

Idaho Cleanup Project Progress Citizens Advisory Board November FY 2012 Status

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



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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



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

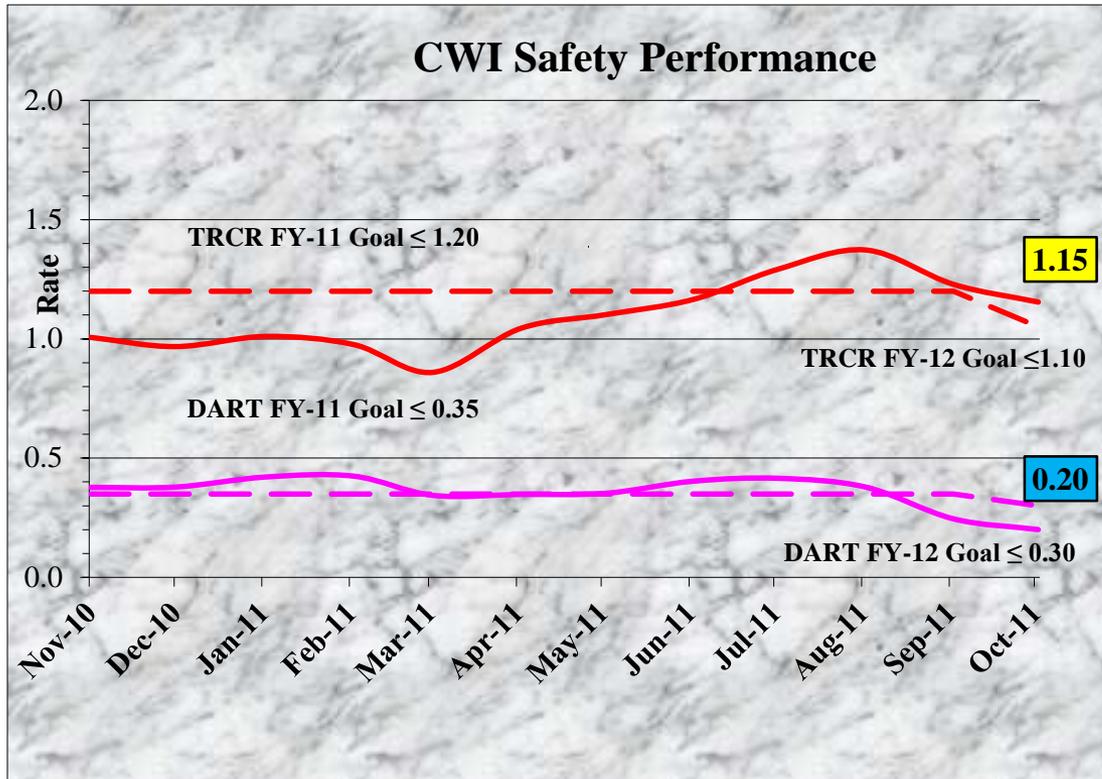
- Decontamination and Decommissioning
 - Test Area North (Completed)
 - Advanced Test Reactor (ATR) (Completed)
 - Idaho Nuclear Technology and Engineering Center (INTEC) (Completed)
 - Radioactive Waste Management Complex (RWMC) (Completed)
 - Power Burst Facility (ARRA) (Completed)
 - Materials and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



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CWI Safety Performance – October



