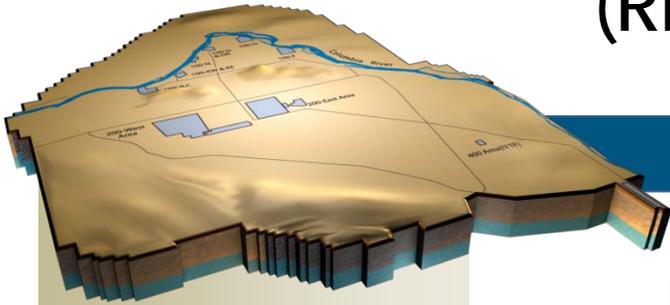


# Section E Nuclear Facility D&D, Remainder of Hanford (RL-0040)

## Monthly Performance Report



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Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1



**209E Steam Pipe Removal**

## PROJECT SUMMARY

### American Recovery and Reinvestment Act (ARRA)

Continued with load out of 224U and 224UA

Continuing upper Arid Lands Ecology (ALE) demolition activities. Completed the demolition of 6652C. Debris pile sites cleanup activities are temporarily on hold due to high fire danger levels. Continued cold and dark and characterization activities on 6633, 6636, and 6637.

Asbestos abatement activities in the operating and pipe galleries at U Canyon are in progress. Contracts have been placed for grout and core drilling to convey the grout into the canyon. A cask to support the removal of the D-10 Tank has been ordered with an expected delivery date of December 16, 2010.

Continued with loadout of 272E Building and demolition of 275E. Continued beryllium sampling and initial characterization activities on the 200 West structures.

Continued planning of the North Slope debris pile cleanup

CERCLA documentation for railcars progressing as planned

Remediation activities continued in the Outer Zone at BC Control area, CW-3 waste sites, and Model Group (MG)-1 waste sites. BC Control Area remediated approximately 30,000 tons of soil in August; approximately 54 acres of BC Control Area, Zone A, have been cleared to date. Initial excavation at CW-3 waste site 216-N-4 and waste site 216-N-6 was completed, pending verification sampling. Approximately 8,000 tons of soil was removed from CW-3 sites during August.

Sampling/surveys have been completed on 17 MG-1 sites. Approximately 1,000 tons of soil was remediated from MG-1 sites in August.

### Base

Planned surveillance and maintenance (S&M) activities continue.

Initiated planning and remediation of failed CSNFA sites in MG-1

## 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% 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
Days Away, Restricted or Transferred	0	1	N/A
Total Recordable Injuries	0	3	N/A
First Aid Cases	3	80	08/03 – Electrician strained a left forearm muscle pulling electrical wire in 284E. Worker was taken to AMH for evaluation, given OTC medication and released to work without restrictions. (21171) 08/10 – U Canyon RCT tripped and fell on canyon deck. Worker requested not to go to AMH. 08/11 worker reported soreness and requested AMH visit. AMH evaluation of minor contusion on knee, bruise. RCT given ACE wrap and ice pack and returned to work with no restrictions. (21195) 08/23 – C&D D4 worker to AMH for an inflamed right knee that reportedly occurred while working at 209E from crawling on knees. Worker was examined and released to work with restrictions. (21262)
Near-Misses	0	1	N/A

## KEY ACCOMPLISHMENTS

### ARRA – U PLANT/OTHER D&D

- U Plant Regional Closure Zone (U-Ancillary Facilities D&D)
  - Continued load out activities on 224U and 224UA
- U Canyon Demolition and Cell 30 Disposition
  - A contract has been awarded for core drilling to support grout activities
  - The contract has been awarded for the cask needed to ship the T-10 tank to T Plant
  - Grout supply contract has been awarded
  - Asbestos abatement activities continue in the pipe and operating galleries
- 200E Project
  - Continued load out of asbestos from 284E steam pipes
  - Continued demolition of 272E
  - Continued demolition of 275E
  - Completed asbestos abatement of conveyor and crusher house at 284E
  - Initiated asbestos abatement in main building of 284E

