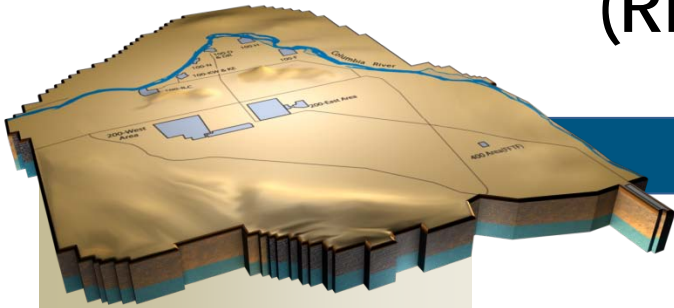


# Section E Nuclear Facility D&D, Remainder of Hanford (RL-0040)

## Monthly Performance Report



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DOE/RL-2008-69, Rev. 20  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1



**Demolition of 272E Building**

## PROJECT SUMMARY

### American Recovery and Reinvestment Act (ARRA)

Completed demolition of 203UX and initiated demolition of 224U.  
 Continuing upper Arid Lands Ecology (ALE) demolition activities. Debris pile sites cleanup activities are continuing.  
 Equipment size reduction is complete and equipment placement activities in 37 of 40 cells are complete for U Canyon.  
 Demolished MO405 of the 200E Project structures and, began demolition on two other structures.  
 Completed Cold and Dark on the 284E Powerhouse.  
 Began Beryllium sampling and initial characterization activities on the 200 West Structures.  
 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 25,300 tons of soil in June; approximately 35.5 acres of BC Control Area, Zone A, have been cleared to date. Excavation at one CW-3 waste site (216-N-4) continued with approximately 2,700 tons of soil removed during June.  
 Sampling/surveys have been completed on 14 MG-1 sites.

### Base

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

## 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	5	N/A
Total Recordable Injuries	0	6	N/A
First Aid Cases	7	82	<p>6/1 - Employee assigned to BCCA was experiencing pain in right elbow, radiating up to shoulder. Employee was treated at AMH and returned to work without restriction. (20955)</p> <p>6/2 - D&amp;D Project S&amp;M RCT got a speck of dust in eye while at Hammer in a training class. Taken to AMH downtown for removal of foreign body and returned to work without restriction. (20958)</p> <p>6/7 - An FFS Electrician caught the toe of his boot in a rope and fell, breaking the fall with his left knee and right palm. On the morning of May 8, the employee was experiencing pain and reported to his supervisor. The employee was taken to AMH and diagnosed with a strained left knee, was given OTC medicine, and released to work with no restrictions. (20914)</p> <p>6/8 - NCO in U Canyon was size reducing debris when a large piece of metal fell striking worker on the left shoulder. There was no breach of PPE or skin. Worker was taken to AMH for evaluation and returned to work without restriction. (20973)</p> <p>6/8 - C&amp;D Electrician received a bug bite on the back of the neck. The bite became irritated so the worker was taken to AMH for evaluation. (20978)</p> <p>6/9 - Teamster reports while walking on site, developed pain in the left foot. Worker was taken to AMH and diagnosed with a metatarsal arch strain to the left foot. Worker was released to work without a restriction. (20976)</p> <p>6/11 - RCT in 200 East was returning to mobile office. The RCT encountered an odor both outside and inside the mobile office that irritated the throat and lungs. The odor is believed to be herbicide. The worker was transported to AMH and was evaluated and returned to work without restrictions. (20984)</p>
Near-Misses	1	1	<p>6/7 - A Soil &amp; Groundwater Remediation Project laborer was struck by the counterweight of a track hoe. The laborer was performing spotting duties moving a super dump into position for loading. The track hoe was positioning the counterweight, swinging the cab approximately 20 degrees to align with the truck when the counterweight struck the laborer on the arm. There was no injury to the laborer.</p>

## KEY ACCOMPLISHMENTS

### ARRA – U PLANT/OTHER D&D

- U Plant Regional Closure Zone (U-Ancillary Facilities D&D)
  - Initiated demolition activities on 224U
  - Completed demolition of 203UX
- U Canyon Demolition and Cell 30 Disposition
  - Equipment size reduction activities are complete with 95% of the large items dispositioned
  - A Statement of Work (SOW) has been placed for the cask needed to ship the T-10 tank to T Plant
  - A SOW and Request for Proposal have been placed for grout supply and conveyance. Bids are due July 12, 2010.
- 200E Project
  - Completed asbestos abatement in 272E
  - Completed demolition of MO405 and 2701M
  - Completed Cold and Dark activities in 284E
  - Continued asbestos abatement activities in 284E
  - Initiated demolition of 272E and 2734E
- 209E Project
  - Continued 209E characterization and Cold and Dark planning activities
- 200W Project
  - Began characterization activities

