

Idaho Cleanup Project Progress

Citizens Advisory Board

July 10, 2014

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Idaho Operations Office



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Idaho Cleanup Project Scope

- Transuranic Waste Disposition
- Advanced Mixed Waste Treatment Project (AMWTP)
- Comprehensive Environmental Response Compensation Liability Act (CERCLA) Remediation
 - Waste Area Group (WAG) 1 – Test Area North (TAN)
 - Waste Area Group (WAG) 2 – Test Reactor Area (TRA)
 - Waste Area Group (WAG) 3 – Idaho Nuclear Technology and Engineering Center (INTEC)
 - Waste Area Group (WAG) 4 – Central Facilities Area (CFA)
 - Waste Area Group (WAG) 5 – Power Burst Facility (PBF)/Auxiliary Reactor Area (ARA)
 - Waste Area Group (WAG) 6 – Experimental Breeder Reactor No. I (EBR-I)
 - Waste Area Group (WAG) 7 – Radioactive Waste Management Complex (RWMC)
 - Waste Area Group (WAG) 9 – Argonne National Laboratory – West (ANL-W)
 - Waste Area Group (WAG) 10 – Site-wide Miscellaneous Sites/Snake River Plain Aquifer
- Idaho CERCLA Disposal Facility



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Idaho Cleanup Project Scope

- Sodium Bearing Waste Treatment
- INTEC Liquid Waste Treatment Facility (Tank Farm Closure)
- Calcine Disposition
- Decontamination & Decommissioning
 - MFC (Materials and Fuels Complex)
 - INTEC (Idaho Nuclear Technology and Engineering Center)
 - RWMC (Radioactive Waste Management Complex)

