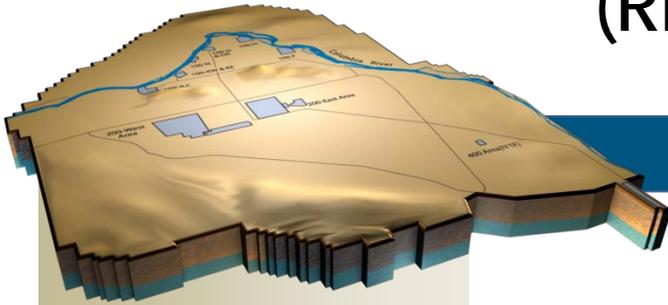


Section E Nuclear Facility D&D, Remainder of Hanford (RL-0040)

Monthly Performance Report



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224U Pipe Rack Demolition at U Ancillary

May 2010
DOE/RL-2008-69, Rev. 19
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

American Recovery and Reinvestment Act (ARRA)

Completed U Plant Ancillary facilities asbestos abatement in 224U and 224UA. Final preparations to begin demolition are in progress.

The 212-N/P/R final report has been submitted to RL for review.

Continuing upper Arid Lands Ecology (ALE) demolition activities. Debris pile sites cleanup activities are continuing.

Equipment size reduction and equipment placement activities are continuing for U Canyon.

Demolished two 200E Project structures, began demolition on one structure, and continued Cold and Dark on the 284E Powerhouse.

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 17,500 tons of soil in May; approximately 29.5 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 6,500 tons of soil removed during May.

Sampling/surveys have been completed on 14 MG-1 sites. Excavation for MG-1 site 600-40 and 600-36 resumed after sample analysis with approximately 1,100 tons shipped to the Environmental Restoration Disposal Facility (ERDF).

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 | On Schedule |
| | | 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 | On Schedule |

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 | 6 | 82 | <p>5/02 – U-Ancillary HPT attempted to step over a rope but tripped and fell on right side. Worker sustained a sore right shoulder, ankle, and knee. Worker also aggravated a cut on right thumb. Worker was taken to AMH on 05/03 and examined and given a non-prescription strength over-the-counter medication and returned to work with no restrictions. (20903)</p> <p>5/14 – Employee was lifting chute sections weighing ~35lbs, and experienced a sharp pain in his lower back. (20927)</p> <p>5/18 – Employee was checking a well for organics when they smelled a strong odor not detected by instrument. Employee felt no affects. Employee was sent to AMH as a precaution on 05/20. (20935)</p> <p>5/19 – Employee hit finger on doorway, and experienced pain. (20901)</p> <p>5/24 – D&D worker from ALE was doing morning stretches and strained right knee. Worker reported the injury on 05/25 and was taken to AMH. Worker was given a cold pack and released to work without restrictions. (20947)</p> <p>5/25 – Industrial Hygienist at 200E reported a bug bite. Management and worker decided to self-treat. (20951)</p> |
| Near-Misses | 0 | 0 | N/A |

KEY ACCOMPLISHMENTS

ARRA – U PLANT/OTHER D&D

- U Plant Regional Closure Zone (U-Ancillary Facilities D&D)
 - Continued demolition preparation activities in 224U and 224UA
 - Completed asbestos abatement activities in 224U and 224UA
- U Canyon Demolition and Cell 30 Disposition
 - Equipment size reduction activities continued with 91% 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
- 200E Project
 - Continued asbestos abatement in 272E
 - Completed demolition of MO104 and M0840
 - Began demolition of MO405
 - Continued Cold and Dark activities in 284E
- 209E Project
 - Continued 209E characterization and Cold and Dark planning activities

ARRA – OUTER ZONE D&D

- BC Controlled Area Waste Site Remediation
 - Remediation using super dump trucks continued with approximately 118,000 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 Migration 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 May. Approximately 28,000 tons of soil has been removed and transferred to ERDF.
 - Preparation of the response action completion documentation for waste site 216-N-1 is underway
- 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
 - Waste site 200-E-101 closure documentation has been submitted. Waste site reclassification paperwork for site 6607-2 has been submitted.
 - The five waste sites listed below were originally considered 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, UPR-600-12
 - Analysis of sampling data for 600-51 indicates RTD is not required. Closure documents for site 600-51 have been prepared and undergone internal review.
 - Initial excavation for site 600-40 was completed and initial verification samples were collected and the samples indicated additional excavation was required. This excavation has commenced, in-process samples are being evaluated.
 - The Remedial Action Work Plan (RAWP) was updated to include the 37 waste sites added with the approved AM, and provided to RL for review. Sampling Analysis Plan (SAP) has been similarly revised and is in review with RL.

