injures Knee Exiting Forklift (ARRA) 2A(6) SC3 PBS-13
- EM-ID--CWI-IWTU-2011-0002, Breach in Pneumatic System Causes Unexpected High Pressure Air Release at IWTU 10(2) SC3 IWTU
- EM-ID--CWI-IWTU-2011-0003, Grinder Fell From Scaffolding Nearly Striking Employee Below 10(3) SC3 IWTU
- EM-ID--CWI-IWTU-2011-0004, Employee fell from scaffolding ladder, fracturing his foot 2A(6) SC3 IWTU
- EM-ID--CWI-BIC-2011-0001, Small fire observed during sodium melt and drain operations 2B(3) and 4B(4) SC3 PBS-40

May 2011

Seven First Aid Cases and Two Recordable Injuries

- Worker strained wrist while pulling cart
- URS pipefitter burned hand on recently welded pipe

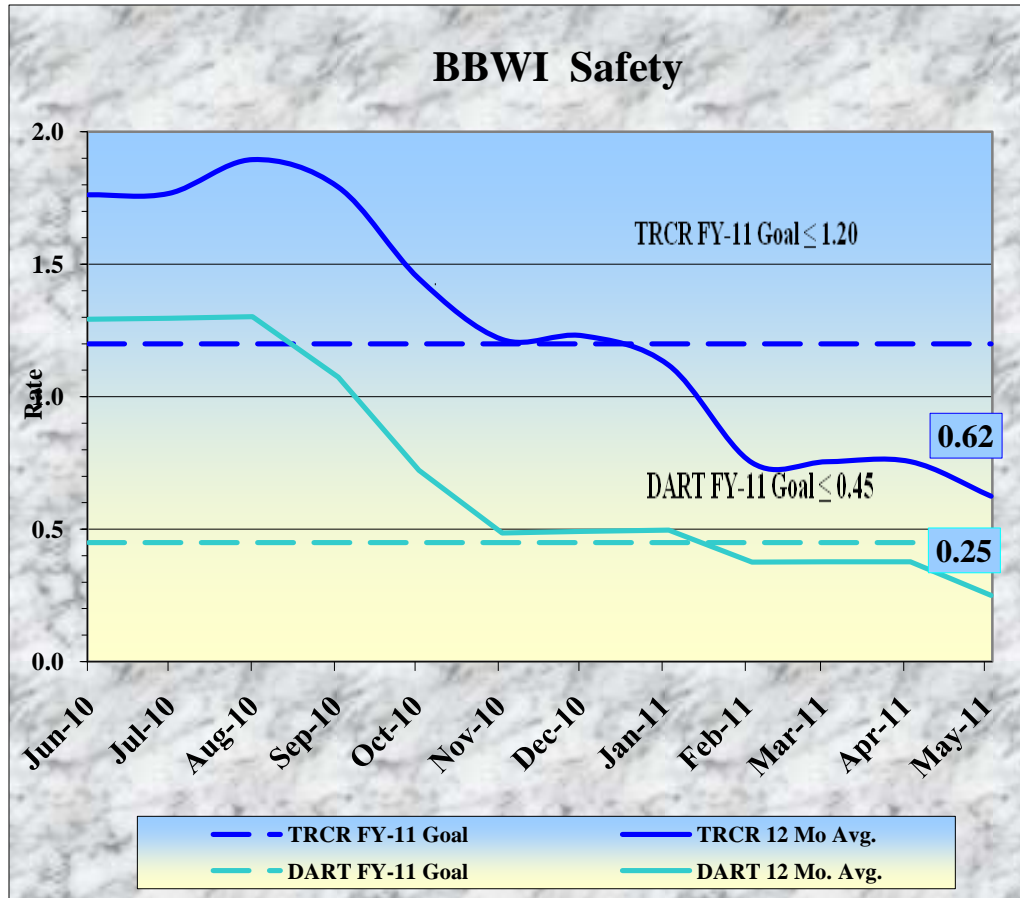
Three ORPS Reportable Occurrences

- EM-ID--CWI-BIC-2011-0002, Personnel Contamination During Component Clean-Up (ARRA) PBS-40
- EM-ID--CWI-IWTU-2011-0005, Inadvertent Exposure to Liquid Nitrogen During Storage Tank Venting 10(3) SC3
- EM-ID--CWI-IWTU-2011-0006, Steam Flushing Valve Misalignment 10(2) SC 3



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BBWI Safety Performance - May



April 2011

Four First Aid Cases and One Recordable Injury

- Restricted case occurred when an employee injured knee while stepping up on to a truck cab.

