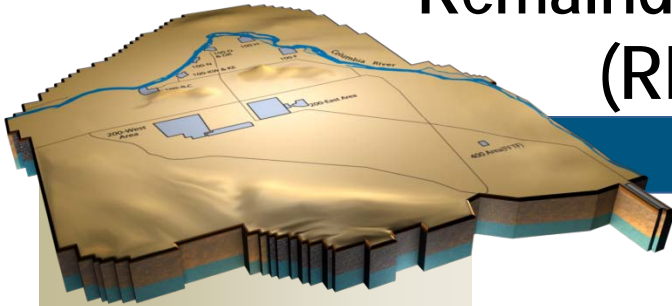


# Section E Nuclear Facility D&D, Remainder of Hanford (RL-0040)

## Monthly Performance Report



K. L. Kehler  
Vice President and  
Project Manager for  
D&D Project

D. L. Foss  
Vice President and  
Project Manager for  
Soil and Groundwater  
Remediation Project



**284E Powerhouse demolition**

March 2011  
CHPRC-2011-03, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

### American Recovery and Reinvestment Act (ARRA)

Continued Upper Arid Lands Ecology (ALE) closeout paperwork and power pole removal.

Grouting of the 221U Canyon facility voids was started with the successful grout placement demonstration in the north electrical gallery. Efforts continued in preparation for grouting activities in the remaining areas of the facility. The on-site grout batch plant is fully operational. Core drilling of additional penetrations for grout placement continued. Material has been staged and preparations are underway for construction of the structural grout bulkheads for the rail tunnel and south electrical and piping galleries.

The 209E facility completed nondestructive assay (NDA) of the ventilation system and the facility systems in support of hazard category reduction. Completed the Hazard Review Board presentation for the slab tank cutting procedure. Obtained approval of the Remedial Action Work Plan (RAWP) and Safety Analysis Plan (SAP) for the facility. Continued NDA activities on tanks and pipes within the facility. Continued equipment removal of HO-200 for dismantling. Completed filling and NDA of three standard waste boxes (SWBs).

Began demolition of 284E Power House. Completed explosive demolition of the 284E bag houses, stacks, and the 2902E water tower and completed size reduction and load-out activities for 2902E Water Tower.

Completed cold and dark and characterization activities on the 200 West structures. Completed size reduction and load-out activities of the 2902W water tower and continued with size reduction and load-out activities on 284W bag houses and stacks. Continued abatement activities in 284W Power House. Cleanup of 106 North Slope debris pile sites continued.

The lift and haul contractor is preparing tie-down calculations, training, and preparing for mobilization. Preparation (fixing, draining/solidification of the water) of the railcars for shipment to the Environmental Restoration Disposal Facility (ERDF) and B Reactor was initiated. The Shipping Evaluation Checklists and Tiedown Calculations have been initiated and the first set is with RL for approval.

Remediation activities were completed at the CW-3 waste sites and continued in the Outer Zone at BC Control area and Model Group (MG)-1 waste sites. BC Control Area removed approximately 29,700 tons of soil from the stockpile in March. Remediation and initial seeding was completed for five MG-1 sites in March.

Sampling/surveys have been completed on 18 MG-1 sites

### Base

Planned surveillance and maintenance (S&M) activities continue. Initial beryllium characterization sampling continues at REDOX, 231Z, and 222T.

Completed CW-3 pipeline 600-286-PL and 600-287-PL in March

## EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
10-EMS-D&D-OB2-T2	Mitigate spill impacts	1) Develop spill management tools for routine activities (building demolition and S&M)	03/31/10	Complete
		2) Evaluate the need for lower tier project procedures to implement the PRC spill response procedure	04/30/10	Complete
		3) Develop and provide awareness, prevention, response and mitigation training to >85 percent of project personnel as related to spill response	05/30/10	Complete
		4) Review and validate pre-designations for commonly used chemicals at the facility	06/30/10	Complete
		5) Incorporate new spill requirements into applicable procedures/work packages based upon issuance of spill response procedure	04/30/10	Complete
		6) Evaluate the need for a system to pre-designate new chemicals	06/30/10	Complete

