

Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford (RL-0040); and River Corridor Closure Project (RL-0041)

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*The 221-U Facility is
the first major canyon facility in the DOE
complex to obtain a Record of Decision (ROD).*



*A-8 Substation
construction*

Overview

This section addresses Project Baseline Summary (PBS) RL-0040, *Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford*. There are three major components to this work scope:

- Deactivation and Decommissioning (M. B. Lackey);
- Waste Site Remediation (M. B. Lackey); and
- Reliability Projects (R. G. Slocum).

This section also includes PBS RL-0041, *Nuclear Facility D&D, River Corridor Closure Project*, through the transition to the River Corridor Contractor (M. B. Lackey).

NOTE: Unless otherwise noted, all information contained herein is as of the end of September 2005.

Top FY 2005 Accomplishments

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

Deactivation and Decommissioning:

U Plant Demolition Project:

U Plant Ancillary Facilities demolition was completed in August 2005, seven months ahead of schedule and \$5.8 million (M) under budget. RL verified completion of the U Plant Ancillary D&D work scope on September 12, 2005.

Thirty-seven structures were demolished during FY 2005 (PBS RL-40 and RL-41 combined).

Remediation Projects:

U Plant Regional Closure

The U Plant Canyon Disposition Initiative (CDI) Record of Decision (ROD) was approved October 3, 2005. This is the first final CERCLA ROD for the Central Plateau, and the first ROD for a major canyon facility within the DOE complex.

Reliability Projects:

Route 4 South Repairs: The Route 4S road refurbishment, which began on July 25, 2005, was complete when the chip seal work was finished on August 26, 2005.

Emergency Decontamination Facility: Demolition of the Emergency Decontamination Facility was completed on March 20, 2005, in preparation for the Kadlec Hospital expansion.

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

Uranium Disposition:

Final shipment of uranium fuel was completed May 17, 2005, completing the Tri-Party Agreement (TPA) Milestone M-92-06-T02 ("Completed the Disposal/Disposition of Unirradiated Contaminated Fuel in 300 Area") 16½ months ahead of schedule.

Notable September Accomplishments, continued

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

Remediation Projects:

U Plant Regional Closure

The TPA change request to reclassify 216-U-12 crib from RCRA TSD to a RCRA past practice unit is out for public comment (October 5, 2005, through November 21, 2005).

The Time-Critical Removal Action Memorandum (AM) for accelerating field work for barrier installation is in the final approval cycle within the State of Washington Department of Ecology (Ecology).

200 Area Remedial Investigation/Feasibility Study (RI/FS) Work:

Geophysical surveys for the 200 SW-1/200-SW-2 Radioactive/Nonradioactive Landfills and Dumps Group inactive burial grounds were completed September 26, 2005.

The Vapor Sampling on 17 vent risers, in support of the 200-PW-1 Plutonium/Organic Rich Waste Group Operable Units (218-W-3A burial grounds) PW-1 Work Plan, was completed September 30, 2005. This work also supports the on-going burial ground work.

Reliability Projects:

Completed construction of L-376B, "6290 Crane and Rigging Facility Modification/Addition," on September 27, 2005.

Project L-573, "Infrastructure Footprint Reduction and Consolidation (Closure Support) Facility," fixed price contract awarded on September 29, 2005.

Project L-334, Minimize Potential Environmental Impacts from Export Water System Rupture, remote actuator valves received.

- Field construction will begin October 20, 2005.
- Project is to be completed by end of November.

Received three wildland pumper trucks and a high voltage electrical test truck in September.

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

The 300 Area work scope, excluding the Treated Effluent Disposal Facility (TEDF), was successfully transitioned to Washington Closure Hanford effective August 26, 2005.

FY 2005 Funds vs. Actuals (\$M)

| | FY 2005 Anticipated Funding (with Carryover) | FY 2005 Actuals | Variance |
|-------------------------------------------------------------|----------------------------------------------------|-----------------|----------------|
| RL-0040 Nuclear Facility D&D, Remainder of Hanford | \$ 89.2 | \$ 64.8 | \$ 24.4 |
| RL-0041 Nuclear Facility D&D, River Corridor Closure | \$ 15.4 | \$ 15.4 | \$ 0.0 |
| Total | \$ 104.6 | \$ 80.1 | \$ 24.5 |

NOTE: Above numbers are rounded to the nearest \$0.1M.

