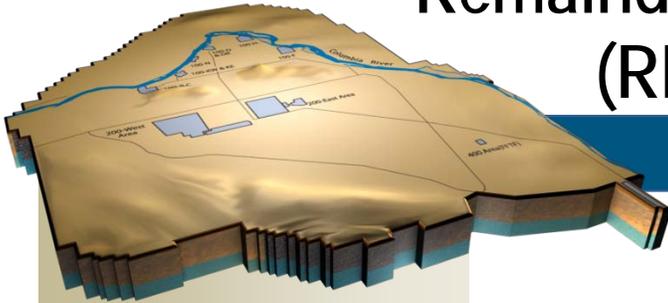


Section E Nuclear Facility D&D, Remainder of Hanford (RL-0040)

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

June 2011
CHPRC-2011-06, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1



D-10 Tank In U Canyon

PROJECT SUMMARY

American Recovery and Reinvestment Act (ARRA)

Commenced with grouting of the 221U Canyon facility voids in the process cells, buoyant vessels and process cell drain header. Efforts continued in preparation for grouting activities in the remaining areas of the facility (process sewer, hot pipe trench, south electrical and piping galleries, ventilation tunnel and ventilation duct). Material has been staged and preparations are underway for construction of the structural grout bulkheads for the rail tunnel. Completed inspection of the Cell 30 Tank D-10 process vessel and continued preparations for vessel retrieval. Completed transportation container weight recertification and lifting lug welding modification. Mounted transportation container on shipping trailer and installed additional transportation container shielding. Began field mock-up activities for vessel retrieval and loading into transportation container.

The 209E facility completed cutting tanks 104 to 102. Completed removal of the HO-160 and tanks 161 and 162 for shipment to Permafix.

Completed demolition and load-out activities of 284E Power House. Continued abatement activities in 284W Power House. Cleanup of 106 North Slope debris pile sites continued; began decommissioning North Slope wells.

Began asbestos abatement of the steamlines in the 200W Area.

The two locomotives have been transported and off loaded at the B Reactor. Seven cask cars have been off-loaded at the Environmental Restoration Disposal Facility (ERDF). The Shipping Evaluation Checklist (SEC) for the double-shell tanker was approved by RL. The tiedown calculations for both the tankers have been approved.

Remediation activities continued in the Outer Zone at BC Control area and Model Group (MG)-1 waste sites. BC Control Area removed approximately 32,600 tons of soil from the stockpile in June.

Base

Planned surveillance and maintenance (S&M) activities continue. Continued initial beryllium characterization sampling at REDOX, 231Z, and 222T. Changeout of the B Plant exhaust system HEPA pre-filters has been completed.

The Baseline Change Request for the REDOX roof repair has been approved and the Statement of Work has been submitted for bids.

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 |
|--------------------------------------|-------------|------------------|--|
| Days Away, Restricted or Transferred | 0 | 5 | N/A |
| Total Recordable Injuries | 0 | 9 | N/A |
| First Aid Cases | 5 | 60 | <p>06/01 unspecified 22008</p> <p>06/06 284W Rigger bumped head on pipe while ascending scaffolding. 22015</p> <p>06/17 284W Insulator smelled bleach and felt burning on scalp and in eyes during exit from shower. 22050</p> <p>06/20 200E HPT fell due to being distracted while walking. The worker landed on right hand and knee. 22052</p> <p>06/28 A North Slope Sealaska employee had wind blow debris into the right eye. The worker was wearing safety glasses at the time of the incident. (22072)</p> |
| Near-Misses | 0 | 0 | N/A |

KEY ACCOMPLISHMENTS

ARRA – U PLANT/OTHER DECONTAMINATION AND DECOMMISSIONING (D&D)