- 209E Project
  - Continued 209E characterization and cold and dark planning activities
  - Completed housekeeping and removal of miscellaneous equipment from the criticality assembly room and mix room
  - Removed 80% of fencing around the facility
  - Completed asbestos abatement on the steam line in preparation of steam line removal
  - Completed modifications to the facility to allow for a larger step-off and change area
  - Began receipt and installation of trailers to support project personnel
- 200W Project
  - Continued with characterization activities

### **ARRA – OUTER ZONE D&D**

- BC Controlled Area Waste Site Remediation
  - Remediation using super dump trucks continued with approximately 192,800 tons cumulative to date of soil removed and transferred to ERDF
- 200-CW-3 Waste Sites
  - Excavation of Remove, Treat, and Dispose (RTD) site 216-N-4 was completed pending verification sampling. Approximately 36,350 tons of soil (cumulative) has been removed and transferred to ERDF.
  - Excavation of RTD site 216-N-6 was completed pending verification sampling with approximately 8,000 tons (cumulative) transferred to ERDF
  - The response action completion documentation for waste site 216-N-1 is with RL for review and backfill of the site is complete
  - Seven waste sites (600-285PL, 2607N, 2607P, 2607R, 200-N-3, UPR-200-N-1, and UPR-200-N-2) have been remediated/evaluated with the reclassification approved
- MG-1
  - Reclassification/closure documentation for eight waste sites (200-E-101, 6607-2, 6607-1, 6607-3, 200-E-110, UPR-600-21, 600-51, and 600-262) has been submitted for approval. Site 600-37 is a Confirmatory Sampling No Further Action (CSNFA) site with confirmatory sampling completed with acceptable results. Closure documentation is being prepared.
  - Six waste sites (600-36, 600-38, 600-218, 200-W-33, UPR-600-12, and 600-222) were originally planned CSNFA, however sampling of the sites indicated some excavation will be required
  - Excavation of waste site 600-275 was initiated in August
  - Preparations to excavate 600-222 are awaiting approval of the RAWP, which is in review
  - Initial excavation for site 600-40 was completed and initial verification samples were collected. Following additional excavation, in-process samples were found to be within the Remedial Action Level (RAL). The verification sampling instruction is being issued for verification sampling in September.
  - The Remedial Action Work Plan (RAWP) that was updated to include 37 waste sites added with the approved Action Memorandum (AM) is with Ecology for review
  - Additional excavation of site 600-36 was performed in August. The sample results are being evaluated.
  - CSNFA sampling is continuing at the Old Central Shop Area site
- ALE D&D
  - Continued cold and dark and characterization on the upper ALE facilities

### **Base**

Based on verification samples, additional excavation of 600-38 was performed in August, and post-excavation verification samples were collected. Awaiting results of the sample analyses.

## MAJOR ISSUES

**Issue Statement** – Confirmatory sampling waste sites have failed to meet acceptance criteria.

**Corrective Action** – Alternative remediation strategies are being developed.

**Status** – Contract Notice of Change letters have been issued for the following:

Waste Site 200-W-33, Notice of Change letter number CHPRC-1000334, dated 6-May-10

Waste Site 600-218, Notice of Change letter number CHPRC-1000160, dated 2-Mar-10

**Issue Statement** – During the remediation of the CW-3 ponds, radiological contamination levels were found in the outfall of 600-286-PL and 600-287-PL.

**Corrective Action** – CHPRC is proceeding with additional characterization activities in the 600-285-PL to determine if radiological contamination is present above levels documented in the remaining sites verification package and full remove, treat, and dispose of the 600-286-PL and 600-287-PL pipelines is expected to start by the end of September.

**Status** – Planning and prerequisite documents are being developed to support RTD activities in September.

**Issue Statement** – The RAWP with TPA Change Notice was updated to include waste sites added with the approved MG-1 AM. The initiation of remediation of the MG-1 waste sites 600-222, 200-W-147-PL, 600-OCL, and 600-226 is restrained until the RAWP is approved.

