



RICHLAND
OPERATIONS OFFICE
United States Department of Energy



Richland Operations Office Agency Update Hanford Advisory Board

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Safety and Health



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- Voluntary Protection Program (VPP)
--Star status for all contractors
- More than 5 million safe hours worked at Washington Closure Hanford, without a lost time injury
- Beryllium Corrective Action Plan completed
- Plutonium Finishing Plant focus



River Corridor



300 Area Progress



1999

300 Area Cleanup Highlights

- Located 1.5 miles north of Richland, close to the Columbia River
- Center of Hanford's radiological research and fuel fabrication during the Manhattan Project and Cold War
- 209 facilities demolished
- 305 waste sites remediated



2015



H Reactor Area Progress

During Operations



H Reactor Area Cleanup Highlights

- Reactor cocooned in 2005
- 72 waste sites cleaned up
- 735,000 tons of contaminated material removed away from river and disposed of at Environmental Restoration Disposal Facility (ERDF)

2015





D Reactor Area Progress



D Reactor Area Cleanup Highlights

- DR Reactor cocooned in 2002, D Reactor in 2004
- 135 waste sites cleaned up, including 3 major sites with chromium deep in the soil
- 2.5 million tons of contaminated material removed away from river and disposed of at ERDF





N Reactor Area Progress



2005

2013

2015

100-N Cleanup Highlights

- Reactor cocooned in 2012
- 154 facilities demolished
- 153 waste sites cleaned up
- Using contouring and boulders, backfilling left the area with a more natural appearance



618-10 Burial Ground Progress



Workers have excavated down 35 feet in some areas to remove drums and contaminated soil. The burial ground is expected to contain about 1,700 drums.



Over casings were driven into the soil around vertical pipe units



Environmental Restoration Disposal Facility (ERDF)

ERDF Highlights

- More than 17 million tons disposed since 1996
- More than 16 million miles driven by Waste Operations drivers since 2005

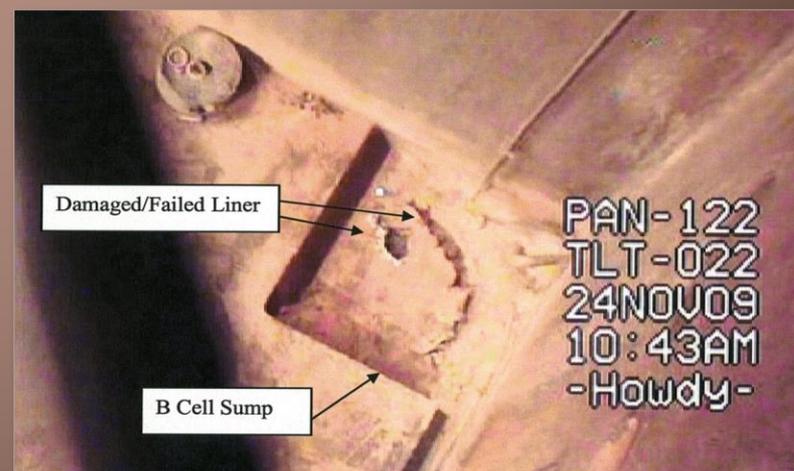




324 Facility

324 Chemical Engineering Laboratory

- Contaminated soil beneath B-cell discovered just prior to demolition in 2010
 - Soil highly radioactive (up to more than 12,000 R/hr.)
 - Soil contamination confined below hot cell footprint
 - Not currently impacting groundwater – monitoring wells in place



Grout removed from the B-cell trench and sump uncovered a breach in the liner in 2009



