

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

M. B. Lackey, Vice President of Deactivation and Decommissioning Project/(509) 373-9519

M. M. Belles, Vice President of Closure Services and Infrastructure/(509) 373-3990



Chip seal Route 4S from Horn Rapids Road to Wye Barricade



Past Crack Sealings



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 (M. M. Belles).

This section also includes PBS RL-0041, *Nuclear Facility D&D, River Corridor Closure Project*, until this work scope transitions to the River Corridor Contractor (M. B. Lackey).

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

Notable Accomplishments

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

Deactivation and Decommissioning:

U Plant Demolition Project:

During this reporting period, demolition of 222U is continuing. Size reduction of the 203U uranyl nitrate hexahydrate (UNH) tanks is on going and debris removal is in process. Completion of the U Plant Ancillary Facility demolition is forecast in August 2005, seven months ahead of schedule and \$5.5M under budget.

Waste Site Remediation:

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

Decommissioning of 216-Z-7 Crib (200-LW-1/200-LW-2 Chemical Laboratory Waste Operable Unit Group) drive casings was completed on May 12, 2005. Drilling activities were initiated at the 216-A-8 Crib in the 200-PW-1/200-PW-3/200-PW-6 (Plutonium/Organic-Rich Waste Operable Unit Group) on June 2, 2005; as of June 23, 2005, the borehole was 114 feet below ground surface. Two passive soil surveys were also initiated in May and completed in June for these Operable Units. The Revision 0 Phase I Ecological Sampling and Analysis Plan was submitted to RL on June 10, 2005. Soil samples were collected from the BC Controlled Area and analyzed for chemical constituents; these data support both the BC Controlled Area CERCLA work under the 200-UR-1 (Unplanned Releases Operable Unit) and the Central Plateau Ecological investigation and risk assessment activities.

U Plant Zone Closure:

The U Zone Completion Implementation Plan (ZCIP) was initiated in May 2005. A draft of the U Plant Canyon Disposition Initiative (CDI) Record of Decision (ROD) was issued by the Environmental Protection Agency (EPA) for internal review June 13, 2005. The U Waste Sites Proposed Plan (PP) is in the public comment period from May 16, 2005, through June 30, 2005, and was the subject of a public meeting held June 2, 2005.

BC Cribs and Trenches:

Draft A of the BC Cribs and Trenches Proposed Plan (PP) was transmitted to the EPA June 20, 2005, for parallel review with RL. The Data Quality Objective/Sampling Analysis Plan (DQO/SAP) describing characterization of the BC Cribs and Trenches is in Fluor Hanford (FH) review. The DQO/SAP includes deep sampling in an area west of the cribs indicated during High Resolution Resistivity (HRR) scans completed April 25, 2005.

Notable Accomplishments, continued

Reliability Projects:

The construction contract was awarded for Project L-582, "Repair of Three Railroad Crossings", on June 8, 2005. The bid for Project L-438, Partial Refurbishment of Route 4S/Wye Barricade to Pit 9", and L-440. "Partial Refurbishment of Route 4S/Pit 9 to Horn Rapids", was received and is in the review process.

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 16½ months ahead of schedule.

Special Case Waste: Dry Storage and Legacy Waste Buckets - All 22 cans found in the dry storage unit have been transferred to A cell and will be opened during the week of June 27, 2005. Once the cans are opened reconciliation with the safeguard and criticality inventories will be performed. These items, along with the remainder of the Pacific Northwest National Laboratory (PNNL) Legacy Waste Buckets, will then be loaded into a lead lined drum for shipment. The first three lead lined drums have been accepted for shipment. Drums 1 and 2 will be shipped on July 14, 2005. Shipment of Drum 3 will follow once the additional drum has been accepted. That shipment date is scheduled for August 25, 2005.