## TARGET ZERO PERFORMANCE

	CM Quantity	Rolling 12 Month	Comment
<b>Days Away, Restricted or Transferred</b>	1	4	<b>03/07</b> 284E D&D Worker fell to the ground after pulling on a strap that broke while the worker was lining an ERDF container. The employee was transported to AMH for evaluation, then to Kadlec as a precaution. The worker was examined, given a prescription, and then released back to work with restrictions. <b>(21817)</b>
<b>Total Recordable Injuries</b>	1	8	Same as above
<b>First Aid Cases</b>	6	71	<p><b>03/03</b> U Canyon employee felt a pull in low back while closing the tailgate on a flatbed truck. <b>(21806)</b></p> <p><b>03/08</b> 284W Ironworker installing scaffolding struck shin on piece of iron. <b>(21816)</b></p> <p><b>03/09</b> 284W D&amp;D Worker injured back while exiting scaffolding. The worker was working in a cramped space. <b>(21818)</b></p> <p><b>03/09</b> 200W employee was struck in the left thigh by a job box. <b>(21819)</b></p> <p><b>03/09</b> 284W Insulator reported stepping up to scaffolding when bootie that was covering the safety boot slipped off. The worker reached up to grab something, in order to regain balance, and twisted back. <b>(21843)</b></p> <p><b>03/30</b> 284W Insulator working on the change room ceiling accidentally stepped off the designated wood planking walking area and through the ceiling. The Insulator's body went through the ceiling and up to arm pits where worker caught self on the ceiling joists. <b>(21865)</b></p>
<b>Near-Misses</b>	1	1	On 3/30/2011, a near miss event occurred when an employee performing work in an attic space at the 284W Powerhouse stepped off a temporary plywood work platform and broke through the eight foot high ceiling. <b>(21865)</b>

## KEY ACCOMPLISHMENTS

### ARRA – U PLANT/OTHER D&D

- U Plant Regional Closure Zone (U Ancillary Facilities D&D)
  - Completed site surveys, equipment decontamination, and site stabilization
- U Canyon Demolition and Cell 30 Disposition
  - The on-site grout batch plant is fully operational. Grouting of the 221U Canyon facility voids was started with the successful grout placement demonstration in the north electrical gallery.
- 200E Project
  - Completed size reduction and load-out activities of 2902E water tower. Began demolition of 284E Power House.
- 209E Project
  - Completed NDA of the ventilation system and the facility systems in support of hazard category reduction. Completed a draft of the hazard category reduction letter for RL approval of the facility downgrade. Began peer review of the document. Completed the Hazard Review Board (HRB) presentation and approval of the slab tank cutting procedure including the final development of the cutting shroud and the presentation and demonstration of the process for the HRB. Completed preparation of three SWBs for shipment.
  - 90% of HO-200 glovebox has been removed and placed in SWBs
  - Completed removal of the small hoods and remaining process piping
  - Obtained approval of the RAWP and SAP for the facility
  - Began cold and dark electrical work as part of the demolition preparation
- 200W Project
  - Completed characterization and cold and dark activities at 284W
  - Completed size reduction and load-out activities of 2902W water tower
  - Completed bio-hazard remediation and demolition preparation activities at 284W
  - Continued abatement activities in 284W Power House
  - Completed abatement activities in 284W crusher house
  - Continued hazardous material removal in 284W Power House
  - Continued size reduction and load-out activities of 284W bag house and stacks

### ARRA – OUTER ZONE D&D

- BC Controlled Area (BCCA) Waste Site Remediation
  - Continued removal of soil from the stockpile using super dump trucks with approximately 367,500 tons cumulative-to-date of soil removed from BCCA and transferred to ERDF
  - Completed initial seeding of the BCCA Zone A in March.
  - Commenced radiological Multi-Agency Radiation and Site Investigation Manual downpost surveys with localized spot removal in March
  - Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) survey measurements have been completed for approximately 90% of Zone A
- 200-CW-3 Waste Sites
  - Completed the remediation and seeding of 200-CW-3 waste sites. Closure documentation for the 200-CW-3 OU is being developed.

- **MG-1**
  - Reclassification/closure documentation for waste sites 200-E-110, UPR-600-21, 600-51, 600-37, and 600-262 has been approved.
  - Field remediation and seeding of sites 600-226, 600-36, 600-38, 600-222, and 600-275 is complete.
  - Initial remediation of waste sites 200-W-33 and 600-218 was completed in March pending sampling verification. Initial seeding of 200-W-33 was performed at risk (prior to sample results) to reduce the potential of dust during high wind conditions.
  - Pipeline 200-W-147-PL sampling was performed in March, results are being analyzed.
  - Waste sites 600-220, 600-281 and 600-282 remove, treat, and dispose (RTD) action is being planned for April.
  - Site 600-65 investigative sampling was completed; the closure report is being reviewed.
  - Remediation of waste site 216-S-26 commenced in March.
- **ALE D&D**
  - Began removal of the power poles on ALE
- **NORTH SLOPE**
  - Continued cleanup of 106 debris sites
  - Completed Hanford Reserve National Monument (HRNM) Areas 10 and 16
- **Railcars**
  - Liquid draining and dry grouting initiated. Preparation of railcars for shipment initiated. Contractor for the lift and haul of the railcars preparing tie-down calculations.
  - B Reactor initiated site work for receiving railcars.