- Verification sampling of site 600-36 was performed in February to determine whether remediation was complete. Subsequently, additional excavation has been performed with sampling scheduled for June.
- CSNFA sampling of site 600-262 was performed at depth utilizing an auger. Sampling analysis indicates that no further field activity is required.
- The Sampling Instruction (SI) was issued for site 600-37 and sampling was performed. Samples are at the lab.
- 212-N/P/R Buildings D&D
 - Response Action Completion Report (RACR) for building removal has been prepared and Submitted to RL for review and comment
- ALE D&D
 - Continued debris pile removal on lower ALE
 - Began demolition of six upper ALE facilities

MAJOR ISSUES

Issue Statement – Determination of a disposition path for the D-10 tank in Cell 30 has potential to have a major impact on the U Canyon disposition schedule.

Corrective Action – A Baseline Change Request was developed and approved to remove the D-10 tank to T Plant.

Status – The BCR was approved this month. The W0063 waiver submittal is with RL for approval.

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 site 600-275 has been rescheduled. 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-003: Planned U Plant Cell 30 Holdup Material Disposition is Outside Baseline Assumption | Sample Cell 30 tank contents early; develop Cell 30 disposition path to reflect sampling results. | | | Realized risk; tank content disposition different than baseline plan; Cell 30 tank to be removed and transferred to T Plant pending final disposition; BCR submitted and implemented. |
| 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. |
| WSR-006: Decision Document Approval Delays | Work with RL and regulators to establish priorities and need dates. | | | A BCR is being generated for the NRDWL/SWL - the covers have been delayed; significant comments from stakeholders on the EA and the selected remedy. |
| 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. | | | Risk realized for 200-MG-1, 600-36, 600-218, UPR 600-12, and 600-38. |
| 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 (%) |
|--|--|--|--|------------------------------|-----------------------------|--------------------------|-------------------------|
| U Plant/Other | 4.6 | 3.7 | 4.7 | (0.9) | -19.9 | (1.0) | -25.7 |
| Outer Zone | 4.0 | 3.9 | 4.1 | (0.1) | -2.7 | (0.2) | -6.2 |
| ARRA Total | 8.6 | 7.6 | 8.8 | (1.0) | -11.9 | (1.2) | -15.7 |
| Base | <u>1.6</u> | <u>1.6</u> | <u>1.4</u> | <u>0.0</u> | <u>-0.1</u> | <u>0.3</u> | <u>16.1</u> |
| Total | 10.2 | 9.2 | 10.1 | (1.0) | -10.0 | (0.9) | -10.1 |

ARRA

CM Schedule Performance: (-\$1.0M/-11.9%)

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

The 209E Project (-\$0.1M) and 200E Administration Project (-\$0.6M) is slightly behind due to issues with Bio-Hazard and Radiological contamination issues. U Canyon Project (-\$0.7M) is behind schedule due to the canyon crane annual Preventative Maintenance (PM) this month and issues with placing the Grout Contract. In addition the U Ancillary Project (-\$0.3M) experienced delays with asbestos containment and abatement. This is offset by a positive variance for Capital Equipment due to implementing the Baseline Change Request (BCR)-R40-10-010R0 in May (+\$0.8M).

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

The current month schedule variance is due to delays in the start of design for the barriers over 600 Central Landfill and the Non-Radioactive Dangerous Waste Landfill (NRDWL) pending agreement on the closure plans (-\$0.5M) which has been offset this month by gains in waste site remediation of (+\$0.6M). Also, the ALE Facilities (-\$0.2M) are behind with the removal of the septic tanks which have been determine to remain until the project is complete.

CM Cost Performance: (-\$1.2M/-15.7%)

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

The U-Ancillary Project current month overrun of (-\$0.7M) is due to using more resources than planned to recover schedule and inefficiencies related to delays from respirator operation issues and new scaffolding requirements. The U Canyon Projects (-\$0.3M) costs were high due to Crane and Rigging costs for the canyon crane PM and material purchases for the temporary power activities that will start in June.

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.

In addition, ALE costs were inadvertently charged to 212-N/P/R Project (-\$0.2M).

