

# Monthly Performance Report

July 2017

Prepared for the U.S. Department of Energy  
Assistant Secretary for Environmental Management

Contractor for the U.S. Department of Energy  
under Contract DE-AC06-08RL14788



**P.O. Box 1600  
Richland, Washington 99352**

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**APPROVED**  
*By Janis Aardal at 4:15 pm, Aug 24, 2017*

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Release Approval

Date

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L. Ty Blackford  
President and Chief  
Executive Officer

# Monthly Performance Report

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July 2017  
CHPRC-2017-07, Revision 0

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## EXECUTIVE SUMMARY

CH2M HILL Plateau Remediation Company (CHPRC) advanced cleanup throughout the Hanford Site during the month of July. Major accomplishments included:

- **Plutonium Finishing Plant (PFP) Closure Project:** The PFP team safely completed the controlled implosion of the PFP ventilation stack and began demolition of the main processing facility, 234-5Z.
- **Soil and Groundwater Remediation Project (S&GRP):** The S&GRP team nearly doubled its uranium extraction goal for fiscal year (FY) 2017, ahead of schedule. The team has removed more than 149 kg. (328 lbs.) of the radioactive contaminant from groundwater so far in FY2017.
- **Waste and Fuels Management Project (W&FMP):** The Waste Encapsulation and Storage Facility (WESF) project completed the conceptual design safety document for the cask storage area. DOE Richland Operations Office (RL) initiated discussions with Ecology and EPA on a new Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) milestone for completion of capsule transfer. A draft statement of work for designs of the cask storage area and WESF modification is in internal review.
- **K Basins Operations and Remediation Project:** K Basin Pre-operational Acceptance Testing (KPAT) is 30 percent complete. The project completed remediation of all 18 AB waste sites in the 100K Area.
- **618-10 Burial Ground Waste Site:** The 618-10 Project began remediation at the 600-63 Lysimeter Waste Site. Crews also continued backfill activities at the 316-4 Waste Site and Mass Excavation activities at the 618-10 Burial Ground.
- **324 Building Remediation Project:** Workers at the 324 Building met the FY2017 Key Performance Goal for removing combustible material and highly-contaminated debris from the airlock floor.
- **Plutonium Uranium Extraction (PUREX) Tunnel Administrative Order:** CHPRC delivered the second Corrective Action Report to RL in compliance with the Ecology Administrative Order. The draft report identifies a phased approach of enhanced surveillance and monitoring at Tunnel 2 until a response action is selected and implemented.
- **Submitted the FY2018 Annual Performance Measurement Baseline (PMB) to RL,** accomplishing a major contract deliverable. The PMB outlines the work planned to be performed in FY2018, which was based on a joint CHPRC/RL Risk Based Priority List. Additionally, the submittal included a Long Range Plan (LRP) which identifies work scope to be accomplished in FY2019 through FY2022, as well as scope in FY2018 that is not currently in our contract but has funding allocated, once RL Contracting Officer authorization is received. Overall, the LRP includes \$2.2 billion dollars of work.

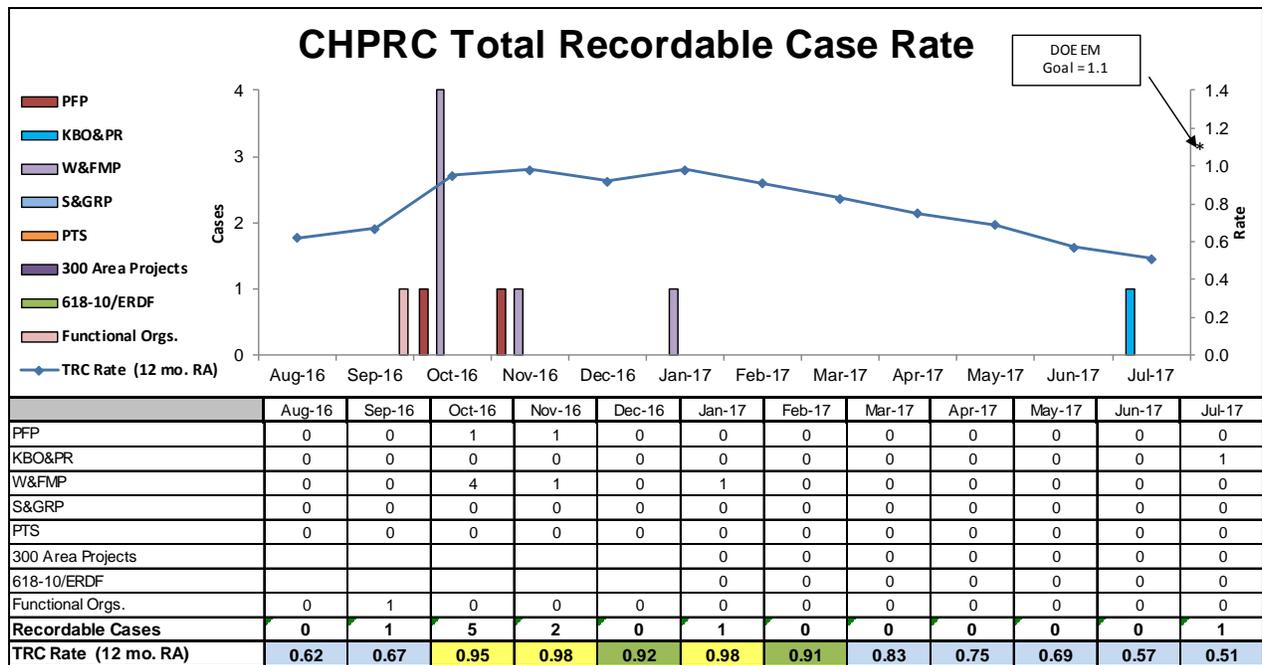


*PFP Ventilation Stack Demolition on July 15, 2017.*

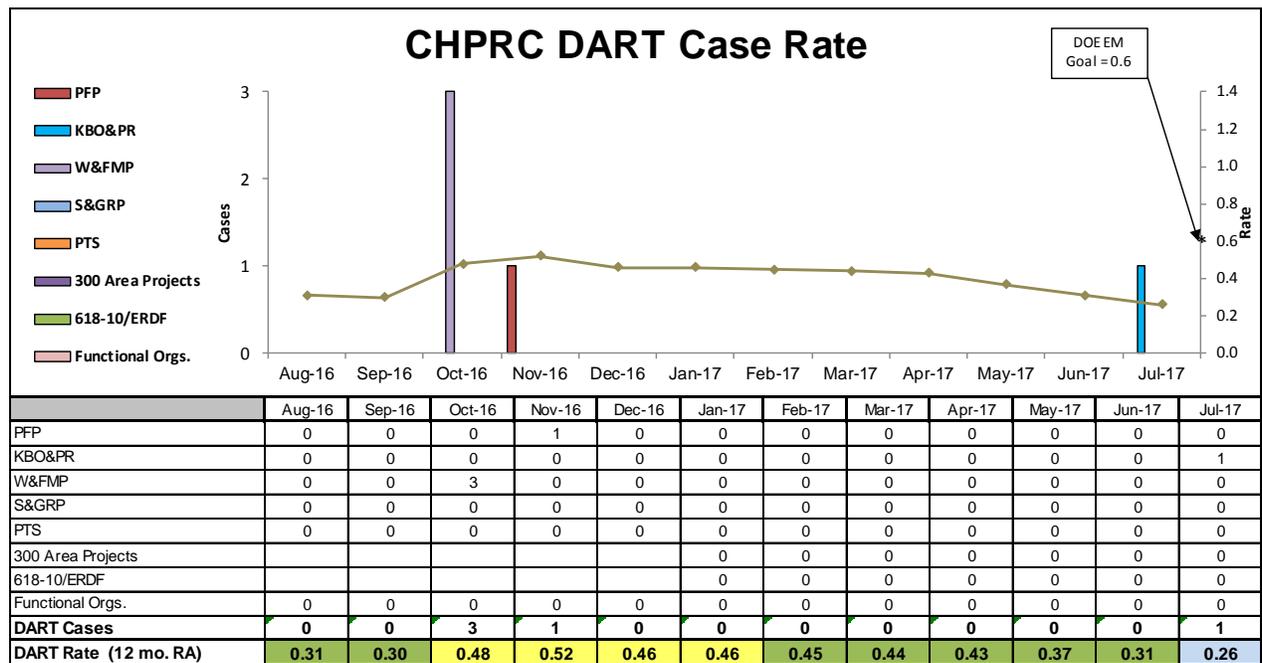
- The President’s Zero Accident Council (PZAC) meeting for July was hosted by 618-10/Environmental Restoration Disposal Facility (ERDF) Project. The two main ideas were:
  - o Effective communication.
  - o Being personally invested in safety.
- CHPRC celebrated staying safe this summer during increasingly hot temperatures by traveling to various work locations and serving a variety of ice cream and frozen treats to employees.
- Five “*Thinking Target Zero*” (TTZ) bulletins were published to convey important occupational, safety, health, and environmental messages:
  - o VPP Innovation Award.
  - o Summer – Hot Car.
  - o Don’t Drowse and Drive.
  - o Driving Safety – Modified Vehicles.
  - o EMS – Operating Records.
- *Weekly Safety Tailgate* briefing packages communicated relevant topics and safety information to the workforce:
  - o Five Lessons Learned:
    - CHPRC – Unfamiliar Work Steps.
    - Employee Falls When Grating Support Fails.
    - Buddy System Didn’t Work in Virginia.
    - Unevaluated weight results in shoulder injury.
    - National Security Technologies – When in Doubt, Call 911.
  - o Injury reports.
  - o Weekly ethics moments.
  - o Vehicle incidents.
  - o Conduct of work focus topic.
  - o Holiday Safety Focus.
  - o Return to Work Safely.
  - o Don’t leave it in your car.
  - o Distracted driving and the new law in Washington.
  - o Return to work process.
  - o Modified Vehicles.
  - o Just-in-time Report: Energized conductor discovered on 480 volt cable.

## TARGET ZERO PERFORMANCE

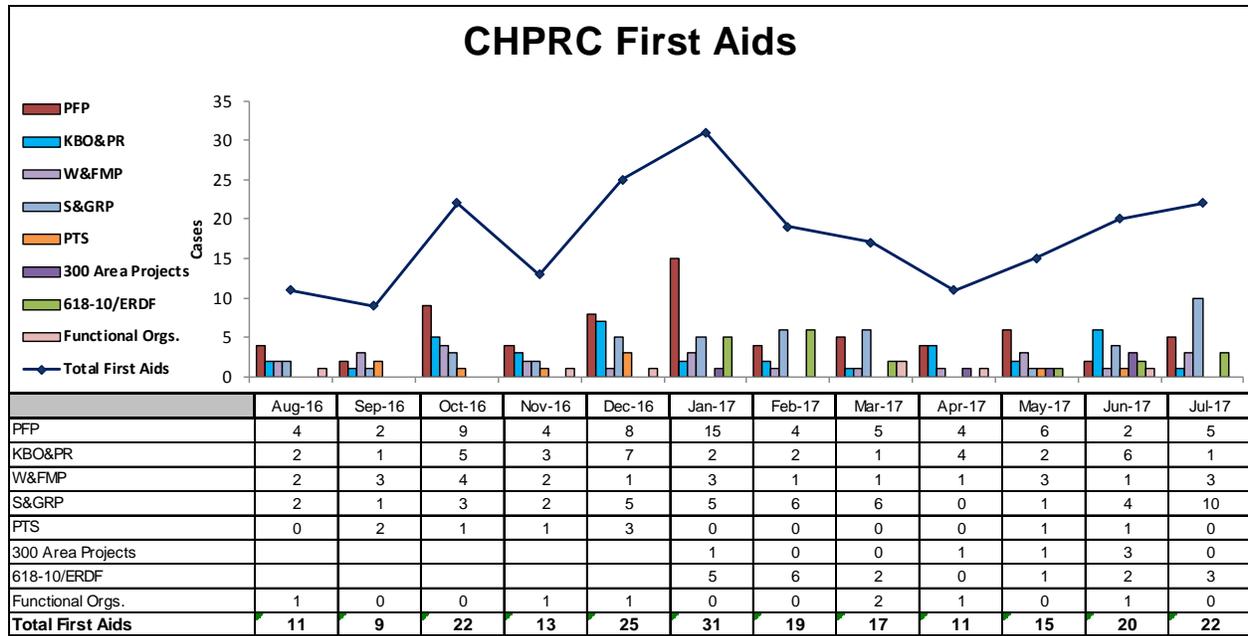
CHPRC continued focusing on integrating and implementing safety programs in all program and project areas. The following safety charts are reported on a calendar month basis.



Total Recordable Injury Case (TRC) Rate: The 12-month rolling average TRC rate of 0.51 is based on a total of ten Recordable injuries. There was one Recordable case for July.



Days Away, Restricted or Transferred (DART) Workdays Case Rate: The 12-month rolling average DART rate of 0.26 is based upon a total of five Days Away cases. There was one DART case in July.



First Aid Case Summary: CHPRC reported 22 first aid cases in July. The contributors were 11 miscellaneous (burns, rashes, repetitive motion, etc.), five sprains/strains/pains, four abrasions/bruises/contusions, one insect bite, and one foreign bodies/irritation in the eye injury. In addition, seven self-treat cases were reported in July.

## KEY ACCOMPLISHMENTS

### Projects

- Refer to Sections A through G, as well as Appendix C of this report for project specific accomplishments.

### Project Services and Support (PTS)

- Refer to the Appendix B section of this report for specific overhead support and Sections A through G, as well as Appendix C of this report for specific project support.

## MAJOR ISSUES

### Issue:

Significant Contract Change Management is ongoing and must be resolved to retain Plateau Remediation Contract (PRC) alignment for FY2017/FY2018.

- During July CHPRC submitted Change Proposal (CP) 328 1656 300-296 Waste Site Additional Scope, with a proposed value of approximately \$74 million to RL. The scope of CP 328 1656 includes performing 324 Building modifications required to support soil removal; procure and install equipment, systems, and components in 324 Building required for B-Cell and soil removal operations; perform B-Cell grout and debris removal to establish conditions for floor removal.
- As of July month end, there was a backlog of 40 undefinitized CPs and responses to Requests for Proposals (RFPs) – totaling approximately \$367 million in net value with fee (River Corridor Closure Contract [RCCC] scope, WA-1 Characterization, and other Change Orders valued at approximately \$415 million with fee offset by Management of Cesium and Strontium Capsules Capital Asset [MCSC] Project and Nondestructive assay [NDA] of Repackaged Remote Handled/Large Box Suspect Transuranic [TRU] Waste deduct proposals valued at about \$48 million with fee for work to be completed outside CHPRC period of performance).

**Corrective Action:**

- Work with RL to reach agreement on PRC FY2017/FY2018 alignment and support RL evaluation and determination of the disposition of undefinitized CHPRC CPs/REAs.

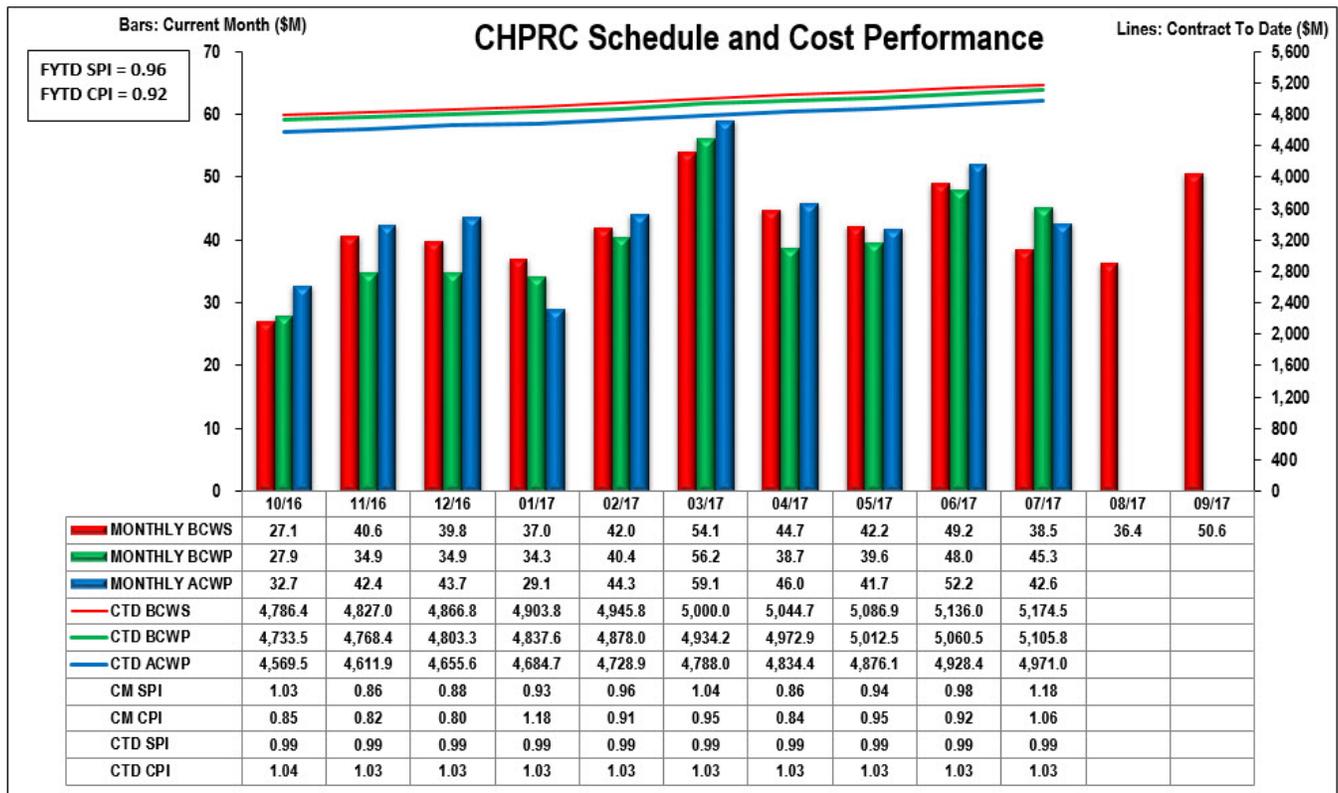
**Status:**

- CHPRC continues to discuss proposed alignment strategy with RL.

**Projects**

- Refer to Sections A through G, as well as Appendix C of this report for the project specific major issues.

## EARNED VALUE MANAGEMENT



	\$M					\$M					\$M		
	Current Period					Contract to Date					Contract Period		
	Budgeted Cost		Actual Cost		Variance	Budgeted Cost		Actual Cost		Variance	BAC	EAC	Variance
	BCWS	BCWP	ACWP	Schedule	Cost	BCWS	BCWP	ACWP	Schedule	Cost			
RL-0011 - Nuclear Materials Stab & Disp PFP	0.1	8.3	8.7	8.2	(0.4)	980.2	950.2	1044.6	(30.0)	(94.4)	980.5	1,078.9	(98.4)
RL-0012 - SNF Stabilization & Disposition	5.3	4.6	5.3	(0.7)	(0.6)	686.6	684.9	653.2	(1.7)	31.7	740.7	704.9	35.8
RL-0013 - Solid Waste Stab & Disposition	7.7	9.2	7.2	1.5	2.0	1172.4	1174.1	1097.5	1.6	76.5	1,352.5	1,277.5	75.0
RL-0030 - Soil & Water Rem-Grndwtr/Vadose	11.5	9.2	10.3	(2.3)	(1.1)	1407.3	1369.9	1336.4	(37.3)	33.5	1,562.6	1,524.9	37.7
RL-0040 - Nuc Fac D&D - Remainder	3.7	3.0	2.8	(0.7)	0.3	448.3	442.2	412.8	(6.1)	29.3	487.4	464.4	23.0
RL-0041 - Nuc Fac D&D - RC Closure Project	10.0	10.8	8.2	0.8	2.6	455.9	460.7	406.7	4.8	54.0	569.2	505.2	63.9
RL-0042 - Nuc Fac D&D - FFTF Project	0.2	0.2	0.1	(0.0)	0.0	23.9	23.8	19.7	(0.1)	4.1	26.5	24.0	2.4
<b>Total</b>	<b>38.5</b>	<b>45.3</b>	<b>42.6</b>	<b>6.8</b>	<b>2.6</b>	<b>5,174.5</b>	<b>5,105.8</b>	<b>4,971.0</b>	<b>(68.8)</b>	<b>134.8</b>	<b>5,719.4</b>	<b>5,579.8</b>	<b>139.6</b>

(Values are rounded to the nearest \$0.1M)  
(Values do not have UB breakout)

\* In regards to RL-0041, CHPRC has implemented the River Corridor Closure Contract (RCCC) transitioned scope into the Performance Measurement Baseline (PMB) for Earned Value Management (EVM) reporting purposes. When the change orders (CO #304, #305, #306) are definitized, BCRs will be processed to align the PMB with the definitized values.

### Performance Summary

CHPRC continues to track completion of the contract scope within budget and is currently projecting a Variance at Completion of \$139.6 million, with \$66.8 million of Management Reserve (MR), for a total positive variance of \$206.4 million. For July, the project was 17.7 percent ahead of schedule and 5.8 percent under planned cost. Contract to Date (CTD), the project was 1.3 percent behind schedule and 2.6 percent under planned cost.

The current month positive schedule variance is primarily due to project breakdown structure (PBS) RL-0011 working historical budgeted cost of work scheduled (BCWS) on discrete demolition activities (apportioned). This scope was originally planned to begin during the third quarter of 2016. However, delays in getting 236-Z ready for demolition negatively impacted the start of 236-Z demolition. The 291-Z demolition began in July 2017 and is scheduled to complete in August 2017 demolition of 234-5Z and 236-Z is currently scheduled to complete in September 2017. Significant progress toward demolishing 291-Z (demolition of the 291-Z Stack and Vent House) and removal of filter boxes in 234-5Z resulted in significant performance claimed for this month. Because all work is historical, the current schedule variance will be favorable going forward.

The positive schedule variance is partially offset by schedule delays in the PBS-0030, 100-NR-2 barrier maintenance and expansion activities, which were scheduled to start in FY2016, but were deferred due to priority decisions and pending resolution of cultural clearance items. Also contributing is the positive performance earned in prior periods (work acceleration) for 100-HR-3 optimization, 200-PO-1 NRDWL, 200-UP-1 SE chrome and 300-FF-5 Stage B monitoring drilling campaigns, 100-HR-3 D&D, and 100-HR-3 well realignments is returning to zero by the end of FY2017.

The current month positive cost variance is primarily due to PBS RL-0041 618-10 Burial Ground project management and support accounts that experienced significant underruns due to efficient resource sharing across the complex and reduced material usage. Backfill activities at the 316-4 Waste Site experienced cost efficiencies, as the project was able to self-perform the work with existing crews instead of hiring a separate subcontractor, as well as utilize site recontouring and existing soils for backfill material. Additionally, the 600-63 Waste Site was under budget due to the optimization of resources and equipment at the 618-10 Burial Ground Complex.

Also contributing to the current month positive cost variance is PBS RL-0013 implementation of the Part B Permit unilateral definitization and the associated update of the baseline for \$1.3 million, which was for prior actuals; the remaining under runs are due to continued implementation of planned efficiencies.

The current month positive cost variance is partially offset by PBS RL-0030 due to spending incurred in support of FY2017 P&T optimization activities that are not planned in the PMB.

## FUNDING ANALYSIS

### FY2017 Funds vs. Fiscal Year Spend Forecast (\$M)

PBS	Project	FY2017		Variance
		Projected Funding	Spending Forecast	
<b>Estimate at Complete</b>				
RL-0011	Nuclear Materials Stabilization and Disposition	134.5	131.0	3.6
RL-0012	Spent Nuclear Fuel Stabilization and Disposition	32.4	30.6	1.8
RL-0012	15-D-401 Sludge Retrieval Project	65.0	43.1	21.9
RL-0013	Waste and Fuels Management Project	112.1	94.3	17.8
RL-0030	Soil, Groundwater and Vadose Zone Remediation	126.6	115.0	11.6
RL-0040	Nuclear Facility D&D, Remainder of Hanford	38.9	29.4	9.5
RL-0041	Nuclear Facility D&D, River Corridor	146.3	117.7	28.6
RL-0042	Fast Flux Test Facility Closure	3.9	2.0	1.8
<b>Total Estimate at Complete</b>		<b>659.6</b>	<b>563.1</b>	<b>96.5</b>
<b>Incremental Scope Pending Change Management</b>				
RL-0011	Nuclear Materials Stabilization and Disposition	0.0	0.0	0.0
RL-0012	Spent Nuclear Fuel Stabilization and Disposition	0.0	0.4	(0.4)
RL-0012	15-D-401 Sludge Retrieval Project	0.0	0.0	(0.0)
RL-0013	Waste and Fuels Management Project	0.0	1.5	(1.5)
RL-0030	Soil, Groundwater and Vadose Zone Remediation	0.0	5.6	(5.6)
RL-0040	Nuclear Facility D&D, Remainder of Hanford	0.0	4.4	(4.4)
RL-0041	Nuclear Facility D&D, River Corridor	0.0	1.3	(1.3)
RL-0042	Fast Flux Test Facility Closure	0.0	0.0	0.0
<b>Total Incremental Work Scope</b>		<b>0.0</b>	<b>13.2</b>	<b>(13.2)</b>
<b>Total Fiscal Year Spend Forecast</b>				
RL-0011	Nuclear Materials Stabilization and Disposition	134.5	131.0	3.6
RL-0012	Spent Nuclear Fuel Stabilization and Disposition	32.4	31.0	1.4
RL-0012	15-D-401 Sludge Retrieval Project	65.0	43.1	21.9
RL-0013	Waste and Fuels Management Project	112.1	95.8	16.3
RL-0030	Soil, Groundwater and Vadose Zone Remediation	126.6	120.6	5.9
RL-0040	Nuclear Facility D&D, Remainder of Hanford	38.9	33.8	5.0
RL-0041	Nuclear Facility D&D, River Corridor	146.3	118.9	27.4
RL-0042	Fast Flux Test Facility Closure	3.9	2.0	1.8
<b>Total</b>		<b>659.6</b>	<b>576.3</b>	<b>83.3</b>

#### Funds/Variance Analysis

FY2017 expected funding did not change in the month of July and remains at \$659.6 million. The total spending forecast decreased \$3.8 million from last month, primarily in RL-0041 in the 618-10 project due to incorporating efficiencies for self-performing backfill at 316-4 and delays associated with Perma-Fix Northwest (PFNW) drum returns.