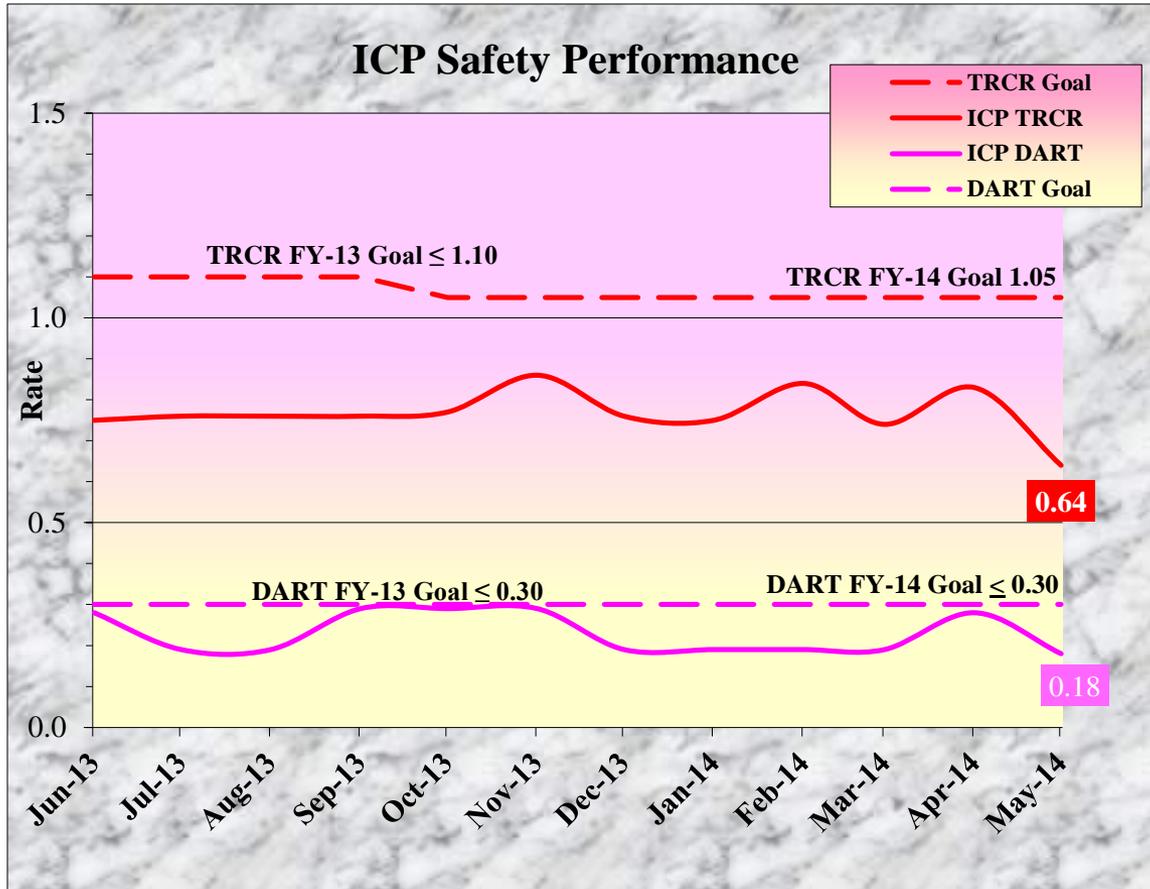


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ICP Safety Performance – June 2014

(Information and Data through **May18**, 2014)



April 2014

Three First Aid Cases and One Recordable Injury:

- A chainlink gate fell on an operator, resulting in a back fracture. (DART)

Three ORPS Reportable Occurrences:

- PISA for IWTU GAC Vessel Structural Integrity - Negative USQ.
- IWTU Chainlink Gate Fell, Striking an Operator.
- IWTU-High Off-Gas Temperature Actuates SIF Automated Shutdown.

May 2014

Two First Aid Cases and No Recordable Injuries

One ORPS Reportable Occurrence:

- IWTU - Personal Lock Installed on Lockbox Missing Personal Tag

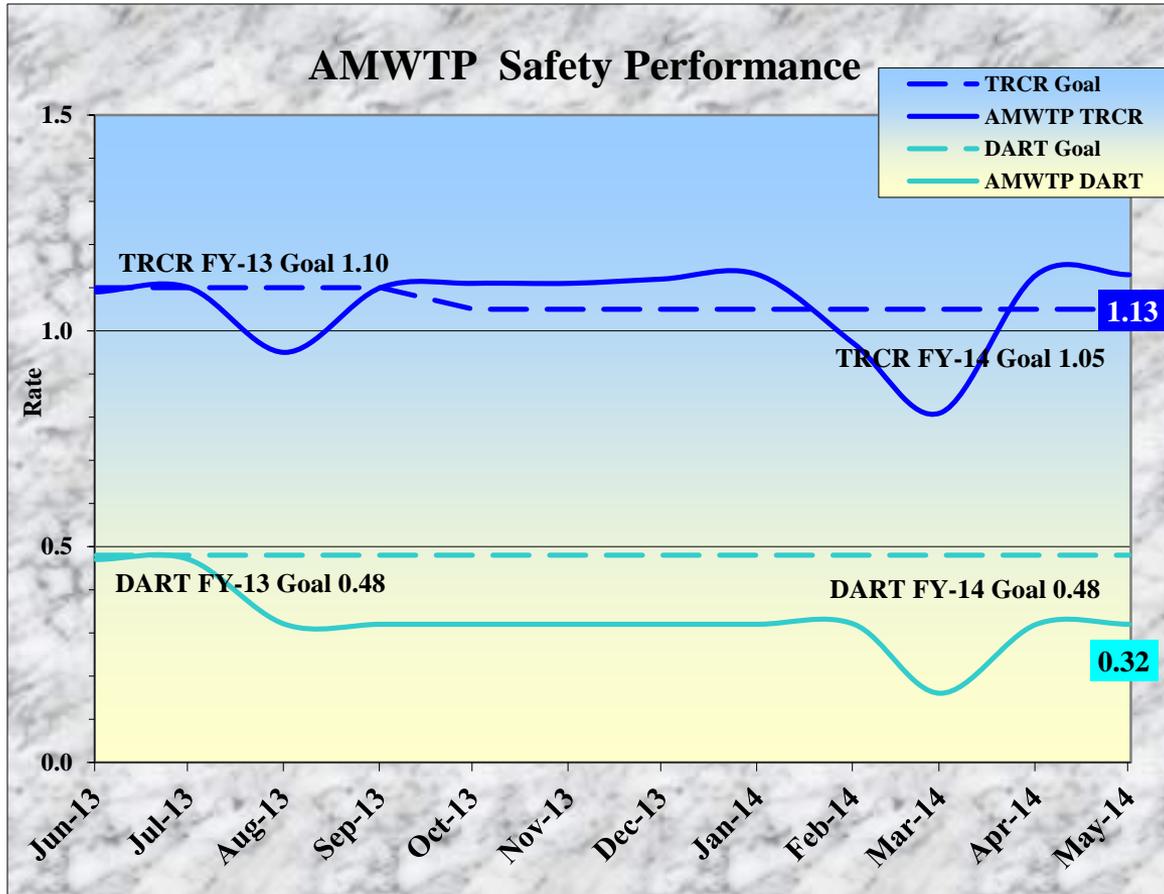


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AMWTP Safety Performance – June 2014

(Information and Data through May 18, 2014)



April 2014

One First Aid Case and Two Recordable Injuries:

- Shoulder strain while moving equipment resulted in restrictions. (DART)
- Neck strain from hyperextension due to slipping on the ice.

Two ORPS Reportable Occurrences:

- Receipt of DEQ Warning Letter for CO₂ Fire Extinguishing System Deficiencies
- Edison Circuit Discovered During Electrical Panel Inspection

May 2014

Two First Aid Cases and No Recordable Injuries

No ORPS Reportable Occurrences



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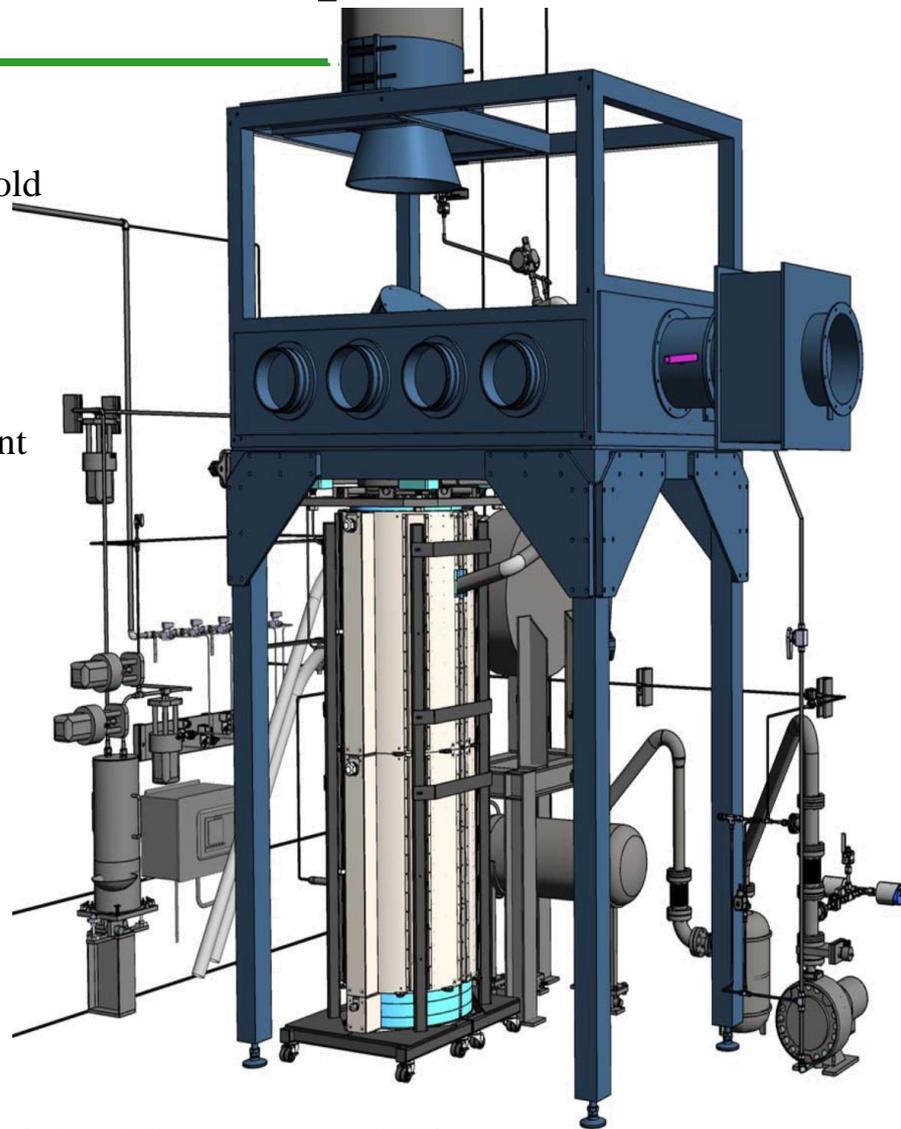
Remote-Handled Transuranic Waste Disposition

