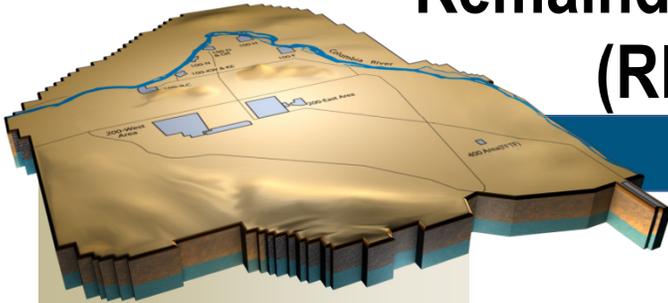


Section E

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

Monthly Performance Report



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284WB Demolition

December 2010
DOE/RL-2010-126-12, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

American Recovery and Reinvestment Act (ARRA)

224U and 224UA structures demolition is complete; final survey, equipment decontamination, and stabilization continue.

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

Efforts have begun at U Canyon on grout supporting activities. Core drilling continues and material staging area preparation has started for grout. The cask was received for the D-10 tank disposition at U Canyon. The 209E facility continued with characterization including visual inspection of tanks. Completed the facility transition to temporary electrical power to support the operation of the ventilation and fire systems to allow for more efficient isolation of systems and components for inventory reduction activities. Filled the first standard waste box (SWB) with potential TRU and staged at 2718E for nondestructive assay (NDA). Completed extensive NDA within the critical assembly room (CAR) and mix room of miscellaneous pipes and equipment in support of the final facility downgrade activities.

Asbestos abatement in 284E Powerhouse is complete. Final cleanup and demobilization is ongoing, Cold and dark and characterization activities continued in 200 West and East structures. The explosive demolition planning is ongoing. Completed demolition activities on 284WB Power Boiler Plant.

Cleanup of North Slope debris pile sites continues.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) documentation for railcars progressing as planned; visual inspection of the rail cars continues as does work planning for the next phases.

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 21,000 tons of soil in December; approximately 107 acres of BC Control Area, Zone A, have been cleared to date. The closure documentation has been submitted for CW-3 waste sites 216-N-4 and 216-N-6. Excavation continued on MG-1 waste site 200-W-147-PL with 2,680 tons of soil transferred to the Environmental Restoration Disposal Facility (ERDF) in December.

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

Base

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

CW-3 remediation has been performed to remove pipeline 600-286-PL and 600-287-PL. Approximately 2,840 tons of soil was removed from CW-3 pipeline sites during December. Post-remediation sampling has determined that remediation is complete for the CW-3 pipelines.

MG-1 sampling of waste site 600-222 revealed additional contamination; these areas were further excavated and re-sampled. Excavated and transferred 110 tons of soil to ERDF in December. Staged clean fill dirt at waste site 600-38, pending completion and approval of regulatory documents. Closure documentation for 600-222 and 600-38 has been submitted for review and approval.

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	4	N/A
Total Recordable Injuries	0	6	N/A
First Aid Cases	5	75	<p>12/8 While walking along railroad tracks, employee turned and twisted ankle. (21570)</p> <p>12/13 Insulator from 284E lost shoe while descending steps and received a small cut on left heel. Worker was taken to AMH and released without restriction. (21579)</p> <p>12/15 Insulator from 200E was walking on path while carrying a box when worker stumbled, twisting right ankle. Worker was transported to AMH and diagnosed with a right ankle sprain. Worker was given a soft splint and returned to work without restrictions. (21585)</p> <p>12/16 Insulator from 284W was a passenger in a truck. The Insulator was seat belted when the truck hit a bump causing the worker to hit head. The worker complained of neck pain so worker was transported to AMH. The Insulator was examined and released without restrictions. (21589)</p> <p>12/28 RCT was ascending stairs when worker caught toe on the rise, causing worker to lose balance. Worker was holding onto handrail with left hand, fell forward and landed on right hand and knee. Worker sustained an abrasion to the right knee. Worker was taken to AMH examined and then released without restrictions. (21599)</p>
Near-Misses	0	0	

KEY ACCOMPLISHMENTS

ARRA – U PLANT/OTHER D&D

- U Plant Regional Closure Zone (U Ancillary Facilities D&D)
 - Site survey, equipment decontamination, and stabilization in progress
- U Canyon Demolition and Cell 30 Disposition
 - Core drilling activities continue. Grout conveyance equipment has begun to arrive on site. Received the cask for D-10 this month.
- 200E Project
 - Completed asbestos abatement activities in 284E Powerhouse. Final cleanup and demobilization is ongoing.
- 209E Project
 - Continued 209E characterization and cold and dark planning activities
 - Continued NDA activities on tanks and pipes within the facility. Continued internal inspection of tanks to verify the tanks are dry for removal activities.
 - Continued prep activities and equipment removal on HO-200 for dismantling. Began removal of Tank 108. Began transition of the facility to temporary power to facilitate the isolation of systems and minimize the hazards associated with removal activities.
 - Began electrical isolation of equipment in CAR
- 200W Project
 - Continued characterization and cold and dark activities
 - Completed demolition activities of 284WB Package Boiler Plant and Diesel Tank
 - Began exterior steam line abatement at 284W in preparation for explosive demolition
 - Began Bio-Hazard remediation and wash down at 284W