**Base**

- Completed pipelines 600-286-PL and 600-287-PL
- Beryllium sampling/characterization continued in REDOX, 231Z, and 222T
- Completed 6652PH component removal




## MAJOR ISSUES




None.

























## RISK MANAGEMENT STATUS

**Unassigned Risk**  
**Risk Passed**  
**New Risk**




 Working - No Concerns  
 Working - Concern  
 Working - Critical




 Increased Confidence  
 No Change  
 Decreased Confidence











Risk Title	Risk Strategy/Handling	Assessment		Comments
		Month	Trend	
D4-U-004: U Canyon Technical Approach Changes	Conduct detailed planning/engineering to identify areas of concern and to minimize schedule impacts.			Detailed planning in process; impacts are being evaluated.
D4-020: Unexpected Condition/Radiological Contamination at Industrial Facilities	Perform early radiological surveys.			No significant impacts at this time.
D4-036: Readiness Reviews Required	Probability of risk occurring is low; risk is <u>accepted without mitigation</u> .			Probability is increasing; determining impacts to cost and schedule.
D4-037: D4 Regulatory Documents Delayed	Develop various regulatory documents to ensure the documents are submitted sufficiently early to obtain needed DOE or regulator approvals prior to planned start of work.			Working with RL to determine the appropriate path forward for facilities not covered under current regulatory documents.
D4-042: Unexpected Site Conditions	Conduct early facility walk downs and characterization activities to minimize schedule impacts; interview "old-timers" and compare recollections to historic records; conduct document searches to ensure all available documentation is reviewed early in the D4 planning process.			No issues at this time.
D4-043: Unforeseen Facility Event Impacts Safety or Environment	Include corrective maintenance in baseline based upon historic experience; risk accepted without further mitigation.			No issues at this time.
D4-S-033: Semi-Works Zone Closure-Regulatory Documents Delayed	Develop various regulatory documents to ensure the documents are submitted sufficiently early to obtain needed DOE or regulator approvals prior to planned start of work.			Evaluating the path forward for below-grade tanks.
D4-S-057: 209E Fire System Deactivation	The plan is to shut off all utilities as part of the 209E deactivation in preparation for demolition.			Upgrades to LSC systems are being implemented.
<b>WSR-006: Decision Document Approval Delays</b>	Work with RL and regulators to establish priorities and need dates.			RAWP and TPA Change Notice have been approved; MG-1 field activities for the pipelines have been adversely affected.
<b>WSR-007: More Extensive Contamination Than Expected</b>	Cannot control extent of contamination; no mitigation.			The BCCA is the major risk that has been realized. 216-N-4 had more contamination than anticipated, however 216-N-1 had less than anticipated - being from the same control account the cost impact was a net sum zero. Risk level reflects project life worst case impact of \$60M; individual waste site risks are moderate except for BCCA which is high.
<b>WSR-008: No Action Waste Sites</b>	Using L-8 table data; no mitigation.			Eight sites in the Outer Zone have failed the CSNA sample evaluation. Two of these sites have been remediated with closure paperwork in process. Four other sites have passed the initial CSNA evaluation. To date, cleanup of the failed sites has not resulted in large waste volumes.

