

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

Monthly Performance Report

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284E Powerhouse Conveyor Demolition

PROJECT SUMMARY

American Recovery and Reinvestment Act (ARRA)

Load out of 224U and 224UA structures demolition debris has continued.

Upper Arid Lands Ecology (ALE) demolition activities continue. The demolition of T520-6, 6635, and 6637 was completed. Cold and dark and characterization activities on 623A, 6632, and 6635 were completed. ALE debris pile site cleanup activities resume.

Asbestos abatement activities in the operating and pipe galleries at U Canyon are in progress. Contracts have been placed for grout, core drilling, and haul road in preparation for placing grout in the canyon. Surveys have been performed for siting the grout batch plant.

Beryllium samples have been taken in the canyon and sent for analysis toward downposting the canyon as a potential beryllium contaminated facility.

Loadout of the 272E Building was completed. Demolition of the 284E coal conveyor and crusher house was initiated. Asbestos abatement and containment construction in 284E continue. Cold and dark beryllium sampling and characterization activities on the 200 West structures continue.

Cleanup of North Slope debris pile sites has continued.

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 removed approximately 32,000 tons of soil in September; approximately 69 acres of BC Control Area, Zone A, have been cleared to date. Initial excavation at CW-3 waste site 216-N-4 has been verified complete by sample results, the closure documentation is being prepared. Initial excavation of waste site 216-N-6 has been completed and verification samples are pending. Approximately 1,000 tons of soil was removed from CW-3 sites during September.

Sampling/surveys have been completed on 17 MG-1 sites.

Base

Planned surveillance and maintenance (S&M) activities continue. Initial Beryllium characterization sampling was completed at 209E, PUREX, and 224T.

Planning and remediation of failed Confirmatory Sampling No Further Action (CSNFA) sites in MG-1 has been initiated.



EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
10-EMS- D&D-OB2-T2	Mitigate spill impacts	Develop spill management tools for routine activities (building demolition and S&M)	03/31/10	Complete
		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 predesignations 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

1711(02)			ZERO I ERI ORIUMUOE				
	CM Quantity	Rolling 12 Month	Comment				
Days Away, Restricted or Transferred	0	2	N/A				
Total Recordable Injuries	1	4	9/29 – S&M D&D worker smashed left hand working with clean backfill. Worker was transported to Kadlec hospital for nine stitches. Worker returned to work with restrictions. (21365)				
First Aid Cases	6	83	9/8 – D&D worker from 200E was taken to AMH for a spider bite on left hip. Worker was returned to work without restrictions. (21292) 9/6 – D&D worker reported pulling a tarp on ERDF can when a gust of wind came up. The worker pulled down on the tarp and struck left elbow on side of can. Worker reported event on 9/20 and was taken to AMH where he was examined and diagnosed with contusion and released without restrictions. (21330) 9/21 – Employee at 284E was wearing an MM2K PAPR to enter into an asbestos containment. The employee smelled an odor when he first put on the respirator. The odor increased and he left the containment. The employee was offered the opportunity to go to AMH but declined and chose to self-treat. On 9/22 it was determined that the employee should go to AMH and was taken there for evaluation. The employee was released to return to work without restrictions. (21334) 9/26 – D&D worker in 200W was hit in the left leg by an unidentified object. Surveys were performed with nothing found. Worker was taken to AMH on 9/27 for evaluation. The worker was given topical OTC medication and released with no restrictions. (21354) 9/27 – U-Ancillary teamster received a shock to left hand while operating a hose reel on a water truck. Worker was taken to AMH for evaluation where he was examined and released without restrictions. (21363) 9/28 – U-Ancillary D&D worker received a bug bite on 9/29. Supervisor and worker agreed to self-treat. Later that day, worker realized they had bilateral bug bites on wrist and was taken to AMH for evaluation. Worker was given OTC meds and released without restrictions. (21364)				
Near-Misses	0	1	N/A				



KEY ACCOMPLISHMENTS

ARRA – U PLANT/OTHER D&D

- U Plant Regional Closure Zone (U-Ancillary Facilities D&D)
 - o Continued load out activities on 224U and 224UA
- U Canyon Demolition and Cell 30 Disposition
 - o A Statement of Work (SOW) contract has been issued for the haul road for the grout plant.
 - o The contract has been awarded for the cask needed to ship the T-10 tank to T Plant with an expected delivery date of December 16, 2010.
 - o Beryllium samples have been taken and sent for analysis in order to downpost the canyon as a potential beryllium contaminated facility
 - o Asbestos abatement activities continue in the pipe and operating galleries
- 200E Project
 - o Completed load out of asbestos piping from the 284E exterior steam pipes
 - o Completed demolition of 272E
 - o Completed demolition and demobilization of 275E
 - o Initiated demolition of conveyor and crusher house at 284E
- 209E Project
 - o Continued 209E characterization and cold and dark planning activities
 - Began work on the Documented Safety Analysis (DSA) implementation and Independent Verification Review (IVR) process pending the approval of the DSA. Completed fencing around the facility.
 - o Continued efforts to place the non-destructive assay (NDA) support contract. Completed activities for trailer installation at the site and obtained occupancy permits for all the trailers.
- 200W Project
 - o Continued with characterization activities
 - Continued Cold and Dark activities