324 Mock-Up Facility

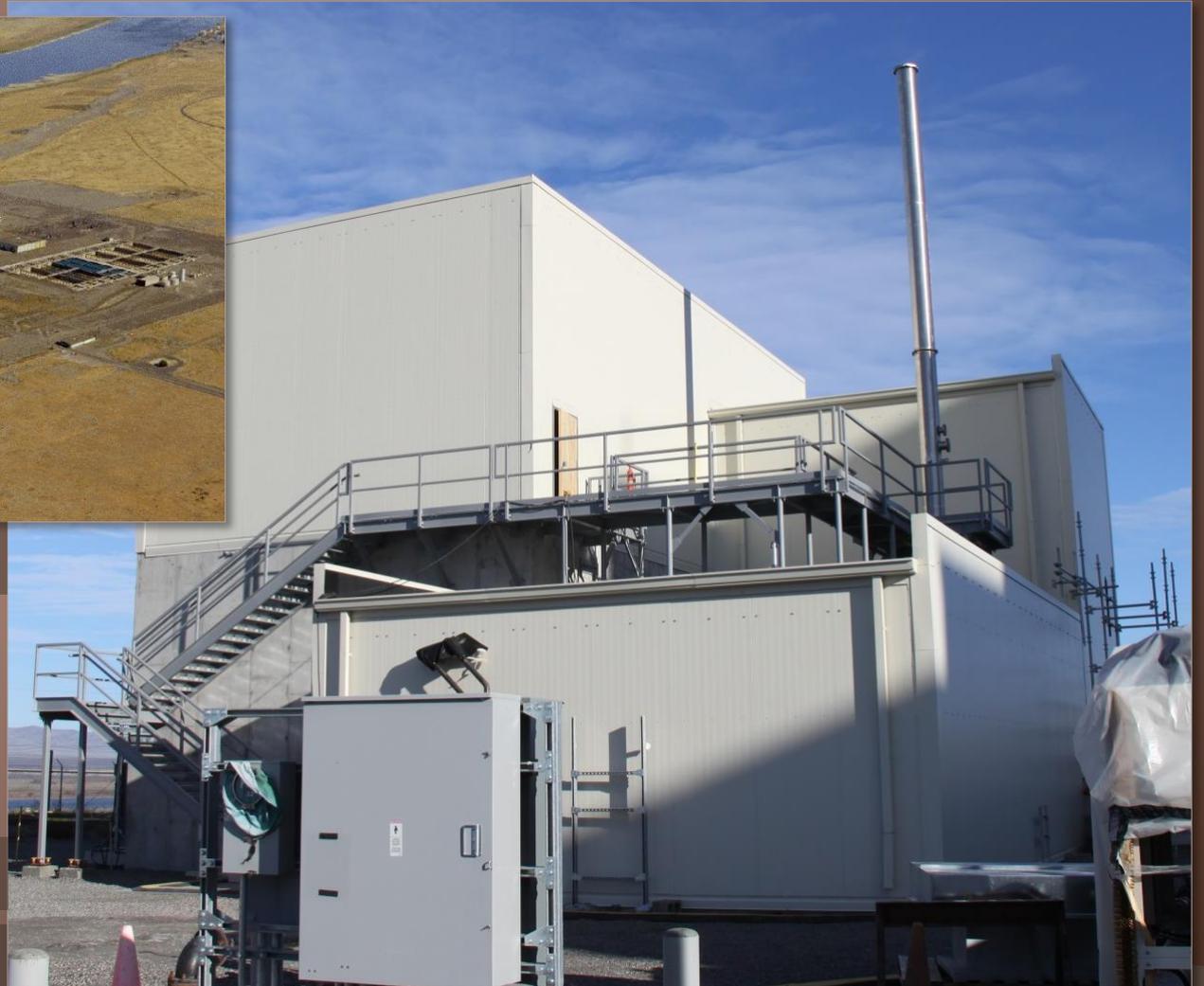




K-Basin Sludge Treatment Project



100 K Reactor Area



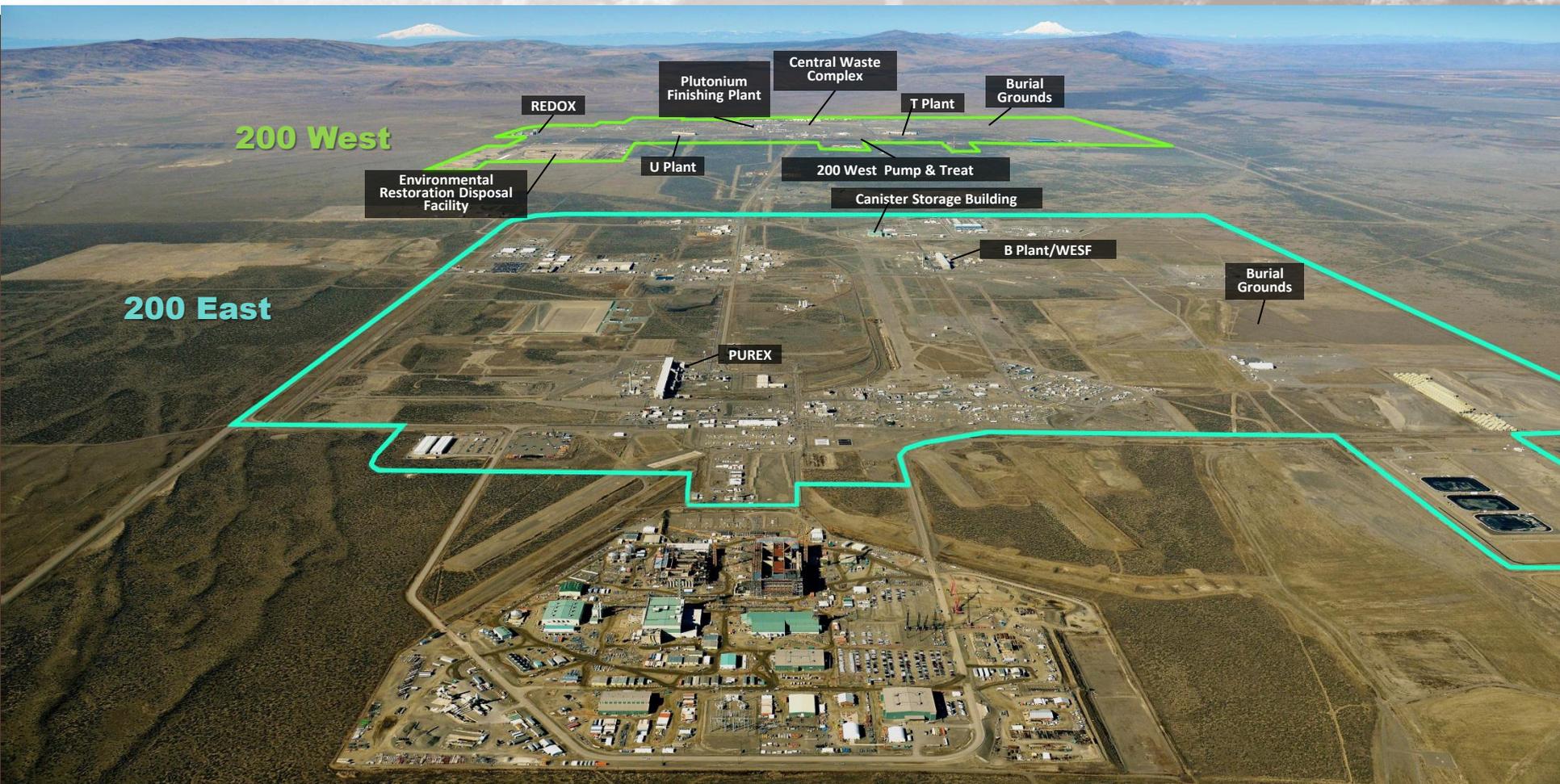
Exterior of the annex



Central Plateau



Central Plateau



200 West

200 East

REDOX

Environmental
Restoration
Disposal
Facility

Plutonium
Finishing Plant

U Plant

PUREX

Central Waste
Complex

200 West Pump & Treat

Canister Storage Building

T Plant

Burial
Grounds

B Plant/WESF

Burial
Grounds



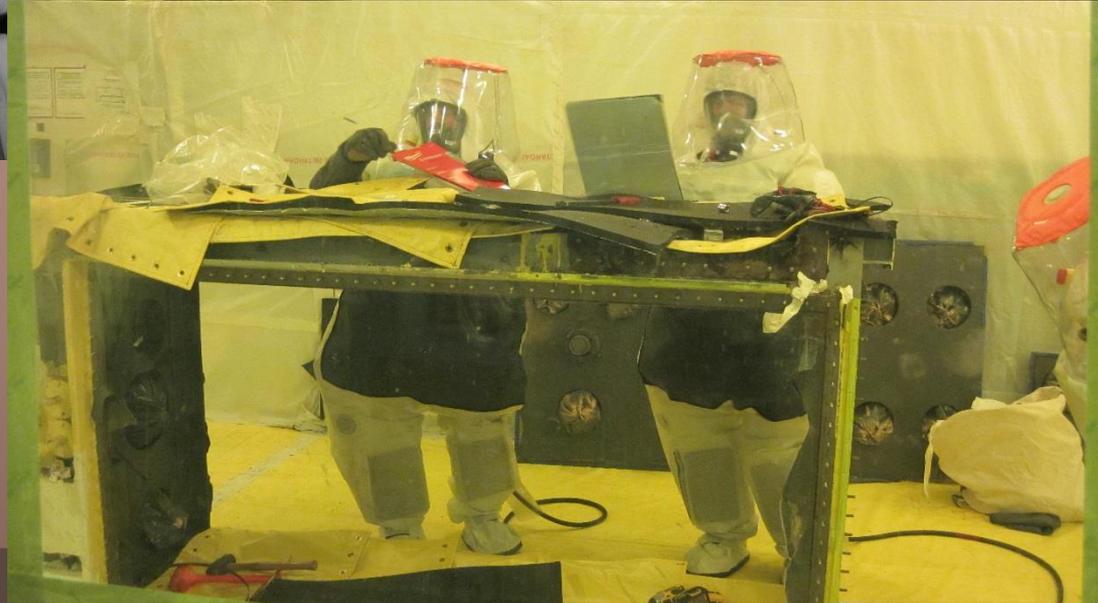
Groundwater Remediation Progress