## RISK MANAGEMENT STATUS (continued)

**Unassigned Risk**  
**Risk Passed**  
**New Risk**

 Working - No Concerns  
 Working - Concern  
 Working - Critical

 Increased Confidence  
 No Change  
 Decreased Confidence

Risk Title	Risk Strategy/Handling	Assessment		Comments
		Month	Trend	
WSR-020: Ecological/Cultural Conditions Restrict Field Activities	This risk is accepted as written and will be monitored throughout work execution.			As a result of issues encountered a couple of months ago, a BCR was processed in September that incorporated the appropriate risk changes that could be taken at that time. There is an ongoing concern about any new changes; this is being watched closely.
WSR-021: Remediation Subcontractor Performance	This risk is accepted as written and will be monitored throughout work execution.			No issues identified at this time.
WSR-028: Unexpected Liquid in Pipelines/Tanks	Anticipate liquids in field work plans; include spill response plans in RD/RAWPs.			No issues identified at this time.
WSR-030: NRDWL Barrier (RCRA vs. ET-Mono)	Draft closure plan and L-8 table show ET-Mono; no mitigation.			Ecology comments on the draft closure plan indicates their acceptance of an ET Barrier. However, final acceptance of the ET cap requires public review and an associated permit modification.
WSR-031: NRDWL Cap - Learning Curve	Award contract which considers previous environmental barrier construction experience in the selection criteria. Assign full-time QA contractor to oversee barrier construction.			These criteria will be evaluated during contract award, which starts after the Closure Plan is submitted to the public for review.



## PROJECT BASELINE PERFORMANCE

### Current Month

(\$M)

WBS 040/ RL-0040 Nuclear Facility D&D	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
<b>U Plant/Other</b>	7.1	8.6	8.1	1.5	21.6	0.6	6.4
<b>Outer Zone</b>	<u>5.7</u>	<u>4.2</u>	<u>4.0</u>	<u>(1.5)</u>	-26.7	<u>0.2</u>	5.2
<b>ARRA Total</b>	<b>12.8</b>	<b>12.8</b>	<b>12.1</b>	<b>0.0</b>	<b>-0.1</b>	<b>0.8</b>	<b>6.0</b>
<b>Base</b>	<u>1.7</u>	<u>1.7</u>	<u>1.5</u>	<u>(0.1)</u>	-3.9	<u>0.2</u>	11.7
<b>Total</b>	<b>14.6</b>	<b>14.5</b>	<b>13.5</b>	<b>(0.1)</b>	<b>-0.5</b>	<b>1.0</b>	<b>6.7</b>

Numbers are rounded to the nearest \$0.1M

### ARRA

#### CM Schedule Performance: (-\$0.0M/-0.1%)

ARRA RL-0040.R1.1 U Plant/Other D&D (+\$1.5M) The favorable schedule variance is due to progress made on 200E Administration building (+\$0.5M), 209E (+\$0.5M) and 200W Administration building (+\$0.5M).

ARRA RL-0040.R1.2 Outer Zone D&D (-\$1.5M)

Outer zone waste sites unfavorable schedule variance is primarily related to weather and equipment maintenance issues on BC Control Area (-\$1.1M) and work on hold pending resolution of site priorities (-\$0.4M).

#### CM Cost Performance: (+\$0.8M/+6.0%)

ARRA RL-0040.R1.1 U Plant/Other D&D (+\$0.6M) The favorable cost variance is largely due to the 200W Administration building requiring less asbestos removal than originally planned.

ARRA RL-0040.R1.2 Outer Zone D&D (+\$0.2M) favorable cost variance is primarily due to efficiency of parallel performance of activities in the BC Control Area, including completion of the primary excavation in Zone A, continuing CERCLA surveys of the balance of Zone A with hot spot removal as necessary and seeding portions of Zone A which had already been surveyed to verify completion of remediation.

### Base

#### CM Schedule Performance: (+\$0.1M/-3.9%)

Variance is within reporting threshold.

#### CM Cost Performance: (+\$0.2M/+11.7%)

Variance is within reporting threshold.

## Contract-To-Date (\$M)

WBS 040/ RL-0040 Nuclear Facility D&D	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 (BAC)	Estimate at Completion (EAC)	Variance at Completion (VAC)
<b>U Plant/Other</b>	157.6	154.9	142.7	(2.7)	-1.7	12.2	7.9	198.7	187.3	11.4
<b>Outer Zone</b>	70.8	67.3	55.7	(3.5)	-5.0	11.6	17.3	89.5	91.0	(1.4)
<b>ARRA Total</b>	<b>228.5</b>	<b>222.2</b>	<b>198.4</b>	<b>(6.3)</b>	<b>-2.7</b>	<b>23.8</b>	<b>10.7</b>	<b>288.3</b>	<b>278.3</b>	<b>10.0</b>
<b>Base</b>	57.7	57.9	51.9	0.2	0.4	6.1	10.5	757.8	741.7	16.0
<b>Total</b>	<b>286.2</b>	<b>280.1</b>	<b>250.2</b>	<b>(6.1)</b>	<b>-2.1</b>	<b>29.9</b>	<b>10.7</b>	<b>1,046.0</b>	<b>1,020.0</b>	<b>26.0</b>

Numbers are rounded to the nearest \$0.1M

### ARRA

#### CTD Schedule Performance: (-\$6.3M/-2.7%)

ARRA RL-0040.R1.1 U Plant/Other D&D (-\$2.7M) negative schedule variance is due to late award of the grout contract for U Canyon (-\$2.8M) and delays with the 200E Administration Buildings (-\$1.2M) due to bio-hazard and radiological control issues. Limited resources has also delayed 200W Administration Buildings (-\$0.1M). This is offset by accelerating 209E demolition preparation, mobilization, and asbestos abatement (+\$1.4M).

