



AMERICAN RECOVERY & REINVESTMENT ACT

Week Ending Mar. 18, 2011









CHPRC-01277

Contract DE-AC06-08RL14788 Modification MO47



Contents

OVERVIEW	3
SUMMARY	4
ACCOMPLISHMENTS	5
RL-0011 Nuclear Materials Stabilization & Disposition	5
RL-0011.R1: Plutonium Finishing Plant D&D	5
RL-0013 Solid Waste Stabilization & Disposition	9
RL-0013C:R1.1: Mixed Low-Level Waste/Low-Level Waste Treatment	9
RL-0013C:R1.2: Transuranic Waste	9
RL-0030 Soil & Groundwater Remediation, Groundwater/Vadose Zone	13
RL-0030.R1: Central Plateau Soil & Groundwater	13
RL-0040 Nuclear Facility D&D – Remainder of Hanford	14
RL-0040.R1.1: U Plant/Other D&D	
RL-0040.R1.2: Outer Zone D&D/Waste Sites	19
RL-0041 Nuclear Facility D&D – River Corridor Closure Project	25
RL-0041.R1.1: 100K Area Remediation	25
UPCOMING EVENTS	28



OVERVIEW

CH2M HILL Plateau Remediation Company (CHPRC) is using funds from the American Recovery and Reinvestment Act (Recovery Act) to accelerate critical environmental cleanup across the Central Plateau and the 100K Area along the Columbia River to help pursue the U.S. Department of Energy (DOE) "2015 Vision" to shrink the Hanford Site cleanup footprint.

RL-0011 PLUTONIUM FINISHING PLANT D&D

CHPRC is accelerating critical decontamination and decommissioning work to cleanout and prepare the Plutonium Finishing Plant (PFP) for demolition by 2013, three years ahead of the Tri-Party Agreement milestone of September 2016.

RL-0013 SOLID WASTE STABILIZATION & DISPOSITION

CHPRC is accelerating cleanup of Hanford's legacy waste and fuels, including retrieving, repackaging, and shipping transuranic (TRU) waste and shipping mixed low-level waste (MLLW) and low-level waste (LLW) for treatment and/or disposal.

RL-0030 SOIL & GROUNDWATER REMEDIATION

In the ongoing effort to protect the Columbia River, CHPRC is constructing two groundwater treatment facilities; installing 265 wells for monitoring, extracting, and remediating groundwater; and decommissioning 280 wells that are no longer of service.

RL-0040 NUCLEAR FACILITY D&D REMAINDER OF HANFORD

Across the Central Plateau and along the outer zone of the Hanford Site, CHPRC is remediating 24 waste sites and decommissioning and demolishing (D&D) 34 facilities to reduce mortgage, surveillance, and maintenance costs on buildings that are no longer of service. The scope also includes cleanup along the outermost edges of the Hanford Site at the Arid Lands Ecology (ALE) Reserve and North Slope, preparing the U Plant for a first-of-its-kind canyon demolition, and preparing to disposition radioactive railcars in the 200 North Area.

RL-0041 100K AREA REMEDIATION

CHPRC is demolishing 15 reactor support facilities and sampling and/or remediating 23 waste sites to shrink the cleanup footprint of two reactors, K East and K West, located in the 100K Area along the Columbia River.

For More Information

To find out more about Recovery Act progress at the Hanford Site, visit www.hanford.gov/recovery.

For information about CHPRC, including weekly Recovery Act newsletters and videos, visit www.plateauremediation.hanford.gov or contact chprcc@rl.gov.



SUMMARY

The following chart outlines CHPRC's progress on its main Recovery Act work goals. Progress on subprojects and other Recovery Act-funded activities are detailed throughout this report and accompanied by a short progress video available on www.youtube.com/hanfordplateau.