### ARRA – OUTER ZONE D&D

- BC Controlled Area Waste Site Remediation
  - Remediation using super dump trucks continued with approximately 143,000 tons cumulative to date of soil removed and transferred to ERDF
  - Remediation within BC Controlled Area has been impacted by the migratory birds nesting in Zone A and Zone B. A BC Controlled Area Soil Contamination Migratory Bird Mitigation Strategy (dated May 2010) was developed and has been implemented.
- 200-CW-3 Waste Sites
  - Excavation of the second remove, treat, and dispose (RTD) site (216-N-4) continued in June. Approximately 36,300 tons of soil has been removed and transferred to ERDF.
  - The response action completion documentation for waste site 216-N-1 is near completion with RL review to begin the first week of July.
- MG-1
  - The nine waste sites listed below have been remediated/evaluated with the reclassification approved
    - 600-285 PL, 600-286-PL, 600-287-PL, 2607N, 2607P, 2607R, 200-N-3, UPR-200-N-1, UPR-200-N-2
  - Reclassification/Closure documentation for the waste site listed below has been submitted for approval.
    - 200-E-101, 6607-2, 200-E-110 and UPR-600-21
  - The five waste sites listed below were originally planned Confirmatory Sampling No Further Action (CSNFA), however sampling of the sites indicated some excavation will be required
    - 600-36, 600-38, 600-218, 200-W-33, and UPR-600-12
  - Analysis of sampling data for 600-51 indicates RTD is not required. Closure documentation for site 600-51 has been reviewed by RL.

- Initial excavation for site 600-40 was completed and initial verification samples were collected. The samples indicated additional excavation was required. This excavation has commenced and in-process samples are being evaluated.
- The Remedial Action Work Plan (RAWP) was updated to include 37 waste sites added with the approved Action Memorandum (AM), has been reviewed by RL and was transmitted to Ecology for review.
- Verification sampling of site 600-36 was performed in February to determine whether remediation was complete. The sample results are being evaluated.
- CSNFA sampling of site 600-262 was performed at depth utilizing an auger. Sampling analysis indicates that no further field activity is required, closure documentation is being prepared.
- The Sampling Instruction (SI) was issued for site 600-37 and sampling was performed. Evaluation of the samples indicated no further action is required, closure documentation is being prepared.
- ALE D&D
  - Continued debris pile removal on lower ALE
  - Continued demolition on the upper ALE facilities. Completed demolition of 6652D and 6652T.

## MAJOR ISSUES




**Issue Statement** – Migratory birds cannot be disturbed when nesting in the habitat on waste sites requiring remediation, such as BC Control Area.




**Corrective Action** – For smaller waste sites, work is being rescheduled to work around sites with nesting birds. For the BC Control Area, a migratory bird mitigation strategy was prepared and approved to allow work in areas where birds are not nesting.



































**Status** – Work on waste sites 600-275, 600-228, and 600-220 has been deferred. The mitigation strategy has been implemented at BC Control Area and work is continuing at a reduced rate in locations not impacting nesting birds.