- U Canyon Demolition and Cell 30 Disposition
 - Commenced with grouting of the 221U Canyon facility voids in the process cells, buoyant vessels, and process cell drain header. Efforts continued in preparation for grouting activities in the remaining areas of the facility (process sewer, hot pipe trench, south electrical and piping galleries, ventilation tunnel and ventilation duct).
 - Continued preparations for the Cell Tank D-10 process vessel retrieval. Completed transportation container weight recertification and resolution of lifting lug welding modification. Mounted transportation container on shipping trailer and installed additional transportation container shielding. Began field mock-up activities for vessel retrieval and loading into transportation container.
- 200E Project
 - Completed demolition and load-out activities of 284E Power House.
- 209E Project
 - Completed a shipment of standard waste boxes (SWBs).
 - Completed cutting of tanks 104 to 102. Tank 101 is half cut. Loaded tanks 104 and 103 into SWBs.
 - Completed removal of the Access Control/Entry System (ACES) station from the 209E facility to support Cold and Dark.
- 200W Project
 - Continued asbestos abatement activities in the 284W Power House.
- 200W and 200E Steamline
 - Began 200W and 200E steamline asbestos abatement repair.

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 471,000 tons cumulative-to-date of soil removed from BCCA and transferred to ERDF
 - Continued radiological Multi-Agency Radiation and Site Investigation Manual (MARSIM) downpost surveys with localized spot removal. Approximately 84% of the MARSIM downpost zones have been completed.
- MG-1
 - Waste sites 600-40, 600-282, and 600-220 backfill is complete. Closure documentation is being prepared.
 - Waste Site 600-49 initial excavation field activities are complete. Verification has been completed with results expected mid-July.
 - Pipeline 200-W-147-PL backfill activities are continuing.
 - Waste sites 600-281 additional excavation has been completed; verification sampling is planned within the next two weeks.

- 216-S-16D ground scanning was performed with a large crystal sodium iodide detector and results indicate radioactive contamination above cleanup levels. A Notice of Change of Condition was submitted to RL.
- Initial excavation of waste site 216-S-26 is complete. Verification sampling indicated no residual contamination above cleanup criteria. Backfill is planned within the next three weeks.
- Waste site 600-228 initial excavation was performed in May. Verification sampling indicated additional excavation is required.
- Waste site 200-W-33 Removal Action Report (RAR) has been approved and the waste site reclassified.
- Submitted the RAR for waste site 600-218 to RL for review and approval.
- **NORTH SLOPE**
 - Continued 106 Debris Retrieval and Waste Disposal.
 - Continued decommissioning North Slope wells.
 - Completed HRNM site 14.
- **Railcars**
 - Seven cask cars have been off loaded at ERDF.
 - SEC for the double shell tank car was approved by RL.
 - The tie down calculations for both the tankers have been approved by RL. The project has completed all shipping paperwork for both tank cars.

Base

- Beryllium sampling/characterization continued in REDOX, 231Z, and 222T.
- Changeout of the B Plant exhaust system HEPA pre-filters complete.
- The BCR for the Redox roof repair has been approved and Statement of Work has been submitted for bids.

MAJOR ISSUES

None identified.

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 | |
| RL-0040/WBS 040 | | | | |
| D4-036: Readiness Reviews Required | Probability of risk occurring is low; risk accepted without mitigation. |  |  | Due to change in procedure, probability is increasing. A change in criteria can require a change to process and potentially delay the project. |
| D4-042: Unexpected Site Conditions - D4 | Conduct early facility walk downs and characterization activities to minimize the schedule impacts; interview "old timers" who worked in or around the facility and compare those events 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-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. |  |  | Evaluation of the path forward for below-grade tanks has been completed and the tanks will require full removal as opposed to being disposed in place. Risk realized, BCR to be developed for incorporation into Baseline. |
| D4-S-057: 209-E Fire System Deactivation | The plan is to shut off all utilities as part of the 209-E deactivation in preparation for demolition. |  |  | Upgrades to LSC systems have been completed. Project risk remains in that once the building can be categorized as non-nuclear (anticipated to occur in June), Fire Protection personnel may require continued monitoring/surveillance. |
| 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. |  |  | A BCR has been approved and implemented to authorize completion of BCCA Zone A remediation. |
| 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. Six of the waste sites have been remediated. Two will not be remediated. To date, cleanup of the failed sites has not resulted in large waste volumes. |
| KBC-020: Ecological/Cultural Conditions Restrict Field Activities | This risk is accepted as written and will be monitored throughout work execution. |  |  | There is an ongoing concern about any new changes; this is being watched closely. Where appropriate, the culturally sensitive portion of a waste site is being identified and work is being performed in non-sensitive areas. Site 600-227 is being adversely affecting by cultural approval. |
| 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. |