Base

CM Schedule Performance: (-\$0.0M/-0.1%)

The current month unfavorable schedule variance in waste sites relates to the construction of the barriers for Central Landfill and the NRDWL which is being delayed pending agreement on the closure plans.

CM Cost Performance: (+\$0.3M/+16.1%)

The cost variance is attributable to the completion of a confirmatory sampling waste site within the BC Controlled Area (+\$0.3M).

**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 | 95.4 | 91.8 | 79.8 | (3.6) | -3.8 | 12.0 | 13.1 | 195.6 | 182.8 | 12.8 |
| Outer Zone | 30.8 | 29.0 | 25.5 | (1.7) | -5.6 | 3.5 | 12.2 | 89.3 | 89.9 | (0.6) |
| ARRA Total | 126.2 | 120.8 | 105.3 | (5.3) | -4.2 | 15.6 | 12.9 | 285.0 | 272.8 | 12.2 |
| Base | <u>43.4</u> | <u>43.1</u> | <u>36.8</u> | <u>(0.3)</u> | <u>-0.7</u> | <u>6.3</u> | <u>14.6</u> | <u>969.6</u> | <u>965.5</u> | <u>4.1</u> |
| Total | 169.5 | 163.9 | 142.0 | (5.6) | -3.3 | 21.9 | 13.3 | 1,254.5 | 1,238.3 | 16.3 |

Numbers are rounded to the nearest \$0.1M.

ARRA

CTD Schedule Performance: (-\$5.3M/-4.2%)

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) and U-Ancillary Demolition (-\$0.4M) schedule delays due to asbestos abatement/respirator issues.

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

The contract-to-date unfavorable schedule variance is primarily 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 (-\$0.7M) delay in starting design of the Central Landfill and the NRDWL barriers pending agreement on the closure plans (-\$1.2M). This is offset by the ALE Project (+\$0.2M) due to less asbestos abatement activities than planned.

CTD Cost Performance: (+\$15.6M/+12.9%)

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) (+\$2.9M), G&A and direct distributable allocations (+\$6.6M), less for Program Management than planned (+\$0.4M), efficiencies at U Canyon (D4) (+\$3.4M), less resources than planned for C-3 Sampling (+\$0.7M) and 200E Administration (+\$1.0M), lower than planned costs for capital equipment (D4) (+\$2.1M), 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) (-\$3.9M), coupled with increased insulator staff and overtime to recover schedule, 209E Project (-\$0.3M) and higher MSA (-\$1.2M) 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 contract-to-date cost variance (+\$1.1M) is primarily related to efficiencies in mobilization gained by changing to direct haul to ERDF, which reduced costs and environmental impacts associated with construction of a container transfer area (+\$0.6M). Lower than modeled costs have been realized on the initial confirmatory sampling waste sites due to the non-complex nature of the waste sites addressed to date (+\$0.8M). However, these efficiencies are being offset by higher than planned remediation costs at BC Control Area due to the greater depth of contamination and the larger volume of soil being removed to ERDF (-\$0.3M). In addition, the ALE Project continues to underrun due to efficiencies and less asbestos abatement activities required than planned (+\$4.0M). This is also offset by overruns in the 212-N/P/R Project (-\$1.2M) and Disposition of the Railcars at 212 (-\$0.3M).

Base

CTD Schedule Performance: (-\$0.3M/-0.7%)

The negative schedule variance is due to delays in starting construction of the Central Landfill and the NRDWL barriers pending agreement on the closure plans (-\$0.3M).

CTD Cost Performance: (+\$6.3M/+14.6%)

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) (+\$0.9M) less than expected, completed the sampling of Cell 30 with less resources than planned (+\$0.9M), Program Management utilizing less resources (+\$1.0M), capital equipment (+\$0.4M), Usage Base Services (+\$0.2M) and underrun in G&A and direct distributable allocations (+\$1.3M).

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 |
| ARRA | 136.5 | 120.6 | 15.9 |
| Base | <u>25.5</u> | <u>15.4</u> | <u>10.0</u> |
| Total | 162.0 | 136.0 | 25.9 |

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

AWA-PRC-10-040R0, Remediation of Waste Site 1607-K3 and 100-K-109 Newly Discovered Waste Site.

AWA-R40-10-006R0, North Slope Footprint Reduction.

BCR-040-10-001R0, Removal of Duplicate Waste Site Remediation Scope.

BCR-PRC-10-036R0, Align WSR Milestones per RL Direction.

BCR-R40-10-010R0, Revise Capital for Thin Film Dryer Vessel Replacement.

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.