## BASELINE CHANGE REQUESTS

In July 2017, CHPRC approved and implemented 16 Baseline Change Requests (BCRs) into the PMB. Eight of the 16 BCRs impacted the PMB. Each change request is identified in the table below:

Change Request #	Title	PBS	Summary of Change
BCR-000-17-040R0	<i>Incorporate CO #321 Increase the NTE Cost Authority</i>	000s	This BCR incorporated the scope and NTE increase for CO #321, Management and Coordination for Reissuance of the Draft Hanford RCRA Site Wide Permit Revision 9. This BCR does not change the PMB value.
BCR-013-17-017R0	<i>Incorporate CO #325 Implementation of CRD 474.2 Change 3</i>	RL-0013	This BCR incorporated the scope and NTE for Contract Modification 577 for CO #325 for the implementation of the requirements of CRD 474.2 as stipulated in 16-SEI-0162, dated September 15, 2016. This BCR increased the PMB value by \$10K.
BCR-013-17-018R0	<i>Unilateral Definitization of REA 013 1591 Submit Solid Waste Operations Complex Part B</i>	RL-0013	This BCR incorporated the Unilateral Definitization of REA 013 1591, Submit Solid Waste Operations Complex Part B Permit Modification Request per Contract Modification 598. This BCR increased the PMB value by \$1,262K.
BCR-013-17-019R0	<i>RL-0013 Defer TRU Small Containers Commercial Repackaging Planning Package to FY2018</i>	RL-0013	This BCR deferred the Planning Package for TRU Small Containers Commercial Repackaging from September FY2017 to FY2018. This BCR does not change the PMB value.
BCR-030-17-026R0	<i>RL-0030 TPA M-015- 92A Due Date Revision</i>	RL-0030	This BCR incorporated approved Tri-Party Agreement change notice M-15-17-02 to modify the due date for Tri-Party Agreement Milestone M-015-92A, Submit RCRA FI/CMS & RI/FS Work Plan for 200-EA-1 OU to Ecology, to 7/31/2018. This BCR does not change the PMB value.
BCR-040-17-013R0	<i>Incorporate CO #311, Increase the NTE Cost Authority</i>	RL-0040	This BCR incorporated the scope and NTE increase for Contract Modification 607 for the CO #311, Emergency Response for Facility/Waste Site ESH&Q or Remediation; Activity B, REDOX Roof Replacement and Activity C, REDOX Silo Cleanout. This BCR increased the PMB value by \$1,134K.
BCR-040-17-017R0	<i>RL-0040 Defer Increased Planning Capability Planning Package to FY2018</i>	RL-0040	This BCR deferred the Planning Package for RL-0040 Increased Planning Capability from September FY2017 to FY2018. This BCR does not change the PMB value.
BCR-041-17-022R0	<i>Incorporate CO #307 100K Area Waste Site Quantity Increase</i>	RL-0041	This BCR incorporated the scope and NTE increase for Contract Modification 587 for CO #307, 100K Area Waste Site Quantity Increase. This BCR increased the PMB value by \$1,000K.
BCR-041-17-030R0	<i>Correct Error for Definitized CO #289</i>	RL-0041	This BCR corrected an error for BCR-PRC-17-015R0 the definitized value for CO #289, Transfer of RCCC Work scope. The definitized value incorporated into RL-0041 used the incorrect WBS. This BCR does not change the PMB value.
BCR-041-17-031R0	<i>Incorporate CO #328 Additional Scope for 300-296 Waste Site Project</i>	RL-0041	This BCR incorporated the scope and NTE for Contract Modification 605 for CO #328 authorizing CHPRC to perform 324 Building modifications required to support soil removal; procure and install equipment, systems and components in 324 Building required for B-Cell and soil removal operations; perform B-Cell grout and debris removal to establish conditions for floor removal. This BCR increased the PMB value by \$1,000K.

Change Request #	Title	PBS	Summary of Change
BCR-041-17-032R0	<i>Incorporate Revised Scope for 300-296 Waste Site Project and Remaining NTE Value</i>	RL-0041	This BCR incorporated remaining NTE value and corrects errors that were included in BCR-041-17-027R0, Incorporate CO #305 Increase the NTE Cost Authority. This BCR increased the PMB value by \$171K.
BCR-041-17-033R0	<i>Incorporate CO #326 Increase the NTE Cost Authority</i>	RL-0041	This BCR incorporated the scope and NTE increase for Contract Modification 603 for change order #326, 105K West Fuel Storage Basin. This BCR increased the PMB value by \$38K.
BCR-041-17-034R0	<i>Incorporate CO #319 Increase the NTE Cost Authority</i>	RL-0041	This BCR incorporated the scope and NTE increase for Contract Modification 602 for change order #319, Garnet Filter Media Retrieval System. This BCR increased the PMB value by \$966K.
BCR-041-17-035R0	<i>RL-0041 WBS Dictionary Correction</i>	RL-0041	This BCR corrected the implementation of multiple BCRs impacting the same Control Account WBS Dictionary. This BCR does not change the PMB value.
BCRA-PRC-17-031R0	<i>HPIC Updates July 2017</i>	RL-0013, RL-0030, RL-0040, RL-0041	This BCR incorporated July FY2017 HPIC updates. This BCR does not change the PMB value.

The Allocated (Distributed) Budget increased by \$5,581K.

#### Undistributed Budget Activity

BCR Number	Title	PBS	Fiscal Year	UB
BCR-PRC-17-032R0	<i>Undistributed Budget Adjustments July 2017</i>	RL-0012, RL-0013, RL-0040, RL-0041	2017-2018	\$2,124K

The Undistributed Budget increased by \$2,124K.

#### Management Reserve Activity

BCR Number	Title	PBS	Fiscal Year	MR
BCR-013-17-018R0	<i>Unilateral Definitization of REA 013 1591 Submit Solid Waste Operations Complex Part B</i>	RL-0013	2017 – 2018	-\$553K

Overall, there was a decrease in Management Reserve (MR) of \$553K during July.

#### Fee Activity

BCR Number	Title	PBS	Fiscal Year	Fee
BCR-013-17-018R0	<i>Unilateral Definitization of REA 013 1591 Submit Solid Waste Operations Complex Part B</i>	RL-0013	2017 – 2018	\$42K

Overall, there was an increase to the Fee of \$42K during July.

See the Format 3 Report in Appendix A for a listing of the specific change requests that had an impact on the PMB budget by fiscal year. The PMB values of change requests are summarized by fiscal year in the tables below (dollars in thousands):

**July 2017 Summary of Changes**

	FY 2009-2013	FY2014	FY2015	FY2016	FY2017	FY2018	FYs 2014-2018	Contract Period Total	Total PMB
<b>June 2017 Estimate</b>									
PMB	3,391,477	391,653	471,323	504,826	498,576	453,874	2,320,251	5,711,728	5,711,728
MR	0	0	0	0	30,751	36,593	67,344	67,344	67,344
Fee	155,504	14,325	14,501	27,804	10,546	18,636	85,811	241,315	241,315
<b>Total</b>	<b>3,546,981</b>	<b>405,978</b>	<b>485,824</b>	<b>532,630</b>	<b>539,873</b>	<b>509,102</b>	<b>2,473,407</b>	<b>6,020,387</b>	<b>6,020,387</b>
<b>July 2017 Change</b>									
<b>PMB</b>									
Change to PMB	0	0	0	0	3,648	4,057	7,705	7,705	7,705
<b>MR</b>									
Change to MR	0	0	0	0	-553	0	-553	-553	-553
<b>Fee</b>									
Change to Fee	0	0	0	0	42	0	42	42	42
<b>Total Change</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,137</b>	<b>4,057</b>	<b>7,195</b>	<b>7,195</b>	<b>7,195</b>
<b>July 2017 Estimate</b>									
PMB	3,391,477	391,653	471,323	504,826	502,223	457,931	2,327,956	5,719,433	5,719,433
MR	0	0	0	0	30,199	36,593	66,791	66,791	66,791
Fee	155,504	14,325	14,501	27,804	10,588	18,636	85,853	241,358	241,358
<b>Total</b>	<b>3,546,981</b>	<b>405,978</b>	<b>485,824</b>	<b>532,630</b>	<b>543,010</b>	<b>513,160</b>	<b>2,480,601</b>	<b>6,027,581</b>	<b>6,027,581</b>

**Changes to/Utilization of Management Reserve in July 2017**

	FY2009-2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2014-2018	Total
<b>June 2017 MR Totals</b>								
RL-0011	0	0	0	0	6,875	0	6,875	6,875
RL-0012	0	0	0	0	6,240	3,262	9,502	9,502
RL-0013	0	0	0	0	1,422	7,208	8,629	8,629
RL-0030	0	0	0	0	8,081	15,175	23,256	23,256
RL-0040	0	0	0	0	0	0	0	0
RL-0041	0	0	0	0	8,095	10,847	18,942	18,942
RL-0042	0	0	0	0	38	101	139	139
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>30,751</b>	<b>36,593</b>	<b>67,344</b>	<b>67,344</b>
<b>July 2017 MR Changes/Utilization</b>								
RL-0011	0	0	0	0	0	0	0	0
RL-0012	0	0	0	0	0	0	0	0
RL-0013	0	0	0	0	(553)	0	-553	-553
RL-0030	0	0	0	0	0	0	0	0
RL-0040	0	0	0	0	0	0	0	0
RL-0041	0	0	0	0	0	0	0	0
RL-0042	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-553</b>	<b>0</b>	<b>-553</b>	<b>-553</b>
<b>July 2017 MR Totals</b>								
RL-0011	0	0	0	0	6,875	0	6,875	6,875
RL-0012	0	0	0	0	6,240	3,262	9,502	9,502
RL-0013	0	0	0	0	869	7,208	8,077	8,077
RL-0030	0	0	0	0	8,081	15,175	23,256	23,256
RL-0040	0	0	0	0	0	0	0	0
RL-0041	0	0	0	0	8,095	10,847	18,942	18,942
RL-0042	0	0	0	0	38	101	139	139
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>30,199</b>	<b>36,593</b>	<b>66,791</b>	<b>66,791</b>

## SELF-PERFORMED WORK

Business structure information documents ongoing compliance with the requirements of the Contract Section H.20 clause entitled *Self-Performed Work*.

Contract-to-Date Actual Awards & Mods				Projection to FY2018	
10/1/2008 - 7/31/2017				Planned Subcontracting:	\$2,720,084,369
Reporting Category				Contract-to-date awards:	\$2,562,705,264
				Bal remaining to award:	\$157,379,105
	\$ Value	%	Goal %	Goal award\$	Bal to Goal
SB	\$1,414,112,206	55.18%	49.3%	\$1,341,001,594	-\$73,110,612
SDB	\$256,796,487	10.02%	8.2%	\$223,046,918	-\$33,749,569
SWOB	\$271,247,513	10.58%	7.5%	\$204,006,328	-\$67,241,185
HUB	\$64,596,008	2.52%	2.2%	\$59,841,856	-\$4,754,152
VOSB	\$198,327,558	7.74%	3.5%	\$95,202,953	-\$103,124,606
SDVO	\$116,433,631	4.54%	1.3%	\$35,361,097	-\$81,072,534
NAB	\$57,333,980	2.24%	N/A	PRC clause H.20 small business requirement ≥ 17% of CHPRC Contract Price performed by SB.	
Large	\$657,511,663	25.66%	N/A		
GOVT	\$3,510,871	0.14%	N/A	CHPRC Contract Value:	
GOVT CONT	\$483,186,359	18.85%	N/A		
EDUCATION	\$113,199	0.00%	N/A	17% rqmt:	\$974,483,429
NONPROFIT_	\$3,840,836	0.15%	N/A	SB actual:	\$1,414,112,206
FOREIGN	\$430,129	0.02%	N/A	Bal to rqmt	-\$439,628,777
Total	\$2,562,705,264	100.00%	N/A		

### Notes:

1. Since the CHPRC contract award in October 2008, CHPRC has subcontracted over \$2.5 billion in goods and services, with over 55 percent going to small businesses. Nearly all subcontracting goals have been exceeded.
2. Approximately 91 percent of the total dollars arise from service and staffing contracts and contract amendments, with 6 percent of the remaining expenditures arising from PCard purchases and 3 percent from the balance in purchase orders for materials and equipment.
3. Data is summarized by business categories (Women Owned Minority Business Enterprise codes) in accordance with socioeconomic reporting requirements. Small business categories overlap and should not be added together.

## GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

Contract Section	Project	GFS/I	Status
<b>CONTRACT</b>			
J.12/C.2.2, C.2.3	PBS-11, Plutonium Finishing Plant Closure Project  PBS-13, Solid and Liquid Waste Treatment and Disposal	Offsite Transportation of Radioactive Material: RL provides equipment and government drivers to transport transuranic (TRU) materials outbound/inbound between the Hanford Site and Perma-Fix Northwest, Inc. (PFNW) locations. RL is the authorized shipper and acts as signatory on the shipping papers and ensures DOE Manual 460.2-1 is complied with. RL arranges for Commercial Motor Vehicle Safety Alliance (CVSA) level VI vehicle inspections and verifies that the government drivers meet the applicable Department of Transportation (DOT) Federal Motor Carrier Safety Regulations (49 CFR 382 and 383). RL also inspects the load securement to ensure compliance with DOT regulations and/or Transportation Safety Document (TSD) requirements.	Ongoing
J.12/C.2.3.6	PBS-13, Transuranic Waste Certification	Waste Isolation Pilot Plant (WIPP) provides shipping resources and manages the schedule for transportation of these containers to WIPP. The schedule is variable and the number of shipments is controlled by DOE-HQ on a complex-wide priority. Cost for shipment of TRU waste offsite is borne by the Carlsbad Field Office (CBFO).	No WIPP shipments are planned within the contract period of performance.

## DOE ACTIONS/DECISIONS

Refer to Sections A through G as well as Appendix C of this report for the project specific DOE Actions / Decisions.

# Section A

## Nuclear Materials Stabilization and Disposition of PFP (RL-0011)



T. E. Bratvold  
Vice President for  
Plutonium Finishing  
Plant Closure  
Project

July 2017  
CHPRC-2017-07, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

The removal of plutonium-contaminated process equipment continued with a particular focus on removing gloveboxes, associated piping, asbestos, and ductwork. All gloveboxes have been removed from E4 ventilation, and all preparations for demolition starting in the Plutonium Reclamation Facility (PRF) are complete. Initiation of demolition on the PRF started in early November 2016. Initiation of demolition on the 242-Z Facility started in early January 2017 and was completed in April 2017. Demolition on the 236-Z facilities is ongoing. Demolition activities for 291-Z were initiated on June 30, 2017. Demolition of the 291-Z stack was completed on July 15, 2017.

The Plutonium Finishing Plant (PFP) Closure Project continues to maintain PFP facilities compliant with authorization agreement requirements.

Significant accomplishments in July included:

- Demolished the 291-Z stack and began waste loadout.
- Began 291-Z demolition and waste loadout.
- Removed HC-7C and 227T gloveboxes from 234-5Z and loaded into Super 7A waste container for shipment to Perma-Fix Northwest (PFNW) for size reduction.
- Removed or fixed in place for demo 604 feet of E4 ducting.
- Completed fixative application on E3 duct system in preparation for demolition.
- Abated 329 feet of asbestos.
- Removed or dispositioned in place 118 feet of process vacuum piping.
- Shipped two cubic meters (m<sup>3</sup>) non-radioactive waste.
- Shipped 25 m<sup>3</sup> transuranic (TRU) waste.
- Shipped 189 m<sup>3</sup> of low-level waste/mixed low-level waste (LLW/MLLW).

### Key Metrics

<i>Key Performance Indicators</i>	<i>Current Month</i>	<i>Contract To Date</i>
<b>COMPLETE</b> Glovebox/ Hood Removed or Dispositioned in Place	0	232 gloveboxes/hoods
KPP Rooms/Areas Ready for Demo	-	60 rooms/areas
Asbestos/Asbestos Containing Material (ACM) Removed	329	33,943
<b>COMPLETE</b> Process Vacuum Piping Dispositioned	118	7,231 feet
<b>COMPLETE</b> Process Transfer Line Dispositioned	-	1,525 feet
<b>COMPLETE</b> Pencil Tank Units Removed (Shipped)	-	196 pencil tank units
Buildings Ready for Demo	3	53 structures
Buildings Demolished or Removed	1	50 structures
Non-radioactive Waste Shipped	2	84 m <sup>3</sup>
Transuranic/Transuranic Mixed (TRU/TRU-M) Shipped	25 m <sup>3</sup>	2,522m <sup>3</sup>
LLW/MLLW Shipped	189 m <sup>3</sup>	9,704 m <sup>3</sup>

## Environmental Management System (EMS) Objectives and Target Status

Objective #	Objective	Targets	Actions	Due Date	Status
16-EMS-PFP-OB1-T1	Minimize emissions resulting from demolition of 234-5Z, 236-Z, 242-Z, and 291-Z.	Inspect 234-5Z, 236-Z, 242-Z, and 291-Z for the presence of asbestos-containing materials (ACM) and produce a report identifying ACM, requiring removal or abatement and methods for protecting remaining ACM from resulting in visible emissions.	<ol style="list-style-type: none"> <li>1. Issue report documenting thorough inspection of 236-Z.</li> <li>2. Issue report documenting thorough inspection of 242-Z.</li> <li>3. Issue report documenting thorough inspection of 234-5Z. (Scheduled to complete early June 2017.)</li> <li>4. Issue report documenting thorough inspection of 291-Z.</li> </ol>	<p>08/16/16</p> <p>05/26/16</p> <p>04/30/17</p> <p>05/30/17</p>	<p>100%</p> <p>100%</p> <p>100%</p> <p>100%</p>
17-EMS-PFP-OB1-T1	Reduce the risk of noncompliance with environmental requirements during demolition at PFP.	Reduce risk of noncompliance with applicable environmental requirements by enhancing the environmental screening process for demolition packages for 242-Z, 234-5Z, and 291-Z, thereby reducing the overall impacts from PFP's significant aspects.	<ol style="list-style-type: none"> <li>1. Create ready-for-demolition checklist for 242-Z/ZA.</li> <li>2. Review 242-Z/ZA demolition work package against environmental requirements.</li> <li>3. Create ready-for-demolition checklist for 291-Z.</li> <li>4. Review 291-Z demolition work package against environmental requirements.</li> <li>5. Create ready-for-demolition checklist for 234-5Z.</li> <li>6. Review 234-5Z demolition work package against environmental requirements.</li> </ol>	<p>11/30/16</p> <p>12/29/16</p> <p>02/28/17</p> <p>03/30/17</p> <p>03/30/17</p> <p>04/27/17</p>	<p>100%</p> <p>100%</p> <p>100%</p> <p>100%</p> <p>100%</p> <p>100%</p>

## TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	Current Month	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	1	N/A
Total Recordable Injuries	0	1	N/A
First Aid Cases	5	68	<ul style="list-style-type: none"> <li>7/6/2017 - Employee was struck on the left inner forearm by metal banding, resulting in a minor cut to forearm. The employee was taken to HPMC for evaluation and treatment and returned to work without restrictions. (24516)</li> <li>7/11/2017 - Workers were installing aluminum sheets on a ramp. Work activities on the ramp began about 7:30 a.m. and continued throughout the morning. Worker became ill upon returning to work after lunch (temperature extremes). Employee was examined and returned to work without restrictions. (24523)</li> <li>7/18/2017 - Employee was part of a crew working graveyard shift, removing filters from the Filter Rooms. Employee started to become overheated, dizzy, and felt as though going to pass out. Employee immediately egressed from the area, reported the event to immediate supervisor, and was transported to Kadlec for evaluation. Employee disclosed having been treated for pneumonia the previous week, which involved a 2-day hospital stay and included IV treatment. (24536)</li> <li>7/20/2017 - Air conditioning was not working in MO273. Employee reported not feeling well because of the heat within the office building. Measurements were taken inside MO273 after the employee reported the event. Temperatures inside MO273 would not have placed personnel in any sort of work/rest regimen for heat stress. Cold pack administered, returned to work with no restrictions. (24552)</li> <li>7/28/2017 - Employee was struck on top of head by job box lid. Employee was transported to Kadlec and told to take it easy (potential slight concussion) for the weekend prior to returning back to work on Monday (7/31/17). Employee processed through HPMC on his return to work and was released by HPMC to work without restrictions. (24543)</li> </ul>
Near Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

### RL-0011 Accomplishments

#### 234-5Z

- Abated 329 feet of asbestos.
- Removed or dispositioned in place 118 feet of process vacuum piping.
- Removed or fixed in place for demo 604 feet of E4 ducting.
- Completed fixative application on E3 duct system to prepare for demolition.
- Removed HC-7C and 227T gloveboxes from 234-5Z and loaded them into the Super 7A waste container for shipment to PFNW for size reduction.

#### PFM Waste Operations

- Shipped 25 m3 TRU/TRUM waste.
- Shipped 189 m3 LLW/MLLW.

#### Demolition Activities

- Demolished the 291-Z stack (began the waste loadout).
- Began demolition and waste loadout of 291-Z.

#### PTS

- Training and Procedures
  - Cancelled 40 PFM procedures due to demolition progress on 234-5Z.
- Operations Program
  - ConOps/Work Control/Conduct of Work
    - Worked with Job Control System (JCS) programmers to launch a new facility code (DR) to go under the PFM facility group to begin working on the Radiological Technology Laboratory (RTL) demolition project for Pacific Northwest National Laboratory (PNNL).
- Emergency Preparedness (EP)
- Updated PFM Building Emergency Plan (BEP) Revision 27 for removal of 291-Z stack and removal of heating ventilation, and air conditioning (HVAC) service.

## MAJOR ISSUES

Nothing to report at this time.

## RISK MANAGEMENT STATUS

**Unassigned Risk**  
**Risk Passed**  
**New Risk**  
**Change**

- Opportunity currently realized, or mitigation efforts are currently working toward, or after risk trigger with no foreseeable impacts.
- Mitigation efforts are currently working toward risk trigger with the possibility of actions not in place prior to risk occurrence. Recovery actions may be needed.
- Risk currently realized, or risk mitigation efforts are past risk trigger date with foreseeable impacts. Recovery actions needed.