ARRA – OUTER ZONE D&D

- BC Controlled Area Waste Site Remediation
 - Remediation using super dump trucks continued with approximately 293,000 tons cumulative to date of soil removed and transferred to the Environmental Restoration Disposal Facility (ERDF)
 - CERCLA survey measurements have been completed for the first portion of Zone A, approximately 50% of the area
- 200-CW-3 Waste Sites
 - The remaining sites verification package documentation for waste site 216-N-4 and 216-N-6 is in review by RL and the regulators
 - The remaining sites verification package for waste site 216-N-1 has been approved by RL with closure documentation forwarded to regulators for approval; CHPRC is resolving regulator comments

- MG-1
 - Reclassification/closure documentation for waste sites 200-E-110, UPR-600-21, 600-51, and 600-262 has been submitted for approval; CHPRC is incorporating regulatory agency comments
 - Site 600-37 is a Confirmatory Sampling No Further Action (CSNFA) site with confirmatory sampling completed. Closure documentation has been prepared and RL comments incorporated; CHPRC is preparing the formal transmittal package.
 - Waste site 600-275 post-excavation sample results indicated that further excavation was required; completion of excavation and hauling of debris is planned for January
 - Excavation of pipeline 200-W-147-PL continued with approximately 5,600 tons cumulative transferred to ERDF
 - Waste site 600-220 sampling has been completed and remove, treat, and dispose (RTD) action will be required.
 - Waste site 600-226 verification sampling has been successfully completed and preparation of closure documentation is in progress.
- ALE D&D
 - Power pole removal is ongoing
- NORTH SLOPE
 - Continued with debris pile cleanup activities
 - Completed Hanford Reserve National Monument (HRNM) Area 15
- RAILCARS
 - Remedial Action Work Plan (RAWP) and Sampling Analysis Plan submitted to EPA for review
 - Engineering Evaluation / Cost Analysis (EE/CA) approved
 - Continued visual inspections and characterization of railcars
 - Initiated work planning for future phases
 - Initiated scope of work for lift and haul of the rail cars
 - Continued to work with RL on transfer of four rail cars to B Reactor

Base

- Excavation of 600-38 is complete and clean backfill is being staged. The closure documentation is in review with RL and the regulators.
- Excavation of pipeline 600-286-PL was completed. Verification sampling was performed in December and completion of remediation was verified.
- Excavation of pipeline 600-287-PL completed in December with approximately 8,500 tons cumulative removed and transported to ERDF. Verification sampling was performed in December and completion of remediation was verified.
- Excavation of previously failed CSNFA waste site 600-222 was initiated in October. Sampling in November identified further contamination and the area was further excavated. Approximately 389 tons of soil (cumulative) have been removed and transported to ERDF. Following successful verification sampling in December, closure documentation was submitted to RL and the regulators for review.
- Beryllium sampling/characterization continued in REDOX, 231Z and 222T
- Began planning of 6652PH equipment removal activities

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.
WSR-006: Decision Document Approval Delays	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.
WSR-007: More Extensive Contamination Than Expected	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.
WSR-008: No Action Waste Sites	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 (%)
U Plant/Other	5.1	5.4	7.7	0.2	4.7	(2.3)	-43.2
Outer Zone	3.3	2.9	3.7	(0.4)	-12.3	(0.8)	-29.6
ARRA Total	8.4	8.2	11.4	(0.2)	-1.9	(3.1)	-38.4
Base	1.7	1.8	1.4	0.1	3.9	0.4	23.8
Total	10.1	10.0	12.7	(0.1)	-0.9	(2.7)	-27.4

ARRA

CM Schedule Performance: (-\$0.2M/-1.9%)

ARRA RL-0040.R1.1 U Plant/Other D&D (+\$.2M) is within reporting thresholds.

ARRA RL-0040.R1.2 Outer Zone D&D (-\$0.4M) negative schedule variance is a result of delays with cultural reviews for North slope (-\$0.2M) and characterization/surveys of rail cars disposition (-\$0.2M).

CM Cost Performance: (-\$3.1M/-38.4%)

ARRA RL-0040.R1.1 U Plant/Other D&D (-\$2.3M) negative cost variance is primarily due to a manual accrual being processed for capital equipment along with the receipt of the actual invoice (-\$1.6M). In addition, 209E FY2010 work scope for hazard reduction is being worked in FY2011 (-\$0.4M), U Ancillary final surveys continued (-\$0.4M), and there were minor variances outside the threshold (-\$0.1M).