Key Activities/Actions:

- Remote-handled transuranic waste shipments are on hold until WIPP re-opens
- Completed startup of the sodium distillation system (SDS) in the CPP-666 facility

Upcoming Activities:

- Complete processing of all Idaho Settlement Agreement RH-TRU by 9/30/2015



Sodium distillation equipment at INTEC



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Advanced Mixed Waste Treatment Project



LANL Corrugated Metal Box on conveyor for Boxline processing



Drum retrieval operations

Key Activities/Actions:

- ITG completed its VPP assessment and it was determined that it should retain its VPP Star Status.
- Through June 14, 2014, AMWTP operations have shipped nearly 54,000 cubic meters of waste out of Idaho.
- Completed processing of 10 boxes of waste from LANL.
- Ship LANL waste out of Idaho
- Contact-handled transuranic waste shipments are on hold until WIPP re-opens.

Upcoming Activities:

- Production will shift to increase generation of MLLW rather than TRU to continue moving Idaho Settlement Agreement waste out of the State of Idaho and to continue to show progress against disposal of the estimated 65,000 m³ of stored waste.



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CERCLA Remediation Project Objectives

- WAG 1: Test Area North (TAN)
 - TAN Groundwater Remediation
- WAG 3: Idaho Nuclear Technology and Engineering Center (INTEC)
Complete the OU 3-14 Record of Decision for the Tank Farm
 - Operate the Idaho CERCLA Disposal Facility (ICDF) to compliantly disposition CERCLA waste
- WAG 7: Radioactive Waste Management Complex (RWMC)
 - Exhume 5.69 acres of buried waste ([Completed 3.22 acres as of 3/24/2014](#))
 - 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

Key Activities/Actions:

- After completion of a 20-year-long ordnance investigation, walking over 1,100 miles, the OU10-04 ROD implementation is complete and the Mass Detonation Area will be closed and transitioned to long-term institutional control program.
- The initial 2 years of the TAN In-Situ Bioremediation Rebound Test is now at completion.

Upcoming Activities:

- New scope was added to CWI's contract to develop Field Sampling Plans for several New Sites in preparation for remediation.
- Analyze the TAN rebound information to determine future actions.