**Corrective Action** – CHPRC is addressing regulatory comments on the RAWP.

**Status** – Approval of the RAWP is currently anticipated in September.

## 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	Tren	
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 accepted without mitigation.	●	↓	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.
WSR-006: Decision Document Approval Delays	Work with RL and regulators to establish priorities and need dates.	●	↓	While the RAWP is under review, MG-1 field activities are being adversely affected as the RAWP has not been approved.
WSR-007: More Extensive Contamination Than Expected	Cannot control contamination extent; no mitigation.	●	↓	Risk level reflects project life worst case impact of \$60M; individual waste site risks are moderate except for BCCA which is high.
WSR-008: No Action Waste Sites	Using L-8 table data; no mitigation.	●	↓	Several sites are failing confirmatory sampling. Change Proposals are being prepared to address the change in scope.
WSR-020: Ecological/Cultural Conditions Restrict Field Activities	This risk is accepted as written and will be monitored throughout work execution.	●	↔	The Project is working this risk on a case by case basis with no issues currently identified.
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>	6.7	6.3	6.4	(0.4)	-6.5	(0.1)	-1.5
<b>Outer Zone</b>	<u>3.2</u>	<u>3.2</u>	<u>3.3</u>	<u>0.0</u>	0.7	<u>(0.1)</u>	-3.1
<b>ARRA Total</b>	<b>9.9</b>	<b>9.5</b>	<b>9.7</b>	<b>(0.4)</b>	<b>-4.2</b>	<b>(0.2)</b>	<b>-2.0</b>
<b>Base</b>	<u>1.5</u>	<u>1.3</u>	<u>1.7</u>	<u>(0.2)</u>	-13.2	<u>(0.4)</u>	-30.7
<b>Total</b>	<b>11.4</b>	<b>10.8</b>	<b>11.4</b>	<b>(0.6)</b>	<b>-5.4</b>	<b>(0.6)</b>	<b>-5.5</b>

**ARRA****CM Schedule Performance: (-\$0.4M/-4.2%)**

ARRA RL-0040.R1.1 U Plant/Other D&amp;D (-\$0.4M) is within reporting thresholds.

ARRA RL-0040.R1.2 Outer Zone D&amp;D (\$0.0M) is within reporting thresholds.

**CM Cost Performance: (-\$0.2M/-2.0%)**

ARRA RL-0040.R1.1 U Plant/Other D&amp;D (-\$0.1M) is within reporting thresholds.

ARRA RL-0040.R1.2 Outer Zone D&amp;D (-\$0.1M) is within reporting thresholds.

**Base****CM Schedule Performance: (-\$0.2M/-13.2%)**

N/A – Variance is within reporting threshold.

**CM Cost Performance: (-\$0.4M/-30.7%)**

N/A – Variance is within reporting threshold.

The unfavorable cost variance in waste sites is related to the expanded scope of the Engineering Evaluation/Cost Analysis development for railcars and 200 East area buildings.

## 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>	115.6	110.9	97.8	(4.7)	-4.1	13.1	11.8	197.6	183.8	13.8
<b>Outer Zone</b>	39.3	37.4	32.1	(2.0)	-5.0	5.2	14.0	86.7	90.0	-3.3
<b>ARRA Total</b>	<b>154.9</b>	<b>148.3</b>	<b>129.9</b>	<b>(6.7)</b>	<b>-4.3</b>	<b>18.3</b>	<b>12.3</b>	<b>284.3</b>	<b>273.8</b>	<b>10.5</b>
<b>Base</b>	47.3	47.3	41.2	0.0	0.0	6.2	13.0	979.0	969.5	9.5
<b>Total</b>	<b>202.2</b>	<b>195.6</b>	<b>171.1</b>	<b>(6.7)</b>	<b>-3.3</b>	<b>24.5</b>	<b>12.5</b>	<b>1,263.3</b>	<b>1,243.3</b>	<b>20.0</b>

Numbers are rounded to the nearest \$0.1M.