- ↑ Increased Confidence
- ↔ No Change
- ↓ Decreased Confidence

Risk Title	Unmitigated Risk Impacts	Assessment		Comments																				
		Month	Trend																					
<b>RL-0011/WBS-011.OA</b>																								
<b>Explanation of major changes to the project monthly stoplight chart:</b> No major changes to the monthly stoplight chart in the month of July.																								
<b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>																								
PFP-092-02: Final Facility Characterization Identifies Unexpected Hold-up	Unexpected or late discovery of radiological (Pu) or chemical (asbestos) holdup requiring added facility deactivation. <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$380K, 24 days	<span style="color: red; font-size: 24px;">●</span>	<span style="color: blue; font-size: 24px;">↓</span>	<p><b>Risk Event:</b> Based on characterization data, the amount of asbestos insulated piping to be removed had been estimated since fiscal year 2013 to be approximately 24,000 linear feet. In January, about an additional 10,000 feet of asbestos was discovered, taking the total of asbestos to be removed to about 35,827 feet. No additional asbestos was discovered in July. With July 2017 progress, the PFP project has actually removed over 33,943 linear feet to date, with additional asbestos still remaining to be removed.</p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: 8px;"> <thead> <tr> <th style="text-align: center;">Risk Recovery action(s)</th> <th style="text-align: center;">Risk Date</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr> <td>Collaborate with safeguards to develop and approve safeguards termination criteria for remnant piping and duct work.</td> <td style="text-align: center;">1/09/17</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100</td> </tr> <tr> <td>Collaborate with criticality safety to recognize the reduced removal action necessary for safeguard termination and as feasibly warranted, revise. CSER requirements to achieve a criticality incredible state.</td> <td style="text-align: center;">1/09/17</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100</td> </tr> <tr> <td>Work with RL to utilize contingency for about an additional 10,000 feet of asbestos identified during walkdowns and inspections. REA is being developed and will be sent to DOE Early September 2017</td> <td style="text-align: center;">1/09/17</td> <td style="text-align: center;">9/30/17</td> <td style="text-align: center;">N/A</td> </tr> <tr> <td>Finalize path forward for stubs and segments.</td> <td style="text-align: center;">4/27/17</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100</td> </tr> </tbody> </table> <p><b>Recovery Assessment:</b>                      Based on completed inspections, this risk has been realized by additional TSI identified that was not part of the original engineering estimate that was used to develop the RL-011 baseline. Recovery actions focus on managing the need for added asbestos abatement work. Discussions with RL are underway on utilizing contingency funds to strengthen the asbestos abatement work force to complete the added scope of work. With respect to the emerging risk regarding characterization of remnant stubs and piping left for facility demolition, RL formally accepted the proposed safeguards termination criteria. Current accounting of remnants is tracking to achieve criticality incredibility conditions. Final consideration of impacts to air dispersion modeling as well as waste disposition have been evaluated, resulting in finalizing the scope of ductwork in need of removal and that which can remain in place for demolition. While the safeguards, criticality safety, and air dispersion programmatic action has enabled the opportunity to reduce the scope of remaining ongoing facility deactivation work, such relaxation does not come without added rigor. <span style="color: red;">Depending on contamination levels, the project either applies a fixative or continues with planned removal of the itemized list of stubs and segments.</span> Given the potential impact to the 234-5Z demolition schedule, per PRC-MP-PC-40167, this risk remains critical.</p>	Risk Recovery action(s)	Risk Date	FC Date	%	Collaborate with safeguards to develop and approve safeguards termination criteria for remnant piping and duct work.	1/09/17	Complete	100	Collaborate with criticality safety to recognize the reduced removal action necessary for safeguard termination and as feasibly warranted, revise. CSER requirements to achieve a criticality incredible state.	1/09/17	Complete	100	Work with RL to utilize contingency for about an additional 10,000 feet of asbestos identified during walkdowns and inspections. REA is being developed and will be sent to DOE Early September 2017	1/09/17	9/30/17	N/A	Finalize path forward for stubs and segments.	4/27/17	Complete	100
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Risk Title	Unmitigated Risk Impacts	Assessment		Comments															
		Month	Trend																
<b>RL-0011/WBS-011.OA</b>																			
PFP-DEMO-16: Contamination Spread Beyond Established Boundaries	Unplanned transport of contamination from posted areas due to dust suppression liquid flow, natural events or wildlife result in cost impacts and schedule delays. <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$3 million, 30 days	●	↑	<p><b>Risk Event:</b> A Continuous Air Monitoring (CAM) alarm sounded while crews were removing and packaging the third section of GB3 the PRF on Thursday, June 8, 2017. Demolition activities were stopped, and RCTs began surveys in preparation to egress personnel.</p> <table border="1"> <thead> <tr> <th>Risk Recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>1. Add caution to work package direction to not apply a focused beam of water to high materials at risk (MAR) components that have been breached.</td> <td rowspan="8" style="text-align: center;">6/8/17</td> <td rowspan="8" style="text-align: center;">TBD</td> <td rowspan="8" style="text-align: center;">0</td> </tr> <tr> <td>2. Evaluate the use of the foggers.</td> </tr> <tr> <td>3. Revise or incorporate additional controls into the work package as appropriate.</td> </tr> <tr> <td>4. Evaluate the boundaries to incorporate available radiological data.</td> </tr> <tr> <td>5. Evaluate the fixative concentration.</td> </tr> <tr> <td>6. Incorporate case-by-case consideration when handling items of accessible gram values during adverse weather conditions into the work package.</td> </tr> <tr> <td>7. Evaluate the method for determining acceptable wind speed.</td> </tr> <tr> <td>8. PFP provides real-time data from the event to Dr. Napier (PNNL) for consideration with future models.</td> </tr> </tbody> </table> <p>The work package for the remaining activities for the 236-Z demolition work will be revised to incorporate all corrective actions. Corrective actions continue to be evaluated, with implementation forthcoming.</p>	Risk Recovery action(s)	Risk Date	FC Date	%	1. Add caution to work package direction to not apply a focused beam of water to high materials at risk (MAR) components that have been breached.	6/8/17	TBD	0	2. Evaluate the use of the foggers.	3. Revise or incorporate additional controls into the work package as appropriate.	4. Evaluate the boundaries to incorporate available radiological data.	5. Evaluate the fixative concentration.	6. Incorporate case-by-case consideration when handling items of accessible gram values during adverse weather conditions into the work package.	7. Evaluate the method for determining acceptable wind speed.	8. PFP provides real-time data from the event to Dr. Napier (PNNL) for consideration with future models.
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<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)																			
No critical risks identified in the month of July.																			
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)																			
No High Risk Threat Value risks identified in the month of July.																			
<b>Unassigned Risks</b> (Pending ownership of identified risks/opportunities)																			
No unassigned risks identified in the month of July.																			

## PROJECT BASELINE PERFORMANCE

### Current Month

(\$M)

WBS 011/RL-0011 Nuclear Matl Stab & Disp PFP	Budgeted Cost of Work Scheduled (BCWS)	Budgeted Cost of Work Performed (BCWP)	Actual Cost of Work Performed (ACWP)	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	0.1	8.3	8.7	8.2	4315.4%	(0.4)	-5.2%

Numbers are rounded to the nearest \$0.1 million.

#### CM Schedule Variance: (+\$8.2M/+4315.4%)

The current month positive schedule variance is primarily the result of working historical budgeted cost of work scheduled (BCWS) on discrete demolition activities (apportioned). This scope was originally planned to begin during the third quarter of 2016. However, delays in getting 236-Z ready for demolition negatively impacted the start of 236-Z demolition. The 291-Z demolition began in July 2017 and is scheduled to complete in August 2017. Demolition of 234-5Z and 236-Z is currently scheduled to complete in September 2017. Significant progress toward demolishing 291-Z (demolition of the 291-Z stack and vent house) and removal of filter boxes in 234-5Z resulted in significant performance claimed for this month. Because all work is historical, the current schedule variance will be favorable going forward. The positive variance is partially offset by performing work on an additional 10,000 feet of asbestos identified in the month of December 2016 that was not visible on any plant drawings when the baseline was developed.

#### CM Cost Variance: (-\$0.4M/-5.2%)

The current month cost variance is within threshold.

## Contract-to-Date

(\$M)

WBS 011/ RL-0011 Nuclear Matl Stab & Disp PFP	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)	Estimate to Complete (ETC)	Variance at Completion (VAC)
Total	980.2	950.2	1,044.6	(30.0)	-3.1%	(94.4)	-9.9%	980.5	1,078.9	34.2	(98.4)

Numbers are rounded to the nearest \$0.1 million

#### Contract-to-Date (CTD) Schedule Variance (-\$30.0M/-3.1%)

The CTD schedule variance is within threshold.

#### CTD Cost Variance (-\$94.4M/-9.9%)

The negative CTD cost variance is primarily a result of prior year unrecoverable costs, as well as impacts to the D&D work scope and extending level-of-effort and support services, consistent with delayed activities, in support of completing Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Milestone M-083-00A. In addition, unplanned costs to support implementation of efficiency initiatives at PFP (i.e., foaming and PremAire Breathing Air), and increased training as a result of assignment of new Health Physics Technicians, and D&D workers (as the result of Hanford Atomic Metal Trades Council lamping process) to PFP have also contributed to this variance. Additional resources to

recover schedule for asbestos removal activities and to cover the additional asbestos needing to be removed that was recently identified (about 10,000 feet). Additional unplanned shipping materials (waste shipping containers TL-1800s, SLB2s, IP-1 bags, etc.) were also required to support waste loadout activities for TRU waste disposition efforts. Unplanned shipments to PFNW for the size reduction of 236-Z gloveboxes (MT-4 and 18M) and E4 ducting in 234-5Z have caused additional costs to support ready-for-demo activities also contributing to the unfavorable variance. The negative cost variance is partially offset by utilizing fewer breathing air suits and hoses being used than originally planned for 242-Z entries as a result of fewer fieldwork team members required to perform hands-on work in 242-Z because of the confined space and size of suits (three suits per day vs. five), and recognized efficiencies where crews were able to complete process vacuum removal in 291-Z with less effort than originally planned. Characterization results indicated lower levels of hold-up than planned, which allowed more efficient piping removal. Isolations of the 291-Z Facility have also proved to take less time than anticipated due to the main electrical power being cut outside of the building rather than performing individual isolations within the facility. Hazardous Material removal and decontamination/fixative applications demonstrated effective with less effort than originally planned using methods proven more efficient (i.e. using powerful fans to assist with vertical fixative flow up the stack).

#### **Variance at Completion (-\$98.4M/-10.0%)**

The Variance at Completion (VAC) unfavorable variance is reflective of previous inability to achieve 20 percent increased efficiency associated with time on respirator as assumed in the baseline plan. The Collective Bargaining Agreement was accepted, and recognized efficiencies are continuing to be recognized with more time on mask and implementation of the value engineering initiatives associated with high-mass gloveboxes and grouting. Extended hotel loading costs as a result of delays in demolition-ready and demolition activities caused by issues identified in the CTD schedule variance above are also driving the negative VAC. As a result of wall removals and electrical isolations, it was discovered that approximately 10,000 feet of additional asbestos was between the walls that would need to be removed. This is a recognized risk (PFP-092-02) and has been incorporated into the VAC. Of note, CHPRC is working with RL to utilize contingency for the additional 10,000 feet of asbestos identified during walkdowns and inspections, impacts from the criticality alarm, and relief from the 30 days of weather delays experienced from December 2016 through March 2017. Finally, increased utilization of overtime is being used to ready the 234-5Z Facility for demolition by August 2017. This unfavorable variance is partially offset by recognized efficiencies due to characterization data in the 234-5Z duct level allowing piping and ducting to be left in place for demolition. The variance at completion is reflective of PFP's current projected date to reach slab on grade no later than September 30, 2017.

**Contract Performance Report Formats are provided in Appendix A.**

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

WBS 011/RL-0011 Nuclear Matl Stab & Disp PFP	FY2017		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	134.5	131.0	3.6
Incremental Scope Pending Change Management	0.0	0.0	0.0
RL-0011 - Total	134.5	131.0	3.6

Numbers are rounded to the nearest \$0.1 million

### Funds/Variance Analysis

Fiscal year (FY) 2017 expected funding for the project breakdown structure (PBS) RL-0011 remained at \$134.5 million. The fiscal year spend forecast (FYSF) for July increased to \$131.0 million associated with accounting for purchasing of trailers, water trucks, vehicles, and generators that were contaminated during the June 8, 2017, PRF contamination event that will be unable to be free released. The funds in this control point for estimate to complete (ETC) for regular scope are adequate to support current work. Recognized efficiencies will be necessary to support slab removal if RL direction to perform this work is received.

### Critical Path Schedule

The PFP Critical Path schedule begins with the continuation of duct removal/fixative application and small diameter tubing isolations in Remote Mechanical C (RMC) Process Line. The HVAC activities are performed in parallel with the mechanical isolations throughout 234-5Z to support the transition to demolition. Once ready for demo in 234-5Z, A-Labs is the first section of the building to be demolished. After A-labs is complete, demolition of Backside Rooms/Plutonium Process Support Laboratories (PPSL) will begin, which then moves to Front Side Demolition. The demolition of A-Labs also drives demolition of the 236-Z canyon. 236-Z Canyon demolition will run in parallel with the remainder of 234-5Z demolition. After completion of the Front Side of 234-5Z, the Remote Mechanical A (RMA) Process Line and RMC Process Line will be demolished. Finally, the demolition of the Radioactive Acid Digestion Test Unit (RADTU) and basement areas completes the 234-5Z Facility, meeting the requirements for the Tri-Party Agreement Milestone – M-083-00A – *PFP Facility Transition and Selection Disposition Activities*. Completion of demolition is followed by site stabilization and demobilization, turnover to surveillance and maintenance, and project closeout activities.

## MILESTONE STATUS

Tri-Party Agreement milestones represent significant events in project execution. RL Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The Performance Measurement Baseline (PMB) Annual Update, implemented in September 2013, and subsequently approved Baseline Change Requests (BCRs) define CHPRC planning with respect to Tri-Party Agreement milestones. The following table is a two-year look ahead of commitments and Tri-Party Agreement enforceable milestones.

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-083-00A	PFP Facility Transition and Selection Disposition Activities	09/30/17		9/29/17	During the month of July, the PFP project stayed on track to meet the forecasted completion date as identified in the June month end forecast completion date of the Tri-Party Agreement milestone for the PFP Project to reach slab-on-grade. As the PFP Project continues to make progress on the behind schedule critical path work scope being performed, it is expected that efficiencies will be recognized, evaluated, and implemented to recover some schedule delays.

### GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

Contract Section	Project	GFS/I	Status
<b>CONTRACT</b>			
J.12/C.2.2, C.2.3	PBS RL-0011, Plutonium Finishing Plant Closure Project	Offsite Transportation of Radioactive Material: RL provides equipment and government drivers to transport TRU materials outbound/inbound between the Hanford Site and Perma-Fix Northwest, Inc. (PFNW) locations. RL is the authorized shipper and acts as signatory on the shipping papers, and ensures DOE Manual 460.2-1 is complied with. RL arranges for Commercial Motor Vehicle Safety Alliance (CVSA) level VI vehicle inspections and verifies that the government drivers meet the applicable Department of Transportation (DOT) Federal Motor Carrier Safety Regulations (49 CFR 382 and 383). RL also inspects the load securement to ensure compliance with DOT regulations and/or Transportation Safety Document (TSD) requirements.	Ongoing

### DOE ACTIONS / DECISIONS

None at this time.

# Section B

## Spent Nuclear Fuel Stabilization and Disposition (RL-0012)



R. M. Geimer  
Vice President for  
K Basin Operations and  
Plateau Remediation

July 2017  
CHPRC-2017-07, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

M. A. Wright  
Vice President for  
Project Technical  
Services

## PROJECT SUMMARY

The K Basin Pre-operational Acceptance Testing (KPAT), which commenced on April 20, 2017, continued through July. The test is forecast to complete October 31, 2017.

The 105KW Basin Final Safety Analysis Report (FSAR) and Technical Safety Requirements (TSR) revision required to support integrated KPAT testing, was approved on June 30, 2017. Implementation is forecast to begin August 17, 2017.

Comments provided by the RL Safety Basis Review Team (SBRT) were incorporated into the integrated TSR, and a final draft was provided to the SBRT on July 18, 2017. RL has indicated they will complete their review by July 26, 2017, and forecast a Safety Evaluation Report (SER) by August 25, 2017. Approval of the 105KW Facility Documented Safety Analysis (DSA) and TSR precedes finalization of Sludge Removal Project (SRP) training material/procedures, and completion of readiness preparation activities prior to the Operational Readiness Reviews (ORRs) authorizing full-up Engineered Container Retrieval and Transfer System (ECRTS) Operation.

Based upon discussions between RL and CHPRC senior management, the Sludge Treatment Project (STP) team has modified the field execution schedule (FES) to implement acceleration opportunities, which could facilitate the transfer of all sludge to T Plant in fiscal year (FY) 2018. On March 27, 2017, CHPRC formally submitted letter CHPRC-1701045 R1 - *Contract Number DE-AC06-08RL14788 – Change Proposal CP 012 PRC 1646, Revision 0, Sludge Removal Project Acceleration of 105K and T Plant* for RL approval. In order to meet the accelerated schedule, support from CHPRC and RL is required for the following assumptions:

- Significant overtime/weekend work is required to reduce the schedule duration (overtime/weekend work expected to continue through ORR).
- Approval of the integrated 105KW DSA must not affect the project's critical path. This integrated DSA/TSR includes as-built information from installation activities, and therefore, a subsequent "as-built" DSA/TSR submittal is not required (DSA/TSR delaying the start of retrieval and forecast to be approved August 25, 2017).
- SRP CD-4 approval must occur concurrently with commencing sludge retrieval operations (this is being worked through RL).
- Approval of the T Plant safety documentation must be completed within 120 days of submittal (forecast to be approved July 31, 2017).

To demonstrate the current forecast date of the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) M-016-175, *Begin Sludge Removal From 105-KW Fuel Storage Basin*, the milestone has been disconnected from the risk analysis schedule margin. The current non-risk adjusted forecast date to begin sludge removal is February 23, 2018.

The effort to retrieve and containerize the sludge pile in the KW Basin Center Bay discovered during debris mapping continued. Work must be completed prior to the start of sludge retrieval (Tri-Party Agreement M-016-175).

Project breakdown structure (PBS) RL-0012 scope is 92.4 percent complete, with a cumulative Schedule Performance Index (SPI) of 1.00 and a Schedule Cost Performance Index (CPI) of 1.05.

## EMS OBJECTIVES AND TARGET STATUS

None currently identified.

### TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	CM Quantity	Rolling 12 Month	Comment
Dart Injuries	1	1	<ul style="list-style-type: none"> <li>7/27/2017: Employee tripped on a Powered Air Purifying Respirator (PAPR) belt that was too long and fell on a metal kick plate, causing a puncture wound. Requiring sutures and days away. Body part affected: Right leg (24548)</li> </ul>
Recordable Injuries	0	0	N/A
First Aids	1	16	<ul style="list-style-type: none"> <li>7/05/2017: While performing surveys with a walking stick, employee developed elbow pain. (Body part affected: Right elbow (24515))</li> </ul>
Near Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

### 100K Operations

- The 100K Operations group continued maintaining facilities in a safe and compliant condition. Crews continued debris dose mapping, relocation activities in 105KW Basin, and performance of several monthly and quarterly routines during the period.

### KW Basin Sludge Removal Capital Asset Project

- KPAT
  - KPAT testing, which was initiated on April 20, 2017, continued as scheduled. A substantial number of component level and system leak tests were completed. As of July month end, the test is approximately 32 percent complete; however, completion rate will accelerate next month with initiation of system interlock checks.
  - The KPAT Team continued working through challenges in the Annex Heating Ventilation and Air Conditioning (HVAC) System and Auxiliary Ventilation System with notable progress on both. The Sludge Transportation System (STS) Cask Trailer was temporarily removed from the Annex for critical Maintenance and HEPA filter testing recertification then reinstalled.
- 17-NSD-0034\_RL/Contract Number DE-AC06-08RL14788 - Approval of the One-Time Request for Shipment (OTRS) for Sludge Transport from K West Basin to T Plant, CHPRC-03111, Revision 0 was approved on July 21, 2017, and is scheduled to be transmitted to CHPRC on July 24, 2017. CHPRC Transportation Safety personnel can now focus on finalizing the OTRS implementation compliance matrix and ensuring all implementing documents are released.

- ECRTS Procurement: Installation of Sludge Transport & Storage Container (STSC) Instrumentation & Appurtenances continued through the fiscal month. The project is on track to complete the first 12 STSC assemblies by August 31, 2017 – five of 12 STSC assemblies have been completed as of July month-end. The remaining seven STSC assemblies are scheduled for Mass Spectrometer Leak Detector (MSLD) testing in August with delivery to CHPRC to follow.
- American Boiler Works (ABW) will complete fabrication of the final 11 STSC shells by September 30, 2017. Once the final 11 STSC shells are fabricated, they will be transported to HiLine for installation of associated instrumentation and appurtenances.
- Development of the Operations and Maintenance Procedures supporting sludge removal and packaging operations continues in parallel with approval of safety documentation. As of July month end, 34 of 91 procedures were drafted.

### T Plant Preparations

- Responsible managers are working to complete the Readiness Self-Assessments (RSAs). The Readiness Coordinator continues working with responsible managers on affidavits.
- Initiated Operational Test Procedures.
- Training and Procedures
  - Developed a list of facility and supporting procedures that will need to be updated with Master Documented Safety Analysis (MDSA)/TSR Revision 12 approval.
- T Plant MDSA/TSR Revision 12
  - The Solid Waste Operations Complex (SWOC) MDSA/TSR SER is forecasted to be approved by RL on July 31, 2017.

## MAJOR ISSUES

### Sludge Removal Project

#### Issue:

The schedule for receipt and implementation of the integrated DSA/TSR for Sludge Removal Operations is impacting the SRP critical path.

#### Corrective Action:

CHPRC updated the DSA/TSR to incorporate RL comments and retransmitted the document sent to RL for approval. Approval of these documents precedes preparation of SRP training material, procedures, formal safety basis implementation, and completion of readiness preparation activities prior to the ORR authorizing full-up ECRTS Operation.

#### Status:

CHPRC personnel updated the Integrated DSA/TSR to incorporate comments provided by the RL SBRT and retransmitted the updated files to RL on April 12, 2017, via CHPRC-1700081A R3 - *Transmittal of PRC-STP-00946, Revision 0, 105KW Facility Documented Safety Analysis, PRC-STP-00992, Revision 0, 105KW Facility Technical Safety Requirements, and HNF SD SNF-FHA-001, Revision 5, Fire Hazards Analysis for the 105KW Facility*. The current schedule forecast for RL approval is August 25, 2017.

In order to prevent a schedule delay on the initiation of the integrated KPAT, CHPRC submitted a revision to the FSAR/TSR for the 105KW Basin that addresses the control necessary to facilitate completion of that integrated test. The FSAR revision was approved by RL on June 29, 2017.

**T Plant Major Issues**

**Issue Closed:** No further action anticipated or required.

CHPRC submitted the Solid Waste Operations Complex (SWOC) Master Documented Safety Analysis (MDSA)/TSR Revision 12 to RL for review and approval on November 28, 2016. On March 30, 2017, the RL Contracting Officer transmitted letter 17-NSD-0018\_RL to CHPRC providing an RL Review Comment Record (RCR) against the SWOC MDSA/TSR Revision 12 requiring resolution of 35 pages of comments and a resubmittal. The schedule for receipt of a SER approving the SWOC MDSA is currently beyond the schedule assumptions in the performance management baseline (PMB) and is in jeopardy of negatively impacting the SRP critical path.

**Corrective Action:**

Work with the RL Nuclear Safety Division (NSD) staff to resolve comments as expeditiously as possible, which includes expediting comment incorporation, CHPRC internal approval of the updated MDSA/TSR Package, and RL approval of that package.

**Status: Closed**

Comment resolution is completed, and the updated MDSA/TSR was resubmitted to RL in May 2017. Approved by RL in July 2017.

**RISK MANAGEMENT STATUS**

**Unassigned Risk**  
**Risk Passed**  
**New Risk**  
**Change**



Opportunity currently realized, or mitigation efforts are currently working toward, or after risk trigger with no foreseeable impacts.



Mitigation efforts are currently working toward risk trigger with the possibility of actions not in place prior to risk occurrence. Recovery actions may be needed.



Risk currently realized, or risk mitigation efforts are past risk trigger date with foreseeable impacts. Recovery actions needed.