Two ORPS Reportable Occurrences

- EM-ID--BBWI-AMWTF-2011-0005, Suspect Counterfeit Shackles and Turnbuckles 4C(2) SC-4 PBS-13
- EM-ID--BBWI-AMWTF-2011-0006, March 2008 Low Specific Activity (LSA) Waste Shipments Result in Notice of Probable Violation 9(2) SC4 PBS-13

May 2011

No First Aid Cases and No Recordable Injuries

One ORPS Reportable Occurrence

- EM-ID--BBWI-AMWTF-2011-0007, Worker Contaminated on Shoe Sole by puncture through ANTI-C Protective Clothing 6D(3) SC4 PBS-13



Transuranic Waste Disposition

Key Activities/Actions:

- CH-TRU characterization efficiencies continue resulting in schedule acceleration and cost savings
- Received final large liner shipments from MFC

Metric	Planned (FY11)	Actual (FY11)	Goal
Ship contact-handled TRU waste to WIPP	779 m ³	1028m ³	920 m ³
Ship remote-handled TRU waste to WIPP	19m ³	8 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 repackaging MFC RH-TRU in CPP-666
- Complete conceptual design of Sodium Treatment System August 2011



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Advanced Mixed Waste Treatment Project

Key Activities/Actions:

- AMWTP employees reached 12 million hours without a lost time injury
- Increased number of shipments to WIPP
- Implementing macro encapsulation technology for cost effective Mixed Low Level Waste treatment
- Developing sludge treatment technology for organic sludge waste stream, largest remaining waste stream at AMWTP
- Assumed operations of Analytical Chemistry Laboratory

Upcoming Activities:

- Construction of Retrieval Contamination Enclosure is targeted for end of July
- Resolve AMWTP contract award protest

Metric	Planned (FY11)	Actual (FY11) As of 6/23/11	Goal (FY 11)
Ship Stored Transuranic Waste Out of Idaho	3749 m ³	2190 m ³	5,000 m ³



Inside Transuranic Storage Area-Retrieval Enclosure, looking south through entrance of new Retrieval Contamination Enclosure at remaining estimated 10 percent of stored waste



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
 - Operate the ICDF to compliantly disposition CERCLA waste from CERCLA and D&D Actions
- Waste Area Group 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 unexploded ordnance (UXO) and explosives



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CERCLA Remediation Projects

Key Activities/Actions:

- Completed WAGs 1, 7 and 10 groundwater sampling

Upcoming Activities:

- Complete OU 3-14 Phase I Tank Farm Remedial Action – August 2011
- Complete Mass Detonation Area (MDA) surficial– November 2011
- Complete OU 3-14 Phase II design

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



TAN Groundwater Remediation Whey Injection (OU 1-07B)



CERCLA Remediation Projects - ICDF

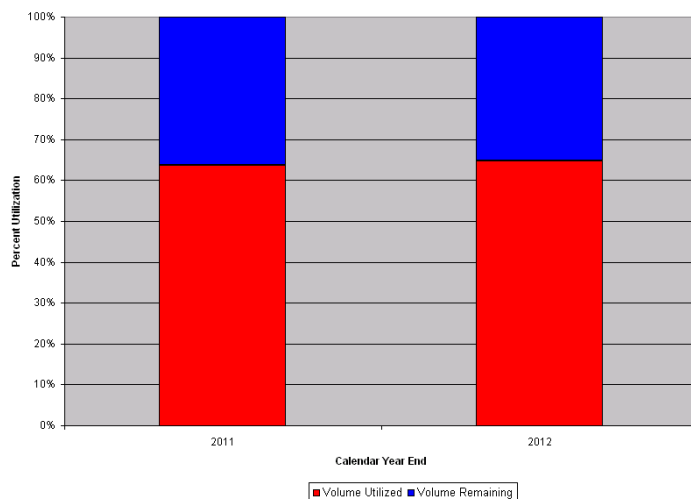
Key Activities/Actions:

- Completed disposal of CFA-54 site soils
- Completed disposal of MFC D&D Alcohol Recovery Pad Tanks



MFC D&D Alcohol Recovery Pad Tanks

ICDF Project Landfill Utilization



Upcoming Activities:

- Disposition debris from the ATR D&D projects
- Disposition the TRA-632 Hot Cell to the ICDF Landfill – 1.5M 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 and IV (Completed)
 - ARP V, 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:

- ARP V exhumation is proceeding ahead of schedule (75 percent complete) due to the use of two crews
- ARP VI exhumation is 50 percent complete
- Continuing ARP VII (Pit 10 west) construction
- Construction design is under way for ARP VIII (Pits 1 and 2) and a request for bids was sent out

Upcoming Activities:

- Complete ARP VII construction in September

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	2.64 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



WAG 7 Project (cont'd)



D&D Objectives : ARRA & Base Project Objectives

Metric	Planned (CTD)	Actual (CTD)	Goal
Total Facilities Demolished	179	206	220
Facilities D&D Base	143	166	171
Facilities D&D ARRA	36	40	49



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ARRA D&D – RTC/PBF/RWMC Project



Key Activities/Actions:

- Successfully completed the TRA-603 roof explosives demolition

Upcoming Activities:

- Demolition of TRA-603, MTR reactor building
- Demolition of TRA-632, TRA Hot Cell building
- Demolition and reroute of TRA-610 Fan House
- Demolition of the TRA Retention Basin