Mass Detonation Area Disposal Crater



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CERCLA Remediation Projects – Idaho CERCLA Disposal Facility (ICDF)

Key Activities/Actions:

- FY 14 Received 14,944.7 gallons of liquid for disposal to evaporation ponds
- FY 14 Received a total of 278.18 m³ of solid waste for landfill disposal

Upcoming Activities:

- Continue receipt and disposal of aqueous wastes in Evaporation Ponds
- Dispose of solid waste from environmental restoration actions
- Continue operation and maintenance of ICDF complex processes and facilities



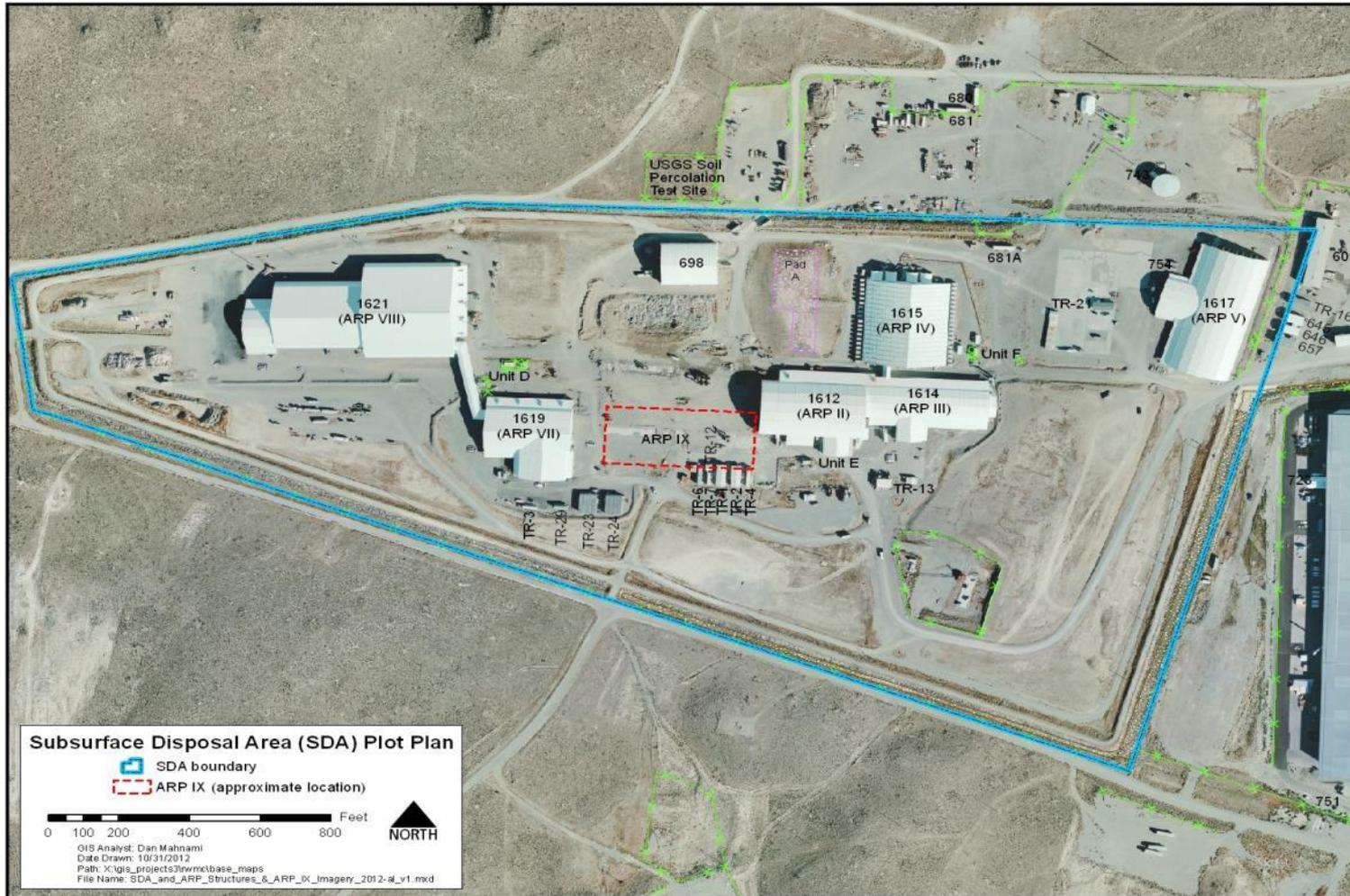
ICDF in late March 2014



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Waste Area Group (WAG) 7 Project