Increased Confidence



No Change



Decreased Confidence

Unmitigated Risk Impacts	Assessment		Comments																								
	Month	Trend																									
<b>RL-0012/WBS-012</b>																											
<b>Explanation of major changes to the project monthly stoplight chart:</b> No major changes to the monthly stoplight chart in the month of July.																											
<b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>																											
STP-072: Delayed STSC/ECRTS Procurement & Delivery	Material delivery and fabrication issues at ECRTS vendor facilities delay the delivery of the components to the Sludge Treatment Plant (STP), resulting in cost impacts and schedule delays. Additionally, discovery of additional components requiring fabrication result in deliveries that challenge project baseline schedules.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Very Likely (>90%) <b>Worst Case Impacts:</b> \$3 million, 120 days		<div style="display: flex; align-items: center;"> <div> <p><b>Risk Event:</b> Event 1: In order to establish a reliable Sludge Transportation System Cask configuration capable of meeting the project's needs, several ports must be reconfigured to ensure reliable leak-tight integrity. This discovery was outside of the baseline material procurement plans.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Risk recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Event 1 - Finalize Field FES activities dates consistent with change orders.</td> <td>12/7/16</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Complete Procurement/Fabrication</td> <td>12/7/16</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Deliver equipment to 100K Area</td> <td>12/7/16</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Replace STS Cask Seals</td> <td>12/7/16</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Conduct post repair leak test</td> <td>12/7/17</td> <td>08/29/17</td> <td>50</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b> Event 1: Additional leak test tooling arrived in July. Proof test on new seals was successfully completed on Cask #2 Lid, with Cask #1 Lid testing remains in process. This risk is no longer a significant project risk and will be dropped from the stoplight chart next month.</p> </div> </div>	Risk recovery action(s)	Risk Date	FC Date	%	Event 1 - Finalize Field FES activities dates consistent with change orders.	12/7/16	Complete	100	Complete Procurement/Fabrication	12/7/16	Complete	100	Deliver equipment to 100K Area	12/7/16	Complete	100	Replace STS Cask Seals	12/7/16	Complete	100	Conduct post repair leak test	12/7/17	08/29/17	50
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Unmitigated Risk Impacts		Assessment		Comments																				
		Month	Trend																					
<b>RL-0012/WBS-012</b>																								
STP-067A Safety Classification of SSCs - DSA/TSR	<p>RL requires CHPRC to upgrade the safety classification of systems, structures, and/or components to a more conservative safety classification, requiring CHPRC to revise key safety documentation (DSA and TSR), procedures and/or design(s). Upon submittal of revised DSA/TSR, procedures and/or design(s), RL approval takes longer than the assumptions planned for in the baseline.</p> <p><b>Risk Handling Strategy:</b> Accept</p> <p><b>Probability:</b> Very Likely (&gt;90%)</p> <p><b>Worst Case Impacts:</b> \$300K, 120 days</p>			<p><b>Risk Event:</b> CHPRC sent the DSA and TSR to RL for review and approval on October 20, 2016, in letter CHPRC-1604692. RL rejected this submittal via correspondence 1700081A/17-NSD-0006. CHPRC resubmitted the DSA/TSR via CHPRC-1700081A R3 on April 12, 2017. The original project baseline included 120 calendar days for RL to approve the safety basis document; however, it has now been <b>276 days</b> (as of <b>July 23, 2017</b>) since the original submittal, with formal approval <b>forecasted for August 25, 2017</b>.</p> <table border="1"> <thead> <tr> <th>Risk recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Solicit senior RL &amp; CHPRC involvement in resolving deficiencies.</td> <td>1/28/17</td> <td>As Needed</td> <td>N/A</td> </tr> <tr> <td>Conduct interface meetings between RL SBRT and CHPRC Nuclear Safety personnel to negotiate a product that is acceptable to RL.</td> <td>1/28/17</td> <td>As Required</td> <td>55</td> </tr> <tr> <td>CHPRC to appoint an independent facilitator to assist in resolution of RL comments.</td> <td>1/28/17</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Prepare a change order to obtain Management Reserve for realized risk.</td> <td>1/28/17</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b> RL and CHPRC senior management have met multiple times in an attempt to resolve differences on the DSA/TSR submittal. All DSA/TSR comments from the initial submittal were dispositioned as of February 17, 2017. CHPRC resubmitted an updated version of the DSA/TSR incorporating RL comments on April 12, 2017. Obtaining RL concurrence on comment resolution is in progress and is now forecasted to complete on <b>August 17, 2017</b>. The current forecast for receiving a SER approving the DSA/TSR is <b>August 25, 2017</b>. Once CHPRC has received the SER and confirmed no changes to assumed safety classification is needed, this risk may be closed.</p>	Risk recovery action(s)	Risk Date	FC Date	%	Solicit senior RL & CHPRC involvement in resolving deficiencies.	1/28/17	As Needed	N/A	Conduct interface meetings between RL SBRT and CHPRC Nuclear Safety personnel to negotiate a product that is acceptable to RL.	1/28/17	As Required	55	CHPRC to appoint an independent facilitator to assist in resolution of RL comments.	1/28/17	Complete	100	Prepare a change order to obtain Management Reserve for realized risk.	1/28/17	Complete	100
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<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)																								
No critical risks identified in the month of <b>July</b> .																								
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)																								
<b>FY2017 Risk Triggers</b> (Risk could be realized in FY2017)																								
STP-103: K Basin Pre-Operational Acceptance Testing (KPAT) & ECRTS Startup	<p>The ECRTS equipment does not operate as expected, requiring increased engineering, startup, operations, and construction Firm Fixed Price contractor support; as well as equipment replacement, procurement, and retesting. Realization of this risk would also require additional training, procedure revision, and design modifications because of construction testing and/or Lines of Inquiry for Readiness Review resulting in cost impacts and schedule delays.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Medium (26% to 74%)</p> <p><b>Worst Case Impacts:</b> \$4.5 million, 90 days</p>			<p><b>Risk Trigger:</b></p> <ol style="list-style-type: none"> <li>The ECRTS equipment does not operate as expected.</li> <li>Unexpected attrition of critical testing personnel.</li> </ol> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Develop and refine procedures based upon feedback from testing and operations personnel.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Develop streamline strategy (work packages and procedures) to perform in-basin/annex integrated testing and troubleshooting.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Use overtime to offset schedule impacts.</td> <td>As Needed</td> <td>N/A</td> </tr> <tr> <td>Closely monitor employee satisfaction and consider employee incentive to retain key test personnel.</td> <td>As Needed</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> No major changes in the month of <b>July</b>. KPAT Testing is in progress. No significant equipment failures as of May 21, 2017.</p>	Mitigation action(s)	FC Date	%	Develop and refine procedures based upon feedback from testing and operations personnel.	Complete	100	Develop streamline strategy (work packages and procedures) to perform in-basin/annex integrated testing and troubleshooting.	Complete	100	Use overtime to offset schedule impacts.	As Needed	N/A	Closely monitor employee satisfaction and consider employee incentive to retain key test personnel.	As Needed	N/A					
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STP-018-O: STP Operational Upset or Spill - During first STSC	<p>An operational upset or spill results in a work shutdown at K Basins, resulting in schedule delays.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Low (10% to 25 %)</p> <p><b>Worst Case Impacts:</b> \$2 million, 48 days</p>			<p><b>FY2018 Risk Triggers:</b></p> <ol style="list-style-type: none"> <li>An operational upset or spill results in work shutdown at K Basin. This risk will commence in FY2018 and continue throughout the project lifecycle until the sludge is removed from 105KW Basin.</li> </ol> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Conduct rigorous startup testing following system installation at the 105KW Basin and Annex.</td> <td>10/11/17</td> <td>0</td> </tr> <tr> <td>Conduct testing and training at MASF and develop procedures that use the information and knowledge gained during the activity for use at the KW Basin.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> No major changes in the month of <b>July</b>. Forecasted mitigation dates are consistent with the overall STP critical path schedule. Training and procedure development will continue into FY2018. It will complete prior to completion of management self-assessment affidavits in December 2017.</p>	Mitigation action(s)	FC Date	%	Conduct rigorous startup testing following system installation at the 105KW Basin and Annex.	10/11/17	0	Conduct testing and training at MASF and develop procedures that use the information and knowledge gained during the activity for use at the KW Basin.	Ongoing	N/A											
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Unmitigated Risk Impacts	Assessment		Comments						
	Month	Trend							
<b>RL-0012/WBS-012</b>									
STP-073-C: Processing Efficiency - Retrieval & Shipping	The realized processing efficiency associated with sludge retrieval and shipping operations does not match the baseline plan. <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Low (10% to 25%) <b>Worst Case Impacts:</b> \$0K, 48 days	● ↔	<b>FY2018 Risk Triggers:</b> 1) Actual processing efficiency associated with sludge retrieval and shipping operations does not match baseline assumptions. This risk will commence in FY2018, beginning with operations campaign. <table border="1" style="width: 100%; margin-top: 10px;"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <b>Mitigation Assessment:</b> No major changes in the month of July. Operations personnel were given training on the process system equipment and will continue to participate in training activities through production system installation at 100K. No foreseeable impacts in the future and no alternative course of actions are needed at this time.	Mitigation action(s)	FC Date	%	None identified at this time.	N/A	N/A
Mitigation action(s)	FC Date	%							
None identified at this time.	N/A	N/A							
<b>Unassigned Risks (Pending ownership of identified threats/opportunities)</b>									
CHPRC proposed five risks that are outside of CHPRC’s ability to manage and, as such, should be re-assigned to RL (STP-011D, STP-018, STP-073, STP-073-A, and STP-073-B). The proposal was not accepted by RL, stating, “the opportunities and threats appear to be under the control of CHPRC to manage.” CHPRC submitted letter CHPRC-1602146 R1 on August 30, 2016, in response to RL’s rejection letter. On March 14, 2017, CHPRC received Correspondence No. 1701045 providing direction to accelerate the capital portion of the SRP. The risks listed, however, are for the non-capital scope. If contract direction is given to accommodate the acceleration opportunities to the SRP non-capital scope and the transfer of all sludge to T Plant is incorporated into FY2018, then CHPRC would re-assume ownership of these risks once change is definitized. As part of the SRP acceleration, risks were re-evaluated and used as the basis for the risk analysis.									

## PROJECT BASELINE PERFORMANCE

### Current Month

(\$M)

RL-0012 Spent Nuclear Fuel Stabilization and Disposition	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	5.3	4.6	5.3	(0.7)	-13.0%	(0.6)	-13.8%

Numbers are rounded to the nearest \$0.1 million

#### CM Schedule Performance (-\$0.7M/-13.0%)

The current month negative schedule variance is due to work completed earlier in the fiscal year, which was planned for the current period. This work included in-basin equipment installation and Annex equipment installation activities. In addition, the KPAT team is working through challenges with operation of the annex bridge crane, operation of the annex HVAC system, and setups of the auxiliary ventilation system.

#### CM Cost Performance (-\$0.6M/-13.8%)

The current month negative cost variance is due to additional costs associated with resolving challenges of KPAT, including operation of the annex bridge crane, operation of the annex HVAC system, and setups of the auxiliary ventilation system. In addition, the preparations for project readiness have required additional effort due to an increase in the number of maintenance and operations procedures that require development or revisions. The procedures cannot be finalized until the 105-K West DSA/TSR has been approved by RL.

## Contract-to-Date (\$M)

RL-0012 Spent Nuclear Fuel Stabilization and Disposition	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)	Estimate to Complete (ETC)	Variance at Completion (VAC)
Total	686.6	684.9	653.2	(1.7)	-0.2%	31.7	4.6%	740.7	704.9	51.8	35.8

Numbers are rounded to the nearest \$0.1 million

### CTD Schedule Performance (-\$1.7M/-0.2%)

The variance is within reporting thresholds.

### CTD Cost Performance (+\$31.7M/+4.6%)

The variance is within reporting thresholds.

### Variance at Completion (+\$35.8M/+4.8%)

The variance is within reporting thresholds.

**Contract Performance Report Formats are provided in Appendix A.**

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

RL-0012 Spent Nuclear Fuel Stabilization and Disposition	FY2017		Variance
	Projected Funding	Spending Forecast	
Expense - Spending Forecast	32.4	30.6	1.8
Incremental Scope Pending Change Management	0.0	0.4	(0.4)
Expense - Subtotal	32.4	31.0	1.4
Line Item (LI)	65.0	43.1	21.9
Incremental Scope Pending Change Management	0.0	0.0	0.0
LI -Subtotal	65.0	43.1	21.9
<b>RL-0012 – Total</b>	<b>97.4</b>	<b>74.1</b>	<b>23.3</b>

Numbers are rounded to the nearest \$0.1 million.

### Funds/Variance Analysis

FY2017 projected funding for PBS RL-0012 is \$97.4 million. Positive variance of \$1.4 million in expense funding is the result of reclassification of Garnet Filter Media Removal and Sand Filter Media Removal scopes from PBS RL-0012 to PBS RL-0041, savings forecast for sample maintenance from Pacific Northwest National Laboratory (PNNL), and savings forecast for project management scope – work is being performed with reduced staff. Positive variance in LI for FY2017 is due to receipt of entire LI funding in the current year. Unused funding will be carried over to support work planned for FY2018.

### Critical Path Schedule

The critical path is being driven by receipt of the SER for the integrated DSA/TSR, including implementation of these safety requirements into 100K operation and maintenance procedures. Following a successful Contractor and DOE ORR, RL will provide Authorization to Commence Retrieval Operations in parallel with the DOE-HQ review/approval of CD-4. Completing retrieval operations, including the filling of STSCs with sludge and transporting them to T Plant, to complete Tri-Party Agreement Milestone M-016-176, *Complete Sludge Removal from 105-KW Fuels Storage Basin*, is outside the current contract period in FY2019. However, the STP team has modified the FES to implement acceleration opportunities, which could facilitate the transfer of all sludge to T Plant in FY2018.

### MILESTONE STATUS

Tri-Party Agreement milestones represent significant events in project execution. RL Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The PMB Annual Update, implemented in September 2013, and subsequent approved Baseline Change Request (BCRs) define CHPRC planning with respect to Tri-Party Agreement milestones. The following table is the Tri-Party Agreement milestones within the CHPRC contract period (September 30, 2018).

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-016-175	Begin Sludge Removal from 105KW Fuel Storage Basin.	9/30/2018		2/23/2018	The forecast date does not include schedule margin from the project's risk analysis. The forecast date does not reflect potential impacts from the delay in approval of safety documentation, which is forecasted to be approved in late August.
M-016-177	Complete installation of sludge transfer equipment in KW Reactor facilities	9/30/2017		4/20/2017(A)	Complete

## GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

### DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
RL Review & Comment on Emergency Planning Hazard Assessment (EPHA)	5/22/17(A)	8/21/17
RL Issue SER for KW Facility DSA/TSR	4/11/17(A)	8/25/17
RL Concur on KW Facility DSA/TSR Comment Resolution	4/11/17(A)	7/26/17
RL Prepare KW Facility DSA/TSR SER	4/11/17(A)	8/23/17
RL SRB Review of KW Facility DSA/TSR	4/11/17(A)	8/24/17
RL Final Approval of POA - K Basins	8/18/17	8/31/17
RL Approve OTRS	6/01/17(A)	7/24/17
RL Approve IKPAT SNR	8/14/17	8/20/17

# Section C

## Solid Waste Stabilization and Disposition (RL-0013)



C. J. Simiele  
Vice President for  
Waste and Fuels  
Management Project

July 2017  
CHPRC-2017-07, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

M. A. Wright  
Vice President for  
Project Technical  
Services

## PROJECT SUMMARY

During the July reporting period, June 26 - July 23, 2017, Waste and Fuels Management Project (W&FMP) maintained facilities in a safe and compliant condition. Overall, the project is delivering planned efficiencies, but continues to be impacted by emerging work and realized risks.

This month:

- Management of Cesium and Strontium Capsule (MCSC) Project (W-135) completed the formal design review for the Cask Storage System (CSS) Conceptual Design Report (CDR) and comments were provided to NAC International. Proposed responses were received for CSS CDR and sent to reviewers for concurrence. The CHPRC Project Review Board completed an assessment of the W-135 Project in preparation for planned CD-1 submittal to RL and issued the corresponding report. Supporting documents for the CD-1 submittal are complete, and the transmittal of the CD-1 package is in progress.
- The project completed Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Milestone M-092-05, Determine Disposition Path and Establish Cesium/Strontium Interim and the Alternatives Evaluation for Tri-Party Agreement Milestone M-091-52.
- T Plant completed removal of dock number 2 and poured associated concrete pads. Fabrication of the bottle racks and stairs is in process.
- The fiscal year Project Performance Incentives Solid and Liquid Waste Treatment and Disposal: Maintain efficient, and compliant operations and management activities is complete.

## EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
17-EMS-WFMP-OB1-T1	Implement the requirement to provide a “full printed name” in CHPRC Waste & Fuels controlled Resource Conservation and Recovery Act of 1976 (RCRA) inspection work packages and procedures.	<ul style="list-style-type: none"> <li>• Review W&amp;FMP inspection procedures, checklists, and work packages/PMs, which implement RCRA inspection criteria for direction to use the full printed name.</li> <li>• Initiate modifications to necessary procedures, checklists, and work packages/PMs, which implement RCRA inspection criteria to include the full printed name.</li> </ul>	5/31/17 9/28/17	60%
17-EMS-WFMP-OB2-T1	Implement 40 CFR 265 regulatory requirements identified by the Compliance Matrix for T Plant and Central Waste Complex at the project level.	<ul style="list-style-type: none"> <li>• Review the applicable 40 CFR 265 requirements to verify the implementing mechanisms and methods, and to identify compliance gaps.</li> <li>• Resolve identified gaps by initiating modifications to procedures into the PPS system.</li> </ul>	5/31/17 9/30/17	92%
17-EMS-WFMP-OB3-T1	Ensure W&FMP procedure inspection forms, checklists, and work packages, which implement RCRA inspection requirements, are capturing the RCRA inspection requirements and are appropriately located in the facility operating record.	<ul style="list-style-type: none"> <li>• Review all inspection procedures, checklists, and work packages to identify, which are used to meet RCRA inspection requirements.</li> <li>• Initiate updates into PPS and/or JCS systems to ensure RCRA inspection requirements are met and documentation is appropriately placed into the facility operating record.</li> </ul>	5/31/17 9/30/17	60%

## TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	3	
Total Recordable Injuries	0	2	
First Aid Cases	3	*27	<ul style="list-style-type: none"> <li>7/12/2017 – Bug flew inside employee’s ear. Employee attempted to retrieve the bug but inadvertently smashed the bug inside ear. Employee was unsuccessful removing the bug carcass and sought HPMC assistance to remove the remains. (24519)</li> <li>7/19/2017 – Employee strained right knee while hitting the hanging keyboard tray. Employee went to HPMC for evaluation and released to work with no restrictions. (24538)</li> <li>7/26/2017 – Employee felt a strain in right leg after stepping backwards from replacing a windsock. Treated with a cold pad. (24545)</li> </ul> <p>*Three First Aid cases; PTS in support of RL-0013.</p>
Near Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

### 13.01 Project Management

- o Performed/Completed:
  - Submittal of the detailed planning for fiscal year (FY) 2018 Estimate to Complete (ETC) as well as FY2019-FY2020. In addition, the project submitted scope and estimates for FY2021-FY2022 LRP, which includes activities necessary to support disposition of transuranic (TRU) and Mixed TRU (TRUM) (TRU/M) waste governed by the Tri-Party Agreement.

### 13.02 Capsule Storage & Disposition

- o Surveillances/ Preventative Maintenance (PM):
  - 42 PM packages.

### 13.03 Canister Storage Building (CSB)

- o Performed/Completed:
  - Conversions of operations deck lighting to LED lights.
- o Surveillances/PMs:
  - 20 PM packages.

### 13.06 Transuranic (TRU) Repackaging

- o Performed/Completed:
  - The Alternative Evaluation Tri-Party Agreement Milestone M-091-52 submitted to RL for review.

- o M-092-05
  - Tri-Party Agreement Milestone M-092-05, Determine Disposition Path and Establish Cesium/Strontium Interim submitted to RL.
- o Repackaging:
  - Two return shipments of size reduced repackaged M-091 Legacy TRUM Waste were received into the Central Waste Complex (CWC) from Perma-Fix Northwest (PFNW) contributing 86.8 cubic meters towards M-091-47D.

### **13.07 Waste Receiving and Processing (WRAP)**

- o Surveillances/PMs:
  - 126 surveillances.
  - 10 PM packages.

### **13.08 T Plant**

- o Surveillances/PMs:
  - 390 surveillances.
  - 22 PM packages.

#### **Sludge Receipt**

- o Performed/Completed:
  - Sludge Transport & Storage Container Water Addition Operational Test Procedures.
  - Removal of Dock number 2.
  - Pouring of concrete pads.

### **13.09 Central Waste Complex (CWC) and Low-level burial ground (LLBG)**

- o Performed/Completed:
  - Floor repairs in CWC waste storage buildings and 2403-WA.
  - 2401W lighting update.
- o Surveillances/PMs:
  - 312 surveillances.
  - 23 PM packages.
- o Shipments received:
  - Eleven waste drums from Plutonium Finishing Plant (PFP) to CWC in one shipment.
  - Three Standard Waste Boxes (SWBs) from PFNW into CWC in one shipment.
  - One 1800 Top Loading Container shipped from PFP into CWC (North Outside Storage Area) in one shipment.

### **13.12 Integrated Disposal Facility (IDF)**

- o Performed/Completed:
  - Comments provided to author on draft of the fire hazard analysis.
  - Comments provided to author on a draft of the IDF Performance Assessment monitoring plan.

### **13.15 TRU Disposition**

- o Performed/Completed:
  - Central Characterization Project (CCP) Interface Document submitted to Carlsbad Field Office (CBFO) for approval.

### **13.16 Offsite Spent Nuclear Fuel Disposition**

- o Maintained coordination for offsite Spent Nuclear Fuel Disposition.

### **13.21 Mixed Waste Disposal Trenches (MWT)**

- o Surveillances/PMs:
  - 127 surveillances.
- o Shipments received:
  - Five waste boxes from PFNW to MWT in one shipment.

### 13.24 Management of Cesium and Strontium Capsules Project

- o Performed/Completed:
  - Internal CHPRC Project Review Board to assess the W-135 Project in preparation for the planned CD-1 submittal to RL. The report has been issued.
  - Supporting documents for the CD-1 submittal.

### 13.25 Capsules Interim Storage Operations

- o Performed/Completed:
  - Cask Storage System Design – The formal design review for the Cask Storage System Conceptual Design Report (CDR) and comments were provided to NAC International.

### Project Technical Services (PTS) Support

#### Engineering Services

- o Performed/Completed:
  - Support to conceptual design review for the W-135 Project Cask Storage System design.

#### Project Delivery

##### WESF

- o Performed/Completed:
  - Installation of MO-199 replacing MO-029 Trailer at WESF.

##### CSB

- o Performed/Completed:
  - Held project kickoff meeting with contractor, mobilization scheduled for mid-August.

## MAJOR ISSUES

#### Issue:

The Washington Department of Ecology has indicated that they may require the Capsule Storage Area (CSA) 90 percent design package prior to issuing the permit for public comment.

#### Corrective Action:

Work with Ecology to provide 30 percent design (as previously agreed in the permitting plan).

#### Status:

DOE met with Ecology on June 22, 2017, and requested additional information regarding the need for the more detailed design.

#### Issue:

Ecology issued findings in inspection reports for the LLBG Trenches 31-34 and CWC regarding major risk labeling. The findings direct RL and CHPRC to label the containers with the major risks of the dangerous waste contents. CHPRC uses the U.S. Department of Transportation (DOT) hazard class labeling system (which includes the use of radiological labels) to comply with the regulatory requirement.

#### Corrective Action:

Work with RL to obtain agreement from Ecology that CHPRC may use the DOT hazard class labeling system, as this complies with the regulatory requirement for a “system in use that performs the function in accordance with local, state, or federal regulations.”

#### Status:

CHPRC and RL met with Ecology inspectors regarding this item, and the parties agreed to elevate the issue to management for resolution. The project continues to await direction from RL.

**Issue:**

The delayed approval of Master Documented Safety Analysis (MDSA) Revision 12. This delay will impact T Plant's ability to complete Readiness Assessment activities in preparation for accelerated receipt of sludge.

**Corrective Action:**

CHPRC anticipates receiving the approved Safety Evaluation Report (SER) for MDSA Revision 12 on July 31, 2017. Readiness Assessment and MDSA implementation activities will be performed in parallel to attempt to mitigate schedule impacts.

**Status:**

Original comments were significant. Comment resolution included re-analysis of numerous accidents contained in the MDSA. Implementation is required prior to declaration of readiness at T Plant. The project anticipates receiving the SER on July 31, 2017, with an implementation period of 120 days putting completion at the end of November 2017. The Readiness Assessment will then commence.

**Issue:**

Deteriorating Waste Containers: Retrieved and repackaged containers in storage are showing increased degradation, requiring additional mitigation activities.

**Corrective Action:**

Significant risk remains. TRU Disposition activities would prepare the contents of these containers in a configuration suitable for eventual disposal at the Waste Isolation Pilot Plant (WIPP). The configuration would also mitigate/eliminate the risk and additional cost for long-term management of these containers.

**Status:**

Continuing to use the best demonstrated available technology to provide adequate configuration and minimize the potential for contamination spread during the long-term storage (i.e., protecting boxes with tarps or protective shoring; overpacking drums). Streamlining and consolidating existing container management procedures. RL authorized the acceleration of FY2018 TRU commercial repackaging, allowing shipments to PFNW for repackaging to resume.

**Issue:**

Mission Support Alliance, LLC (MSA) Cross-Connection Control Program performed a Health Hazard Level Re-Evaluation following the guidance listed in Washington Administrative Code (WAC) 246-290-490 and internal MSA Cross-Connection Control procedures. As a result, 225-B (WESF) Health Hazard Level was changed from high to severe, requiring service connections to have cross-connection installed.

**Corrective Action:**

The WAC requires corrective action to be accomplished "within 90 days of the purveyor notifying the consumer ..." or, "In accordance with an alternate schedule acceptable to the purveyor." MSA has worked with affected facilities and RL to develop corrective actions that minimize impacts to ongoing cleanup milestones.

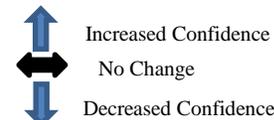
**Status:**

RL provided direction to MSA to remedy the majority of the issue with a modification at the source by MSA versus modifications at each facility. Description and preliminary schedule for WESF potable water facility modifications required, unless RL approves an alternate (no action) approach transmitted on July 6, 2016 (CHPRC-1602928). A meeting was held with RL on January 12, 2017, to discuss the contractual direction necessary to proceed. The project continues to await RL direction for potable water system facility modifications.

### RISK MANAGEMENT STATUS

Unassigned Risk  
Risk Passed  
New Risk  
Change

-  Opportunity currently realized, or mitigation efforts are currently working toward, or after risk trigger with no foreseeable impacts.
-  Mitigation efforts are currently working toward risk trigger with the possibility of actions not in place prior to risk occurrence. Recovery actions may be needed.
-  Risk currently realized, or risk mitigation efforts are past risk trigger date with foreseeable impacts. Recovery actions needed.



Risk Title	Unmitigated Risk Impacts	Assessment		Comments																		
		Month	Trend																			
<b>RL-0013/WBS-013</b>																						
<b>Explanation of major changes to the project monthly stoplight chart:</b> No major changes to the monthly stoplight chart in the month of July.																						
<b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>																						
WSD-125: Multi-Year Pause in Waste Processing Results in Unexpected Container Integrity Issues	A pause in waste processing results in an unexpected container degradation within SWOC (excluding TRU Retrieval activities) and requires additional resources to respond. <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$5 million, 0 day			<b>Risk Event:</b> In November 2011, degraded containers were discovered in CWC. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Risk recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Perform daily/weekly waste container surveillances to identify container abnormalities.</td> <td rowspan="3" style="text-align: center;">11/01/11</td> <td style="text-align: center;">Ongoing</td> <td style="text-align: center;">N/A</td> </tr> <tr> <td>Manage a "watch-list" of waste containers that have shown signs of degradation or are associated with degraded containers.</td> <td style="text-align: center;">Ongoing</td> <td style="text-align: center;">N/A</td> </tr> <tr> <td>Process waste packages at a rate funded by RL.</td> <td style="text-align: center;">Ongoing</td> <td style="text-align: center;">N/A</td> </tr> <tr> <td>Procuring stainless steel 85 gallon over packs for alternative storage of containers showing signs of degradation.</td> <td></td> <td style="text-align: center;">9/1/17</td> <td style="text-align: center;">85</td> </tr> </tbody> </table>	Risk recovery action(s)	Risk Date	FC Date	%	Perform daily/weekly waste container surveillances to identify container abnormalities.	11/01/11	Ongoing	N/A	Manage a "watch-list" of waste containers that have shown signs of degradation or are associated with degraded containers.	Ongoing	N/A	Process waste packages at a rate funded by RL.	Ongoing	N/A	Procuring stainless steel 85 gallon over packs for alternative storage of containers showing signs of degradation.		9/1/17	85
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Process waste packages at a rate funded by RL.		Ongoing	N/A																			
Procuring stainless steel 85 gallon over packs for alternative storage of containers showing signs of degradation.		9/1/17	85																			
<b>Recovery Action Assessment:</b> Project continued to perform container surveillances in the month of July to identify container and container cover abnormalities. Twenty-four containers in 2404WC had signs of exterior corrosion that were placed on the watch list and are being scheduled for overpack. The stainless steel over packs will be delivered in early September, and the project is making preparations to overpack the twenty-four containers by September 30, 2017. The project completed overpack and plans to move storage box 75DMA16F3 into 2403WD when work priorities allow. The remaining containers will continue to require surveillance and continued enhanced monitoring.																						