FY 2005 Schedule/Cost Performance (\$M)

| | Budgeted Cost of Work Scheduled | Budgeted Cost of Work Performed | Actual Cost of Work Performed | Schedule Variance \$ | Schedule Variance % | Cost Variance \$ | Cost Variance % | Budget At Completion |
|-------------------------------------------------------------|------------------------------------------|------------------------------------------|-------------------------------------|-------------------------|---------------------------|---------------------|-----------------------|-------------------------|
| RL-0040 Nuclear Facility D&D, Remainder of Hanford | \$67.9 | \$73.3 | \$64.8 | \$5.5 | 8.0% | \$8.6 | 11.7% | \$67.9 |
| RL-0041 Nuclear Facility D&D, River Corridor Closure | \$19.2 | \$19.2 | \$15.4 | \$0.0 | 0.0% | \$3.8 | 19.8% | \$19.2 |
| Total | \$87.0 | \$92.5 | \$80.1 | \$5.5 | 5.9% | \$12.4 | 13.4% | \$87.0 |

Schedule Performance (+\$5.5M/+5.9%):

RL-40 – The favorable SV for the D&D Organization (+\$3.9M) is due to favorable progress on D&D and CP Closure Strategy activities (+\$2.5M), plus a favorable SV for Waste Site Remediation (\$1.9M) due to completing prior year work scope associated with the boreholes 200-LW-1 "Chemical Laboratory Waste Group," 200-MW-1 "Miscellaneous Waste Group", 200-PW-2 "Uranium/Rich Process;" accelerated characterization work in the BC Controlled Area (200-UR-1, "Unplanned Releases Group"), development of the BC Controlled Area Downposting; and close out of post contract waste sites for 200-ST-1, "Septic Tank, and Drain Field Waste Group." The Surveillance and Maintenance (S&M) unfavorable SV (-\$0.5M) is due to delays for PUREX NESHAPs inspection activities.

Reliability Projects' favorable SV (+\$1.5M) is primarily due to prior year capital equipment procurements offset by late start of A-8 substation.

FY 2005 Schedule/Cost Performance, continued

Cost Performance (+\$12.4M/+13.4%):

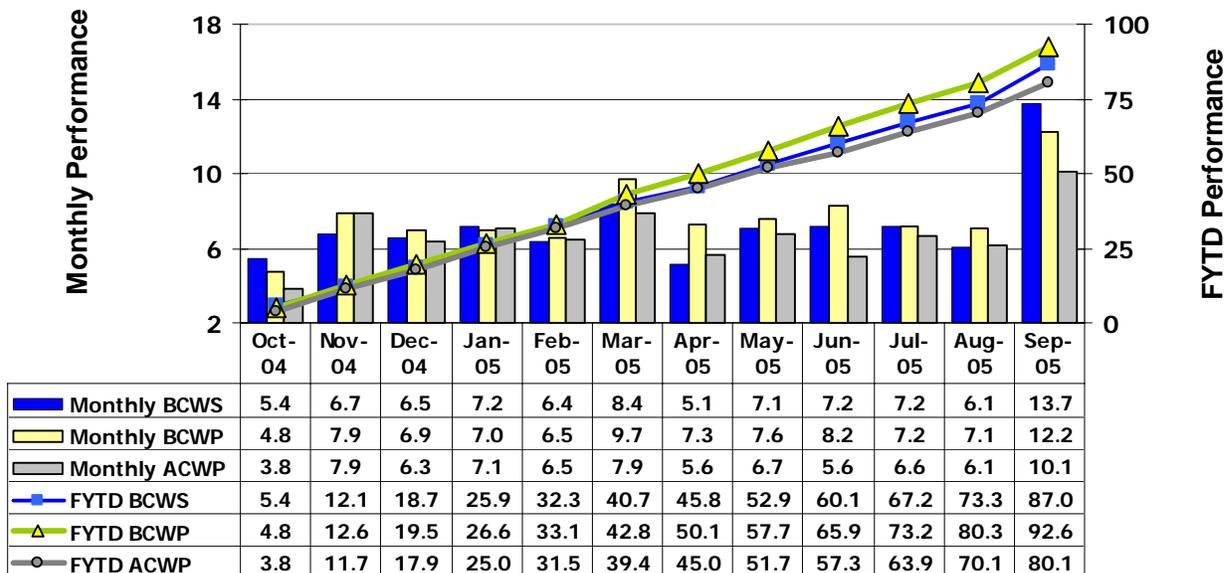
RL-40 – The favorable CV for the D&D organization (+\$8.8M) is primarily the result of efficiencies in demolition activities (\$8.0M), Project Management and Support (PM&S) (+\$2.3M), S&M (+\$0.4) and CP Closure Strategy (+\$0.2M). This is offset by the Wastes Sites' (-\$2.3M) due to additional costs to support the U Plant ROD process, decision documents, and barrier design planning. The U Plant Waste Sites overrun will be recovered during barrier construction. The S-7, T-28, and Z-7 boreholes (200-LW-1, 200 Area Chemical Lab Waste Group) and the A-4 borehole (200-MW-1 Miscellaneous Waste Group) cost more than planned due to unexpected levels of contamination. The 200-LW-1 and 200-MW-1 overruns are not recoverable.