ARRA RL-0040.R1.2 Outer Zone D&D (-\$3.5M) unfavorable schedule variance is primarily due to delay of work on selected waste sites pending finalization of site priorities (-\$2.8M); delays with cultural/ecological reviews on the North Slope (-\$0.4M); and minor accounts outside the threshold (-\$0.3M).

#### CTD Cost Performance: (+\$23.8M/+10.7%)

ARRA RL-0040.R1.1 U Plant/Other D&D (+\$12.2M) favorable cost variance is largely due to favorable performance of the Cold and Dark teams and the Sampling and Characterization/Waste Identification Form teams (D4) (+\$3.3M), overhead allocations (+\$7.7M), less for Program Management than planned (+\$1.2M), efficiencies at U Canyon (D4) (+\$0.8M), less resources than planned for C-3 Sampling (+\$0.7M) and 200E Administration (+\$1.2M), lower than planned costs for capital equipment (D4) (+\$2.7M), less asbestos abatement required for 200W buildings (+\$3.5M), offset by increased material and equipment costs, increased use of masks and respirators due to the unexpected asbestos levels in the ancillary buildings in U Ancillary (D4) (-\$8.0M), coupled with increased insulator staff and overtime to recover schedule, 209E Project (-\$0.7M). Minor accounts not within threshold (-\$0.2M).

ARRA RL-0040.R1.2 Outer Zone D&D (+\$11.6M) favorable cost variance is due to efficiencies in ALE and North Slope Facilities D&D (+\$4.9M) and Outer Area waste sites (+\$7.9M). The waste site favorable cost-to-date variance is primarily due to an O-Zone RTD Waste Sites adjustment (pass back) to ERDF waste disposal costs reflecting the operational efficiencies of the super dump trucks. Within the waste sites area, this favorable cost variance is partially offset by higher than planned costs associated with remediation of pipelines. A negative cost variance is associated with increased costs for the 212N/P/R Project (-\$1.0M) due to the walls of the basins being much thicker than estimated.

**Base**

**CTD Schedule Performance: (+0.2M/+0.4%)**

All Variances are within Thresholds.

**CTD Cost Performance: (+\$6.1M/+10.5%)**

Balance of Site (facilities and others) (+\$6.1M) favorable cost variance is associated with recognized efficiencies for demolition of the Industrial 7 Project (D4) (+\$0.6M) as a result of utilization of existing site equipment and materials, surveillance and maintenance costs (D4) (+\$1.5M) less than expected, completion of the sampling of Cell 30 with less resources than planned (+\$0.9M), Program Management utilizing less resources (+\$1.4M), capital equipment (+\$0.3M), Usage Base Services (+\$0.1M), and underrun in overhead allocations (+\$1.3M).

**Contract Performance Report Formats are provided in Appendix A and Appendix A-1.**

**FUNDS vs. SPEND FORECAST  
(\$M)**

WBS 040/RL-0040 Nuclear Facility D&D	FY2011		
	Projected Funding	Spending Forecast	Spend Variance
<b>ARRA</b>	142.6	141.4	1.3
<b>Base</b>	24.6	17.9	6.7

Numbers are rounded to the nearest \$0.1M.

**Funds/Variance Analysis**

Funding includes FY2010 carryover and FY2011 new Budget Authority.

**Critical Path Schedule**

Critical path analysis can be provided upon request.

**Estimate at Completion (EAC)**

The BAC and EAC now include FY2009 through FY2018, the PRC contract period.

**Baseline Change Requests**

BCRA-PRC-11-025R0, Adjustments to Fee

BCRA-PRC-11-026R0, Adjustment to Schedule Logic for Milestones in PMB

BCRA-PRC-11-031R0, General Administrative & FOC Changes for March 2011

**MILESTONE STATUS**

None currently identified.

**SELF-PERFORMED WORK**

The Section H. clause entitled, Self-Performed Work, is addressed in the Monthly Report Overview.

**GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)**

None currently identified.