

# 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/(509) 373-9519**

**R. T. Wilde, Vice President of Waste Disposal/  
Groundwater Remediation/(509) 372-8123**

## 233-S Demolition Project



Concrete Cap  
Preparation



## 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);
- Reliability Projects (M. B. Lackey); and
- Waste Site Remediation (R. T. Wilde).

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.

NOTE: Unless otherwise noted, all information contained herein is as of the end of May 2004.

## Notable Accomplishments

### Deactivation and Decommissioning



**233-S "footprint"**

**233-S Demolition:** The concrete "cap" was poured over the 233-S facility "footprint" on June 8, 2004. Project equipment and materials are being demobilized and reassigned to other projects on the Hanford Site.

**224-B Construction Laydown Area:** Mobilization activities for the 224-B construction laydown yard were initiated during May. The 224-B Action Memorandum was approved by RL and the U.S. Environmental Protection Agency (EPA). Various documents (Waste Management Plan, Removal Action Work Plan, Sampling Analysis Plan, and Air Monitoring Plan) requiring EPA approval have been provided to EPA for review.

### Waste Site Remediation

**U Plant Regional Closure:** Preliminary design of surface barriers continues. During the month of May, an additional ten drive casings were completed around the U Plant high-risk waste sites in support of the design effort.

**200 Area Remedial Investigation/Feasibility Study (RI/FS) Work:** Work continued on preparing various RI/FS documentation. The remedial investigation report for the Uranium-Rich and General Process Waste Group (200-PW-2 and 200-PW-4 Operable Units) was submitted to RL for review on April 30, 2004. Comments were received from RL on May 14, 2004. The Work Plan for the Unplanned Release Waste Group (Operable Unit 200-UR-1) was submitted to RL for review on April 30, 2004. Comments were received from RL on May 17, 2004.

The remedial investigation report for the Chemical Sewer Group (Operable Unit 200-CS-1) was submitted to RL on May 14, 2004, to meet the Tri-Party Agreement (TPA) Milestone M-015-39B, due on May 31, 2004.

## FY 2004 FH Funds versus Forecast (\$000)

	FY 2004 Anticipated Funding w/Carryover	FY 2004 Fiscal Year Spend Forecast	Variance
<b>RL-0040</b> Nuclear Facility D&D, Remainder of Hanford	\$ 73,119	\$ 67,428	\$ 5,691
<b>RL-0041</b> Nuclear Facility D&D, River Corridor Closure	\$ 13,205	\$ 12,368	\$ 837
<b>Total</b>	<b>\$ 86,324</b>	<b>\$ 79,796</b>	<b>\$ 6,528</b>

Note: Infrastructure Reliability has work scope projected to carry over to FY 2005 (\$7.1M).

	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
<b>RL-0040</b> Nuclear Facility D&D, Remainder of Hanford	51,342	37,075	42,779	-14,267	-28%	-5,703	-15%	85,521
<b>RL-0041</b> Nuclear Facility D&D, River Corridor Closure	7,214	7,351	7,293	138	2%	58	1%	11,370
<b>Total</b>	<b>58,556</b>	<b>44,426</b>	<b>50,071</b>	<b>-14,130</b>	<b>-32%</b>	<b>-5,645</b>	<b>-13%</b>	<b>96,891</b>

NOTE: The above excludes Work for Others associated with these PBSs, as Work for Others is reported in Section H. Numbers are rounded to the nearest \$K and include the closure services allocation.

**Schedule Performance (-\$14,130K/-32%):** The unfavorable schedule variance in the Central Plateau sub-project is primarily due to deferral of work scope in response to FY 2004 funding reductions (-\$10,368K). This included 224-T Demolition, 224-B Demolition, and U Plant demolition-ready activities.