In Reliability Projects, the unfavorable CV (-\$0.9M) is a result of cost increases due to a nation-wide increase in cost of steel and large fabricated parts for Project L-334, "Minimize Potential Environmental Impacts from Export Water System Ruptures," and L-376, "Facility Safety and Efficiency Renovations." Favorable bids for capital equipment procurements have partially mitigated these cost increases.

Closure Services has a favorable CV of (+\$0.6).

The favorable cost variance in PBS RL-0041 (+\$3.8M) is largely due to lower cost for The Uranium Fuel Disposition Project and efficiencies at the 300 Area Treated Effluent Disposal Facility (TEDF) operations.

Performance Analysis FYTD and Monthly (\$M)



Milestone Achievement

| PBS | MSN | Title | Type | Due Date | Actual Date | Forecast Date | Status / Comments |
|---------|-----------------------------|-----------------------------------------------------------------------|------|----------|-------------|---------------|-----------------------------|
| RL-0040 | TRP-03-242 M-015-40C | Submit 200-CW-5 U Pond/Z Ditches Cooling Water Group FS & Submit | HQ | 10/31/04 | 10/29/04 | | Completed ahead of schedule |
| RL-0040 | WMG-05-001 M-091-40L-004 | M-91-40L.1.D Submit Quarterly Burial Ground Vent and substrate Sample | HQ | 12/01/04 | 11/12/04 | | Completed ahead of schedule |
| RL-0040 | TRP-03-139 M-013-000 | Submit 1 200 NPL RI/FS (RFI/CMS) Work Plan | HQ | 12/31/04 | 12/20/04 | | Completed ahead of schedule |
| RL-0040 | WMG-04-009 M-091-40K | M-91-40K Update 218-E-12B SAP | HQ | 01/15/05 | 08/24/04 | | Completed ahead of schedule |
| RL-0040 | WMG-05-005 M-091-40L-005 | M-91-40L.2.A Submit Quarterly Burial Ground Vent and substrate Sample | HQ | 03/01/05 | 02/17/05 | | Completed ahead of schedule |
| RL-0040 | WMG-05-006 M-091-40L-006 | M-91-40L.2.B Submit Quarterly Burial Ground Vent and substrate Sample | HQ | 06/01/05 | 05/12/05 | | Completed ahead of schedule |
| RL-0040 | WMG-05-007 M-091-40L-007 | M-91-40L.2.C Submit Quarterly Burial Ground Vent and substrate Sample | HQ | 09/01/05 | 07/28/05 | | Completed ahead of schedule |
| RL-0040 | WMG-06-001 M-091-40L-008 | M-91-40L.2.D Submit Quarterly Burial Ground Vent and substrate Sample | HQ | 12/01/05 | | | On schedule |
| RL-0040 | TRP-04-324 | Issue Action Memorandum for U Plant Ancillary Facilities | RL | 12/31/05 | 01/23/04 | | Completed ahead of schedule |
| RL-0040 | TRP-04-323 | Issue Record-of-Decision for Canyon Disposition Initiative | RL | 12/31/05 | 10/03/05 | | Completed ahead of schedule |
| RL-0040 | TRP-03-260 M-015-46A | 200 Area Chemical Lab Waste OUs Remedial Investigation Report. | HQ | 02/28/06 | | | On schedule |