PLUTONIUM FINISHING PLANT D&D





ACCOMPLISHMENTS

RL-0011 Nuclear Materials Stabilization & Disposition

RL-0011.R1: Plutonium Finishing Plant D&D

ACTIVITY

PFP WASTE REMOVAL & DISPOSITION

	Week of Mar. 18, 2011	Completed to Date with Recovery Act funding
Gloveboxes/hoods removed	-	104 gloveboxes/hoods
MLLW/LLW shipped	15 m³	2,422 m ³
TRU shipped	26 m³	487 m ³
Non-radioactive waste shipped	-	23 m ³
Process transfer line removed	47 feet	455 feet
Process vacuum system piping removed	-	1,210 feet
Asbestos removed	65 feet	13,689 feet

Process and Laboratory Areas

Work is nearing completion on the last two gloveboxes in the Analytical Laboratory. Glovebox 152-522 was isolated from building ventilation and placed on dollies for removal next week; the box will require size reduction for offsite disposal as TRU waste. The final external connections to glovebox 145-1 are being removed; it will be ready for removal from ventilation in the next two weeks. In the Plutonium Process Support Laboratory (PPSL), preparations continued for removing gloveboxes 179-4 and 179-12 from building ventilation, joining gloveboxes 179-10 and 179-11, which were removed from building ventilation last week. Three of the gloveboxes are LLW and small enough to be removed and loaded for shipment; the remainder will be fully isolated and staged within the room for future size reduction.

In the RMC Line, sleeving was installed on the E-4 exhaust from the HC-3 conveyor glovebox to prepare it for isolation from building ventilation. External isolations are complete on the HC-4 conveyor glovebox; it will be removed following glovebox HC-3. In the Radioactive Acid Digestion Test Unit area, the crew separated glovebox 100 from glovebox 200 by cutting out part of a spool piece between the boxes. They then began preparing to isolate glovebox 300 from building ventilation and to tap liquid lines to confirm the lines are empty.

2736-Z/ZB Vault Complex

With the HEPA filters and filter housings removed, the vault complex D&D team began their final task, installing sleeving and glovebags to remove the most contaminated sections of the glovebox exhaust ductwork. A 20-foot-long section of PFP's west perimeter fence was removed to allow CHPRC D&D crews to begin mobilizing heavy equipment and waste containers to support upcoming demolition work.

Infrastructure, support systems, and equipment removal

Sections of glovebox 139-6, along with sections of two other gloveboxes from the 236-Z building, were shipped in standard waste boxes (SWBs) to the Waste Receiving and Packaging (WRAP) facility for disposal as TRU waste, and one of five sections of the 70-foot-long conveyor glovebox HA-28 was shipped to Perma-Fix Northwest (PFNW) for size reduction.

The non-destructive assay group is measuring holdup in the lines, having completed 77 percent of the 5,500 feet of process vacuum lines and 73 percent of the 1,155 feet of process transfer lines. Removal of highly contaminated process piping and asbestos insulation continued.

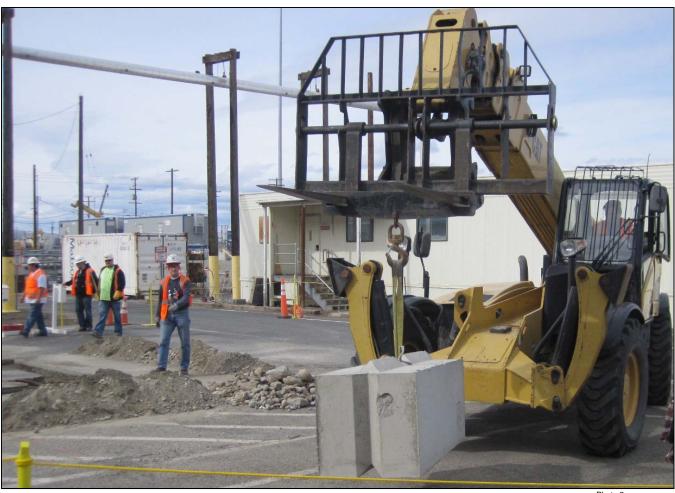
Site preparation continued for installing two, trailer-mounted 1500 kVa transformers to support temporary power distribution systems on the north and south sides of 234-5Z.