Ion Exchange Column - Development of the Justification for Continued Operation (JCO) is approximately 40 percent complete and is currently on schedule for a July 25, 2005, submittal to RL. The profile for the anion column has been accepted. Acceptance for the cation column is expected shortly. If accepted prior to load-out, the overall project schedule could be reduced by approximately 27 days.

300 Area D&D:

Demolition of structures 3762, 3764, and MO337 were completed, and demolition of structures 3506A and 3506B were initiated and are forecast to be completed by the end of June. Demolition preparation (utility isolations, asbestos abatement, etc.) was initiated on the final three structures to be demolished. All 300 Area D&D work is scheduled to be completed by mid-September.

FY 2005 Funds vs. Spend Forecast (\$M)

	Projected FY 2005 Funding	FY 2005 Fiscal Year Spend Forecast	Variance
Nuclear Facility D&D, Remainder of Hanford	\$ 80.4	\$ 73.0	\$ 7.3
Nuclear Facility D&D, River Corridor Closure	\$ 19.8	\$ 15.0	\$ 4.9
Total	\$ 100.2	\$ 88.0	\$ 12.2

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	\$41.3	\$45.0	\$41.3	\$3.7	8.9%	\$3.6	8.0%	\$67.3
RL-0041 Nuclear Facility D&D, River Corridor Closure	\$11.6	\$12.7	\$10.4	\$1.2	10.1%	\$2.4	18.6%	\$20.1
Total	\$52.9	\$57.7	\$51.7	\$4.8	8.4%	\$6.0	10.4%	\$87.4

Numbers are rounded to the nearest \$0.1M.

Schedule Performance (+\$4.8M/+8.4%):

RL-40 – The D&D favorable SV (+\$0.4M) is due to favorable progress on D&D activities (+\$3.6M). This is offset by an unfavorable SV for Waste Site Remediation (-\$2.9M) due to delays to 200-PW-1 Plutonium/Organic-Rich Process Waste Group A-8 borehole and Step 2 field investigations. The A-8 Borehole and Step 2 field investigations are expected to be completed during FY 2005. Additionally, Record of Decision (ROD) delays have caused delays to confirmatory sampling, remedial design, and planning for barrier construction at U Plant Waste Sites. Delays to U Plant will continue to grow in FY 2005, but will be recovered during FY 2006 by performing Remedial Design Report/Remedial Action Work Plan reviews concurrently, and completing construction in a shorter period of time. The Surveillance and Maintenance (S&M) unfavorable SV (-\$0.3M) is due to ventilation system shutdown, and PUREX NESHAPs activities delayed pending path forward.

In Reliability Projects, the favorable SV (+\$3.2M) is due to progress in completing FY 2004 carryover work scope and ahead of schedule FY 2005 projects (\$7.1M), and offset by delays in initiating new starts due to continuing resolution and pending funding decisions related to the Integrated Priority List (-\$4.0M).

The favorable schedule variance in PBS RL-0041 (+\$1.2M) is due to uranium shipments being accomplished ahead of plan.

Cost Performance (+\$6.0M/+10.4%):