September 2011

Three First Aid Cases and One Recordable Injury

- IWTU worker received minor cut to hand

No ORPS Reportable Occurrences

October 2011

Four First Aid Cases and No Recordable Injuries

Three ORPS Reportable Occurrences

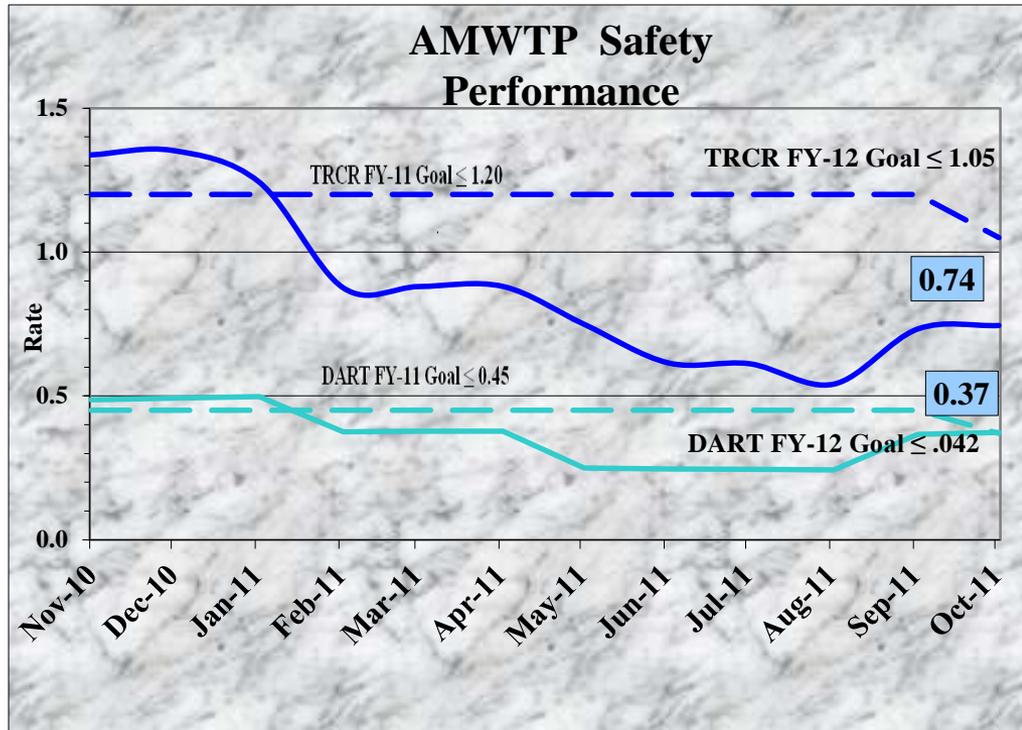
- Legacy contamination discovered while clearing debris and weeds from ditches at ATR complex
- Personnel contamination detected after loading waste box at ATR complex
- Employee received mild shock from desk lamp



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AMWTP Safety Performance - October



September 2011

One First Aid Cases and Three Recordable Injuries

- An employee received a large wooden splinter injury to hand
- An employee had a foreign object in eye, resulting in a corneal abrasion
- An employee experienced abdominal muscle strain during work activities

No ORPS Reportable Occurrences

October 2011

One First Aid Case and No Recordable Injuries

Two ORPS Reportable Occurrences

- Failure to complete refresher training for alternative methods for hazardous energy control
- Increasing trend in contamination events related to contaminated cell entries



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Transuranic Waste Disposition

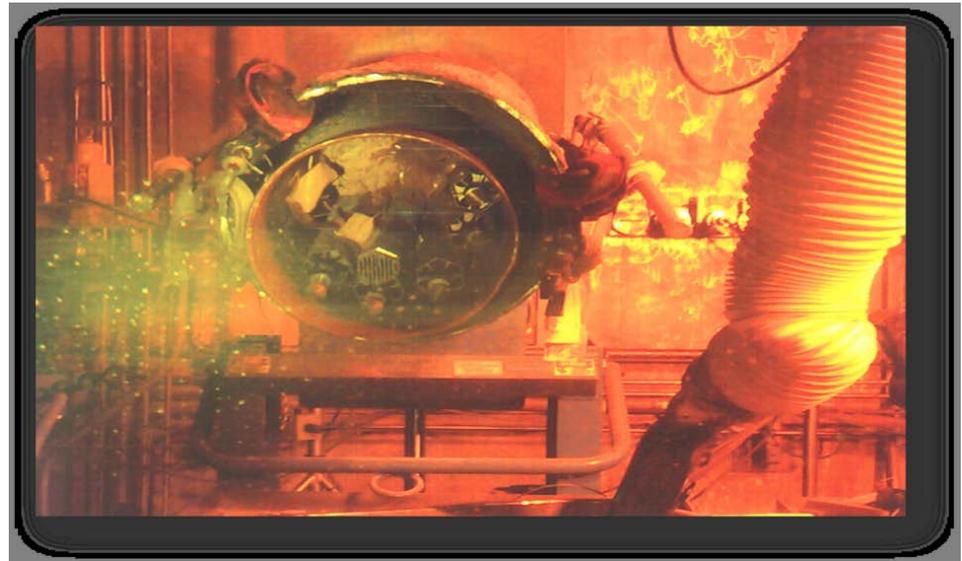
Key in FY 2011 Activities/Actions:

- Shipped 4,365 m³ CH-TRU to WIPP
- Shipped 10.35 m³ of 13.48 m³ RH-TRU to WIPP
- Completed initial characterization of 1,000 drums (of 1,500 planned) of CH TRU exhumed from ARP VI under ARRA

Upcoming Activities:

- WIPP Shipments:
 - Continue CH TRU
 - Resume RH TRU
- Transport, treatment, and disposal of LLW/MLLW offsite

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



CPP-666 Hot Cell window Waste canister waste removal for repackaging



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Advanced Mixed Waste Treatment Project

Key Activities/Actions:

- Completed successful transition of AMWTP operations
- Employees have worked more than 12.5 million hours without a lost-time injury
- In October 2011, AMWTP sent 43 shipments of transuranic waste to WIPP
- ITG now implementing its strategic plan

Upcoming Activities:

- Restart retrieval Operations



WIPP's 10,000th Shipment from Idaho



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CERCLA Remediation Project Objectives

- 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
- 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 (MEC)



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CERCLA Remediation Projects

Key Activities/Actions:

- Completed the OU 3-14 Phase I paving and pre-final inspection
- Completed the MEC remediation
- Submitted Draft Completion Report for TRA-74 and CFA-54
- Completed 9 WAG-specific ecological risk assessment reviews

Upcoming Activities:

- Finalize OU 3-14 Designs
- Complete OU 3-14 Phase I pre-final inspection report 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
Submit Draft Phase II 90% Design	✓ (10/2011)	11/2011
Complete INTEC Tank Farm Remedial Action Phase II		Post 2012



Ordnance detonation



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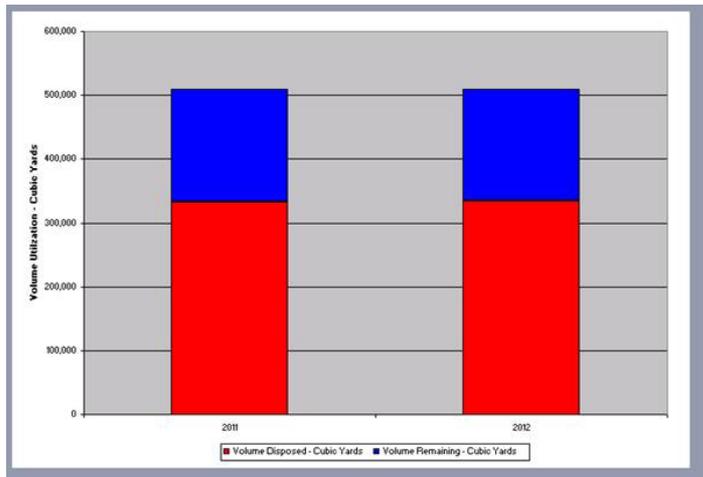
CERCLA Remediation Projects - ICDF

Key Activities/Actions:

- Completed disposal and grouting of Hot Cells
- Maintained ICDF evaporation ponds



ICDF Project Landfill Utilization



Upcoming Activities:

- Disposition of debris from MFC D&D projects
- Disposition of soil from excavation of TRA-632 lines