Photo 1

Two transformers, mounted on trailers, are being fabricated for the Plutonium Finishing Plant. The systems will supply temporary power for distribution on the north and south sides of the 234-5Z building.



Concrete blocks are hoisted for placement at the future site of temporary power transformers for the Plutonium Finishing Plant.



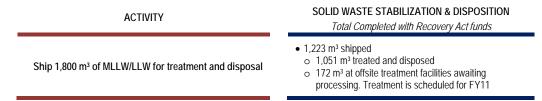


Photo 3

Crews at the Plutonium Finishing Plant prepare for the installation for two temporary power transformers.

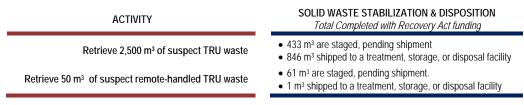
RL-0013 Solid Waste Stabilization & Disposition

RL-0013C:R1.1: Mixed Low-Level Waste/Low-Level Waste Treatment



One shipment was made from the Central Waste Complex (CWC) to IMPACT Services on March 17. The shipment included one box of MLLW reactive metals (5.4 m³) being sent to IMPACT Services for recycling. Residue waste that cannot be recycled from the shipment will be returned to Hanford for disposal in the Mixed Waste Disposal Units at the Low-Level Burial Grounds.

RL-0013C:R1.2: Transuranic Waste



At the 3A burial ground, Box 23 (54.4 m³) was removed from Trench 17 and workers excavated Boxes 23 and 24. Four remote-handled (RH) culverts were loaded for shipment to PFNW. Boxes 15, 18, and 20 were assayed. A shoring box wall and roof were completed around Box 15. Workers continued mitigation of high contamination area around Trench 17 and between Boxes 23-27; the area was down-posted to a contamination area except an area around Box 27.

At the 4B burial ground, the Waste Retrieval team removed twelve 3 x 3 x 3 ft RH concrete boxes from Trench 11 (9.2 m³) and overpacked eight of the containers into concrete-shielded overpack containers (CSOs). The team began an assay campaign of six drums and two overpacked fiberglass-reinforced plywood boxes and three 3 x 3 x 3 ft concrete boxes. Six 20-foot-long CONEX containers were received to overpack removed waste for shipment to PFNW.

At the 12B burial ground, the Waste Retrieval team excavated the Trench 17 contamination area and a radiological buffer area and removed 30 55-gallon drums (6.2 m³). The team also removed the first RH drum from Trench 17. Each of the two new 8 x 4 x 4 ft waste boxes were loaded with six removed LLW drums. Six TRU drums were vented in the Drum Venting Station 3.





Week Ending March 18, 2011

Workers hand excavated soil overburden from the collapsed lid of Box 23 in Trench 17 of the 3A burial ground and a radiological control technician surveys to monitor for potential contamination.

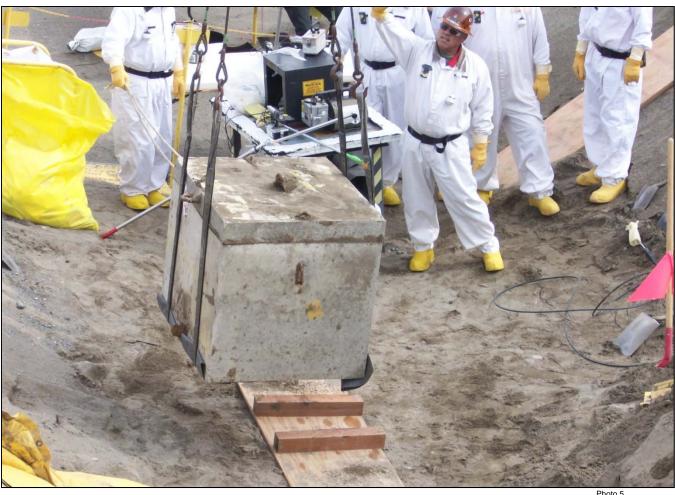


Photo 5

After excavating a concrete box, riggers lift the container from Trench 11 of the 4B burial ground.