Risk Title	Unmitigated Risk Impacts	Assessment		Comments														
		Month	Trend															
<b>RL-0013/WBS-013</b>																		
WSD-143 Safety Classification of SSCs - MDSA Rev. 12	RL approval of the MDSA Revision 12 takes longer than the negotiated assumption planned in the baseline and/or the safety classification of Systems, Structures, and Components (SSCs) is more conservative than the safety analysis dictates, resulting in cost impacts and schedule delays. <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Very Likely (>90%) <b>Worst Case Impacts:</b> \$600K, 120 days			<b>Risk Event:</b> On November 28, 2016, CHPRC submitted letter CHPRC-1604566A R1 -MDSA, Revision 12, the TSR Revision 12, the <i>T PLANT FHA</i> , and the SWOC FHA, Revision 6. While the baseline plan assumed that RL would review and approve this submittal within 120 calendar days (or by March 3, 2017), RL senior management had informally agreed to accelerate review/approval of this submittal within 60 days to facilitate moving all 100K sludge from the 105KW basin to T Plant by September 8, 2018. RL transmitted letter 17-NSD-0018_RL to CHPRC on March 30, 2017, providing a 35-page Review Comment Record (RCR), with comments that must be resolved prior to resubmitting the updated MDSA & TSR. The updated MDSA/TSR was submitted to RL on May 18, 2017.														
				<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Risk recovery action(s)</th> <th style="text-align: center;">Risk Date</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr> <td>Obtain written comments from RL Nuclear Safety Division personnel against the submittal described above.</td> <td rowspan="3" style="text-align: center; vertical-align: middle;">2/19/17</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100</td> </tr> <tr> <td>Conduct interface meetings between RL and CHPRC senior management to ensure MDSA approval challenges are discussed and resolved, if possible, prior to any action that delays approval of the MDSA.</td> <td style="text-align: center;">As Needed</td> <td style="text-align: center;">N/A</td> </tr> <tr> <td>Resolve RL NSD Comments (17-NSD-0018_RL) and solicit RL NSD concurrence.</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100</td> </tr> </tbody> </table>	Risk recovery action(s)	Risk Date	FC Date	%	Obtain written comments from RL Nuclear Safety Division personnel against the submittal described above.	2/19/17	Complete	100	Conduct interface meetings between RL and CHPRC senior management to ensure MDSA approval challenges are discussed and resolved, if possible, prior to any action that delays approval of the MDSA.	As Needed	N/A	Resolve RL NSD Comments (17-NSD-0018_RL) and solicit RL NSD concurrence.	Complete	100
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Resolve RL NSD Comments (17-NSD-0018_RL) and solicit RL NSD concurrence.	Complete	100																
<b>Recovery Action Assessment:</b> CHPRC anticipates receipt of the Safety Evaluation Report (SER) 17-NSD-0041_from RL by 7/31/17 which will provide approval of MDSA Revision 12 and allow 120 days for implementation.																		
<b>Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)</b>																		
<b>Lifecycle Risk Triggers (Risk could be realized at any point of the project)</b>																		
WSD-097: Major Equipment Failure - T-Plant	T Plant suffers a major equipment failure (crane, primary power supply, etc.), resulting in cost impacts and schedule delays.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$3 million, 96 days			<b>Risk Trigger Metric:</b> During planned facility operation activities, a suspected system component is discovered that requires attention, or an unexpected malfunction results in this risk being realized. This risk will continue throughout the CHPRC (September 30, 2018).														
				<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Mitigation action(s)</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr> <td>Identify and procure spare parts for T Plant crane.</td> <td style="text-align: center;">Ongoing</td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table>	Mitigation action(s)	FC Date	%	Identify and procure spare parts for T Plant crane.	Ongoing	N/A								
				Mitigation action(s)	FC Date	%												
Identify and procure spare parts for T Plant crane.	Ongoing	N/A																
<b>Mitigation Assessment:</b> No significant changes in the month of July. The project has put into place mitigating strategies (i.e., aggressive S&M activities) to help reduce this risk. The crane is currently operational, however, an adequate spare parts inventory is needed. The project has identified spare parts for the T Plant crane with input from the manufacturer and is in the process of procuring critical spares. The first order for mechanical parts was submitted to procurement and is expected to be issued in August. The project has completed the crane bridge drive bearing repairs discovered during preventive maintenance.																		

Risk Title	Unmitigated Risk Impacts	Assessment		Comments		
		Month	Trend			
<b>RL-0013/WBS-013</b>						
WSD-019: MLLW & TRU Treatment Impacts	Mixed low-level waste (MLLW) and TRU treatment capacity/capability does not meet Hanford needs or treatment does not occur as scheduled, resulting in cost impacts. <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$2.5 million, 0 day			<b>Risk Trigger Metric:</b> Will continue throughout contract (September 30, 2018).		
				<b>Mitigation action(s)</b>	<b>FC Date</b>	<b>%</b>
				Establish multiple treatment contracts, or obtain additional capability, for the processing of MLLW and TRU, with terms extending to the end of the current CHPRC contract with RL (i.e. September 30, 2018).	Ongoing	N/A
				Continue to work with RL to fund the processing of TRU/M waste at PEN at a rate that keeps them viable (i.e. keeps the doors open).	Ongoing	N/A
				Evaluate the benefit(s) associated with an increase to the PFNW Pu possession limit. Their current limit is 200 grams of total Pu. Increasing the limit may allow additional quantities of TRUM waste to be shipped to PFNW for processing. This evaluation will take place in conjunction with the M-091-52 engineering study.	09/30/17	90
				Negotiations with RL are ongoing to seek authorization for additional shipments of M-91 Legacy TRUM to PFNW. The additional shipments would meet the objectives for the PFNW minimum optimal processing volume as identified in the Optimization Study provided to RL in December 2016.	Complete	100
				<p><b>Mitigation Assessment:</b></p> <p>1) MLLW: Two contracts are in place for offsite commercial waste treatment, which provided sufficient capability/capacity to meet current MLLW treatment needs through the end of the CHPRC contract term. However, one of the contracts was recently restricted due to the closure of a Parma-Fix treatment facility in Tennessee (ME). Additional capability will now need to be obtained to meet all anticipated MLLW treatment needs.</p> <p>TRU/M: Only PFNW has current capability to process TRU/M waste. This is due solely to the practical limitations imposed by the need to ship the TRU/M waste via road-closure; therefore, additional commercial providers cannot be obtained.</p> <p>295 m<sup>3</sup> of Legacy M -91 TRUM waste was authorized by DOE during FY2017, of which 274m<sup>3</sup> has been shipped to date. Along with the oversized TRUM waste item shipments from PFP during FY2017, enough waste has been shipped to PFNW to meet their minimum optimal processing volumes. Additional authorizations will need to be obtained to allow shipment of legacy M-091 TRUM waste to PFNW during FY2018.</p>		
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)						
<b>Lifecycle Risk Triggers</b> (Risk could be realized at any point of the project)						
WSD-137: OPP: Planned Efficiencies	Funding profile for the contract period are achieved through efficiencies. <b>Risk Handling Strategy:</b> Exploit  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$55 million, 0 day			<b>Risk Trigger Metric:</b> Will continue throughout project lifecycle (September 30, 2018).		
				<b>Opportunity action(s)</b>	<b>FC Date</b>	<b>%</b>
				<p><b>Opportunity Assessment:</b></p> <p>No changes in the month of July.</p> <p>The project has realized efficiencies of approximately \$76.5 million to date. Future efficiencies are being offset due to discrete project overruns, increased regulatory scrutiny, maintenance lessons learned across the CHPRC DOE Complex, and heightened compliance postures. Also note that the EAC currently contains work identified as changed scope for which contract changes would be issued.</p>		

Risk Title	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
<b>RL-0013/WBS-013</b>													
WSD-140: As-Found-Unknown Conditions - T Plant	<p>Unknowns, as-found, or emergent conditions impact the operability of the T Plant facility.</p> <p><b>Risk Handling Strategy:</b> Accept</p> <p><b>Probability:</b> Very Likely (&gt;90%)</p> <p><b>Worst Case Impacts:</b> \$990K, 0 days</p>	●	↔	<p><b>Risk Trigger Metric:</b> This risk has been triggered due to the current condition of 221-T Dock number 2.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Repairs to 221-T Dock number 2 in support of sludge receipt</td> <td>09/19/2017</td> <td>80</td> </tr> <tr> <td>Submittal of a BCR to break out the planning package planned for May.</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> Deterioration of the steel decking and steel support structure for 221-T Dock number 2 has required that the dock be taken out of service. A new loading dock is necessary, as one of the Life Safety Code required emergency egress points and to support the receipt of sludge. This dock also provides storage areas for various gas bottles. T Plant completed removal of Dock Number 2 and poured associated concrete pads. Fabrication of the bottle racks and stairs is in process.</p>	Mitigation action(s)	FC Date	%	Repairs to 221-T Dock number 2 in support of sludge receipt	09/19/2017	80	Submittal of a BCR to break out the planning package planned for May.	Complete	100
Mitigation action(s)	FC Date	%											
Repairs to 221-T Dock number 2 in support of sludge receipt	09/19/2017	80											
Submittal of a BCR to break out the planning package planned for May.	Complete	100											
<b>FY2017 Risk Triggers (Risk could be realized in FY2017)</b>													
WSD-W135-15: Utilization of 2003 Pre-Conceptual Design	<p>A pre-conceptual design for the dry storage of the capsules was completed in July 2003. If this design cannot be utilized, it will be necessary to initiate and complete a new conceptual design, including a new analysis of alternatives.</p> <p><b>Risk Handling Strategy:</b> Accept</p> <p><b>Probability:</b> Very Likely (&gt;90%)</p> <p><b>Worst Case Impacts:</b> \$5,100K, 0 days</p>	●	↔	<p><b>Risk Trigger Metric:</b> The 2003 pre-conceptual design for the dry storage of capsules cannot be utilized.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> No changes in the month of July. The 2003 pre-conceptual design is based on design criteria that is over 13 years old. Design criteria that impacts the ability to utilize the 2003 pre-conceptual design include: location of the Dry Storage Facility, duration of the storage period, Safety Basis Requirements and Environmental Permitting. Continuing to have discussions with RL can clarify impacts of the Safety Basis Requirements and environmental permitting. The risk is being captured for visibility and will remain as part of the key risks until this issue is resolved.</p>	Mitigation action(s)	FC Date	%	None identified at this time.	N/A	N/A			
Mitigation action(s)	FC Date	%											
None identified at this time.	N/A	N/A											
WSD-W135-16: Content and Approval of Critical Decision Packages	<p>The content of the critical decision packages required by DOE O 413.3B are more extensive than anticipated and require an extensive RL review.</p> <p><b>Risk Handling Strategy:</b> Accept</p> <p><b>Probability:</b> Very Likely (&gt;90%)</p> <p><b>Worst Case Impacts:</b> \$2,000K, 0 days</p>	●	↔	<p><b>Risk Trigger Metric:</b> The content and review/approval process for the critical decision packages is impacted by DOE O 413.3B.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Prepare joint tailoring strategy with RL on how to meet the DOE O 413.3B requirements</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> No changes in the month of July. The pre-conceptual design of the project was based on DOE O 413.3A; the current version is DOE O 413.3B, change 2. New requirements will impact the content of the critical decision packages or impact the duration and extent of the RL review. Working closely with RL on the tailoring strategy to meet the DOE O 413.3B requirements. The risk is being captured for visibility and will remain as part of the key risks until this issue is resolved. No further mitigation actions are necessary at this time.</p>	Mitigation action(s)	FC Date	%	Prepare joint tailoring strategy with RL on how to meet the DOE O 413.3B requirements	Complete	100			
Mitigation action(s)	FC Date	%											
Prepare joint tailoring strategy with RL on how to meet the DOE O 413.3B requirements	Complete	100											
WSD-W135-17: Modifications to WESF	<p>The transfer of the capsules to dry storage will require modifications to the WESF.</p> <p><b>Risk Handling Strategy:</b> Accept</p> <p><b>Probability:</b> Very Likely (&gt;90%)</p> <p><b>Worst Case Impacts:</b> \$7,300K, 0 days</p>	●	↔	<p><b>Risk Trigger Metric:</b> Modifications to the WESF facility are required for transfer of capsules to dry storage.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> No changes in the month of July. The approach incorporated into the pre-conceptual design for the transfer of the capsules, required minimal modifications to the WESF. New or updated requirements will require more extensive modifications to the WESF. Before submittal of CD-1, CHPRC will review 30 percent design from subcontractor, which will provide details of WESF modifications. The risk is being captured for visibility and will remain as part of the key risks until this issue is resolved.</p>	Mitigation action(s)	FC Date	%	None identified at this time.	N/A	N/A			
Mitigation action(s)	FC Date	%											
None identified at this time.	N/A	N/A											
<b>Unassigned Risks (Pending ownership of identified risks/opportunities)</b>													
No unassigned risks identified in the month of July.													

## PROJECT BASELINE PERFORMANCE

### Current Month

(\$M)

WBS 013/RL-0013 Waste and Fuels Management Project	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	7.7	9.2	7.2	1.5	18.8%	2.0	21.5%

Numbers are rounded to the nearest \$0.1 million

#### CM Schedule Performance (+\$1.5M/+18.8%)

The current month favorable schedule variance is primarily associated with acceleration of FY2018 work scope into FY2017 for Large Box Repackaging, as well as completing WESF Occupancy, T Plant Dock #2 removal, fabrication of the DOT 7A Shipping Container coupled with progress on IDF Performance Assessment supporting documents that were all planned in a prior period.

#### CM Cost Performance (+\$2.0M/+21.5%)

The current month favorable cost variance is due to the implementation of the Part B Permit unilateral definitization and the associated update of the baseline for \$1.262K which was for prior actuals; the remaining under runs are due to continued implementation of planned efficiencies.

## Contract-to-Date (CTD)

(\$M)

WBS 013/RL-0013 Waste and Fuels Management Project	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)	Estimate to Complete (ETC)	Variance at Completion (VAC)
Total	1,172.4	1,174.1	1,097.5	1.6	0.1%	76.5	6.5%	1,352.5	1,277.5	179.9	75.0

Numbers are rounded to the nearest \$0.1 million

#### CTD Schedule Performance (\$+1.6M/+0.1 %)

The CTD schedule variance is within threshold.

#### CTD Cost Performance (+\$76.5M/+6.5%)

The contract-to-date favorable cost variance is due to the continued implementation of planned efficiencies.

#### Variance at Completion (+\$75.0M/+5.5%)

The Variance at Completion is associated with the continued implementation of planned efficiencies.

**Contract Performance Report Formats are provided in Appendix A**

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

WBS 013/RL-0013 Waste and Fuels Management Project	FY2017		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	112.1	94.3	17.8
Incremental Scope Pending Change Management	0.0	1.5	(1.5)
RL-0013 – Total	112.1	95.8	16.3

Numbers are rounded to the nearest \$0.1 million.

### Funds/Variance Analysis

The FY2017 projected funding for Project Breakdown Structure (PBS) RL-0013 of \$112.1 million is based on RL funding guidance. The total fiscal year spend forecast (FYSF) of \$95.8 million was decreased by approximately \$.6K from last month as a result of modifying resources during the FY2018 ETC update deliverable.

### Critical Path Schedule

Critical Path Analysis can be provided upon request.

## MILESTONE STATUS

Tri-Party Agreement milestones represent significant events in project execution. RL Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The performance measurement baseline (PMB) annual update, implemented in September 2013, and subsequently approved BCRs define CHPRC planning with respect to Tri-Party Agreement milestones. The following table is a one-year look ahead of commitments and Tri-Party Agreement enforceable milestones and non-enforceable target due dates.

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-091-03K	Submit Revision of TRUM Waste and MLLW PMP to Ecology.	6/30/17	6/27/17	6/27/17	Complete
M-091-52	Submit change request with target dates for new/modified capabilities to process TRUM waste.	9/30/17		8/30/17	On schedule
C-026-07L	Tritium Treatment Technology Developments to Ecology and EPA.	3/31/18		3/29/18	On schedule
M-091-03L	Submit Revision of TRUM Waste and MLLW PMP to Ecology.	6/30/18		6/30/18	On schedule

## GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

Contract Section	Project	GFS/I	Status
<b>CONTRACT</b>			
J.12/C.2.2, C.2.3	PBS-RL-0011, Plutonium Finishing Plant Closure Project  PBS-RL-0013, Solid and Liquid Waste Treatment and Disposal	Offsite Transportation of Radioactive Material: RL provides equipment and government drivers to transport TRU materials outbound/inbound between the Hanford Site and PFNW locations. RL is the authorized shipper and acts as signatory on the shipping papers, and ensures DOE Manual 460.2-1 is complied with. RL arranges for Commercial Motor Vehicle Safety Alliance (CVSA) level VI vehicle inspections and verifies that the government drivers meet the applicable DOT Federal Motor Carrier Safety Regulations (49 CFR 382 and 383). RL also inspects the load securement to ensure compliance with DOT regulations and/or TSD requirements.	Ongoing
J.12/C.2.3.6	PBS-RL-0013, Transuranic Waste Certification	WIPP provides shipping resources and manages the schedule for transportation of these containers to WIPP. The schedule is variable and the number of shipments is controlled by DOE-HQ on a complex-wide priority. Cost for shipment of TRU waste offsite is borne by the CBFO.	No WIPP shipments are planned within the contract period of performance.

## DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
RL Review and Approve MDSA and Technical Safety Requirement (TSR) Revision 12 (original submittal)	11/29/16 (A)	05/01/17
RL Review and Approve MDSA and Technical Safety Requirement (TSR) Revision 12 (with RL comments incorporated)	05/18/17 (A)	07/18/17

# Section D

## Soil and Groundwater Remediation Project (RL-0030)



J. D. Rendall  
Vice President and  
Project Manager for  
Soil and Groundwater  
Remediation Project

M. A. Wright  
Vice President for  
Project Technical  
Services

July 2017  
CHPRC-2017-07, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

M. N. Jaraysi  
Vice President for  
Environmental Program  
and Strategic Planning

## PROJECT SUMMARY

Pump and Treat (P&T) Operations continued making progress on the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) remedial process documentation for the River Corridor and Central Plateau. Groundwater treatment and well drilling (including development) completed in the current month includes the following:

Treatment Facility	Million Gallons Treated		Chrome (kg)		Carbon Tet (kg)		Tech-99 (pCi)		Uranium (kg)	
	CM	FYTD	CM	FYTD	CM	FYTD	CM	FYTD	CM	FYTD
DX P&T	35.4	333.0	2.8	29.1						
HX P&T	44.3	330.7	2.4	22.1						
KR-4 P&T	11.7	125.5	0.1	1.3						
KW P&T	14.7	42.7	3.0	8.3						
KX P&T	26.7	346.2	1.5	19.7						
200 West P&T	96.3	790.7	9.4	71.5	171	1482	.3x10 <sup>12</sup>	2.1x10 <sup>12</sup>	79.4	228.5
<b>Combined</b>	<b>229.1</b>	<b>1968.7</b>	<b>19.1</b>	<b>152</b>	<b>171</b>	<b>1482</b>	<b>.3x10<sup>12</sup></b>	<b>2.1x10<sup>12</sup></b>	<b>79.4</b>	<b>228.5</b>
<b>FY2017 KPG</b>	<b>--</b>	<b>2200</b>	<b>--</b>	<b>160</b>	<b>--</b>	<b>1700</b>	<b>--</b>	<b>N/A</b>	<b>--</b>	<b>45</b>

Well Drilling by Area	FY2017 Planned	Current Month	FY2017 Cumulative
100-KR-4	5	2	3
100-HR-3	0	-	-
200-UP-1	11	-	8
200-ZP-1	2	1	1
M-24 Milestone	5	-	-
300 Area	67	-	67
200-DV-1	5	-	5
<b>Total Wells</b>	<b>95</b>	<b>3</b>	<b>84</b>
<b>Site Wide Boreholes</b>	<b>*4</b>	<b>-</b>	<b>-</b>

\*FY2017 planned number of wells to be drilled decreased from 103 to 95.

## EMS Objectives and Target Status

Objective #	Target	Actions	Due Date	Status
17-EMS-SGWR-OB1 Monitor and confirm low carbon tetrachloride emissions at the 200 West P&T Facility.	T1 – Evaluate treated off gas analytical results from compliance sampling and process sampling each quarter.	Monitor and confirm low carbon tetrachloride emissions at the 200 West P&T Facility.	9/30/17	75%

## TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	0	NA
Total Recordable Injuries	0	0	NA
First Aid Cases	10	48	<ul style="list-style-type: none"> <li>7/10/2017 – Employee was treated with a cold pack after being stung/bitten while supervising work on the HSI blower motor at 289T. (24518)</li> <li>7/11/2017 – Work was stopped and employee was asked to move away from the area after high volatile organic compound source readings were detected during drilling. No symptoms were experienced, and the employee declined a visit to HPMC. On July 17, 2017, the odor was again smelled, and the employee experienced a sore throat and reported to HPMC. The employee was returned to work with no restrictions. (24533)</li> <li>7/12/2017 – An employee experienced pain in the hand and forearm while attempting to open a tight valve. Throughout the day, the pain worsened and the employee reported the discomfort to the operations supervisor. (24524)</li> <li>7/17/2017 – Employees experienced burning in their nose after smelling an odor during drilling. They reported to HPMC. One employee was treated with an over-the-counter saline rinse. The employees were returned to work with no restrictions. (24529, 24530, 24531, and 24534)</li> <li>7/18/2017 – An employee suffered a puncture injury of their left hand while setting up a pipe stand. The employee went to HPMC, where a bandage was placed to secure the wound. The employee was returned to work with the restriction of not being able to work around rad contamination with an open wound. (24532)</li> <li>7/25/2017 – An employee miss-stepped while exiting a sample van, scraping their right hip and elbow and was seen at HPMC. No treatment was necessary. The employee was returned to work with no restrictions related to this incident. (24540)</li> <li>7/25/2017 – While stepping down after placing a lock on a well, the ground collapsed 18 inches under the employee's foot. As a result, the employee injured the fingernail on their right thumb and strained their hip/thigh. The employee was seen at HPMC, where no treatment was necessary and was returned to work with no restrictions. (24541)</li> </ul> <p>*3 FA cases, PTS in support of RL-0030.</p>
Near-Misses	0	0	NA

## KEY ACCOMPLISHMENTS

### **RL-0030 Accomplishments**

#### **RL-0030.01 RL 30 Operations**

##### **River Corridor**

##### **100-BC-5 Operable Unit (OU)**

- Met with RL and Environmental Protection Agency (EPA) on July 17, 2017, and resolved the path forward to address trichloroethylene (TCE) detected at the bottom of the unconfined aquifer. It was concluded that protective measures to avoid exposure were prudent, and TCE will be identified in the remedial investigation/feasibility study (RI/FS) as a contaminant of concern.

##### **100-HR-3 OU**

- Initiated drilling the first of six P&T extraction wells in the 100-H Area in support of fiscal year (FY) 2017 Plume Containment and Remediation Utilization Plan. This is the first of three wells that are planned to be completed within the uppermost Ringold Upper Mud aquifer. Completed the data quality objective (DQO) session with RL and Ecology on July 18 and 19, 2017, to address the additional data needs for the 100-HR-3 OU monitor natural attenuation remedy and the Ringold Upper Mud wells.
- Gained RL concurrence on the FY2018 Plume Containment and Remediation Utilization scope for the 100 Area on July 13, 2017.

##### **100-KR-4 OU**

- Completed all required well drilling and constructed two monitoring wells in support of FY2017 Plume Containment and Remediation Utilization Plan. Initiated construction activities at a third location.

##### **100-NR-2 OU**

- Submitted version four of the Sr-90 Shoreline White Paper to RL. This white paper proposes groundwater cleanup levels for riparian receptors along the shoreline.
- Completed the high-river respirometry testing of the bioventing system.

### **Central Plateau**

#### **200-UP-1 OU**

- Completed installation of the pipeline and fabrication of electrical and mechanical racks for the new uranium plume extraction well 299-W19-125.
- Completed drilling the third of four chromium characterization wells.
- Met with EPA on July 17, 2017, and agreed that eleven characterization wells will provide sufficient information to define the nature and extent of the plume in order to complete the investigation report and meet Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) milestone M-016-193 by September 30, 2018. Meeting notes were issued.

#### **200-BP-5/200-PO-1 OU**

- Initiated resolution of Ecology's comments on the Draft A 200-BP-5 Removal Action Work Plan, which were received on July 19, 2017.

#### **200-IS-1 OU**

- Supported 200-IS-1 project to reach resolution on a four-year dispute and sign Tri-Party Agreement Change Control Forms that formally assign hundreds of waste sites to Central Plateau OUs. A new milestone date has been agreed upon for the 200-IS-1 OU Work Plan. Criteria have been established for making small underground tank Treatment, Storage and Disposal (TSD)/CERCLA Past Practice determinations.

**200-EA-1 OU**

- Completed and transmitted the Revision 0 Characterization Sampling and Analysis Plan for C9617 Borehole at the 216-A-29 Waste Site to RL on June 27, 2017. This SAP enables the project to obtain opportunistic samples from the vadose zone during the groundwater operable unit well placement.
- Initiated drilling on June 29, 2017, and completed sampling and drilling efforts on July 20, 2017; received the first analytical data on July 17, 2017.

**200-DV-1 OU**

- Continued construction at the Uranium Reactive Gas Sequestration (URGS) Treatability Test site. Received the 30 percent design report from the vendor on July 22, 2017, and initiated the engineering review.
- The equipment trailer from the Tc-99 desiccation treatability test site was relocated to the URGS test site July 18, 2017.

**200-ZP-1 OU**

- Completed internal review of the Decisional Draft Remedial Design/Remedial Action Work Plan (RD/RAWP) and will be submitted to Technical Publications on July 25, 2017.