## 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 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 walkdowns and characterization activities to minimize schedule impacts; interview "old-timers" and compare recollections to historic records; conduct document searches to minimize potential for surprises.			No issues at this time.
WSR-047: Unforeseen Waste Site Event	Perform routine surveillance & maintenance of waste sites, including herbicide applications and rad surveys; include allowance in baseline for corrective actions identified during routine surveillance.			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>	<b>Work with RL and regulators to establish priorities and need dates.</b>			<b>A BCR has been approved for the NRDWL/SWL - the covers have been delayed. Significant comments from the stakeholders on the EA and the selected remedy. The RAWP for MG-1 is being reviewed.</b>
<b>WSR-007: More Extensive Contamination Than Expected</b>	<b>Cannot control contamination extent; no mitigation.</b>			<b>Risk level reflects project life worst case impact of \$60M; individual waste site risks are moderate except for BCCA which is high.</b>
<b>WSR-008: No Action Waste Sites</b>	<b>Using L-8 table data; no mitigation.</b>			<b>Several sites are failing confirmatory sampling. BCRs are being prepared to address the change in scope.</b>
WSR-020: Ecological/Cultural Conditions Restrict Field Activities	Accelerate cultural reviews to minimize schedule impact if cultural resource mitigation is required prior to initiating remediation.			The Project is working this risk on a case by case basis with no issues currently identified.
WSR-021: Remediation Subcontractor Performance	Investigate contractor performance prior to contract award.			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>	5.4	5.1	5.2	(0.3)	-5.2	(0.1)	-1.6
<b>Outer Zone</b>	2.5	2.9	3.9	0.4	17.6	(0.9)	-32.4
<b>ARRA Total</b>	<b>7.9</b>	<b>8.0</b>	<b>9.1</b>	<b>0.1</b>	<b>2.0</b>	<b>(1.0)</b>	<b>-12.8</b>
<b>Base</b>	<u>0.8</u>	<u>1.2</u>	<u>1.3</u>	<u>0.4</u>	<u>47.7</u>	<u>(0.1)</u>	<u>-8.1</u>
<b>Total</b>	<b>8.7</b>	<b>9.2</b>	<b>10.4</b>	<b>0.5</b>	<b>6.2</b>	<b>(0.9)</b>	<b>-12.2</b>

#### ARRA

**CM Schedule Performance: (+\$0.1M/+2.0%)**

##### ARRA RL-0040.R1.1 U Plant/Other D&D

The 200E Administration Project (+\$0.3M) is ahead of schedule for the current month due to completing demolition of 2701M, MO405 and 2734EA ahead of schedule. This is offset by the U Canyon Project (-\$0.2M) due to issues with placing the Grout Contract and the U Ancillary Project (-\$0.2M) experienced delays. Also, the Capital Equipment (-\$0.2M) is behind due to delays in receiving the Heavy Haul Truck.

##### ARRA RL-0040.R1.2 Outer Zone D&D

The current month schedule variance is due to increased contamination and greater than planned volumes of soil being remediated in BC Control Area Zone A. Additionally, nesting and migratory bird impacts have been realized; contributing to the unfavorable schedule variance in BCCA (-\$0.7M). Backfill of CW-3 site 216-N-1 has been delayed pending regulatory approval (-\$0.4M). This is offset by a positive variance for work performed in CW-3 and MG-1 operable units (\$0.4M). Implementation of BCR (BCR-PRC-10-041RO ARR-R.05) reduced ARRA budget for design work and moved remaining budget into BASE timeframe for outer area barriers (+\$1.1M).

**CM Cost Performance: (-\$1.0M/-12.8%)**

##### ARRA RL-0040.R1.1 U Plant/Other D&D

The U Ancillary Project current month overrun of (-\$0.5M) is due to using more resources to prepare the area around the perimeter in order to minimize the potential of spreading contamination, and higher Usage Based Costs (-\$0.3M) for fleet due to incorrect charges to 100K for Fleet G&A (-\$0.4M) costs. This is offset by underruns in 200E Admin Zone Project (+\$0.7M) due to utilizing less resources for demolition of three buildings and U Canyon Project (+\$0.5M) accomplishing canyon deck clearing more efficiently.

##### ARRA RL-0040.R1.2 Outer Zone D&D

The current month unfavorable cost variance is primarily associated with the greater depth of contamination in the BC Control Area and the resulting larger volume of soil requiring removal and disposal at ERDF. Additionally, nesting and migratory bird impacts have been realized contributing to the unfavorable cost variance in BCCA. Professional consultation services were provided to help define areas of remediation that could still be worked without disturbing the migratory birds resulting in additional costs (-\$1.0M).

**Base**

**CM Schedule Performance: (+\$0.4M/+47.7%)**

N/A – Variance is within reporting threshold.