Riggers load a concrete box of transuranic waste into a concrete-shielded overpack container. The container was removed from Trench 11 of the 4B burial ground.

TRU Repackaging & Shipments

ACTIVITY

Repackage 850 m³ of WIPP certifiable TRU waste Disposition 2,000 m3 of contacted-handled TRU waste

SOLID WASTE STABILIZATION & DISPOSITION Total Completed with Recovery Act funding

- 693 m³ have been repackaged
- 1,135 m3 have been disposed

Four drums were repackaged at T Plant. In conjunction with the Central Characterization Program, five TRUPACT-II shipments left the Hanford Site bound for the Waste Isolation Pilot Plant, for a total of 155 shipments completed since shipments resumed, thanks to Recovery Act funding, in March 2010. Three shipments were made from the CWC to PFNW on March 14, 15, and 17, respectively. The shipments included three boxes of TRU debris (42.4 m³) sent to PFNW for repackaging into SWBs or 55-gallon drums. The repackaged TRU waste will be returned to Hanford for Waste Isolation Pilot Plant certification activities.



RL-0030 Soil & Groundwater Remediation, Groundwater/Vadose Zone

RL-0030.R1: Central Plateau Soil & Groundwater

ACTIVITY

WELL DRILLING & DECOMMISSIONING

Week of Mar. 18, 2011	Recovery Act funds	
3 wells in progress	300	
1 well completed	199	

Install 265 wells and/or boreholes along the river and in the Central Plateau Decommission 280 old wells and boreholes that are no longer of service

200 West Groundwater Treatment Facility

Construction of the 200 West Groundwater Treatment Facility is 53 percent complete, with Recovery Act-funded construction concurrently under way on both of the main process buildings, four transfer buildlings, and the Lime Buildling. All of the government-furnished equipment (GFE) tanks have been placed on the Bio-Process Building outside pad, GFE has been placed in the Radiological Building, and equipment installation has begun inside the Bio-Process Building.



A splitter box is being constructed for the 200 West Groundwater Treatment Facility.





RL-0040 Nuclear Facility D&D - Remainder of Hanford

RL-0040.R1.1: U Plant/Other D&D

CENTRAL PLATEAU FACILITIES DEMOLISHED WITH RECOVERY ACT FUNDS

• 211U Cold Chemical Makeup Tank Farm

- 211UA Cold Chemical Makeup Tank Farm Addition
- 203UX Gas Storage Facility
- 2701M Office Bldg
- 272E Fabrication, Mockup Shop Bldg
- 2716E Power Maintenance Storage Bldg*
- 2722W Welding Laboratory Bldg*
- 224UA UO3 Calcination/Load-out Facility
- 2710W Coal Handlers Shed
- 2701EC 209-E Guard Station
- 2902E Water Storage Tank

- 2734EA Gas Cylinder Storage Bldg
- 275E Carpenter Shop Bldg
- MO104 Mobile Office
- MO405 Mobile Office
- MO840 Mobile Office
- X8 Motor Car Shed*
- 224U UO3 Plant Concentration/Load-out Bldg
- 284WB Package Boiler Plant
- 209EA 90 Day Storage Pad
- 2902W Water Storage Tank

TOTAL: ~108,951 square feet

PLANNED FOR D&D/IN PROGRESS

- 284E Power House & Steam Plant
- 209E Critical Mass Laboratory
- 284W Power House & Steam Plant

*Not part of the Key Performance Parameter

U Canyon

CHPRC subcontractor Watts Construction continued hauling clean rubble from the site of the demolished 183-KW Sedimentation Basins to the U Canyon site in preparation for the building's eventual demolition.

Inside the canyon, core drilling of the second set of grout conveyance holes began this week, with a hole completed in Cell 11 and holes in Cells 10 and 12 expected to be complete next week. Preparations for a "test pour" in the North Electrical Gallery continued, with bulkhead construction under way.





Photo 8

Rubble and dirt are hauled to the U Canyon site for use in the eventual demolition of the canyon building.