The unfavorable schedule variance is also attributable to Area Waste Site Cleanup (-\$5,103K) principally due to FY 2004 funding reductions requiring work scope deferral. This includes the A-8 waste site investigation, the Z-9 slant borehole, and the Step 2 investigation work for 200-PW-1; the test pit work and half of the boreholes planned for 200-MW-1; the pipeline engineering evaluation/cost analysis, test pit and borehole construction, pipeline design, crib stabilization, and the removal/disposal design work for the U Plant Regional Closure; and the design/confirmatory sampling and design for B/C Crib waste sites. Additionally, the Z-9 drilling and dense, nonaqueous phase liquid investigation at Operable Unit 200-PW-1 got a late start and incurred additional delays due to encountering significant radiological contamination below ground and the detection of high levels of carbon tetrachloride in the drill cuttings.

The favorable schedule variance in Reliability Projects is due to progress on FY 2003 carryover work scope (\$2,275K), transportation projects (\$113K), and Radio Frequency Migration (\$428K), offset by delays in new starts due to continuing resolution and A-8 Substation conceptual design validation (-\$1,234K).

## FY 2004 Schedule/Cost Performance, continued

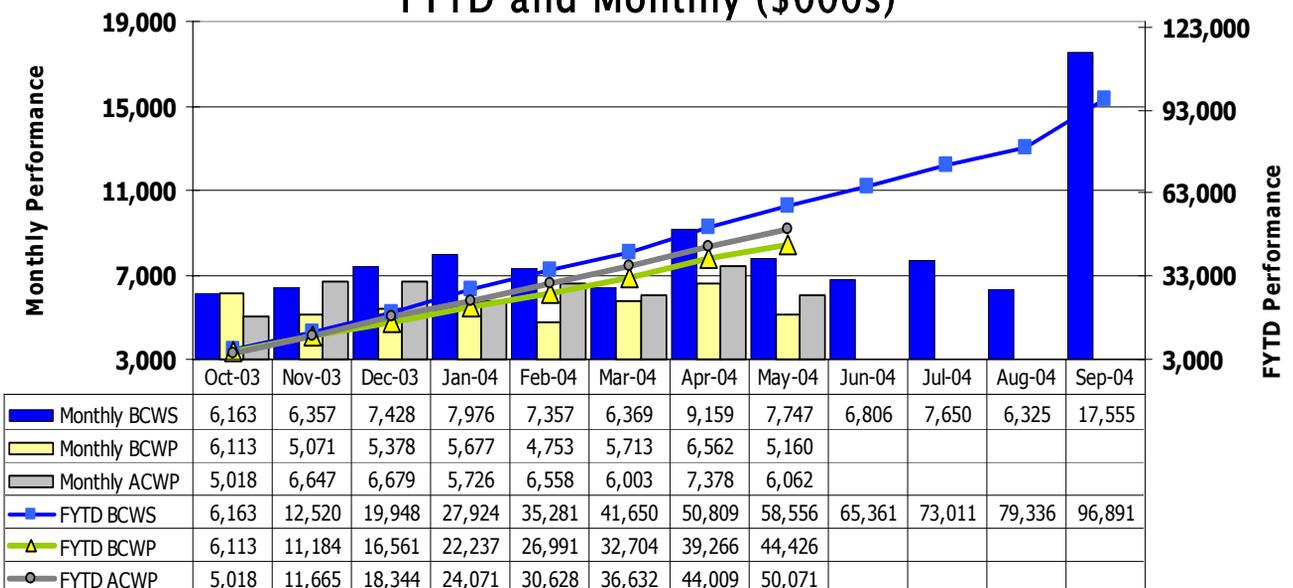
**Cost Performance (-\$5,645K/-13%):** The unfavorable cost variance for D&D Central Plateau is due to 233-S demolition (-\$7,345K) activities being more extensive, thus requiring retention of resources (personnel and equipment) for a longer period of time (approximately six months); this is somewhat offset by favorable variances in U Plant level-of-effort activities to be deferred in the baseline update, and 200 Area Surveillance and Maintenance (\$2,518K).

The unfavorable cost variance for Waste Site Cleanup (-\$1,718K) is due to Z-9 (200-PW-1) requiring more sampling/analysis, waste packaging, and transportation support than planned due to encountering higher levels of contamination than expected. The 200-PW-2 Remedial Investigation work that was delayed from FY 2003 has had increased equipment replacement costs, and extra sample shipping and packaging costs due to the 216-A-10 field work. The incorporation of regulator comments and lessons learned from previous document reviews has required more document preparation support for the RI/FS process, resulting in increased costs.