ARRA – OUTER ZONE D&D

- BC Controlled Area Waste Site Remediation
 - Remediation using super dump trucks continued with approximately 224,000 tons cumulative to date of soil removed and transferred to ERDF
- 200-CW-3 Waste Sites
 - o Excavation of site 216-N-4 is complete with approximately 36,350 tons of soil (cumulative) removed and transferred to ERDF
 - o Excavation of RTD site 216-N-6 is awaiting verification sampling
 - o The response action completion documentation for waste site 216-N-1 was approved with closure documentation forwarded to regulators for approval
 - $\circ~$ Excavation of pipeline 600-286-PL commenced with approximately 1,400 tons removed and transported to ERDF
 - o 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

- o 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 CSNFA site with confirmatory sampling completed with acceptable results.
 Closure documentation has been prepared and is awaiting Remedial Action Work Plan (RAWP) approval.
- o 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
- o Excavation of waste site 600-275 was completed
- o 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 was issued for verification sampling in September.
- o 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
- o The additional excavation of site 600-36 that was performed in August, evaluation of sampling results in September indicate no further excavation necessary
- o CSNFA sampling is continuing at the Old Central Shop Area site
- ALE D&D
 - o Continued cold and dark and characterization on the remaining upper ALE facilities
 - o Complete demolition of T520-6, 6635, and 6637 on upper ALE
- NORTH SLOPE
 - o Initiated Debris Pile cleanup activities
- RAILCARS
 - o RAWP submitted to RL for review
 - o Engineering Evaluation / Cost Analysis (EE/CA) submitted to EPA for review

Base

Based on verification samples, additional excavation of 600-38 performed in August, evaluation of sampling results in September indicate no further excavation is required

MAJOR ISSUES

Issue – 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 May 6, 2010 Waste Site 600-218, Notice of Change letter number CHPRC-1000160, dated March 2, 2010

Issue – 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 have been developed to support RTD activities in September. Excavation of 600-286-PL is ongoing.



Issue – 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-1waste 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 in process.

RISK MANAGEMENT STATUS Unassigned Risk Risk Passed New Risk Working - No Concerns Working - Concern Working - Critical Decreased Confidence No Change Decreased Confidence

	Working - Critic		Decreased Confidence			
D: 1 /E:4	D: 1 C/ / /// W	Assess	sment			
Risk Title	Risk Strategy/Handling	Month	Tren	Comments		
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.		1	No significant impacts at this time.		
D4-036: Readiness Reviews Required	Probability of risk occurring is low; risk is accepted without mitigation.		1	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.		1	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.		1	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 extent of contamination; no mitigation.		1	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.		
WSR-008: No Action Waste Sites	Using L-8 table data; no mitigation.		1	Six 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 - Cont.



Risk Title	Risk Strategy/Handling		ment	Comments	
RISK TIUE			Tren	Comments	
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.		1	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.		1	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	Cost of Work	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
U Plant/Other	9.3	9.9	9.9	0.6	6.8	0.0	0.4
Outer Zone	<u>5.3</u>	<u>6.6</u>	<u>3.4</u>	<u>1.4</u>	26.5	<u>3.2</u>	48.2
ARRA Total	14.6	16.5	13.3	2.0	13.9	3.2	19.6
Base	<u>2.1</u>	<u>2.0</u>	<u>1.9</u>	(0.2)	-7.0	<u>0.1</u>	4.3
Total	16.7	18.5	15.2	1.9	11.2	3.3	17.9

ARRA

CM Schedule Performance: (+\$2.0M/+13.9%)

ARRA RL-0040.R1.1 U Plant/Other D&D (+\$0.6M) is within reporting thresholds.

ARRA RL-0040.Rl.2 Outer Zone D&D (+\$1.4M) positive schedule variance is a result of implementing a modified approach to remediating the soils in the BC Control Area. To expedite clearing the bulk excavation portions of the site, a process of short-term onsite stockpiling was initiated; this stockpile will enable a full utilization of haul capability when remediation moves on to removal of more widely spaced spot contamination.