Photo 9

A close-up on the pile of rubble being stockpiled near the U Canyon for use as fill and construction of an environmental barrier after demolition of the canyon building.

U Plant Ancillary Facilities

Closure documentation is being prepared.

200 East Core Industrial Area

Demolition of the 284-E Power House continued, along with debris cleanup of the exhaust chimneys, baghouses, and coal silo that were brought down by explosive demolition on March 4. Cleanup at the site of the 2902-E water tower is complete.





Demolition of the 284-E Power House is in progress following the explosive demolition of the structure's two chimneys, three baghouses, and coal silo.







Week Ending March 18, 2011

Photo 11

The former site of the 2902-E water storage tank. CHPRC demolished the tower using explosives on March 4, 2011, with support from Recovery Act funding.

200 West Area Industrial Facilities

Debris cleanup at the site of the explosive demolitions of the 284-W Power House stacks and baghouses continued this week, along with asbestos abatement inside the 284-W Power House building.





CHPRC is cleaning up debris from the 284-W exhaust chimneys following the explosive demolition on Feb. 18, 2011.

209-E Criticality Mass Laboratory

CHPRC crews continued work on the removal of the HO-200 glovebox.

RL-0040.R1.2: Outer Zone D&D/Waste Sites

OUTER ZONE FACILITIES DEMOLISHED WITH RECOVERY ACT FUNDS

212N Storage Building
212P Electrical Storage & Transformer Shop
212R Storage Building
614 Monitor Station
646 Radioecology Field Laboratory

6652G ALE Field Storage Building 6652H ALE Laboratory 1

6652J ALE Headquarters 6652J ALE Laboratory II 6652S Sentry Shed*

6634 ENW Tower and Building*

6635 Crown Castle/Cingular Tower and Building * 6637 Tri City Amateur Radio Tower and Building* 6632 Verizon Telephone Enclosure*

6652C Space Science Laboratory 6652CSHED Storage Building 6652D Pump House 6652T Fire Protection Lower Pump House 6652U Rattlesnake Mountain Upper Pump House

623A Plant Radio Relay Bldg T520-6 Navy MARS Radio Station 6631 Radio Telescope Pedestal*

6630 Hodges Well Pumphouse*

6652M Fallout Laboratory

6652R Acid Storage Shed

6636 Columbia Communication Tower and Building*
6633 Franklin County Communication Building*

*Not part of the Key Performance Parameter



North Slope Debris Removal

Personnel with CHPRC subcontractor Sealaska Environmental Services have completed cleanup of all debris sites in Area 12 of the Hanford Reserve National Monument; Area 15 is also complete. Work continued in Area 18.

Arid Lands Ecology Reserve

Revegetation of cleared sites on ALE is ongoing.



Photo 13

CHPRC is revegetating areas of the Arid Lands Ecology Reserve where facilities were demolished in 2010 with Recovery Act funds. Shown here is the site of the main facilities on the lower reserve.

D&D of Railcars Located on the 212-R Rail Spur

CHPRC crews finished removing protective oils and redistributing contaminated water among six caskand-well cars last week and began spraying fixative in preparation for the addition of dry grout to some of the cars this week. Preparations continued for removing two locomotives for delivery to the B Reactor museum site, planned for April.



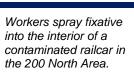




Photo 14



Waste Sites

The following table showcases CHPRC's recent progress in outer zone waste remediation.

WASTE SITE IN PROGRESS	TONS OF CONTAMINATED SOIL REMOVED		
WASTE SITE IN PROGRESS	Week Ending Mar. 18, 2011	Total to Date with Recovery Act funds	
200-W-147-PL	-	6,450	
BC Control Area	4,800	352,800	

Recent activities regarding the outer zone waste sites also included (listed by operable unit or site):