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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, VI (Completed)
 - ARP VII, ARP VIII & ARP IX
- Complete in situ grouting of 21 locations (completed)
- Subsurface solvent vapor extraction (OCVZ)
- Environmental monitoring and institutional controls



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WAG 7 Project

Key Activities/Actions:

- Completed waste exhumation at ARP VI
- Commenced turnover and startup of ARP VII

Upcoming Activities:

- Exhume ARP VII target waste
- Complete modification to ARP III to allow waste exhumation of the remaining .06 acres (10 grids)
- Continue construction of ARP VIII

Metric	Actual (CTD)	Goal
Targeted Waste Packaged (m ³)	5,525 m ³	7,485 m ³
Acres Remediated	2.96 Acres	5.69 Acres

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



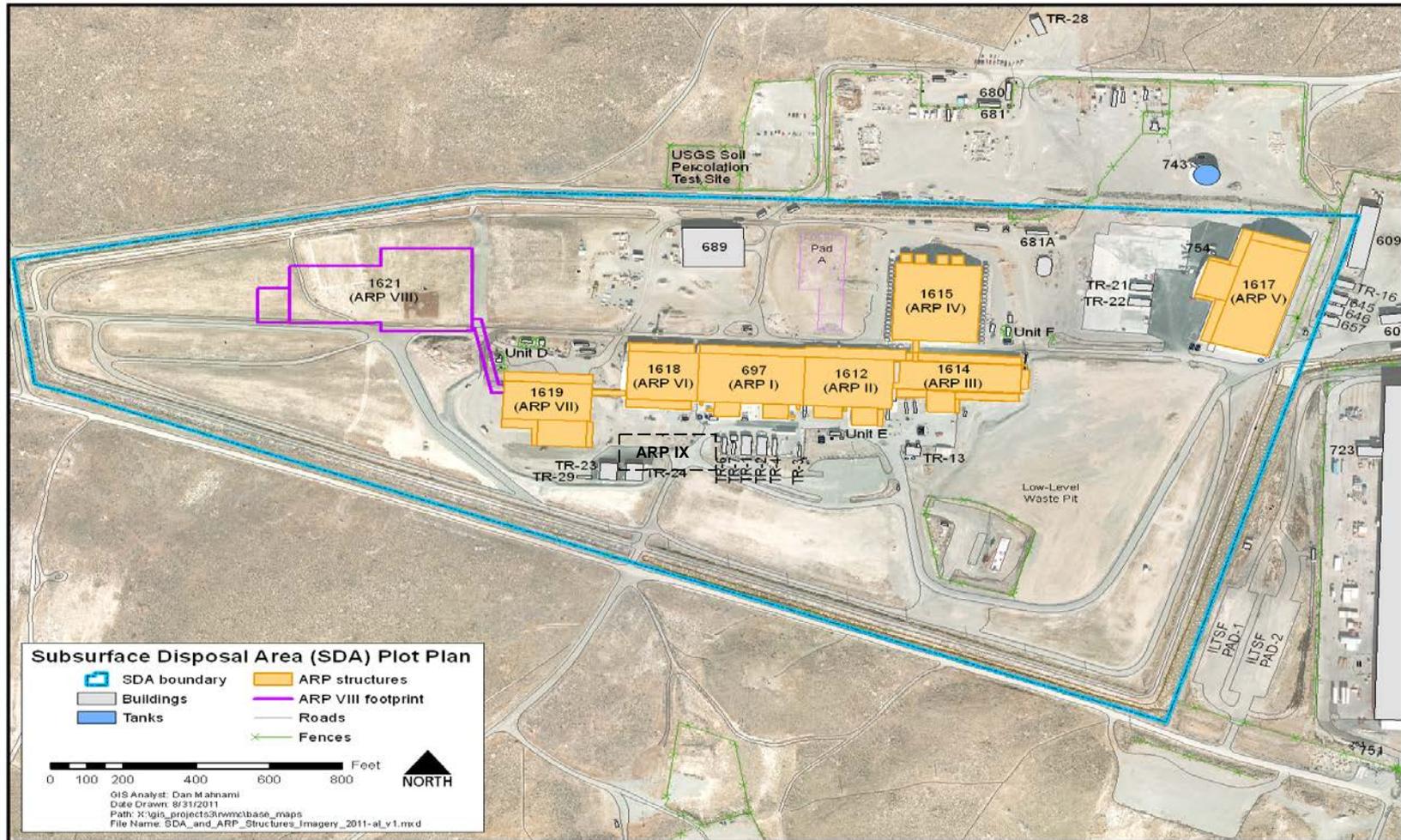
ARP VIII concrete installation



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WAG 7 Project (cont'd)



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D&D Objectives : ARRA & Base Project Objectives

Metric	Planned (CTD)	Actual (CTD)	Goal
Total Facilities Demolished	194	219	223
Facilities D&D Base	102	131	131
Facilities D&D ARRA	92	88	92



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ARRA D&D – RTC/PBF/RWMC Project

Key Activities/Actions:

- Completed demolition of TRA-610
- Completed pick and transport of the 1.5 million pound TRA-632 Hot Cell 1

Upcoming Activities:

- Remove underground lines from hot cells
- Closeout activities

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



TRA-610 demolition in September



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D&D – INTEC Project

Key Activities/Actions:

- Completed D&D of INTEC work scope

Upcoming Activities:

- Complete project close-out documents

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



Gravel cap where reprocessing buildings once stood



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

Key Activities/Actions:

- Continue treatment of passivated sodium (approximately 60 percent complete)
- Continue decontamination work in the reactor

Remaining Milestone(s)	Completed	Target Date
Demo ready 5 Facilities (started)		9/2012



Upcoming Activities:

- Complete passivated sodium treatment by end of January
- Continue decontamination activities in the reactor facility



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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