- Treated 12 billion gallons since cleanup began and removed more than 200 tons of contamination
- Treated more than 2.1 billion gallons of contaminated groundwater in FY2015
- Installation of uranium treatment system at the 200 West Pump & Treatment Facility





Plutonium Finishing Plant Progress



Top left, workers celebrate the removal of the last of the 52 pencil tanks at PFP; top right, workers remove the face of a glove box in the McCluskey Room; bottom right, workers dismantle glove box HC-9B.



Waste Encapsulation Storage Facility Progress

- Stores 1,936 cesium/strontium capsules in pools of water
- Replacing an existing exhaust ventilation system
- Stabilizing legacy contamination to prevent a release to environment





Infrastructure

Maintaining utility lines



Repairing water lines



Water Systems

- Over 95 miles of buried pipe
- 800M gallons of water used annually

Electrical Utilities

- 246 miles of power lines
- 6,000 power poles
- Loads will double with Waste Treatment Plant

Emergency Services & Systems

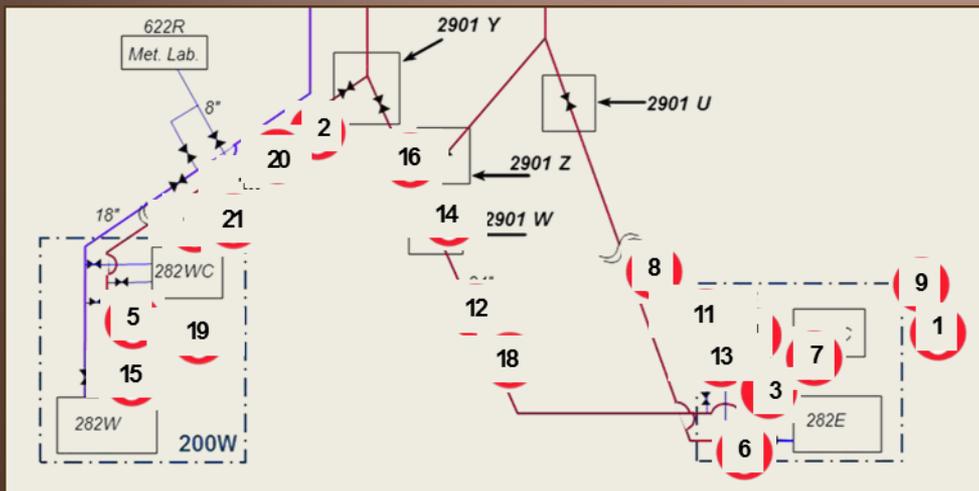
- Radio Fire Alarm Reporting is essential to the safety
- and security of facilities and employee welfare