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 | 7.1 | 5.8 | 6.7 | (1.3) | -17.5 | (0.9) | -14.3 |
| Outer Zone | <u>3.1</u> | <u>4.2</u> | <u>3.2</u> | <u>1.0</u> | -33.4 | <u>0.9</u> | 22.4 |
| ARRA Total | 10.2 | 10.0 | 9.9 | (0.2) | -2.0 | 0.1 | 1.0 |
| Base | <u>1.6</u> | <u>1.6</u> | <u>1.3</u> | <u>(0.0)</u> | -3.9 | <u>0.3</u> | 16.5 |
| Total | 11.8 | 11.6 | 11.2 | (0.2) | -2.2 | 0.2 | -8.4 |

Numbers are rounded to the nearest \$0.1M

ARRA

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

ARRA RL-0040.R1.1 U Plant/Other D&D (-\$1.3M) The unfavorable schedule variance is due to the 200W Adm Project (-\$0.6M) and the 209E Project (-\$0.9M) being behind due to the temperature within the facility reaching a point where the duration of work evolutions has been reduced to prevent heat stress. Also, the tank cutting operation is significantly more time consuming in the field than was identified in the mockup activities. Minor accounts outside the threshold (+\$0.2M). ARRA RL-0040.R1.2 Outer Zone D&D (+\$1.0M) The favorable schedule variance is due to the Railcar Disposition Project (+\$1.0M) moving more cars to ERDF than planned for the month.

CM Cost Performance: (+\$0.1M/+1.0%)

ARRA RL-0040.R1.1 U Plant/Other D&D (-\$0.8M) The unfavorable cost variance is largely due to the U Canyon (-\$0.2M) additional resources being applied to the grouting process in order to regain schedule performance. In addition, higher costs for the month for the 209E Project (-\$0.7M) were incurred due to increase in personnel to attempt to rotate crews as their work durations are reduced due to heat issues and to the addition of personnel on overtime to work to keep the completion end date. Also, minor accounts that are outside the threshold (+\$0.1M).

ARRA RL-0040.R1.2 (+\$0.9M) The variance is primarily due to contract costs for disposal of railcars (+\$1.5M) coming in less than estimated for the month. This is offset by an unfavorable cost variance in waste sites (-\$0.4M) related to extent of contamination and depth of the 200-W-147-PL excavation. Minor accounts outside the threshold (-\$0.2M).

Base

CM Schedule Performance: (-\$0.0M/-3.9%)

Variance is within reporting threshold.

CM Cost Performance: (+\$0.3M/+16.5%)

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) |
|--|--|--|--|------------------------------|-----------------------------|--------------------------|-------------------------|----------------------------------|------------------------------------|------------------------------------|
| U Plant/Other | 176.9 | 171.5 | 162.7 | (5.4) | -3.1 | 8.8 | 5.1 | 200.0 | 187.6 | 12.4 |
| Outer Zone | <u>82.5</u> | <u>78.5</u> | <u>67.3</u> | <u>(4.0)</u> | -4.8 | <u>11.3</u> | 14.4 | <u>96.6</u> | <u>86.3</u> | <u>10.4</u> |
| ARRA Total | 259.4 | 250.0 | 230.0 | (9.4) | -3.6 | 20.1 | 8.0 | 296.6 | 273.9 | 22.8 |
| Base | <u>62.1</u> | <u>62.3</u> | <u>55.5</u> | <u>0.2</u> | 0.4 | <u>6.8</u> | 10.9 | <u>759.5</u> | <u>742.7</u> | <u>16.8</u> |
| Total | 321.5 | 312.3 | 285.5 | (9.2) | -2.9 | 26.9 | 8.6 | 1,056.1 | 1,016.6 | 39.6 |