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

Metric	Planned (CTD)	Actual (CTD)	Goal
Facilities D&D	27	38	42



D&D – INTEC Project

Key Activities/Actions:

- Exterior demolition of CPP-601 and CPP-602

Remaining Milestone(s)	Completed	Target Date
Complete 601/640 Demolition (640 - Completed)		9/2011
Demo 36 excess buildings (Started)		9/2011
Contract demolition complete (Completing 1-year ahead of plan)		9/2011

Metric	Planned (CTD)	Actual (CTD)	Goal
Facilities D&D	107	118	123



Upcoming Activities:

- Complete demolition of the Fuel Reprocessing Building (CPP-601)
- Complete CPP-602 D&D
- Complete CPP-1635 and CPP-1656 demolitions



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

Key Activities/Actions:

- Passivated sodium successfully treated using a citric acid solution developed by the D&D project

Metric	Planned (CTD)	Actual (CTD)	Goal
Facilities D&D	5	4	9

Remaining Milestone(s)	Completed	Target Date
Demo 5 Facilities (Started)		9/2011
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:

- Continue “Melt and Drain” operations
 - Solidified sodium in piping components heated to 400-500 deg., to liquefy, drain and treat



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

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



Integrated Waste Treatment Unit (Sodium-Bearing Waste) Project

Key Activities/Actions:

- Construction complete
- All systems turned over to testing program

Upcoming Activities:

- Initiate Hot Nitrogen Test

Remaining	Milestone(s)	Completed	Target Date
	Construction Turnover Complete (6/3/2011)	✓	12/01/2011
	Commence Operations of treatment facility		12/31/2011
	Complete SBW Treatment		9/30/2012



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INTEC Liquid Waste Facility (Tank Farm) Closure Project

Key Activities/Actions:

- Continue design work for asphalt placement

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

Upcoming Activities:

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



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:

- One Domestic Reactor Receipt (DRR) at INTEC from Reed College in Portland, Oregon
- ATR shipments to CPP-666 shipments resumed June 27, 2011

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:

- Inspection of DRR Facility Mexico City
- Preparatory work for EBR-II fuel moves
- ATR shipments to CPP-666
 - Twelve shipments planned in FY11 and FY12 (24 Total)



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Calcine Disposition Project

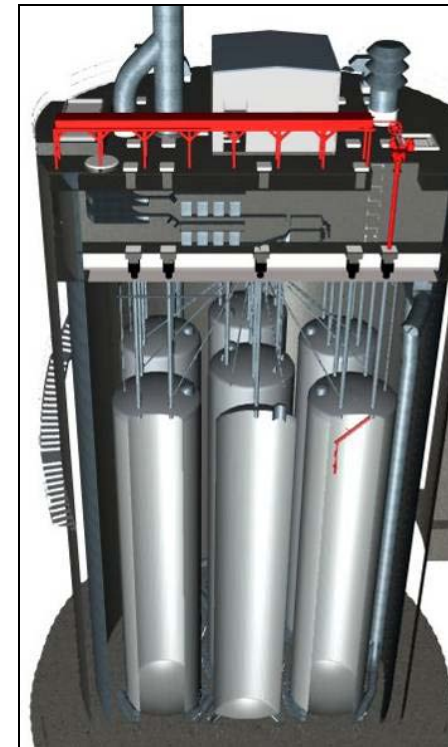
Highlight/Concern:

- Focus placed on completing RCRA Part B Permit modifications

Upcoming Activities:

- Continue engineering evaluations and design in support of the RCRA Part B Permit Modification Request
- Initiate technology proof of principle testing in support of the RCRA Part B Permit Modification

Remaining Milestone(s)	Target Date
Submit Resource Conservation and Recovery Act (RCRA) Part B permit Modification Request	(12/1/12)



ARRA Status

Metrics Through: June 2011

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	CTD On Schedule
ID-0040B.R1.2 D&D (OPER)	Sep-11	CTD Ahead of Schedule
ID-0040B.NEW.R1.3 D&D NE Facilities (NEW)	Sep-12	CTD on Schedule (EBR-II D&D extended to 2012)



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Idaho Project Milestones

Idaho Cleanup Project Major Milestones

✓ Indicates completed milestone



INTEC tank farm
interim cap complete



MTR
demolished ✓



IWTU operational SBW
treatment begins (12/2011)

PBF
demolition
complete ✓

CPP-601,
CPP-640
disposition
complete

Temporary
Tank Farm
cover
installed
(east side)

ICP Tank
Farm
Closure
Complete



Complete CH-TRU
disposition



OU 7-13/14
targeted waste
retrievals
complete

FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27
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ARRA
Milestone
2011



All excess
facilities
demolished

TAN ready ✓
for
legacy mgmt.

EBR-II
D&D
Complete

100% HLW
tanks closed

100% SBW
treatment
complete



Complete RH-TRU
disposition



Calcine
construction
complete

UXO remediation
complete



SDA cap
installed



G11-2430-08



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Items of Potential Interest

- Human Capital Reports
- Projected Budget



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