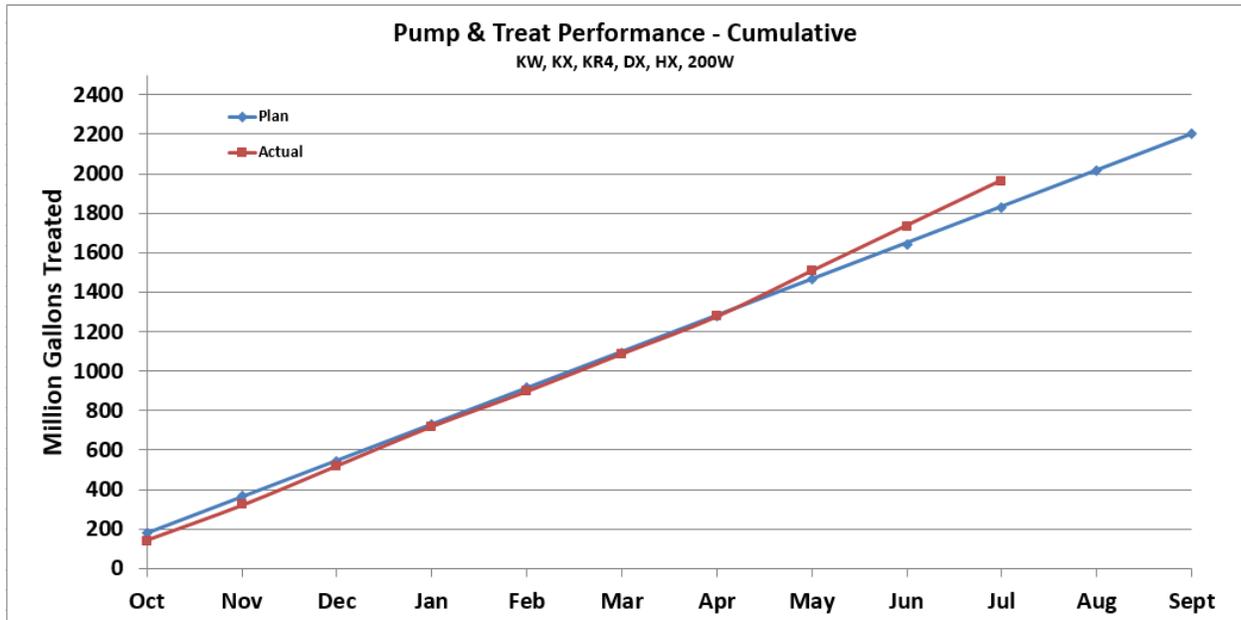
**Groundwater P&T Facilities****200 West P&T**

- Operated the 200 West P&T at an average of 2,157 gallons per minute (gpm).
- Completed preparations for inspection and upgrade of Fluidized Bed Reactor B.

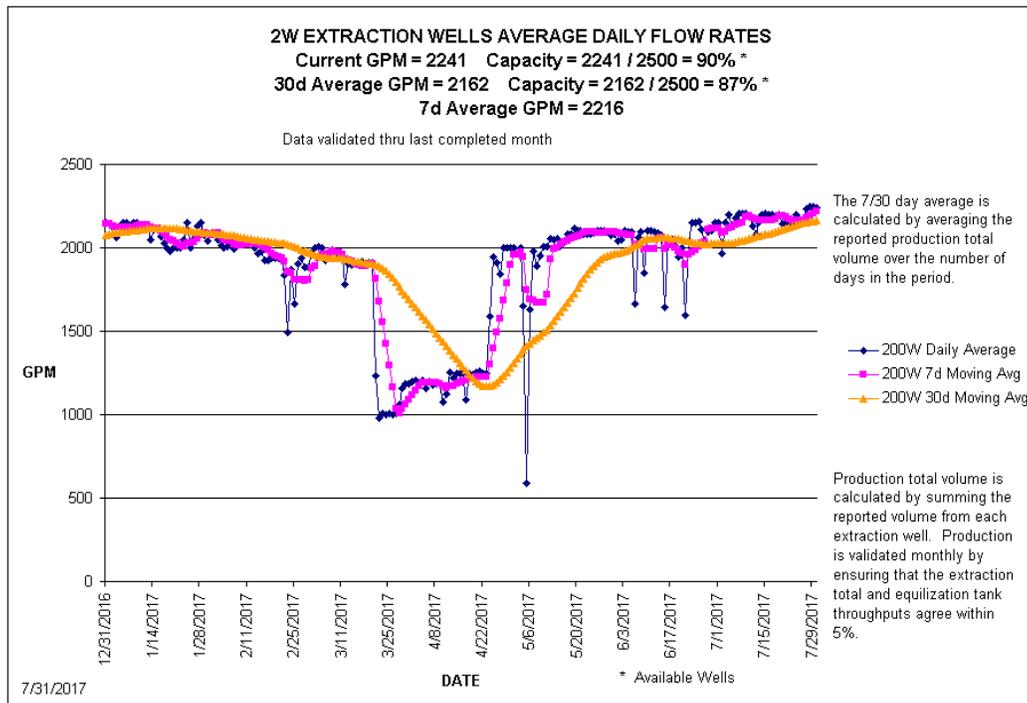
**100 Area P&Ts**

- Operated the DX P&T at 794 gpm, above the facility capacity of 775 gpm.
- Operated the KR-4 P&T at 262 gpm, below the facility capacity of 330 gpm.
- Operated the KW P&T at 330 gpm, at the facility capacity of 330 gpm.
- Operated the KX P&T at 597 gpm, below the facility capacity of 900 gpm. Operations acceptance testing is in progress for new feed pump PF-X3F. Resin carry over from the ion exchange vessels is under investigation.
- Operated the HX P&T at 992 gpm, above the facility capacity of 900 gpm.

### FY2017 P&T Operations



### 200 West P&T



## Project Technical Services (PTS) Accomplishments

- **Engineering Services**
  - Assisted in identification of National Electrical Code requirements for the temporary installation of a power cable to extraction wells.
  - Assisted in an evaluation of engineering options for providing 480-volt power to extraction wells.
- **Operations Program**
  - ConOps/Work Control/Conduct of Work
    - Supported review of work and emergency response protocols for type-W cable preventive maintenance activities.
  - Emergency Preparedness
    - Updated and issued the Revision 8 Facility Response Plan.
- **Project Delivery**
  - S&GRP Wells
    - Completed 200-ZP-1 injection wells mechanical manifolds and electrical rack fabrication. Commenced field layout.
    - Commenced bonding of 4 inch and 6 inch high-density polyethylene lines for 200-ZP-1 injection wells.
    - Continued construction of road crossings for HX/KX well installations.
    - Commenced DX fiber optic modifications.
- Commenced installation of a shower/restroom trailer in the 600 Area. Tie in and sidewalks remain.

## MAJOR ISSUES

### Issue:

Experiencing regulatory agency delays in the approval of decision documents, including:

- 200-BP-5 RI/200-PO-1 RI addendum delayed due to Ecology review.
- 200-IS-1 RI/FS work plan delayed due to formal dispute – closed on June 30, 2017.
- 100-BC-5 RI/FS and proposed plan (PP) delayed due to EPA review.
- 100-DR-1, 100-DR-2, 100-HR-1, 100-HR-2, and 100-HR-3 Operable Units Record of Decision (ROD) delayed due to EPA Headquarters (HQ) signature.

### Corrective Action:

Maintain visibility on these delays to senior management. RL/CHPRC to continue working with the regulatory agencies to facilitate completion of these documents. Submit notice of change letters to RL as contract activities are impacted.

### Status:

Delays in completion of the decision documents are reported weekly to RL management and monthly to RL, EPA, and Ecology senior management. Specific document status includes:

- 200-BP-5/200-PO-1 RI: Ecology suspended review of the 200-BP-5 RI report and the 200-PO-1 RI report addendum on October 23, 2015, (15-NWP-189), pending resolution of the Central Plateau modeling approach. The modeling approach was resolved based on Ecology's letter (16-NWP-220), dated December 28, 2016. RL sent a letter to Ecology (17-AMRP-0114) on March 20, 2017, requesting comments be provided within 45 days in accordance with the Tri-Party Agreement. Ecology stated during the project manager's meeting that comments would be provided by July 31, 2017. No change from previous month.
- 200-IS-1 RI/FS Work Plan: Issue closed. RL and Ecology reached an agreement on the TSD decision process application and the change control form C-13-01 was updated accordingly. RL and Ecology

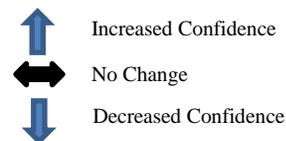
reached agreement and the Tri-Parties signed the change control forms on June 30, 2017, ending the dispute.

- 100-BC-5 RI/FS and PP: EPA comments on the Draft A RI/FS and PP were due January 31, 2017. Preliminary EPA comments on the RI/FS (Chapters 1-5) were provided on June 20, 2017, with the remainder of the comments expected by July 31, 2017.
- 100-DR-1, 100-DR-2, 100-HR-1, 100-HR-2, and 100-HR-3 Operable Units ROD: Final ROD was originally anticipated to be completed in September 2016. Subsequently, EPA HQ requested approval authority for the ROD, which has caused a delay. The current schedule for EPA HQ approval of the ROD is unknown at this time.

### RISK MANAGEMENT STATUS

**Unassigned Risk**  
**Risk Passed**  
**New Risk**  
**Change**

-  Opportunity currently realized, or mitigation efforts are currently working toward, or after risk trigger with no foreseeable impacts.
-  Mitigation efforts are currently working toward risk trigger with the possibility of actions not in place prior to risk occurrence. Recovery actions may be needed.
-  Risk currently realized, or risk mitigation efforts are past risk trigger date with foreseeable impacts. Recovery actions needed.



Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
<b>RL-0030/WBS-030</b>										
<b>Explanation of major changes to the project monthly stoplight chart:</b> SGW-007A is now closed and will be removed from the stoplight next month.										
<b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>										
OPPORTUNITY: SGW-007A: Sampling Requirement Reduction	Reduction in field sampling (locations, frequency, or total number of samples collected) has the opportunity to reduce long-term groundwater monitoring cost. <b>Risk Handling Strategy:</b> Exploit  <b>Probability:</b> Very Likely (>90%)  <b>Worst Case Impacts:</b> \$500K, 0 day			<b>Opportunity Event:</b> The <i>Optimization Plan to Revise the Groundwater Sampling Plan</i> is final and provides the roadmap to revise the groundwater monitoring SAPs over the next two years. <table border="1" style="width: 100%; margin-top: 5px;"> <thead> <tr> <th>Opportunity action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Obtain Agency approval of the revised SAPs.</td> <td>TBD</td> <td>97</td> </tr> </tbody> </table> Note: 34 of the planned 35 SAP revisions have been completed (97%).  <b>Opportunity Assessment:</b> Nine of the 10 CERCLA groundwater monitoring SAPs are complete. A path forward to complete the 200-PO-1 SAP will be developed with RL and Ecology based on document priorities.  All 25 RCRA monitoring plans have been revised in accordance with the <i>SAP Optimization Plan to Revise the Groundwater Sampling Plan</i> . No further action required.  Per Q3 reviews, this opportunity has been closed. While initial cost savings were experienced, the savings were used to fund additional wells and the sampling associated with them. This opportunity will be removed from the stoplight for August reporting.	Opportunity action(s)	FC Date	%	Obtain Agency approval of the revised SAPs.	TBD	97
Opportunity action(s)	FC Date	%								
Obtain Agency approval of the revised SAPs.	TBD	97								
<b>Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)</b>										
No critical risks identified in the month of July.										
<b>High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)</b>										
No high risks identified in the month of July.										
<b>Unassigned Risks (Pending ownership of identified risks/opportunities)</b>										
No unassigned risks identified in the month of July.										

## PROJECT BASELINE PERFORMANCE

### Current Month

(\$M)

RL-0030 Soil and Groundwater Remediation	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	11.5	9.2	10.3	(2.3)	-20.0%	(1.1)	-12.2%

Numbers are rounded to the nearest \$0.1 million.

#### CM Schedule Performance (-\$2.3M/-20.0%)

The negative schedule variance resulted from the following:

- Delay of the 100-NR-2 barrier maintenance and expansion activities, which were scheduled to start in FY2016, but were deferred due to priority decisions and pending resolution of cultural clearance items.
- Positive performance earned in prior periods (work acceleration) for 100-HR-3 optimization, 200-PO-1 NRDWL, 200-UP-1 SE chrome and 300-FF-5 Stage B monitoring drilling campaigns, 100-HR-3 D&D, and 100-HR-3 well realignments is returning to zero by the end of FY2017.
- The M-015-112 milestone dispute ended June 30, 2017. During the dispute, preparation of the 200-IS-1 RI/FS work plan was effectively placed on hold impacting downstream activities. In the current month budget for preparation of the Draft A 200-IS-1 RI/FS and a proposed plan is scheduled.
- At the May 30, 2017, meeting between RL, EPA, and the Yakama Indian Nation, it was agreed to delay 300-FF-5 Stage B injections for up to one year while a path forward can be agreed to. The scope of work planned to be performed during this period has been delayed. A workshop is scheduled for August 31, 2017, to address concerns and develop a path forward.
- One six-well 100-KR-4 drilling campaign planned for FY2017 because the wells were not required per the FY2017 P&T Containment Utilization Report and a four-well 200-ZP-1 monitoring well campaign was deferred to the out years to align with work priorities.

#### CM Cost Performance (-\$1.1M/-12.2%)

The negative cost variance resulted from the following:

- The current month cost variance was eroded by the \$2.2 million in spending incurred in support of FY2017 P&T optimization activities that are not planned in the Performance Measurement Baseline (PMB).

## Contract-to-Date (\$M)

RL-0030 Soil and Groundwater Remediation	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)	Estimate to Complete (ETC)	Variance at Completion (VAC)
Total	1,407.3	1,369.9	1,336.4	-37.3	-2.7%	33.5	2.4%	1,562.6	1,524.9	188.4	37.7

Numbers are rounded to the nearest \$0.1 million.

### CTD Schedule Performance (-\$37.3M/-2.7%)

The variance is within reporting thresholds.

### CTD Cost Performance (+\$33.5M/+2.4%)

The variance is within reporting thresholds.

### Variance at Completion (+\$37.7M/+2.4%)

The variance is within reporting thresholds.

**Contract Performance Report Formats are provided in Appendix A.**

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

RL-0030 Soil and Groundwater Remediation	FY2017		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	126.6	115.0	11.6
Incremental Scope Pending Change Management	0.0	5.6	(5.6)
RL-0030 –Total	126.6	120.6	5.9

Numbers are rounded to the nearest \$0.1 million

### Funds/Variance Analysis

The FY2017 revised budget guidance received from RL reflects expected funding of \$126.6 million for project breakdown structure (PBS) RL-0030. The fiscal year spending forecast of \$120.6 million includes actions anticipated to achieve funding targets.

### Critical Path Schedule

Critical path analysis can be provided upon request.

## MILESTONE STATUS

Tri-Party Agreement milestones represent significant achievements in project execution. Enforceable Tri-Party Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key activities. The PMB annual update, implemented in September 2013, and subsequently approved baseline change requests (BCRs) define CHPRC planning with respect to Tri-Party Agreement milestones. A tentative agreement for Tri-Party Agreement milestone series M-015, M-016, M-037, M-085, and M-094 was signed on October 26, 2015, and the final approval package was signed on May 25, 2016. The following table is a one-year look ahead of PBS RL-0030 Tri-Party Agreement enforceable milestones, non-enforceable target due dates and commitments.

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
<b>Milestones on Schedule</b>					
M-015-92A	Submit RFI/CMS & RI/FS Work Plan for 200-EA-1 OU to Ecology	7/31/18		7/8/18	On schedule.
M-024-58K	Initiate Discussions of Well Commitments	6/1/18		6/1/18	On schedule.
M-015-21A	Submit 200-BP-5 & 200-PO-1 OU FS Report and PP(s) to Ecology	6/30/18		6/22/18	On schedule.
M-015-112	Submit Draft B, 200-IS-1 OU Pipeline System Waste Sites RFI/CMS/RI/FS Work Plan to Ecology	11/30/20		11/30/20	Tri Party Agreement Change Package was signed on 6/30/17 extending the due date to 11/30/2020.

## GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

## DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
RL Review of Decisional Draft 100-HR-3 RD/RAWP	8/11/17	9/9/17
RL Review of Decisional Draft 200-UP-1 RD/RAWP Rev I	8/31/17	9/29/17
RL Review of Decisional Draft Version A 200-ZP-1 RD/RAWP Rev I	9/1/17	9/30/17
RL Review of Decisional Draft Biomobilization/Biointrusion SAP	10/2/17	10/31/17

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



R. M. Geimer  
Vice President for  
K Basin Operations and  
Plateau Remediation

July 2017  
CHPRC-2017-07, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

Change order (CO) 329 for the Plutonium Uranium Extraction Plant (PUREX) Tunnel Recovery was received this month. The proposal schedule and estimate is being developed and will be submitted next month. The not-to-exceed (NTE) amount was increased to \$7 million and will be implemented into the baseline for August reporting. The statement of work for placing the grout in Tunnel 1 is underway, and the contract is anticipated to be awarded in early August.

## EMS Objectives and Target Status

None currently identified.

## TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	Current Month	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	0	N/A
Total Recordable Injuries	0	0	N/A
First Aid Cases	0	14	N/A
Near Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

### RL-0040 Accomplishments

#### Central Plateau Surveillance and Maintenance (CPS&M) Facilities

- A subsidence was discovered and backfilled during routine weed control of the inactive waste sites.

#### PUREX Tunnels

- Completed the Administrative Order Corrective Action #1 for submitting the causal analysis and structure integrity evaluation for PUREX Tunnels 1 and 2.
- Received CO 329 for the PUREX tunnels. The proposal schedule and estimate is near completion.
- The contractor for the haul road was mobilized and commenced work. Received concurrence on Cultural/Ecological review deferment to the end of grouting from Mission Support Alliance, LLC (MSA).
- Continued development of work package to support tunnel riser and air plenum initial radiological survey.
- Continued planning for work package and Scope of Work (SOW) for camera(s) installation into tunnel.
- Continued enhanced surveys on PUREX Tunnels 1 and 2.

#### PUREX Tank V-11-10-1

- Completed PUREX Tank V-11-10-1 pumping activities.



**PUREX Stack Sampling System Replacement**

- Developed submittals register and proposal schedule requirements for the Construction SOW document.
- Developed the draft Construction SOW document and routed for internal review.
- Developed a construction materials list from the engineering drawings to support development of Electronic Bill of Material (eBOM)s.

**B Plant Pre-filter and HEPA Filter Change-out**

- Completed aerosol testing of the Air Cleanup Train (ACT) system portable exhauster.
- Performed inspections and certified ACT-002 containment tent for use.
- Removed the remaining pre-filters from the ACT-002 filter bank and performed inspections for standing water in the system.
- Completed tent recovery actions necessary to support entry for B Plant pre-filter change-out.
- Completed aerosol testing of the negative air machine for the ACT-002 containment tent.
- Held third work package review for the B Plant HEPA filter change out and incorporated comments.

**Continued Progress on Canyon Stabilization Documents**

- Received approval for three change notices to move 2716B to general decommissioning Removal Action Work Plan (RAWP).

**REDOX Risk Mitigation**

- Commenced reduction and oxidation (REDOX) steamline asbestos abatement and steamline removal.
- Continued waste identification in REDOX south sample gallery.
- Commenced measurement of sample boxes in the south sample gallery for characterization glove bag designs.

**REDOX Roof**

- Completed the erection of framing steel between grid lines 17 and 9, Columns set to grid line 6.
- Commenced installation of north side wall sheeting between grid lines 17-9.
- Commenced east wall sheeting – 80 percent completed.
- Continued column anchor and south edge pin core drilling.

## MAJOR ISSUES

**Issue:**

As a result of the PUREX Tunnel 1 collapse, CHPRC received a notification on May 9, 2017, from the Department of Ecology of an administrative order, which CHPRC must comply. As part of the administrative order, there are the following corrective actions.

**Corrective Action:**

- Identify and implement recovery actions associated with the collapsed PUREX Tunnel 1 – Proposal schedule and estimate to be completed August 2017.
- By July 3, 2017, submit to Ecology the Nuclear Waste Program a structural integrity evaluation for both PUREX Storage Tunnels 1 and 2. (CA#1) – Completed June 29, 2017.
- By August 1, 2017, submit a draft report detailing the corrective actions to ensure the safe storage of the waste in the PUREX Storage Tunnels 1 and 2 to the Department of Ecology, Nuclear Waste Program for comment and approval. (CA#2) – On Schedule.
- By October 2, 2017, submit a draft permit modification to the Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion Revision 8C to modify the permit. (CA#3) – On Schedule.

## RISK MANAGEMENT STATUS

**Unassigned Risk**  
**Risk Passed**  
**New Risk**  
**Change**

-  Opportunity realized, or mitigation efforts are currently working toward, or after risk trigger with no foreseeable impacts.
-  Mitigation efforts are currently working toward risk trigger with the possibility of actions not in place prior to risk occurrence. Recovery actions may be needed.
-  Risk currently realized, or risk mitigation efforts are past risk trigger date with foreseeable impacts. Recovery actions needed.

-  Increased Confidence
-  No Change
-  Decreased Confidence

Risk Title	Unmitigated Risk Impacts	Assessment		Comments																	
		Month	Trend																		
<b>RL-0040/WBS-040</b>																					
<b>Explanation of major changes to the project monthly spotlight chart:</b> No major changes to the monthly spotlight chart in the month of July.																					
<b>Realized Risks</b> (Risks that are currently impacting project cost/schedule)																					
WSR-202S-02: REDOX – Inclement Weather	<p>Inclement weather, including moderate winds, low or high temperatures, heavy rain, or thunderstorms will impact the REDOX roof replacement.</p> <p><b>Risk Handling Strategy:</b> Accept</p> <p><b>Probability:</b> Likely (75% to 90%)  <b>Worst Case Impacts:</b> \$0K, 32 day</p>			<p><b>Risk Event:</b> For the duration of February through June, the REDOX roof construction activities were impacted by high wind and other weather events – four weather delays were experienced in June. <b>No additional weather delays were experienced in July.</b></p> <table border="1"> <thead> <tr> <th>Risk recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Crews working overtime to support schedule recovery.</td> <td>Multiple</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b>  <b>No major changes in the month of July.</b>                      CHPRC has realized cost and schedule impacts resulting from inclement weather conditions through the months of February through June. Schedule and cost impacts continue to be documented and projected. CHPRC has and continues to perform all actions that may mitigate impacts, including things such as changing working hours to avoid heat delays. However, weather delays are difficult to forecast and mitigate. CHPRC plans to capture any scope and cost changes resulting from the weather delays in the TCoPD submittal for the corresponding change proposal (CP 040 311 1625).</p>	Risk recovery action(s)	Risk Date	FC Date	%	Crews working overtime to support schedule recovery.	Multiple	Ongoing	N/A									
Risk recovery action(s)	Risk Date	FC Date	%																		
Crews working overtime to support schedule recovery.	Multiple	Ongoing	N/A																		
D4-042: Unexpected Site Conditions - D4	<p>Unexpected site conditions are encountered during D4 activities, resulting in schedule delays.</p> <p><b>Risk Handling Strategy:</b> Accept</p> <p><b>Probability:</b> Medium (26% to 74%)  <b>Worst Case Impacts:</b> \$0K, 130 day</p>			<p><b>Risk Event:</b> The B Plant ventilation system was shut down due to elevated differential pressure readings in the ACT002 filter bank. Upon initial investigation, it was determined that the pre-filters were saturated with water and there was standing water within the ACT001 filter bank. The result of this unexpected occurrence is that the pre-filters and HEPA filters in the ACT002 bank and presumably the pre-filters and the HEPA filters in the ACT001 filter bank need to be replaced prior to startup of the B Plant ventilation system. Unexpected radiological contamination identified within/outside the containment tent used to initiate the pre-filter change out has resulted in further delays to the filter replacement/system startup. Additional delays are being incurred due to delays from the HEPA filter manufacturer, including supplier questions on the quality assurance specifications, the procurement of additional parts needed to manufacturer the filters, and early equipment failures.</p> <table border="1"> <thead> <tr> <th>Risk recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Work Package WCNs are being prepared to perform additional investigation of the water intrusion, remove the pre-filters and HEPA filters, and restart the B Plant ventilation system.</td> <td rowspan="4" style="text-align: center;">Aug 2016</td> <td>08/28/2017</td> <td>80%</td> </tr> <tr> <td>Recovery actions were performed in April and May 2017 to fix contamination associated with ACT002 in and around the containment tent.</td> <td>Complete</td> <td>100%</td> </tr> <tr> <td>Requests to expedite the HEPA filter order have been rejected by the manufacturer due to issues with their equipment at the production facility.</td> <td>Complete</td> <td>100%</td> </tr> <tr> <td>Execute pre-filter and HEPA filter change out.</td> <td>09/19/2017</td> <td>25%</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b>                      Engineering evaluation of the water intrusion has been completed. Condensate buildup was identified as the most likely source of water; however, this assumption cannot be confirmed. Evaluation of the extent of water intrusion within the two ACT filter banks will be performed during the pre-filter removal activities. <b>During pre-filter removal in the ACT-002 filter</b></p>	Risk recovery action(s)	Risk Date	FC Date	%	Work Package WCNs are being prepared to perform additional investigation of the water intrusion, remove the pre-filters and HEPA filters, and restart the B Plant ventilation system.	Aug 2016	08/28/2017	80%	Recovery actions were performed in April and May 2017 to fix contamination associated with ACT002 in and around the containment tent.	Complete	100%	Requests to expedite the HEPA filter order have been rejected by the manufacturer due to issues with their equipment at the production facility.	Complete	100%	Execute pre-filter and HEPA filter change out.	09/19/2017	25%
Risk recovery action(s)	Risk Date	FC Date	%																		
Work Package WCNs are being prepared to perform additional investigation of the water intrusion, remove the pre-filters and HEPA filters, and restart the B Plant ventilation system.	Aug 2016	08/28/2017	80%																		
Recovery actions were performed in April and May 2017 to fix contamination associated with ACT002 in and around the containment tent.		Complete	100%																		
Requests to expedite the HEPA filter order have been rejected by the manufacturer due to issues with their equipment at the production facility.		Complete	100%																		
Execute pre-filter and HEPA filter change out.		09/19/2017	25%																		

Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
<b>RL-0040/WBS-040</b>										
				bank no residual water was detected where water was previously present in large quantities; assumption is high heat inside the filter banks evaporated the water. HEPA filters will be replaced once the new filters are manufactured, tested at the off-site filter testing facility and shipped to Hanford; current ETA for the new HEPA filters is late August. Further delays have been encountered from the HEPA filter manufacturer; they had to wait for additional materials to fabricate the filters. Once the pre-filters and HEPA filters are replaced in both ACT filter banks the ventilation system will be restarted. The system will be monitored closely to identify any increases in differential pressure and/or elevated radiation levels that would be leading indicators that water is accumulating in the system again. Buildup of condensate after filter replacement could result in further shutdown of the system; however, it would most likely impact the pre-filters rather than the HEPA filters if differential pressure fluctuations are identified early. Pre-filters are low-cost and are changed out more frequently than the high cost HEPA filters.						
<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)										
No critical risks identified in the month of July.										
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)										
D4-064: Aging Building Systems/ Components	Problems with aging building systems/ components (e.g., roofing/structures, etc.) result in inoperability or requires unscheduled maintenance/outages, resulting in cost impacts.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$2 million, 0 day			<p><b>Risk Event:</b> During routine surveillance activities, unforeseen events cause systems to be compromised. This risk is a lifecycle risk and will continue through the CHPRC contract period (September 30, 2018). This risk was realized in March due to increased future maintenance costs; however, a BCR was implemented to utilize MR, and the risk has since been recovered from.</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Recovery Assessment:</b> No major changes in the month of July. A pre-conceptual design has been provided to RL with an estimate for a like replacement of the entire PUREX stack sample system. CHPRC was provided a not-to-exceed (NTE) to complete a detailed design package for the system and to start demolition and installation activities; however, it is expected the NTE amount will be expended early on during construction. The detailed design package for the replacement system was accepted in May 2017; stamped/signed copies of the package were received in early June. Construction planning has started and will continue throughout the remainder of FY2017 with intent to award the construction contract for installation at the start of FY2018.</p>	Mitigation Action(s)	FC Date	%	None identified at this time.	N/A	N/A
Mitigation Action(s)	FC Date	%								
None identified at this time.	N/A	N/A								
<b>Unassigned Risks</b> (Pending ownership of identified risks/opportunities)										
No unassigned risks identified in the month of July.										