- o 600-36: Seeding activities are complete.
- o 600-40: Additional direct push testing is anticipated to occur in March.
- 600-218: A Baseline Change Request was approved by the Change Control Board to authorize remove, treat, and disposal (RTD) activities. Excavation is expected to commence next week.
- o 600-220: A Baseline Change Request has been approved by the Change Control Board to authorize RTD activities. A work package is in preparation. A culture report is being reviewed and is anticipated to be approved in March/April.
- o 600-226: Seeding activities are complete.
- o 600-275: Seeding activities are complete.
- o 600-281: A cultural report is being reviewed and anticipated to be approved in March.
- o 216-S-19: Direct push test sampling is complete. Samples are being analyzed by the lab with results expected in three weeks.
- 216-S-26: Contractor mobilization is complete; excavation commenced with the first four feet of overburden removed and staged.
- o 200-W-147-PL: Post-verification sampling has been completed; laboratory analysis of results is in process.

• 200-CW-3

- o 216-N-4: Backfill, contouring, and seeding are complete.
- o 216-N-6: Backfill, contouring, and seeding are complete.

• BC Control Area

Survey measurements are complete for the first portion of Zone A (approximately 90 percent of the area). Altogether, approximately 140 acres of Zone A have been remediated with ongoing removal of hot spots. Zone A seeding of 130 acres has been completed; seeding of the last 10 acres is ongoing. Approximately 1,000 pounds of seed and 280,000 pounds of mulch have been planted. The work is being performed by CHPRC and subcontractors Wildlands Inc. and Ojeda Business Ventures LLC.





A worker from subcontractor Wildlands Inc. sprays seed to revegetate remediated areas of the BC Control Area, a waste site CHPRC is remediating with Recovery Act funds.



Photo 16

CHPRC and subcontractors Wildlands Inc. and Ojeda Business Ventures LLC are reseeding 140 acres of the BC Control Area, an approximately 13-square-mile waste site in the outer zone of the Hanford Site. With Recovery Act funds, CHPRC has removed more than 352,000 tons of contaminated soil from the waste site for disposal at the Environmental Restoration Disposal Facility.



RL-0041 Nuclear Facility D&D – River Corridor Closure Project

RL-0041.R1.1: 100K Area Remediation

100K AREA FACILITIES DEMOLISHED WITH RECOVERY ACT FUNDS

• 183KW Chlorine Vault

- 183.1KW Headhouse
- 183.3KW Filter Basin
- 110KE Gas Storage Facility
- 183.7 KW Pipe Tunnel
- 116KE Reactor Exhaust Stack
- 118KE Horizontal Control Rod Storage
- MO048 Construction Lunch Trailer
- MO969 Ops/HPT Change Trailer
- 115KE Gas Recirculation

PLANNED FOR D&D/IN PROGRESS

- 183.4KW Clearwell
- 190KW Main Pump House
- 183.4KE Clearwell
- 181KE River Pump House
- 117KE Exhaust Air Filter (subgrade structures)
- 190KE Main Pump House
- 1605KE Guard House

Facility D&D

Demolition and loadout of the substructure at the west side of the 105-KE Reactor building continued this week, with work beginning on the 100-K-56 tunnel on the reactor's north side. At the 181-KE River Pumphouse Structure, construction of the containment for asbestos abatement is complete; final seal testing will be completed next week. As CHPRC subcontractor Watts Construction continued hauling clean rubble from the demolished 183-KW Sedimentation Basins to U Canyon, trucks returned with clean soil from the U Canyon staging area to use as backfill for the sedimentation basin site.

Draining of the 183.2-KE Sedimentation Basins in preparation for their demolition is nearly complete, as crews use small submersible pumps to drain off residual water from the basins. With the new 100K firewater system now fully operational, emptying of the 183.4-KE and 183.4-KW Clearwells began in preparation for their demolition.





CHPRC is removing substructures on the west side of the K East Reactor building.

Photo 17





A worker sprays adhesive while constructing an asbestos containment tent for upcoming asbestos abatement to be performed on piping for the 181-KE River Pump House Structure.

Photo 18

Infrastructure Utilities Upgrade Project

Fire sprinklers are back in service for all applicable 100K facilities. The construction team is making final modifications to allow for the disinfection of the new potable water system to begin next week.