| RL-0040 | WMG-06-005 M-091-40L-009 | M-91-40L.3.A Submit Quarterly Burial Ground Vent and substrate Sample | HQ | 03/01/06 | | | On schedule |
| RL-0040 | TRP-04-320 | Demolish Ten U Plant Ancillary Facility Structures | RL | 03/31/06 | 09/07/05 | | Completed ahead of schedule |
| RL-0040 | TRP-04-321 | Demolish 10 B Plant Structures | RL | 03/31/06 | 09/14/04 | | Completed ahead of schedule |
| RL-0041 | TRP-04-325 | Package, Ship and Dispose of Remaining N Reactor Fuel | RL | 03/31/06 | 05/17/05 | | Completed ahead of schedule |
| RL-0040 | TRP-03-257 M-020-33 | Submit Closure/Post Closure Plans for 216-A-10 Crib, Etc. | HQ | 04/30/06 | | | On schedule |
| RL-0040 | TRP-03-263 M-015-44A | 200-MW-1 OU Remedial Investigation Report | HQ | 04/30/06 | | | On schedule |
| RL-0040 | TRP-03-254 M-015-43C | Submit 200-PW-2 OU FS & Proposed Plan/Proposed RCRA Permit Mod | HQ | 04/30/06 | | | On schedule |
| RL-0040 | WMG-06-006 M-091-40L-010 | M-91-40L.3.B Submit Quarterly Burial Ground Vent and substrate Sample | HQ | 06/01/06 | | | On schedule |
| RL-0040 | WMG-06-007 M-091-40L-011 | M-91-40L.3.C Submit Quarterly Burial Ground Vent and substrate Sample | HQ | 09/01/06 | | | On schedule |
| RL-0040 | TRP-03-266 M-015-46B | 200 Area Chemical Laboratory Waste OUs Feasibility Study | HQ | 09/30/06 | | | On schedule |
| RL-0040 | WDG-06-401 | Remediate U Plant Area High RiskWaste Sites | RL | 09/30/06 | | | On schedule |

Milestone Achievement, continued

| PBS | MSN | Title | Type | Due Date | Actual Date | Forecast Date | Status / Comments |
|---------|----------------------------|----------------------------------------------------------------|------|---------------------------------|-------------|---------------|-----------------------------|
| RL-0040 | WDG-06-401 | Remediate U Plant Area High RiskWaste Sites | RL | 09/30/06 | | | On schedule |
| RL-0040 | TRP-04-322 | Demolish 12 additional B Plant Structures | RL | 09/30/06 | 09/14/04 | | Completed ahead of schedule |
| RL-0041 | TRP-04-326 M-092-06-T02 | Complete the Disposal/Disposition of Un-Irradiated Metal Fuel | RL | 09/30/06 | 05/17/05 | | Completed ahead of schedule |
| RL-0040 | TRP-03-248 M-020-39 | Submit 216 S-10 Pond and Ditch Closure Plan to Ecology | HQ | 03/01/06 | | | On schedule |
| RL-0040 | TRP-03-245 M-015-39C | Submit 200-CS-1 Chemical Sewer Group FS and Submit PP/Proposed | HQ | 03/01/06 | | | On schedule |
| RL-0040 | WMG-05-010 M-091-40J | M-91-40J Update 218-W-3A SAP | HQ | 45 day before field work begins | | | On schedule |
| RL-0040 | WMG-05-009 M-091-40I | M-91-40I Update 218-W-4B SAP | HQ | 45 day before field work begins | | | On schedule |