## 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 (%)
Total	3.7	3.0	2.8	(0.7)	-18.3%	0.3	8.8%

Numbers are rounded to the nearest \$0.1 million

**CM Schedule Performance: (-\$0.7M/-18.3%)**

The schedule variance is largely due to the PUREX Tunnel 1 interim actions showing behind schedule. A baseline change request is being prepared for planned implementation in August to align the baseline to the current proposal schedule. Once implemented the appropriate performance can be claimed. Currently the project is on track to the proposal schedule.

**CM Cost Performance: (+\$0.3M/+8.8%)**

The cost variance is within reporting thresholds.

## 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)	Estimate to Complete (ETC)	Variance at Completion (VAC)
Total	448.3	442.2	412.8	(6.1)	-1.4%	29.3	6.6%	487.4	464.4	51.6	23.0

Numbers are rounded to the nearest \$0.1 million

**Cost to date (CTD) Schedule Performance: (-\$6.1M/-1.4%)**

The schedule variance is within reporting thresholds.

**CTD Cost Performance: (+\$29.3M/+6.6%)**

The favorable cost variance is due to prior year activity, including:

- The majority of the CTD cost variance is from legacy work dating back to the American Recovery and Reinvestment Act (ARRA) time period.
- The remaining CTD favorable cost variance base-funded work is due to efficiencies for Surveillance and Maintenance and D4 activities as a result of utilization of existing site equipment and fewer resources, and Program Management utilizing fewer resources.

**Variance at Completion (+\$23.0M/+4.7%)**

The Variance at Completion is within reporting thresholds.

**Contract Performance Report Formats are provided in Appendix A.**

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

WBS 040/RL-0040 Nuclear Facility D&D	FY2017		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	38.9	29.4	9.5
Incremental Scope Pending Change Management	0.0	4.4	(4.4)
RL-0040 – Total	38.9	33.8	5.0

Numbers are rounded to the nearest \$0.1 million.

### Funds/Variance Analysis

FY2017 projected funding for PBS RL-0040 is \$38.9 million. The incremental scope pending includes the remaining scope for CO #311 including REDOX roof replacement; silo cleanout of levels 1-3; the north sample gallery cleanout; and balance of the CO #324 for demolition of the B Plant ancillary buildings and REDOX steam lines demobilization.

### Critical Path Schedule

Critical path analysis can be provided upon request.

## MILESTONE STATUS

Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) milestones represent significant events in project execution. RL Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The Performance Measurement Baseline (PMB) Annual Update, implemented in September 2013, and subsequent approved baseline change requests (BCR) define CHPRC planning with respect to Tri-Party Agreement milestones. The following table is a one-year look ahead of commitments and Tri-Party Agreement enforceable milestones and non-enforceable target due dates.

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-016-250b	Submit to Ecology a three-year rolling prioritized schedule to implement waste site removal actions.	3/31/2017	3/30/2017 (A)		Complete
M-085-80A	Submit to Ecology secondary document, a data quality objective (DQO) report to access structural integrity of PUREX storage tunnels 1 and 2.	9/30/2017		9/30/2017	On schedule

**GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)**

None currently identified.

**DOE ACTIONS / DECISIONS**

Description	CHPRC Delivery Date	Expected RL Due Date
RL Review of 202S Demo Prep / D&D / Annex Action Memo	11/21/16 (A)	10/06/17
RL Review of 202A Demo Prep / Annex / Vent Mods Action Memo	10/24/17	11/21/17
RL Review of 221B Demo Prep & Stabilization of Legacy Vent System Action Memo	02/28/18	03/28/18

# Section F

## Nuclear Facility D&D, River Corridor (RL-0041)



R. M. Geimer  
Vice President for  
K Basin Operations and  
Plateau Remediation

July 2017  
CHPRC-2017-07, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

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and Environmental Restoration  
Disposal Facility

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for 324 Building  
Disposition Project

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Vice President for  
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Services

## PROJECT SUMMARY

The project continued the following progress: 100K Waste Site Area AB backfill; 100K Closure Project long-range planning; 618-10 Burial Ground, 600-63 Waste Site, and 316-4 Waste Site remediation; 300-296 design; mockup modifications and equipment procurements, and airlock entries for debris cleanout.

## EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
17-EMS-KBOPR-OB1-T1	Increase compliance at KBOPR Project.	Develop compliance matrices for 100K CERCLA documents.	9/30/17	100%
17-EMS-KBOPR-OB2-T1	Universal Waste and Recycling Compliance and Spill Prevention.	Monitor and evaluate universal waste.	9/30/17	80%
17-EMS-KBOPR-OB3-T1	Reduce Waste	Reduce plastic water bottle use at project.	9/30/17	100%

## TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	Current Month	Rolling 12 Months	Comment
Days Away, Restricted or Transferred	0	0	N/A
Total Recordable Injuries	0	*1	*Recordable incident 24238 on November 17, 2016, was recorded under PBS RL-0013; however, the incident occurred at ERDF, which is part of PBS RL-0041.
First Aid Cases	3	31	<ul style="list-style-type: none"> <li>7/6/2017 – Employee fell while attempting to sit in a rolling chair. The employee twisted their wrist and hit their ankle. The employee was taken to HPMC for evaluation and was released back to work without restrictions. (24517)</li> <li>7/11/2017 – Employee slipped on wet soil and fell onto their knee. Employee was taken to HPMC for evaluation and was released back to work without restrictions. (24525)</li> <li>7/26/2017 – Employee was using a powered saw to saw a length of chain while wearing safety glasses. The employee felt a fragment of metal hit below eye underneath the safety glasses and experienced discomfort. Employee was taken to HPMC for evaluation, was treated, and released back to work without restrictions. (24546)</li> </ul>
Near Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

### RL-0041 Accomplishments

- 100K Closure Project
  - o 100K AB Waste Site Area Remediation:
    - Backfill of the 183.1 KE Head House excavation site is 65 percent complete.
  - o 100K AF Waste Site Area Remediation:
    - U.S. Environmental Protection Agency (EPA) approved rejection of waste site 100-K-100.
    - Completed verification sampling of waste site 100-K-103.
    - EPA approved closure of asbestos waste site 100-K-116.
  - o 100K AH Waste Site Area Remediation:
    - Completed verification sampling of waste site 1607-K5.
  - o K West Basin Deactivation & Demolition:
    - Columbia Engineering & Environmental Services initiated garnet filter media removal system (GFMRS) equipment fabrication, and American Boiler Works initiated Sludge Transport & Storage Container fabrication.
    - Initiated GFMRS risk mitigation testing.
    - K West Basin below-water debris characterization was been held up by gamma camera performance issues. As a result, 100K Engineering and the Maintenance and Storage Facility will develop an underwater enclosure for the gamma camera to allow dose measurements to be taken closer to the debris. Development of design requirements for the underwater enclosure have commenced.
    - Prepared long-range plan, which included K West Basin deactivation, demolition, and waste site remediation; K West Reactor interim safe storage (ISS); 100K ancillary facility demolition; 100K waste site remediation; and K East Reactor ISS.
  
- Remaining Closure Operations (RCO):
  - o Resource Conservation and Recovery Act of 1976 (RCRA) Permit Closure.
    - Awaiting Ecology comments on the Class 1 Permit Modification Package for removal of 1324-N/NA Liquid Waste Disposal Facility from the site-wide permit.
    - RL extended the public comment review period for the Class 2 RCRA Permit Modifications for sites 1301-N and 1325-N at the request of Ecology.
  - o MO226 Demolition
    - RL approved Facility Site Closure Form.
  - o Revegetation
    - Started developing a seeding, hydro-seeding, and native straw crimping strategy for FY2018 revegetation work.
  - o Interim Stabilization
    - Issued a contract task release to perform topographical surveys at the 331 LSLT2 interim stabilization site.
  
- 618-10 Burial Ground:
  - o 15,031 tons of contaminated soil sent to ERDF from 618-10 Mass Excavation.
  - o Crews continued consolidating materials for disposition or disposal as part of project demobilization.
  - o Supported Facilities & Property Management in demobilization of trailers MO885 and MO886.
  - o Personnel celebrated completion of the project's 90-day safety campaign.
  - o Hosted the President's Zero Accident Council meeting alongside ERDF, focusing on three-way communication and personal interest in safety

- 316-4 Waste Site:
  - Backfill activities continued ahead of schedule.
- 600-63 Waste Site:
  - Remediation of the 600-63 Waste Site began on July 12, 2017.
  - 13,824 tons of soil excavated of 15,867 estimated total tons.
- 324 Building Minimum Safe:
  - Developed work package to replace the flex joint of Fan EP-971.
  - Cleaned the external linkage of the EP-975 Blocking Damper.
  - Replaced the outer shaft bearings of the EP-975 Blocking Damper.
  - Drafted Stack Cam Calibration Procedure.
  - Completed five Vital Safety System Quarterly Reports.
  - Performed the six-month mechanical/electrical inspection of the elevator.
  - Completed eight routine monthly Preventive Maintenance (PMs) package activities.
- 300-296 Soil Remediation Project:
  - A 324 Building tour was conducted with Doug Shoop (RL Manager) and Roger Jarrell (Senior Advisor to the Secretary of Energy) on June 26, 2017.
  - RL confirmed completion of the first of two FY2017 Key Performance Goals for the project – “Cleanout of the 324 Building’s Radiochemical Engineering Cell (REC) airlock to reduce fire loading and allow access to A and D cells for equipment removal,” on June 29, 2017.
  - The 300-296 Project Bi-Monthly Update to Defense Nuclear Facility Safety Board (DNFSB) Field and Technical representatives was conducted on June 29, 2017.
  - Formal approval for the 2017 Annual Update of the Safety Basis for the 324 Building was issued by RL on July 6, 2017, and is in the process of being implemented by the project.
  - The CHPRC review of the next annual update and new soil removal addendum, required to support soil removal operations, was completed on July 12, 2017. Submission to RL is expected at the end of August.
  - Proposals were received for 324 Building modifications (Interference Removal, Cell Sealing, Core Drilling, and Structural Modifications) on July 13, 2017, and the technical/cost evaluation process is underway to support the award in late August.
  - Initial use of the Remotely Operated Impact Device was completed and preparations were started to test the operation of the jacking screws using a similarly sized floor plug.
  - Classroom training was initiated for the building trades personnel being mobilized for Radiochemical Engineering Cells (REC) debris removal.
  - Six mechanical work packages were walked down and released, along with sampling packages for the three systems during the month of July.
  - Removed the remaining Hot Cell Shield Window oil from C-Cell.
  - Project Technical Services (PTS) Support:
    - Scaffolding has been installed and core-drilling activities were initiated at the mockup on July 12, 2017, in preparation for equipment installations in late calendar year (CY) 2017.
    - Commenced concrete cutting for the install of the transfer mechanism pit at the mockup.
- Environmental Restoration Disposal Facility:
  - Receipt of 31,298 tons by CHPRC for the fiscal month of July.
  - Receipt of 212,283 tons by CHPRC fiscal year to date (FYTD).
  - Personnel celebrated successful completion of the project’s 90-day safety campaign. Received one LLI (Long Length Item) from Washington River Protection Solutions, LLC (WRPS) for treatment (included mobilization of non-standard crane for off-load).

## MAJOR ISSUES

No major issues to report on at this time.

## RISK MANAGEMENT STATUS

**Unassigned Risk**  
**Risk Passed**  
**New Risk**  
**Change**

-  Opportunity currently realized, or mitigation efforts are currently working toward, or after risk trigger with no foreseeable impacts.
-  Mitigation efforts are currently working toward risk trigger with the possibility of actions not in place prior to risk occurrence. Recovery actions may be needed.
-  Risk currently realized, or risk mitigation efforts are past risk trigger date with foreseeable impacts. Recovery actions needed.

-  Increased Confidence
-  No Change
-  Decreased Confidence

Risk Title	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
<b>RL-0041/WBS-041</b>													
<b>Explanation of major changes to the project monthly spotlight chart:</b> RCC-316-4-09: 316-4 Discovery of Unexpected Waste/ Contamination was removed as a realized risk, and is now being reported on as a high threat risk.													
<b>Realized Risks</b> (Risks that are currently impacting project cost/schedule)													
No realized risks identified in the month of July.													
<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)													
RCC-300-296-03: Mockup testing and qualification of remote equipment / process identifies major modification requirements.	Issues such as equipment interferences, equipment reliability, etc., arise during mockup or component testing, resulting in negative cost or schedule impacts during future production work. There is the potential for more frequent equipment repairs/full equipment change-outs than planned, which could result in cost and schedule impacts.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Low (10% to 25%) <b>Worst Case Impacts:</b> \$86K, 80 days			<b>Risk Trigger Metric:</b> Risk could be triggered through the conduct of component testing or testing/training performed at the mockup that produced inadequate or unexpected test results. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Conduct Concrete Floor Saw Test (cut rate, embedment cutting), and determine P.O.P.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Perform Construction Acceptance Test at mockup facility – including REA System with HPUs, cameras, and lighting and transfer mechanisms.</td> <td>3/31/18</td> <td>0</td> </tr> </tbody> </table> <b>Mitigation Assessment:</b> The mockup will be used to validate equipment performance and to support establishing proficiency for personnel for installation, relocation, and operation of remote soil remediation equipment in the 324 Building. Remotely operated equipment (Remote Excavation Arm, transfer mechanism, cameras and lighting, and floor saw) could experience higher failure rates and/or performance issues from lack of personnel proficiency. Vendor contracts have been awarded for the REA, transfer mechanism, and cameras and lighting systems and equipment deliveries to the mockup are scheduled for December 2017/January 2018. Floor saw testing was completed in April, and the Functional Requirements Document and Performance Specifications will be issued in August. Mockup modifications to support equipment installations are in progress and planned to be completed by September 30 for equipment installations in late CY2017.	Mitigation action(s)	FC Date	%	Conduct Concrete Floor Saw Test (cut rate, embedment cutting), and determine P.O.P.	Complete	100	Perform Construction Acceptance Test at mockup facility – including REA System with HPUs, cameras, and lighting and transfer mechanisms.	3/31/18	0
Mitigation action(s)	FC Date	%											
Conduct Concrete Floor Saw Test (cut rate, embedment cutting), and determine P.O.P.	Complete	100											
Perform Construction Acceptance Test at mockup facility – including REA System with HPUs, cameras, and lighting and transfer mechanisms.	3/31/18	0											
RCC-300-296-11: Current REC cell seismic analysis is inadequate	Regulatory agencies require different seismic analysis criteria than the UBC 1961 methodology that was originally used, resulting in additional design and more significant structural alterations to the 324 Building, which would negatively impact project cost and schedule  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Low (10% to 25%) <b>Worst Case Impacts:</b> \$288K, 48 days			<b>Risk Trigger Metric:</b> This risk would be triggered at the same time it is realized, with regulatory agencies requiring different seismic analysis criteria than what was used in the original estimates. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Engage Defense Nuclear Facility Safety Board (DNFSB) early concerning seismic design criteria.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <b>Mitigation Assessment:</b> The original design of the 324 Building is based on the 1961 Uniform Building Code (UBC). Facility structural modifications have been analyzed using the UBC 1961 methodology (Section 7.8, KUR-1782F-CALC-C001, and 324 Building REC Structural Stability Evaluation); as the most appropriate and cost effective approach given the overall intent to remediate the building following soil removal. The project conducts a Bi-Monthly update to DNFSB Field and Technical representatives and the most recent update was provided on June 29, 2017. The update includes the status of the project overall with specific updates on Nuclear Safety Documentation, Structural Design, and Readiness. The project issued a Request for Proposal	Mitigation action(s)	FC Date	%	Engage Defense Nuclear Facility Safety Board (DNFSB) early concerning seismic design criteria.	Ongoing	N/A			
Mitigation action(s)	FC Date	%											
Engage Defense Nuclear Facility Safety Board (DNFSB) early concerning seismic design criteria.	Ongoing	N/A											

				for 324 Building modifications (Interference Removal, Cell Sealing, Core Drilling, and Structural Modifications) on June 6, 2017. Two proposals were received and technical and cost assessments were in progress as of the end of July to support a planned contract award and mobilization prior to the end of FY2017.											
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)															
Lifecycle Risk Triggers (Risk could be realized at any point of the project)															
RCC-316-4-09: 316-4 Discovery of Unexpected Waste/ Contamination	Discovery of unexpected waste/contamination, waste/contamination quantities above what is assumed, waste/contamination that is above and beyond COCs and/or waste profile, and/or waste/contamination is found in the assumed clean area of the design. Resulting in greater than planned RAD controls resulting in cost and schedule impacts.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Very Low (<10%) <b>Worst Case Impacts:</b> \$240K, 48 day			<p><b>Risk Event:</b> On Tuesday, November 29, 2016, CHPRC discovered debris (wood, metal, etc.) in the 316-4 overburden removal, and then on Wednesday, November 30, 2016, radiological contaminated soil and contaminated debris (plastic and piping) was encountered that was buried in the top 6 feet of overburden at the 316-4 waste site. On Wednesday, January 4, 2017, and Tuesday, January 24, 2017, additional contamination was discovered. Contamination was discovered approximately 4 feet above the anticipated location on March 27, 2017.</p> <table border="1"> <thead> <tr> <th>Risk recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Send backfill stockpile to ERDF.</td> <td rowspan="2">11/29/16</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Update TCoPD to align with found conditions.</td> <td>5/26/17</td> <td>100</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b> The TCoPD for change proposal CP 041 304 1600 was submitted on May 26, 2017. The TCoPD captured schedule and cost changes that resulted from the contamination discoveries that occurred prior to March 2017. The excavation of the 316-4 Waste Site was completed on May 23, 2017 and backfill began on June 19, 2017. Due to the completion of the excavation, this risk is no longer a realized risk. However, with backfill work being conducted there is still a probability that this risk will be realized again. As such, it is now being reported under the High Risk Threat Value section.</p>	Risk recovery action(s)	Risk Date	FC Date	%	Send backfill stockpile to ERDF.	11/29/16	Complete	100	Update TCoPD to align with found conditions.	5/26/17	100
Risk recovery action(s)	Risk Date	FC Date	%												
Send backfill stockpile to ERDF.	11/29/16	Complete	100												
Update TCoPD to align with found conditions.		5/26/17	100												
RCC-618-10-07: Contamination Event at 618-10 Waste Site	During fieldwork activities, a contamination event occurs that requires corrective actions, resulting in schedule and cost impacts.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Low (10% to 25%) <b>Worst Case Impacts:</b> \$1,288K, 64 days			<p><b>Risk Trigger Metric:</b> The risk could be triggered by high winds or operational upsets (i.e. spills or airborne release).</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Enhanced radiological controls implemented on project.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> No changes in the month of July. Much of the 618-10 work is performed in hazardous and radioactive environments. By its nature, the work can be dangerous. Although CHPRC procedures, safety programs, and training programs are designed to minimize the potential loss of control of hazardous/radioactive substances, such an occurrence could be deemed significant enough to warrant corrective actions outside the baseline (i.e., a prolonged work shutdown).</p>	Mitigation action(s)	FC Date	%	Enhanced radiological controls implemented on project.	Ongoing	N/A					
Mitigation action(s)	FC Date	%													
Enhanced radiological controls implemented on project.	Ongoing	N/A													
RCC-618-10-09: Discovery of Unexpected Waste/ Contamination	Discovery of unexpected waste/contamination, waste/contamination quantities above what is assumed, waste/contamination that is above and beyond COCs or waste profile, or waste/contamination is found in the assumed clean area of the design. Resulting in greater than planned RAD controls resulting in cost and schedule impacts.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Very Low (<10%) <b>Worst Case Impacts:</b> \$1,280K, 64 days			<p><b>Risk Trigger Metric:</b> This risk has previously been realized as more drums than planned were discovered. This risk has the potential to occur again during mass excavation if additional waste/contamination is discovered.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Closely managing waste inventories and discoveries, and making adjustments as required.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> No changes in the month of July. The estimate for the remediation of the 618-10 Waste Site included an assumed amount of additional drums still to be remediated. The project identified unexpected additional drums that were not planned or estimated. The project will continue to closely monitor and manage waste inventories and any new discoveries.</p>	Mitigation action(s)	FC Date	%	Closely managing waste inventories and discoveries, and making adjustments as required.	Ongoing	N/A					
Mitigation action(s)	FC Date	%													
Closely managing waste inventories and discoveries, and making adjustments as required.	Ongoing	N/A													
Unassigned Risks (Pending ownership of identified risks/opportunities)															
No unassigned risks identified in the month of July.															

## PROJECT BASELINE PERFORMANCE

### Current Month

(\$M)

WBS 041/RL-0041 Nuclear Facility D&D – River Corridor	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	10.0	10.8	8.2	0.8	8.0%	2.6	24.0%

Numbers are rounded to the nearest \$0.1 million

#### CM Schedule Performance (+\$0.8M/+8.0%)

The current month favorable schedule variance is primarily due to work scope accelerating ahead of schedule at the 618-10 Burial Ground complex. Backfill activities at the 316-4 Waste Site and excavation at the 600-63 Waste Site are ahead of schedule.

#### CM Cost Performance (+\$2.6M/+24.0%)

The current month favorable cost variance is partially due to the 618-10 Burial Ground project management and support accounts that experienced significant underruns due to efficient resource sharing across the complex and reduced material usage. Backfill activities at the 316-4 Waste Site experienced cost efficiencies, as the project was able to self-perform the work with existing crews instead of hiring a separate subcontractor, as well as utilize site recontouring and existing soils for backfill material. Additionally, the 600-63 Waste Site was under budget due to the optimization of resources and equipment at the 618-10 Burial Ground Complex. 300-296 Project contributed to the positive variance (\$440K); largely due to schedule recovery and schedule acceleration associated with REC Airlock cleanout while maintaining a constant crew. The \$667K variance in 100K Closure is due to a point adjustment associated with the Area AB backfill scope that started in June but was not added to the baseline until July.

## Contract-to-Date

(\$M)

WBS 041/ RL-0041 Nuclear Facility D&D – River Corridor	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)	Estimate to Complete (ETC)	Variance at Completion (VAC)
Total	455.9	460.7	406.7	4.8	1.1%	54.0	11.7%	569.2	505.2	98.6	63.9

Numbers are rounded to the nearest \$0.1 million

#### CTD Schedule Performance (+\$4.8M/+1.1%)

The schedule variance is within reporting thresholds.

#### CTD Cost Performance (+\$54.0M/+11.7%)

The favorable cost variance is primarily due to completing Confirmatory Sampling No Action (CSNA) waste sites early and under cost. In addition, less demolition was required for the KE Sedimentation Basin. This favorable cost variance was partially offset by the cost overruns in prior years for the utilities project. The 618-10 Burial Ground Complex also realized favorable cost variances with shared resources, lower drum processing costs, and excavation and backfill efficiencies at the 316-4 Waste Site.

**Variance at Completion (+\$63.9M/+11.2%)**

The Variance at Completion is primarily due to the implementation of planned efficiencies.

**Contract Performance Report Formats are provided in Appendix A.**

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

WBS 041/RL-0041 Nuclear Facility D&D – River Corridor	FY2017		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	146.3	117.7	28.6
Incremental Scope Pending Change Management	0	1.3	(1.3)
RL-0041 - Total	146.3	118.9	27.4

Numbers are rounded to the nearest \$0.1 million.