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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, V, and VI (Completed)
 - ARP VII: 0.27 acres out of 0.27 acres has been exhumed (Completed)
 - ARP VIII: 0.03 acres out of 1.72 acres has been exhumed
 - ARP I & VI D&D (Completed)
- 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 ARP VII waste exhumation
- Continued ARP VIII waste exhumation using two crews
- Completed sludge drum treatment in ARP V (6,000 drums opened/treated as of mid June)
- CWI baseline is to exhume 0.51 acres by 9/30/2015, completed nearly .33 acres

Upcoming Activities:

- Place ARP V in RCRA compliant standby
- Continue to exhume targeted buried waste from ARP VIII

| Metric | Baseline |
|------------------------------|----------------------|
| Exhume targeted buried waste | 0.51 acres by 9/2015 |



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Integrated Waste Treatment Unit (SBW) Project

Key Activities/Actions:

- Completed Contractor Readiness Assessment
- Completed DOE Readiness Assessment
- Initiated steam introduction

Upcoming Activities:

- Complete steam introduction
- Begin simulant run in July
- Prepare for Radioactive Operation

| Metric | Baseline |
|----------------------------|--------------------------------------|
| Treat sodium-bearing waste | ~ 850,000 gallons to loss of suction |
| Package SBW Waste | 704 canisters filled |
| Process tank "heels" | 360,000 gallons |



Integrated Waste Treatment Unit Facility



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INTEC Liquid Waste Facility Closure Project

Key Activities/Actions:

- Completed Contractor and DOE Tank Washing Closure Readiness Assessments
- Continuing with draining of the cooling coil underground line headers in preparation of flushing the system

Upcoming Activities:

- Start tank washing activities

| Metric | Baseline |
|--------------------------|-------------------|
| Close liquid waste tanks | 4 tanks by 9/2015 |



Prepping for tank farm work



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Spent Nuclear Fuel Disposition Project

Key Activities/Actions:

- Twelve cask shipments of SNF received from the Advanced Test Reactor (ATR)
- Four Experimental Breeder Reactor (EBR) II shipments made to the Materials and Fuels Complex
- Held public meeting for Three Mile Island-2 license renewal process with Nuclear Regulatory Commission

Upcoming Activities:

- Continue SNF cask receipts from ATR
- Continue EBR-II Fuel transfer
- Transfer West Valley Casks From rail cars to cask storage pad
- Continue to prepare Three Mile Island's NRC license renewal application

| Metric | FY 14 Baseline |
|--|--------------------|
| Ship Advanced Test Reactor fuel Ship EBR-II | 15 ATR 6 EBR II |



Fuel movement in CPP-666



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

Completed Activities:

- Completed MFC-766 superheater mock-up testing
- Completed treatment of bulk sodium and sodium contaminated piping in MFC-766

Upcoming Activities:

- Initiate treatment of MFC-766 superheaters



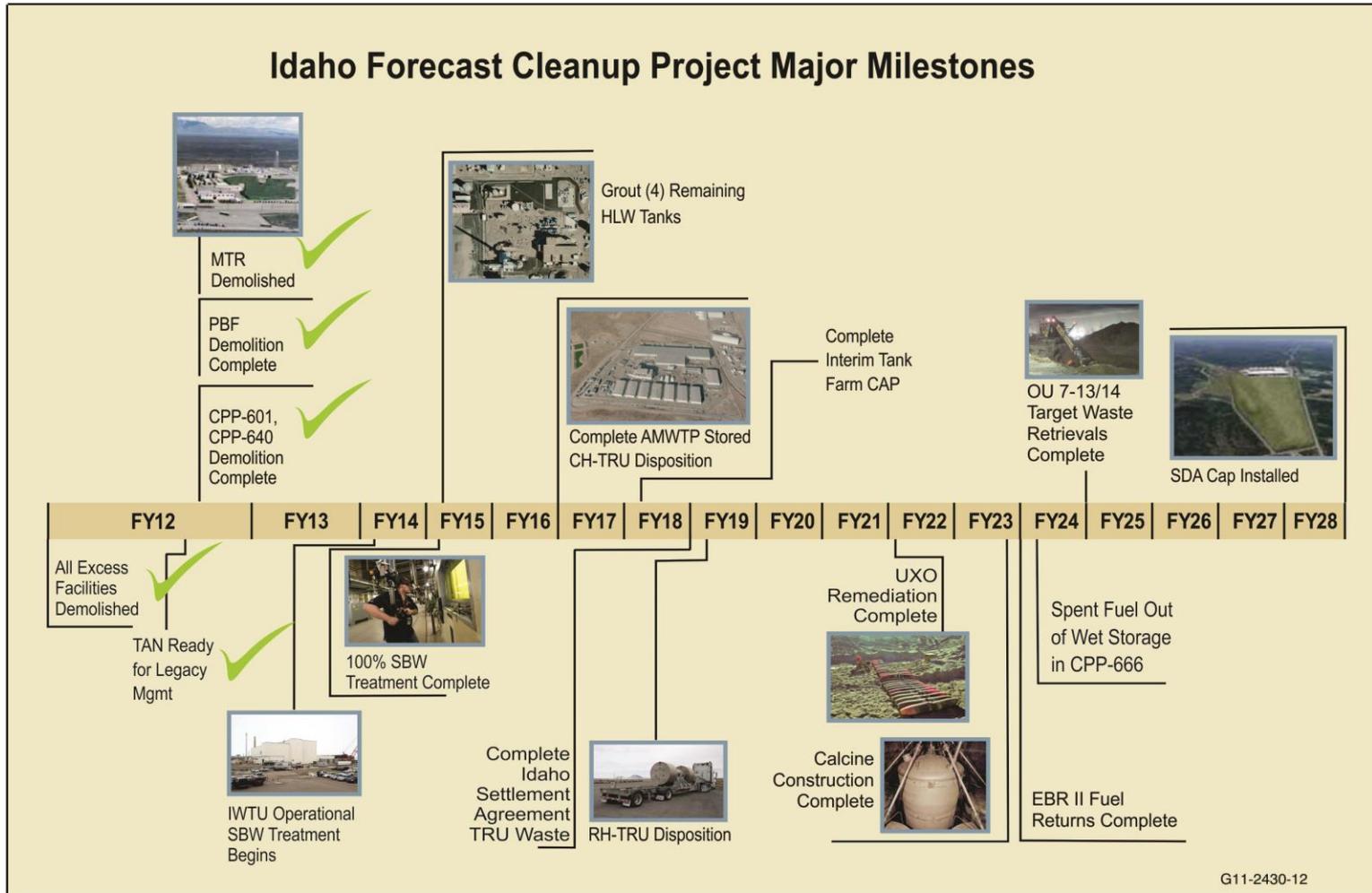
Removal of sodium-contaminated piping



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Idaho Completion Project Milestones



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Dashboard Summary for ICP Program

| Key Questions | Dashboard Indicator | Comments |
|--------------------------------|---|---|
| Budget Concerns and Issues |  | An appropriation for FY14 has been signed. Appropriations provides adequate funding for ITG and CWI. |
| Employment/Economic Conditions |  | Employment/Economic conditions should remain consistent. |
| Affect on Agreements |  | No impact on meeting current agreements |
| Safety and Environment |  | CWI Safety record is exceptional ITG safety record is at targets and improving |
| ICP Cleanup Condition |  | ICP continues to support WIPP – Meet scheduled TRU shipments |



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