Numbers are rounded to the nearest \$0.1M

ARRA

CTD Schedule Performance: (-\$9.4M/-3.6%)

ARRA RL-0040.R1.1 U Plant/Other D&D (-\$5.4M) The negative schedule variance is due to late award of the grout contract for U Canyon (-\$2.8M), delays with the hazard reduction of 209E (-\$0.6M), and delays with the 200E Administration Buildings (-\$0.4M) due to bio-hazard and radiological control issues. Limited resources has also delayed 200W Administration Buildings (-\$1.5M). Also minor accounts outside the threshold (-\$0.1M).

ARRA RL-0040.R1.2 Outer Zone D&D (-\$4.0M) The unfavorable schedule variance is primarily due to the waste sites in ARRA that need to be moved to base to support the priority of footprint reduction (-\$3.3M), delays with cultural/ecological reviews on the North Slope (-\$0.6M), disposition of the 212N Railcars (-\$0.2M), and minor accounts outside the threshold (+\$0.1M).

CTD Cost Performance: (+\$20.1M/+8.0%)

ARRA RL-0040.R1.1 U Plant/Other D&D (+\$8.8M) 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) (+\$3.7M), overhead allocations (+\$10.8M), less for Program Management than planned (+\$1.6M), less resources than planned for C-3 Sampling (+\$0.7M), lower than planned costs for capital equipment (D4) (+\$2.7M), less asbestos abatement required for 200W buildings (+\$3.3M), 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, and 200E Administration (-\$1.2M) and 209E Project delays -\$2.2M), additional resources being applied at U Canyon (D4) to regain schedule (-\$1.0M), Usage Based Services (-\$2.7M), and minor accounts not within threshold (+\$1.1M).

ARRA RL-0040.R1.2 Outer Zone D&D (+\$11.3M) The favorable cost variance is due to efficiencies in Arid Lands Ecology (ALE), North Slope Facilities, disposition of railcars D&D (+\$5.9M), and Outer Area waste sites (+\$6.3M). The waste site favorable cost-to-date variance is primarily due to an O-Zone Remote, Treat, and Dispose (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 (-\$1.1M) due to the walls of the basins being much thicker than estimated. Minor accounts outside the threshold (+\$3).

Base

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

All Variances are within Thresholds.

CTD Cost Performance: (+6.8M/+10.9%)

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) less than expected (+\$1.3M), completion of the sampling of Cell 30 with less resources than planned (+\$0.9M), Program Management utilizing less resources (+\$1.6M), capital equipment (+\$0.3M), Usage Base Services (+\$0.2M), and underrun in overhead allocations (+\$1.9M).

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

Estimate at Completion (EAC)

The BAC and EAC include fiscal year FY2009 through FY2018.

The changes in EAC from April to May, for both ARRA and Base, are within reporting thresholds.

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

| WBS 040/RL-0040 Nuclear Facility D&D | FY2011 | | |
|--|----------------------|----------------------|-------------------|
| | Projected Funding | Spending Forecast | Spend Variance |
| ARRA | 142.6 | 140.1 | 2.5 |
| Base | 18.5 | 18.0 | 0.5 |

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.

Baseline Change Requests

BCR-PRC-11-037R0, Transfer of Waste Site & Facility Demolition Scope per Contract Modification 167
BCRA-PRC11-0036R0, General Administrative Changes for June 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.