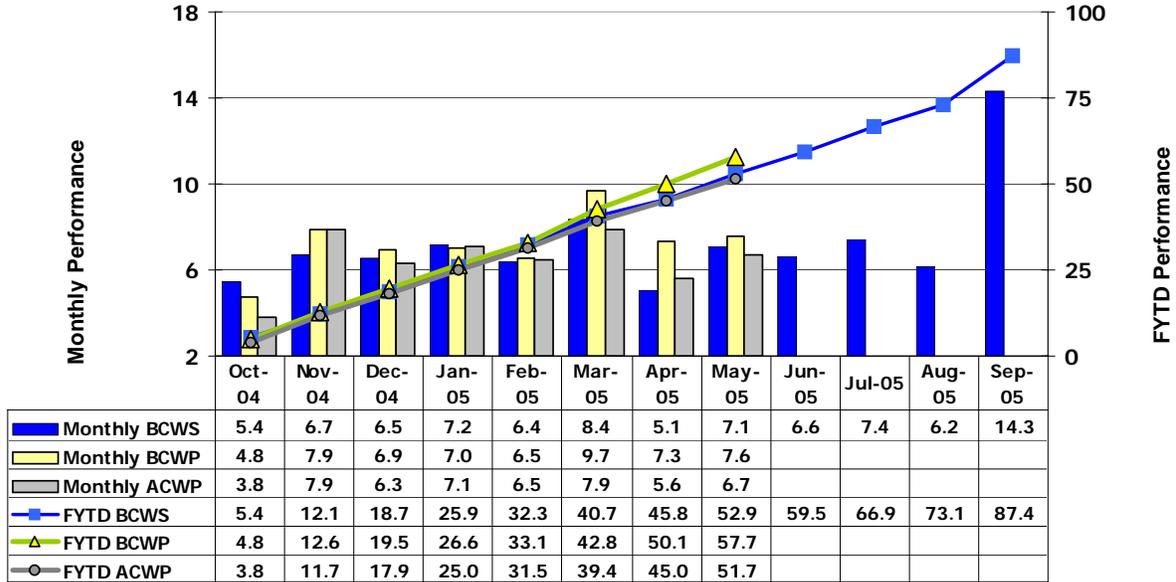
RL-40 – The favorable CV (\$3.9M) is primarily the result of D&D efficiencies in demolition activities (+\$5.4M), and Project Management and Support (PM&S) controlling cost (+\$1.2M). This is offset by the Wastes Sites' (-\$2.7M) additional costs to support the U Plant ROD process, decision documents, and barrier design planning. The U Plant Waste Sites' overrun will be recovered during barrier construction. The S-7 (200-PW-2 Uranium Rich Process Waste Group) T-28 and Z-7 boreholes (200-LW-1, 200 Area Chemical Lab Waste Group) cost more than planned due to the unexpected levels of contamination. The 200-LW-1 and 200-PW-2 overruns are not recoverable.

In Reliability Projects, the unfavorable cost variance (-\$0.3M) is a result of cost increase due to nation wide increase in cost of steel and large fabricated parts for Projects, Minimize Potential Environmental Impacts from Export Water System Ruptures, and L-376, Facility Safety and Efficiency Renovations.

The favorable cost variance in PBS RL-0041 (+\$2.4M) is due to continued efficiencies in 300 Area S&M. Uranium Disposition, and 300 Area Treated Effluent Disposal Facility (TEDF) operations.

FY 2005 Schedule/Cost Performance (\$M), continued

Performance Analysis FYTD and Monthly (\$M)



Milestones

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-05-010 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
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			On schedule

Milestones, continued

PBS	MSN	Title	Type	Due Date	Actual Date	Forecast Date	Status / Comments
RL-0040	TRP-03-260 M-015-46A	200 Area Chemical Lab Waste OUs Remedial Investigation Report.	HQ	10/31/05			On schedule
RL-0040	TRP-03-248 M-020-39	Submit 216 S-10 Pond and Ditch Closure Plan to Ecology	HQ	11/30/05			On schedule
RL-0040	TRP-03-245 M-015-39C	Submit 200-CS-1 Chemical Sewer Group FS and Submit PP/Proposed	HQ	11/30/05			On 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			On schedule
RL-0040	TRP-03-257 M-020-33	Submit Closure/Post Closure Plans for 216-A-10 Crib, Etc.	HQ	12/31/05			On schedule
RL-0040	TRP-03-263 M-015-44A	200-MW-1 OU Remedial Investigation Report	HQ	12/31/05			On schedule
RL-0040	TRP-03-254 M-015-43C	Submit 200-PW-2 OU FS & Proposed Plan/Proposed RCRA Permit Mod	HQ	12/31/05			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		07/31/05	Forecast 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	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-06-402	Remediate BC Cribs and Trenches	RL	09/30/06			On schedule
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