ARRA RL-0040.R1.2 Outer Zone D&D (-\$0.8M) unfavorable cost variance is primarily due to higher than planned costs for waste site sampling (-\$0.3M) and greater than planned costs for contractor excavation work on pipeline 200-W-147-PL (-\$0.2M). In D&D, the variance is due to ALE demobilization costs (-\$0.2M) and North Slope ecological/cultural reviews higher than planned (-\$0.1M).

Base

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

N/A – Variance is within reporting threshold.

CM Cost Performance: (+\$0.4M/+23.8%)

The positive cost variance is due to under runs with G&A and direct distributables (+\$0.4M).

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)
U Plant/Other	139.6	135.5	123.5	(4.1)	-2.9	12.1	8.9	196.7	185.3	11.4
Outer Zone	<u>54.2</u>	<u>54.6</u>	<u>44.9</u>	<u>0.4</u>	<u>0.7</u>	<u>9.7</u>	17.8	<u>83.0</u>	<u>78.6</u>	<u>4.4</u>
ARRA Total	193.8	190.1	168.3	(3.7)	-1.9	21.8	11.4	279.8	263.9	15.8
Base	<u>54.1</u>	<u>54.3</u>	<u>47.9</u>	<u>0.2</u>	0.4	<u>6.4</u>	11.7	<u>758.1</u>	<u>759.8</u>	<u>-1.7</u>
Total	247.9	244.4	216.3	(3.5)	-1.4	28.1	11.5	1,037.8	1,023.7	14.1

Numbers are rounded to the nearest \$0.1M.

ARRA

CTD Schedule Performance: (-\$3.7M/-1.9%)

ARRA RL-0040.R1.1 U Plant/Other D&D (-\$4.1M) negative schedule variance is due to late award of the grout contract for U Canyon (-\$3.2M), delays with the 200 East Administration Buildings (-\$2.0M) due to bio-hazard and radiological control issues. Limited resources has also delayed 200 West Administration Buildings (-\$0.3M). This is offset by accelerating 209E demolition preparation, mobilization, and asbestos abatement (+\$1.5M). In addition minor variances (-\$0.1M) that are within threshold.

ARRA RL-0040.R1.2 Outer Zone D&D (+\$0.4M) favorable schedule variance include accelerated progress on BC Control Area (+\$3.1M) and CW-3 waste sites (+\$0.2M), offset by delays in MG-1 (-\$0.6M), operable unit to be determined (-\$0.4M), and outer zone pipelines (-\$0.9M). Demobilization of the ALE towers should have been complete in FY2010 but delays with releasing several towers to CHPRC, the project is behind (-\$0.2M) and delays with cultural/ecological reviews on the North Slope (-\$0.5M). Minor accounts outside the threshold (-\$0.3M).

CTD Cost Performance: (+\$21.8M/+11.4%)

ARRA RL-0040.R1.1 U Plant/Other D&D (+\$12.1M) 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), G&A and direct distributable allocations (+\$6.5M), less for Program Management than planned (+\$1.3M), efficiencies at U Canyon (D4) (+\$2.5M), less resources than planned for C-3 Sampling (+\$0.7M) and 200E Administration (+\$1.7M), lower than planned costs for capital equipment (D4) (+\$1.9M), less asbestos abatement required for 200 West buildings (+\$2.5M), 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) (-\$7.6M), coupled with increased insulator staff and overtime to recover schedule, 209E Project (-\$0.7M). Minor accounts not within threshold (-\$0.3M).

ARRA RL-0040.R1.2 Outer Zone D&D (+\$9.7M) favorable cost variance is due to efficiencies in ALE and North Slope Facilities D&D (+\$4.2M) and Outer Area waste sites (+\$6.6M). 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 the disposition of rail cars (-\$0.1M) due to unplanned costs for nondestructive analysis of the cars and increase 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%)**

Within reporting threshold.

CTD Cost Performance: (+\$6.3M/+11.7%)

Balance of Site (facilities and others) (+\$5.8M) 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) (+\$1.2M) 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 (+\$2.1M). In addition, minor accounts outside the threshold (-\$0.5M).

Waste Sites (+\$0.5M) is within thresholds.

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	Variance
ARRA	142.6	127.0	15.6
Base	28.4	20.5	7.9

Numbers are rounded to the nearest \$0.1M.

Funds/Variance Analysis

Funding includes FY2010 carryover and FY2011 new Budget Authority. The ARRA positive variance of \$15.6M reflects a projected PMB over run of \$3.2M offset by \$18.8M of reserve funds. The BASE positive variance of \$7.9M reflects a projected PMB under run of \$3.4M plus \$4.5M of reserve funds. A CHPRC site integrated work scope prioritization plan is being developed to align work scope with proposed revised funding levels.

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-11-015R0, General Admin & FOC Changes for December 2010

BCR-PRC-11-010R0, PMB Alignment to Contract Price Adjustment Request

BCR-PRC-11-014R0, Management Reserve Adjustment for PRC Baseline, Revision 2 Update

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.