CM Cost Performance: (+\$3.2M/19.6%)

ARRA RL-0040.R1.1 U Plant/Other D&D (+\$0.0M) is within reporting thresholds. ARRA RL-0040.R1.2 Outer Zone D&D (+3.2M) positive cost variance is a result of an adjustment to waste disposal costs at ERDF reflecting realized efficiencies.



Base

CM Schedule Performance: (-\$0.2M/-7.0%)

N/A – Variance is within reporting threshold.

The unfavorable schedule variance is due to remediation of waste site 600-222 being on hold pending approval of the Removal Action Work Plan (RAWP).

CM Cost Performance: (+\$0.1M/+4.3%)

N/A – Variance is within reporting threshold.

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

Contract-To-Date (\$M)

	Cost of Work cheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)		Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)		Variance at Completion (VAC)
U Plant/Other	124.9	120.8	107.7	(4.1)	-3.3	13.1	10.9	197.6	191.2	6.4
Outer Zone	<u>44.6</u>	<u>44.0</u>	<u>35.6</u>	(0.6)	-1.3	<u>8.4</u>	19.1	<u>86.7</u>	<u>87.7</u>	<u>-0.9</u>
ARRA Total	169.5	164.8	143.3	(4.7)	-2.8	21.5	13.1	284.3	278.8	5.5
Base	<u>49.5</u>	<u>49.3</u>	<u>43.1</u>	(0.2)	3	<u>6.2</u>	12.7	<u>979.7</u>	<u>966.2</u>	<u>13.5</u>
Total	219.0	214.2	186.4	(4.9)	-2.2	27.8	13.0	1,264.0	1,245.0	18.9

Numbers are rounded to the nearest \$0.1M.

ARRA

CTD Schedule Performance: (-\$4.7M/-2.8%)

ARRA RL-0040.R1.1 U Plant/Other D&D (-\$4.1M)

The negative schedule variance is due to the following that exceed the reporting thresholds: late award of the grout contract for U Canyon (-\$2.9M), delays with the 200E Administration Buildings (-\$1.8M) due to bio-hazard and radiological control issues, delay in receiving capital equipment (-\$0.3M), 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 (+\$1.1M).

ARRA RL-0040.R1.2 Outer Zone D&D (-\$0.6M)

The contract-to-date unfavorable schedule variance primary contributors are (-\$0.1M) deferral of work on 600-220, 600-226, and 200-W-147-PL pending approval of regulatory documentation. Several ALE towers have not been released for work causing a negative schedule variance (-\$0.6M) and the Railcars Disposition was started early (+0.1M).

CTD Cost Performance: (+\$21.5M/+13.1%)

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 (+\$8.5M), less for Program Management than planned (+\$0.8M), efficiencies at U Canyon (D4) (+\$3.1M), less resources than planned for C-3 Sampling (+\$0.7M) and 200E Administration (+\$2.1M), lower than planned costs for capital equipment (D4) (+\$2.6M), 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) (-\$6.3M), coupled with increased insulator



staff and overtime to recover schedule, 209E Project (+\$0.3M) and higher MSA (-\$1.9M) costs for Fleet/Training, etc. In addition, minor accounts outside the threshold (+\$0.2M).

ARRA RL-0040.Rl.2 Outer Zone D&D (+\$8.4M)

The favorable cost variance is due to efficiencies in ALE Facilities D&D (+\$4.2M) and Outer Area waste sites (+\$5.4M). The waste site favorable cost-to-date variance is 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

In addition, a negative cost variance is associated with the disposition of railcars (-\$0.1M) due to unplanned costs for non-destructive analysis of the cars and increase costs for the 212N/P/R Project (-\$1.1M) due to the walls of the basins being much thicker than estimated.

Base

CTD Schedule Performance: (-\$0.2M/-0.3%)

Within reporting threshold.

CTD Cost Performance: (+\$6.2M/+12.7%)

100K Area Project (Facilities and Others) (+\$5.5M) 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) (+\$1.0M) 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 (+\$0.3M), Usage Base Services (+\$0.1M) and underrun in G&A and direct distributable allocations (+\$0.6M). In addition, minor accounts outside the threshold (+\$0.9M).

Waste Sites (+\$0.7M) is due to less extensive regulatory support labor required for the U Zone agreement-in-principle 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. Spending (\$M)

	FY2		
WBS 040/RL-0040 Nuclear Facility D&D	Funding	Actual Spending	Spend Variance
ARRA	117.7	107.3	10.4
Base	<u>25.4</u>	16.8	8.6
Total	143.1	124.1	19.0

Numbers are rounded to the nearest \$0.1M.

Funds/Variance Analysis

Funding reflects FY 2009 carryover and FY2010 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

BCR-PRC-10-053R0, PRC Baseline, Revision 2 Update

BCRA-PRC-10-060R0, General and Administrative Changes for FY 2010 Year End

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.