Waste Sites

CHPRC continued excavating the 100-K-53 waste site, the 100-KE Glycol Heat Recovery Underground Pipelines.



UPCOMING EVENTS

RL-0011 Nuclear Materials Stabilization & Disposition

RL-0011.R1: Plutonium Finishing Plant D&D

- Complete size reduction of glovebox HA-22B.
- Remove the last two gloveboxes in the Analytical Laboratory.
- Complete D&D and remove eight of the nine gloveboxes from room 179 of the PPSL.
- Complete cleanout and remove glovebox 188-1 from the PPSL
- Remove conveyor gloveboxes HC-3 and HC-4 in the RMC Line.
- Remove gloveboxes HA-19B1 and B2 from room 235-B of the RMA Line.
- Prepare the three gloveboxes remaining in room 235-D for disposition in place.
- Complete cleanout of the 232 scrubber cell and disposition glovebox HA-46 in place.
- Remove exhaust duct work, complete cold and dark isolations, and prepare the 2736-Z vault complex for demolition.
- Continue removing process vacuum, process transfer piping and asbestos insulation from throughout 234-5Z building.

RL-0013 Solid Waste Stabilization & Disposition

RL-0013C:R1.1: MLLW Treatment

- Two LLW shipments (18.4 m³) planned from CWC to PFNW for volume reduction and radiological stabilization.
- One MLLW shipment (7.2 m³) planned from CWC to PFNW for macroencapsulation.

RL-0013C:R1.2: TRU Waste

- TRU Retrieval
 - o 3A burial ground
 - Remove 3A Trench 17 Boxes 24, 25, and 26
 - Ship 10 Trench 8 RH culverts 4 to PFNW, 6 to CWC.
 - Complete mitigation of contamination and down-post high contamination area around box 27
 - o 4B/4C burial ground
 - Build and install internal securements for concrete boxes in CSOs; install lid gaskets and banding for loaded CSOs.
 - Complete a portable assay campaign.
 - Excavate and remove two contact-handled concrete lined drums (~.4 m³)
 - Complete and approve work package (2X-11-7622) and begin removing the 4B Trench 11 large concrete box 105 (~46 m³).
 - o 12B burial ground
 - Continue excavation and removal of waste drums and boxes from Trenches 17 and 27.
 - Complete assay removed drums.
 - Continue venting of TRU drums.
- TRU Repackaging and Shipments
 - o Five planned shipments
- Suspect TRU Waste Shipments
 - o Three TRU-mixed waste shipments (61.1 m³) planned from CWC to PFNW for repackaging.



o One TRU-mixed waste shipment (12.4 m³) planned from Low-Level Burial Grounds/Waste Retrieval Project to PFNW for repackaging.

RL-0030 Soil & Groundwater Remediation, Groundwater/Vadose Zone

RL-0030.R1: Central Plateau Soil & Groundwater

- Continue construction of the 200 West Groundwater Treatment Facility.
- Continue well drilling and decommissioning.

RL-0040 Nuclear Facility D&D – Remainder of Hanford

RL-0040.R1.1: U Plant/Other D&D

- Continue core-drilling holes in U Canyon and preparing for test-pour of grout into North Electrical Gallery.
- Continue demolition of 284-E Power House and clean up debris at the sites of the 200 East and 200 Wes Areas demolitions.
- Size-reduce and remove glovebox HO-200

RL-0040.R1.2: Outer Zone D&D/Waste Sites

- Continue debris removal on the North Slope.
- Continue revegetating cleared sites on the ALE Reserve.
- Continue applying fixative and begin addition of dry grout to contaminated well railcars.
- Begin excavating the 600-218 waste site; continue excavating the 216-S-26 waste site.
- Continue revegetating Zone A of the BC Control Area.

RL-0041 Nuclear Facility D&D - River Corridor Closure Project

RI -0041.R1.1: 100K Area Remediation

- Continue D&D of substructure around 105KE Reactor Building.
- Begin super-chlorination of new 100K potable water system.
- Install new control power transformers at A-9 substation.
- Continue excavating soil from and planning for remediation of 100K Area waste sites.