### ARRA

#### CTD Schedule Performance: (-\$6.7M/-3.3%)

##### ARRA RL-0040.R1.1 U Plant/Other D&D (-\$4.7M)

The negative schedule variance is due to late award of the grout contract for U Canyon (-\$2.3M), delays with the 200E Administration Buildings (-\$2.0M) due to bio-hazard and radiological control issues, delay in receiving capital equipment (-\$1.0M), and U Ancillary demolition (-\$0.4M) schedule delays due to asbestos abatement/respirator issues. This is offset by accelerating 209E demolition preparation, mobilization, and asbestos abatement (+\$0.8M). Minor accounts within threshold (+\$0.2M).

##### ARRA RL-0040.R1.2 Outer Zone D&D (-\$2.0M)

The contract-to-date unfavorable schedule variance (-\$1.7M) is due to the greater depth of contamination in the BC Control Area and the resulting need to excavate and dispose of greater quantities of soil and the migratory bird impact issues (-\$2.1M). Deferral of work on 600-275 and 600-220 has also contributed to the unfavorable variance (-\$0.2M). This is offset in part by early work in miscellaneous waste sites (+\$0.6M).

Several ALE towers have not been released for work causing a negative schedule variance (-\$0.3M).

#### CTD Cost Performance: (+\$18.3M/+12.3%)

##### ARRA RL-0040.R1.1 U Plant/Other D&D (+\$13.1M)

The 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) (+\$3.0M), G&A and direct distributable allocations (+\$7.0M), less for Program Management than planned (+\$0.7M), efficiencies at U Canyon (D4) (+\$3.6M), less resources than planned for C-3 Sampling (+\$0.7M) and 200E Administration (+\$1.7M), lower than planned costs for capital equipment (D4) (+\$2.7M), 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) (-\$5.5M), coupled with increased insulator staff and overtime to recover schedule, 209E Project (+\$0.7M) and higher MSA (-\$1.8M) costs for Fleet/Training, etc. In addition, minor accounts outside the threshold (+\$0.3M).

##### ARRA RL-0040.R1.2 Outer Zone D&D (+\$5.2M)

The favorable cost variance is due to efficiencies in ALE Facilities D&D (+\$4.0M) and Outer Area waste sites within threshold (+\$2.3M). A waste site favorable cost-to-date variance is due to an O Zone RTD Waste Sites adjustment (pass back) to ERDF waste disposal costs to reflect the operational efficiencies of the super dump trucks and delays in billing from the BCCA subcontractor that is partially offset by increased cost for 212N/P/R (-\$0.9M).

In addition, a negative cost variance is associated with the disposition of railcar (-\$0.2M) due to unplanned costs for non-destructive analysis of the cars.

**Base**

**CTD Schedule Performance: (+\$0.0M/+0.0%)**

Within reporting threshold.

**CTD Cost Performance: (+\$6.2M/+13.0%)**

The 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) (+\$0.8M) less than expected, completed the sampling of Cell 30 with less resources than planned (+\$0.9M), Program Management utilizing less resources (+\$1.2M), capital equipment (+\$0.3M), Usage Base Services (+\$0.1M) and underrun in G&A and direct distributable allocations (+\$1.2M). In addition, minor accounts outside the threshold (+\$0.2M).

The favorable cost variance for Waste Sites (+\$0.9M) is due to less extensive regulatory support labor required for the U Zone agreement-in-principal and an inadvertent overstatement of performance related to the 600 Central Landfill barrier in March 2010 and the completion of a confirmatory sampling waste site located within BC Controlled Area.

**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	FY2010		Variance
	Projected Funding	Spending Forecast	
<b>ARRA</b>	117.7	109.8	7.9
<b>Base</b>	<u>25.4</u>	<u>16.8</u>	<u>8.6</u>
<b>Total</b>	<b>143.1</b>	<b>126.6</b>	<b>16.5</b>

Numbers are rounded to the nearest \$0.1M.

**Funds/Variance Analysis**

Projected Funding includes FY2009 uncosted and FY2010 expected 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. ARRA EAC reduction from July to August is due to receiving the ERDF pass back and the decision to eliminate the purchase of several pieces of capital equipment.

**Baseline Change Requests**

None.

## 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.