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Integrated Waste Treatment Unit (Sodium-Bearing Waste) Project

Key Activities/Actions:

- Hot Nitrogen Integrated Systems test successfully completed on Oct. 20

Remaining	Milestone(s)	Completed	Target Date
	Construction Turnover Complete	✓	12/01/2011
	Commence Operations of treatment facility		1/30/2012
	Complete SBW Treatment		12/31/2012

Upcoming Activities:

- Complete MSA
- Complete Contractors Operational Readiness Review
- Complete DOE Operational Readiness Review



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INTEC Liquid Waste Facility (Tank Farm) Closure Project

Key Activities/Actions:

- Began placement of tents for containment during cleaning activities

Upcoming Activities:

- Begin design work for closure of last four tanks (grouting and washing)

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)



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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



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Spent Nuclear Fuel Disposition Project

Key Activities/Actions:

- Completed two EBR-II cask shipments to MFC
- Received and unloaded three Advanced Test Reactor fuel casks from RTC
- Completed TMI-2 concrete repairs
- Initiated kickoff for TMI-2 NRC license renewal

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

Upcoming Activities:

- Recommence EBR-II cask shipments in January



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Idaho Project Milestones

Idaho Cleanup Project Major Milestones

✓ Indicates completed milestone



INTEC tank farm interim cap complete



MTR demolished

100% HLW Tanks Closed

Tank Farm cover installed (east side)

ICP Tank Farm Closure Complete



Complete CH-TRU disposition



OU 7-13/14 targeted waste retrievals complete



SDA cap installed



IWTU operational SBW treatment begins (12/2011)

PBF demolition complete

CPP-601, CPP-640 disposition 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 ✓

100% HLW tanks closed

Complete RH-TRU disposition

100% SBW treatment complete

Calcrete construction complete



TAN ready for legacy mgmt. ✓

EBR-II D&D Complete



UXO remediation complete



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Items of Potential Interest

- FY 2012 Budget
- ITG Contract Management
- IWTU Operational Startup



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