The favorable cost variance for Reliability Projects is due to cost efficiencies (\$822K) which will be used to dismantle steam lines, characterize the 748 Building, and Post Closure and Institutional Engineering Controls.

The favorable cost variance in Closure Services (\$286K) is a result of efficiencies that may be offset with seasonal maintenance activities and fabrication services outsourcing (\$237K) and uncosted system upgrades.

### Performance Analysis FYTD and Monthly (\$000s)



## Milestones

PBS	MSN	Title	Type	Due Date	Actual Date	Forecast Date	Status Comments
CP01	TRP-03-227 M-015-41C	Submit 200-TW-1 & 200-TW-2 OU FS/Proposed Plan to EPA & Ecology	HQ	03/31/04	03/30/04		Completed ahead of schedule
CP01	TRP-03-230 M-015-39B	Submit 200-CS-1 Chemical Sewer Group RI Report	HQ	05/31/04	05/14/04		Completed ahead of schedule
CP01	TRP-03-224 M-013-00N	Submit 1 200 NPL RI/FS (RFI/CMS) Work Plan	HQ	06/30/04			On schedule
CP01	TRP-03-233 M-015-43B	Submit 200-PW-2 OU RI Report Including Past Practice Waste Sites	HQ	06/30/04			On schedule
CP01	TRP-03-309	233-S (PuConcentration Facility) and the 233-SA (Exhaust Filter Building) demolished to slab on grade.	RL	06/30/04	04/30/04		Completed ahead of schedule
CP01	TRP-03-501 M-092-11-T01	Complete Disposition Options for Hanford Site Nonradioactive NA	RL	09/28/04			On schedule
CP01	TRP-03-236 M-016-66	Initiate Interm. Des.& Auth for RA at 618-10&11	HQ	09/30/04			On schedule
CP01	TRP-03-242 M-015-40C	Submit 200-CW-5 U Pond/Z Ditches Cooling Water Group FS & Submit	HQ	10/31/04			On schedule
CP01	TRP-03-139 M-013-00O	Submit 1 200 NPL RI/FS (RFI/CMS) Work Plan	HQ	12/31/04			On schedule
CP01	TRP-03-260 M-015-46A	200 Areaa Chemical Lab Waste OUs Remedial investigation Report.	HQ	10/31/05			On schedule
CP01	TRP-03-245 M-015-39C	Submit 200-CS-1 Chemical Sewer Group FS and Submit PP/Proposed	HQ	11/30/05			On schedule
CP01	TRP-03-248 M-020-39	Submit 216 S-10 Pond and Ditch Closure Plan to Ecology	HQ	11/30/05			On schedule
CP01	TRP-03-254 M-015-43C	Submit 200-PW-2 OU FS & Proposed Plan/Proposed RCRA Permit Mod	HQ	12/31/05			On schedule
CP01	TRP-03-257 M-020-33	Submit Closure/Post Closure Plans for 216-A-10 Crib, Etc.	HQ	12/31/05			On schedule
CP01	TRP-03-263 M-015-44A	200-MW-1 OU Remedial Investigation Report	HQ	12/31/05			On schedule
CP01	TRP-03-266 M-015-46B	200 Area Chemical Laboratory Waste OUs Feasibility Study	HQ	09/30/06			On schedule
CP01	TRP-03-272	Remediate BC Crib and Trenches	RL	09/30/06			On schedule
CP01	TRP-03-303	U Plant Regional Closure (high risk waste sites)	RL	09/30/06			On Schedule
CP01	TRP-03-312	224-B (Concentration Facility) demolished to slab on grade.	RL	09/30/06			The Baseline adjustment will delete this milestone
CP01	TRP-03-315	224-T (Transuranic Storage & Assay Facility) demolished to slab on grade.	RL	09/30/06			The Baseline adjustment will delete this milestone
RC06	TRP-04-901 M-92-15	Complete Removal and Transfer, and Initiate Storage of Phase II 300 Area SCW and Materials	EA	09/30/04	09/19/01		Completed ahead of schedule