**CM Cost Performance: (-\$0.1M/-8.1%)**

N/A – 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>	100.8	97.0	85.0	(3.9)	-3.8	11.9	12.3	197.7	184.2	13.4
<b>Outer Zone</b>	33.2	31.9	29.3	(1.3)	-3.9	2.6	8.1	86.6	86.1	0.5
<b>ARRA Total</b>	<b>134.0</b>	<b>128.9</b>	<b>114.3</b>	<b>(5.2)</b>	<b>-3.9</b>	<b>14.5</b>	<b>11.3</b>	<b>284.3</b>	<b>270.3</b>	<b>13.9</b>
<b>Base</b>	<u>44.2</u>	<u>44.2</u>	<u>38.0</u>	<u>0.1</u>	<u>0.2</u>	<u>6.2</u>	<u>14.0</u>	<u>978.8</u>	<u>969.1</u>	<u>9.7</u>
<b>Total</b>	<b>178.2</b>	<b>173.1</b>	<b>152.3</b>	<b>(5.1)</b>	<b>-2.9</b>	<b>20.7</b>	<b>12.0</b>	<b>1,263.1</b>	<b>1,239.4</b>	<b>23.6</b>

Numbers are rounded to the nearest \$0.1M.

**ARRA**

**CTD Schedule Performance: (-\$5.2M/-3.9%)**

**ARRA RL-0040.R1.1 U Plant/Other D&D**

The negative schedule variance is due to finalizing the grouting contract for U Canyon (-\$1.2M), delays with the 200E Administration Buildings (-\$1.6M) due to Bio-Hazard and Radiological Control issues, 209E (-\$0.4M), U Ancillary Demolition (-\$0.4M) schedule delays due to asbestos abatement/respirator issues and late delivery of Capital Equipment (-\$0.3M).

**ARRA RL-0040.R1.2 Outer Zone D&D**

The contract-to-date unfavorable schedule variance 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 (-\$0.7M). Backfill of CW-3 site 216-N-1 has been delayed pending regulatory approval (-\$0.4M). Deferral of work on 600-275, 600-220, and 600-222 has also contributed to the unfavorable variance (-\$0.4M). This is offset by the ALE Project (+\$0.1M) due to less asbestos abatement activities than planned.

**CTD Cost Performance: (+\$14.5M/+11.3%)**

**ARRA RL-0040.R1.1 U Plant/Other D&D**

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) (+\$2.6M), G&A and direct distributable allocations (+\$6.3M), less for Program Management than planned (+\$0.6M), efficiencies at U Canyon (D4) (+\$3.8M), less resources than planned for C-3 Sampling (+\$0.7M) and 200E Administration (+\$1.7M), lower than planned costs for capital equipment (D4) (+\$2.2M), 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) (-\$4.4M), coupled with increased insulator staff and overtime to recover schedule, 209E Project (-\$0.2M) and higher MSA (-\$1.7M) costs for Fleet/Training, etc.



**Waste Sites** – The contract-to-date cost variance (+\$0.3M) is primarily related to efficiencies in the initial effort to develop the agreement in principle for the U Plant Zone and efficiencies in project management and other Hanford Contractor support.

**ARRA RL-0040.RI.2 Outer Zone D&D**

The favorable CV is due to efficiencies in ALE Facilities D&D (+\$4.2 M), and less than planned program management and Confirmatory Sampling No Further Action (CSNFA) costs (+\$1.0M). This is offset by higher cost for 212 N, P, R due to backfill activities (-\$1.5M) and O Zone RTD Waste Sites experiencing greater volume of contaminated soil than planned (-\$1.1M).

**Base**

**CTD Schedule Performance: (+\$0.1M/+0.2%)**

Within reporting threshold.

**CTD Cost Performance: (+\$6.2M/+14.0%)**

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) (+\$0.7M) less than expected, completed the sampling of Cell 30 with less resources than planned (+\$0.9M), Program Management utilizing less resources (+\$1.1M), capital equipment (+\$0.4M), Usage Base Services (+\$0.2M) and underrun in G&A and direct distributable allocations (+\$1.2M).

The favorable cost variance for Waste Sites (+\$1.0M) 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	FY 2010		
	Projected Funding	Spending Forecast	Variance
<b>ARRA</b>	135.4	112.7	22.7
<b>Base</b>	<u>25.4</u>	<u>16.3</u>	<u>9.1</u>
<b>Total</b>	<b>160.8</b>	<b>129.0</b>	<b>31.8</b>

Numbers are rounded to the nearest \$0.1M.

### Funds/Variance Analysis

Projected Funding includes FY 2009 uncosted and FY 2010 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 FY 2009 through FY 2018, the PRC contract period.

### Baseline Change Requests

BCR-PRC-10-041R0, ARRA Reapportionment.

AWA-040-10-003R0, Continuation Waste Site 600-38 as RTD (Failed CSNA).

## 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.