Information Technology

- Legacy applications to be updated
- Cyber security improvements

Roads

- Over 5,700 passenger vehicles (daily average)
- 350+ lane miles of paved roads
- 500 trips by heavy haul trucks (daily average)



Infrastructure Projects Progress



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Electrical projects

- 200 East Area's electrical distribution system modifications and upgrades (FY15)
- North loop transmission line road access (FY15)
- Wood power pole testing and replacement (FY16)

Road projects

- Route 4N rut repair (FY15)
- Rebuild portion of 1st Street (FY16)

Water projects

- Filter Plant and flocculation system upgrades (FY15)
- 24" line renovation/replacements (FY15 and FY16)
- Raw water fire protection loop for Low Activity Waste Pretreatment System (FY16)



RL Budget



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Richland Operations Office FY 2015 Appropriation and FY 2016 President's Budget

PBS	PBS Title	FY 2014 Omnibus (Enacted)	FY 2015 President's Budget	FY 2015 Omnibus Allocation	FY 2016 President's Budget
RL-0011	NM Stabilization and Disposition - PFP	142,670	168,228	137,130	148,661
RL-0012	SNF Stabilization and Disposition	98,369	76,777	67,746	81,192
RL-0012	15-D-401 Containerized Sludge Line Item		26,290	46,055	77,016
RL-0013	Solid Waste Stabilization and Disposition - 200 Area	130,126	112,371	107,651	150,691
RL-0030	Soil and Water Remediation - Groundwater/Vadose Zone	141,500	116,916	184,929	174,619
Subtotal	Central Plateau Remediation	512,665	500,582	543,511	632,179
RL-0040	Nuclear Facility D&D - Remainder of Hanford	70,992	65,922	65,922	88,874
RL-0041	Nuclear Facility D&D - River Corridor Closure Project	337,642	266,866	311,866	108,083
Subtotal	River Corridor and Other Cleanup Operations	408,634	332,788	377,788	196,957
RL-0020	Safeguards and Security	69,078	63,668	63,668	67,601
RL-0042	Nuclear Facility D&D - Fast Flux Test Facility Project	2,542	2,562	2,562	2,562
RL-0100	Richland Community and Regulatory Support	19,701	14,701	19,701	14,701
RL-TD-0100	Technology Development		-		
Total - RL	Richland Field Office Funding Summary	1,012,620	914,301	1,007,230	914,000



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Tri-Party Agreement Milestones

- Sludge and K Area milestones changed to align with new sludge retrieval schedule
- M-91 milestones for transuranic waste retrieval, repackaging (comment period extended)
 - Proposed changes emphasize treating and repackaging waste already retrieved verses retrieving more waste, for the next few years
- Tri-Party agencies in formal negotiation on milestones series for Central Plateau cleanup



Tri-Party Agreement

U.S. Department of Energy
Washington State Department of Ecology
U.S. Environmental Protection Agency



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Distinguished Visitors



Dr. Elizabeth Sherwood-Randall, Deputy Secretary of Energy, and Mark Whitney, Principal Deputy Assistant Secretary for the Office of Environmental Management, visited Hanford in August.





Hanford Advisory Board

- Advice
 - In-trench macroencapsulation
 - Central Plateau Inner Area Guidelines
 - Fiscal Year 16 and 17 budget priorities
- Work Plan for FY16



HAB members attend a River and Plateau Committee meeting

Thank you for your involvement and dedication to the Hanford cleanup mission!