**Funds/Variance Analysis:**

FY2017 projected funding for PBS RL-0041 is \$146.3 million. The delta between the spending forecast and projected funding levels for FY2017 is partially due to work scope completing ahead of schedule, attrition and staffing ramp-downs, resource sharing amongst projects, and less material procurements at the 618-10 Burial Ground Complex. Additionally, less waste volumes by waste generators early in the fiscal year and not hiring as many teamsters as planned has resulted in an underspending at ERDF. Also, incorporating trends for cost underruns in Small Waste Site Surveillance and Maintenance, Interim Stabilization, KW Basin Characterization, as well as Sand and Garnet Filter Media Removal activities contributed to the decrease in the spending forecast. The change in 300 Area Projects spend forecast was minimal (\$-214K) due to miscellaneous offsets.

**Critical Path Schedule:**

Critical Path Analysis can be provided upon request.

## MILESTONE STATUS

Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) milestones represent significant events in project execution. RL Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The Performance Measurement Baseline (PMB) annual update, implemented in September 2013, and subsequently approved baseline change requests (BCR) define CHPRC planning with respect to Tri-Party Agreement milestones. The following table is a one-year look ahead of commitments and Tri-Party Agreement enforceable milestones and non-enforceable target due dates.

Number	Title	Due Date	Actual Date	Status/ Comment
M-016-00A	Complete all response actions for 100 Areas Except GW in M-016-00 and 100 K addressed in M-016-00C	3/31/2017	3/8/2017 (A)	Completed ahead of Schedule
M-016-164	Complete 100-N Interim Response Actions & Close 100-N Ancillary Facilities Area of Contamination	3/31/2017	3/8/2017 (A)	Completed ahead of Schedule

## GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

## DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
RL and Regulator Review of Closeout Sampling Instructions for 618-10 Burial Ground	6/19/17 (A)	7/7/17 (A)
RL and Regulator Review of CVP and Waste Site Reclassification Form for 316-4 Waste Site	10/17/17	11/30/17
RL/EPA Review & Approve Backfill Concurrence for 600-63 Waste Site	10/18/17	10/31/17
RL and Regulator Review of CVP and Waste Site Reclassification Form for 600-63 Waste Site	10/18/17	12/1/17
RL/EPA Review & Approve Backfill Concurrence for 618-10 Burial Ground	1/4/18	1/11/18
RL and Regulator Review of CVP and Waste Site Reclassification Form for 618-10 Burial Ground	2/23/18	4/8/18

# Section G

## Fast Flux Test Facility Closure (RL-0042)



R. M. Geimer  
Vice President for  
K Basin Operations and  
Plateau Remediation

July 2017  
CHPRC-2017-07, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

The Fast Flux Test Facility (FFTF) is being held in a low-cost surveillance and maintenance condition.

## EMS OBJECTIVES AND TARGET STATUS

None currently identified.

## TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	Current Month	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	0	N/A
Total Recordable Injuries	0	0	N/A
First Aid Cases	0	0	N/A
Near Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

### RL-0042 Accomplishments

- Investigated alternative methods of securing the new 400 Area trailer with minimal ground disturbance to align with the ecological/cultural assessment requirements.
- Mobilized the construction contractor responsible for installing the new P-16 submersible pump and removed the old motor base and pump.
- Performed additional camera inspection of the P-16 borehole after cleaning.
- Began fabricating a new headpiece for the P-16 pump replacement.
- Started installation of the new P-16 submersible well pump and hose.

## MAJOR ISSUES

None currently identified.

## RISK MANAGEMENT STATUS

No key risks currently identified.

## PROJECT BASELINE PERFORMANCE

### Current Month

(\$M)

RL-0042 FFTF Closure	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	0.2	0.2	0.1	(0.0)	-3.5%	0.0	3.4%

Numbers are rounded to the nearest \$0.1M

**CM Schedule Performance: (-\$0.0M/-3.5%)**

The schedule variance is within reporting thresholds.

**CM Cost Performance: (+\$0.0M/+3.4%)**

The cost variance is within reporting thresholds.

### Contract-to-Date

(\$M)

RL-0042 FFTF Closure	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)	Estimate to Complete (ETC)	Variance at Completion (VAC)
Total	23.9	23.8	19.7	(0.1)	-0.2%	4.1	17.1%	26.5	24.0	4.3	2.4

Numbers are rounded to the nearest \$0.1 million

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

The schedule variance is within reporting thresholds.

**CTD Cost Performance (+\$4.1M/+17.1%)**

The cost variance reflects efficient use of resources to support deactivation activities.

**Variance at Completion (+\$2.4M/+9.2%)**

The Variance at Completion is within reporting thresholds.

**Contract Performance Report Formats are provided in Appendix A.**

## FUNDS VS. SPEND FORECAST (\$M)

RL-0042 FFTF Closure	FY2017		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	3.9	2.0	1.8
Incremental Scope Pending Change Management	0.0	0.0	0.0
RL-0042 – Total	3.9	2.0	1.8

Numbers are rounded to the nearest \$0.1 million

### Funds Analysis

FY2017 projected funding for project breakdown structure (PBS) RL-0042 is \$3.9 million. The spending forecast of \$2.0 million is in line with the FY2017 budget at completion (BAC) of \$2.1 million.

### Critical Path Schedule

Critical path analysis is not applicable to this project. The remaining contract scope is performance of interim surveillance and maintenance activities pending facility disposition.

## MILESTONE STATUS

None currently identified.

## GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

## DOE ACTIONS/DECISIONS

None currently identified.

# Appendix A

## Contract Performance Reports

Format 1 - Work Breakdown Structure

Format 2 - Organizational Categories

Format 3 - Baseline

Format 4 - Staffing

Format 5 - Explanation and Problem Analysis



July 2017  
CHPRC-2017-07, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

**CONTRACT PERFORMANCE REPORT  
FORMAT 1 - WORK BREAKDOWN STRUCTURE**

FORM APPROVED  
OMB No. 0704-0188

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME Plateau Remediation Contract		a. FROM (YYYYMMDD) 2017 / 06 / 26	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD)	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO X YES (YYYYMMDD) 2009 / 09 / 18		2017 / 07 / 23	

<b>5. CONTRACT DATA</b>								
a. QUANTITY 1	b. NEGOTIATED COST 5,584,248	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 202,049	d. TARGET PROFIT/FEE 241,358	e. TARGET PRICE 5,825,606	f. ESTIMATED PRICE 5,887,995	g. CONTRACT CEILING 5,825,606	h. ESTIMATED CONTRACT CEILING 5,887,995	i. DATE OF OTB/OTS (YYYYMMDD)

<b>6. ESTIMATED COST AT COMPLETION</b>				<b>7. AUTHORIZED CONTRACTOR REPRESENTATIVE</b>					
MANAGEMENT ESTIMATE AT COMPLETION (1)		CONTRACT BUDGET BASE (2)		VARIANCE (3)		a. NAME (Last, First, Middle Initial) Dickerson, Kala K		b. TITLE Prime Contract Compliance Manager	
a. BEST CASE 5,579,846						c. SIGNATURE		d. DATE SIGNED (YYYYMMDD)	
b. WORST CASE 5,746,661									
c. MOST LIKELY 5,646,637		5,786,297		139,660					

<b>8. PERFORMANCE DATA</b>																
Control Account.PBS  ITEM (1)	CURRENT PERIOD					CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (9)	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)
	WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)						
RL-0011 Nuclear Mat Stab & Disp PFP	58	8,303	8,738	8,246	-435	980,178	950,196	1,044,634	-29,982	-94,438	0	0	0	980,454	1,078,862	-98,408
RL-0012 SNF Stabilization & Disp	5,319	4,627	5,265	-692	-638	686,616	684,908	653,170	-1,709	31,737	0	0	0	740,588	704,779	35,809
RL-0013 Solid Waste Stab & Disp	7,744	9,199	7,220	1,455	1,978	1,172,439	1,174,062	1,097,544	1,623	76,518	0	0	0	1,346,491	1,271,458	75,033
RL-0030 Soil & Water Rem-Grndwtr/Vadose	11,499	9,197	10,318	-2,302	-1,121	1,407,267	1,369,934	1,336,450	-37,333	33,484	0	0	0	1,562,153	1,524,405	37,748
RL-0040 Nuc Fac D&D - Remainder Hanfrd	3,715	3,035	2,768	-680	267	448,262	442,172	412,829	-6,090	29,343	0	0	0	484,804	461,773	23,031
RL-0041 Nuc Fac D&D - RC Closure Proj	9,987	10,786	8,194	799	2,593	455,886	460,683	406,651	4,797	54,032	0	0	0	565,983	502,037	63,946
RL-0042 Nuc Fac D&D - FTF Proj	158	152	147	-6	5	23,874	23,815	19,733	-58	4,082	0	0	0	26,455	24,028	2,427
b. COST OF MONEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
c. GENERAL AND ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
d. UNDISTRIBUTED BUDGET														12,504	12,504	0
e. SUBTOTAL	38,479	45,299	42,650	6,820	2,650	5,174,522	5,105,770	4,971,011	-68,752	134,759	0	0	0	5,719,433	5,579,846	139,586
f. MANAGEMENT RESERVE														66,791		
g. TOTAL	38,479	45,299	42,650	6,820	2,650	5,174,522	5,105,770	4,971,011	-68,752	134,759	0	0	0	5,786,224		
<b>9. RECONCILIATION TO CONTRACT BUDGET BASELINE</b>																
a. VARIANCE ADJUSTMENT																
b. TOTAL CONTRACT VARIANCE																
										-68,752	134,759		5,786,224	5,579,846	206,377	

\* In regards to RL-0041, CHPRC has implemented the River Corridor Closure Contract (RCCC) transitioned scope into the Performance Measurement Baseline (PMB) for Earned Value Management (EVM) reporting purposes. When the change orders (CO #304, #305, #306) are definitized, BCRs will be processed to align the PMB with the definitized values.

\*CPR Format 1 displays fully burdened dollars which includes indirect G&A that is distributed to each Project

CLASSIFICATION (When Filled In)

**CONTRACT PERFORMANCE REPORT  
FORMAT 2 - ORGANIZATIONAL CATEGORIES**

DOLLARS IN Thousands of \$ OMB No. 0704-0188

FORM APPROVED

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME Plateau Remediation Contract		a. FROM (YYYYMMDD)  2017 / 06 / 26	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD)  2017 / 07 / 23	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18			

WBS.Resp Org Group  ITEM (1)	CURRENT PERIOD						CUMULATIVE TO DATE						REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (9)	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)		
	WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)								
34 - Env Program & Strategic Plng	736	707	647	-28	60	73,045	72,921	67,425	-124	5,496	0	0	0	82,843	78,790	4,053		
35 - Business Services	0	0	0	0	0	472,524	472,524	448,791	0	23,733	0	0	0	472,524	455,791	16,733		
36 - Prime Contract & Proj Integr	132	132	90	0	42	6,534	6,534	3,812	0	2,722	0	0	0	8,414	6,056	2,358		
3B - PFP Closure Project	58	8,303	8,734	8,246	-431	892,919	862,937	964,939	-29,982	-102,003	0	0	0	893,195	992,158	-98,963		
3C - Waste & Fuels Management Project	7,723	9,178	7,205	1,455	1,973	1,063,877	1,065,500	989,145	1,623	76,356	0	0	0	1,237,645	1,162,585	75,060		
3D - Soil & Groundwater Remediation	10,718	8,445	9,643	-2,273	-1,197	1,234,132	1,196,923	1,162,787	-37,209	34,136	0	0	0	1,378,525	1,338,834	39,691		
3G - K Basin Oper & Plateau Remediation Project	10,808	9,330	9,065	-1,478	265	1,325,965	1,323,891	1,245,530	-2,074	78,361	0	0	0	1,479,803	1,393,493	86,310		
3H - 618-10 and ERDF	5,165	6,259	4,264	1,094	1,994	70,174	70,798	54,875	624	15,923	0	0	0	100,012	85,799	14,213		
3J - Building 324 Disposition Project	3,140	2,945	3,002	-195	-57	35,352	33,742	33,708	-1,610	34	0	0	0	53,967	53,837	131		
b. COST OF MONEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
c. GENERAL AND ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
d. UNDISTRIBUTED BUDGET														12,504	12,504	0		
e. SUBTOTAL (Performance Measurement Baseline)	38,479	45,299	42,650	6,820	2,650	5,174,522	5,105,770	4,971,011	-68,752	134,759	0	0	0	5,719,433	5,579,846	139,586		
f. MANAGEMENT RESERVE														67,344				
g. TOTAL	38,479	45,299	42,650	6,820	2,650	5,174,522	5,105,770	4,971,011	-68,752	134,759	0	0	0	5,786,776				

\* In regards to RL-0041, CHPRC has implemented the River Corridor Closure Contract (RCCC) transitioned scope into the Performance Measurement Baseline (PMB) for Earned Value Management (EVM) reporting purposes. When the change orders (CO #304, #305, #306) are definitized, BCRs will be processed to align the PMB with the definitized values.

CONTRACT PERFORMANCE REPORT																Form Approved OMB No. 0704-0188	
FORMAT 3 - BASELINE																DOLLARS IN THOUSANDS	
1. CONTRACTOR CH2M HILL Plateau Remediation Company b. LOCATION: Richland, WA				2. CONTRACT a. NAME: Plateau Remediation Contract b. NUMBER: RL14788 c. TYPE: CPAF d. SHARE RATIO:				3. PROGRAM a. NAME: Plateau Remediation Contract b. PHASE c. EVMS ACCEPTANCE d. YES X 9/18/2009				4. REPORT PERIOD a. FROM: 2017/06/26 b. TO: 2017/07/23					
5. CONTRACT DATA																	
a. ORIGINAL NEGOTIATED COST 4,312,366				b. NEGOTIATED CONTRACT CHANGE \$1,271,882		c. CURRENT NEGOTIATED COST (A + B) \$5,584,248		d. ESTIMATED COST AUTH UNPRICED WORK \$202,049		e. CONTRACT BUDGET BASE (C + D) \$5,786,297		f. TOTAL ALLOCATED BUDGET \$5,786,424		g. DIFFERENCE (E - F) (\$126)			
h. CONTRACT START DATE 6/19/2008				i. DEFINITIZATION DATE 6/19/2008		j. PLANNED COMPL DATE 9/30/2018		k. CONT COMPLETION DATE 9/30/2018				l. EST COMPLETION DATE 9/30/2018					
6. PERFORMANCE DATA																	
ITEM (1)	BCWS CUM TO DATE (2)	BCFS FOR REPORT PERIOD (3)	SIX MONTH FORECAST						BUDGETED COST FOR WORK SCHEDULED (NON - CUMULATIVE)						UNDISTRIB BUDGET (16)	TOTAL BUDGET (17)	
			+1 Aug-17 (4)	+2 Sep-17 (5)	+3 Oct-17 (6)	+4 Nov-17 (7)	+5 Dec-17 (8)	+6 Jan-18 (9)	FY09-13 (10)	FY14 (11)	FY15 (12)	FY16 (13)	FY17 (14)	FY18 (15)			
a. PM BASELINE (BEGIN OF PERIOD)	5,136,043	36,376	35,569	49,866	26,775	39,541	33,626	25,346	3,391,477	391,653	471,323	504,826	498,576	443,494	10,380	5,711,728	
<b>b. BASELINE CHANGES AUTH DURING REPORT PERIOD</b>																	
BCR-013-17-017R0, Incorporate CO 325 Implementation of CRD 474.2 Change 3													10			10	
BCR-013-17-018R0, Unilateral Definitization of REA 013 1591													1,262			1,262	
BCR-013-17-019R0, RL-0013 Defer TRU Small Containers Repackaging PP to 2018													(610)	610		0	
BCR-030-17-026R0, RL-0030 TPA M-015-92A Due Date Revision													0	0		0	
BCR-040-17-013R0, RL-040 Incorporate CO #311, Increase the NTE													1,134			1,134	
BCR-040-17-017R0, RL-0040 Defer Increased Planning Capability Planning Package to FY2018													(143)	143		0	
BCR-041-17-022R0, Incorporate CO #307 100K Area Waste Site Quantity Increase													1,000			1,000	
BCR-041-17-029R0, Alignment of Basis of Estimate Documentation													0	0		0	
BCR-041-17-030R0, Correct Incorporation of CO #289 Definitization													0	0		0	
BCR-041-17-031R0, Incorporate CO #328 Additional Scope for 300-296													902	98		1,000	
BCR-041-17-032R0, Incorporate Revised Scope for 300-296 and Remaining NTE													(452)	622		171	
BCR-041-17-033R0, Incorporate CO#326 Increase the NTE Cost Authority													38			38	
BCR-041-17-034R0, Incorporate CO#319 Increase the NTE Cost Authority													507	459		966	
BCR-041-17-035R0, RL-0041 WBS Dictionary Correction													0	0		0	
BCRA-PRC-17-031R0, HPIC Updates July 2017													0	0		0	
BCR-PRC-17-032R0, Undistributed Budget Adjustments July 2017															2,125	2,125	
c. PM BASELINE (END OF PERIOD)	5,174,522	38,479	36,382	50,597	27,227	39,801	33,762	25,423	3,391,477	391,653	471,323	504,826	502,323	445,527	12,504	5,719,633	
7. MANAGEMENT RESERVE																	
																66,791	
8. TOTAL																	
																5,786,424	

\* CHPRC has implemented the River Corridor Closure Contract (RCCC) transitioned scope into the Performance Measurement Baseline (PMB) for Earned Value Management (EVM) reporting purposes. When the change orders (CO #304, #305, #306) are definitized, BCRs will be processed to align the PMB with the definitized values.

CLASSIFICATION (When Filled In)

CONTRACT PERFORMANCE REPORT FORMAT 4 - STAFFING														FORM APPROVED OMB No. 0704-0188		
1. CONTRACTOR			2. CONTRACT				3. PROGRAM				4. REPORT PERIOD			Dollars in: FTE		
a. NAME CH2M HILL Plateau Remediation Company			a. NAME Plateau Remediation Contract				a. NAME Plateau Remediation Contract				a. FROM (YYYYMMDD) 2017 / 06 / 26			b. TO (YYYYMMDD) 2017 / 07 / 23		
b. LOCATION (Address and ZIP Code) Richland, WA			b. NUMBER RL14788				b. PHASE				c. EVMS ACCEPTANCE NO <input type="checkbox"/> X YES (YYYYMMDD) 2009 / 09 / 18					
c. TYPE CPAF			d. SHARE RATIO													
5. PERFORMANCE DATA																
WBS.Resp Org Group  ORGANIZATIONAL CATEGORY (1)	ACTUAL CURRENT PERIOD (2)	ACTUAL END OF CURRENT PERIOD (Cumulative) (3)	FORECAST (Non-Cumulative)									ENTER SPECIFIED PERIODS				AT COMPLETION (15)
			SIX MONTH FORECAST BY MONTH (Enter names of months)													
			+1 AUG 2017 (4)	+2 SEPT 2017 (5)	+3 OCT 2017 (6)	+4 NOV 2017 (7)	+5 DEC 2017 (8)	+6 JAN 2018 (9)	2nd Qtr FY18 (10)	3rd Qtr FY18 (11)	FY18 (12)	FY19-LC (13)				
300 - Office of the President	6	710	6	6	6	6	6	6	6	6	6	12	18	18	0	795
303 - Internal Audit	5	463	5	5	5	5	5	5	5	5	5	10	15	15	0	533
304 - General Counsel	5	434	5	5	5	5	5	5	5	5	5	10	15	14	0	502
31 - Communications	9	1000	10	9	9	8	8	8	8	8	8	17	25	24	0	1118
32 - Safety Health Security & Quality	48	7043	60	57	52	55	55	55	55	55	55	110	165	160	0	7813
34 - Env Program & Strategic Png	43	4726	46	43	47	49	48	48	46	46	46	92	138	135	0	5370
35 - Business Services	66	7555	68	64	65	68	68	68	68	68	68	137	205	200	0	8500
36 - Prime Contract & Proj integr	66	4892	70	65	65	68	68	68	68	68	68	136	204	198	0	5833
38 - Project Technical Services	33	5506	41	39	33	35	35	35	35	35	35	70	105	102	0	6002
3B - PFP Closure Project	299	48721	276	208	40	50	19	18	19	19	19	0	0	0	0	49352
3C - Waste & Fuels Management Project	349	48960	327	303	287	304	304	304	303	303	303	603	896	883	368	53536
3D - Soil & Groundwater Remediation	303	35521	275	260	251	249	250	245	245	245	245	502	786	774	1348	40460
3G - K Basin Oper & Plateau Remediation Project	358	46495	388	340	341	362	347	337	337	337	337	626	728	678	743	51385
3H - 618-10 and ERDF	131	1584	144	134	45	46	46	46	45	45	45	86	127	76	0	2334
3J - Building 324 Disposition Project	129	1325	112	137	69	68	68	50	41	41	41	75	111	108	0	2095
<b>g. TOTAL DIRECT</b>	<b>1849</b>	<b>214936</b>	<b>1832</b>	<b>1676</b>	<b>1319</b>	<b>1378</b>	<b>1315</b>	<b>1285</b>	<b>1285</b>	<b>1285</b>	<b>1285</b>	<b>2505</b>	<b>3540</b>	<b>3384</b>	<b>2459</b>	<b>235630</b>

**FORMAT 5, DD FORM 2734/5, EXPLANATION AND PROBLEM ANALYSIS**

CLASSIFICATION (When Filled In)									
CONTRACT PERFORMANCE REPORT FORMAT 5 - EXPLANATIONS AND PROBLEM ANALYSES							FORM APPROVED OMB No. 0704-0188		
<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>			<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>		
<b>a. NAME</b> CH2M HILL Plateau Remediation Company		<b>a. NAME</b> Plateau Remediation Contract			<b>a. NAME</b> Plateau Remediation Contract		<b>a. FROM (YYYY/MM/DD)</b>  2017/06/26		
<b>b. LOCATION (Address and ZIP Code)</b>  Richland, WA 99354		<b>b. NUMBER</b> DE-AC06-08RL14788		<b>b. PHASE</b> Base		<b>b. TO (YYYY/MM/DD)</b>  2017/07/23			
		<b>c. TYPE</b> CPAF	<b>d. SHARE RATIO</b>	<b>c. EVMS ACCEPTANCE</b> 2009/09/18 NO YES X					
	<b>BCWS</b>	<b>BCWP</b>	<b>ACWP</b>	<b>SV in \$</b>	<b>SV in %</b>	<b>CV in \$</b>	<b>CV %</b>	<b>SPI</b>	<b>CPI</b>
<b>Current:</b>	38,479	45,299	42,650	6,820	17.7%	2,650	5.8%	1.18	1.06
<b>Cumulative:</b>	5,174,522	5,105,770	4,971,011	(68,752)	-1.3%	134,759	2.6%	0.99	1.03
	<b>BAC</b>	<b>EAC</b>	<b>VAC in \$</b>	<b>VAC in %</b>	<b>TCPI</b>				
<b>At Complete:</b>	5,719,433	5,579,846	139,586	2.4%	1.01				
<b>Explanation of Variance/Description of Problem:</b>									
<p><b>Current Period Schedule Variance:</b> The current month positive schedule variance is primarily due to project breakdown structure (PBS) RL-0011 working historical budgeted cost of work scheduled (BCWS) on discrete demolition activities (apportioned). This scope was originally planned to begin during the third quarter of 2016. However, delays in getting 236-Z ready for demolition negatively impacted the start of 236-Z demolition. The 291-Z demolition began in July 2017 and is scheduled to complete in August 2017 demolition of 234-5Z and 236-Z is currently scheduled to complete in September 2017. Significant progress toward demolishing 291-Z (demolition of the 291-Z Stack and Vent House) and removal of filter boxes in 234-5Z resulted in significant performance claimed for this month. Because all work is historical, the current schedule variance will be favorable going forward.</p> <p>The positive schedule variance is partially offset by schedule delays in the PBS-0030, 100-NR-2 barrier maintenance and expansion activities, which were scheduled to start in FY2016, but were deferred due to priority decisions and pending resolution of cultural clearance items. Also contributing is the positive performance earned in prior periods (work acceleration) for 100-HR-3 optimization, 200 PO 1 NRDWL, 200-UP-1 SE chrome and 300-FF-5 Stage B monitoring drilling campaigns, 100 HR-3 D&amp;D, and 100 HR-3 well realignments is returning to zero by the end of FY2017.</p> <p><b>Current Period Cost Variance:</b> The current month positive cost variance is primarily due to PBS RL-0041 618-10 Burial Ground project management and support accounts that experienced significant underruns due to efficient resource sharing across the complex and reduced material usage. Backfill activities at the 316-4 Waste Site experienced cost efficiencies, as the project was able to self-perform the work with existing crews instead of hiring a separate subcontractor, as well as utilize site recontouring and existing soils for backfill material. Additionally, the 600-63 Waste Site was under budget due to the optimization of resources and equipment at the 618-10 Burial Ground Complex.</p> <p>Also contributing to the current month positive cost variance is PBS RL-0013 implementation of the Part B Permit unilateral definitization and the associated update of the baseline for \$1.262K, which was for prior actuals; the remaining under runs are due to continued implementation of planned efficiencies.</p> <p>The current month positive cost variance is partially offset by PBS RL-0030 due to spending incurred in support of FY2017 P&amp;T optimization activities that are not planned in the PMB.</p> <p><b>Cumulative Schedule Variance:</b> The variance is within reporting thresholds.</p> <p><b>Cumulative Cost Variance:</b> The variance is within reporting thresholds.</p>									
<b>Impact:</b>									
<b>Current Period Schedule:</b> The current month schedule variance is within reporting thresholds.									
<b>Current Period Cost:</b> Delays in achieving slab-on-grade for PBS RL-0011 is requiring both Minimum Safe, and D&D Project Management resources to remain on project without BCWS.									
<b>Cumulative Schedule:</b> N/A									
<b>Cumulative Cost:</b> N/A									

**FORMAT 5, DD FORM 2734/5, EXPLANATION AND PROBLEM ANALYSIS**

**Corrective Action:**

**Current Period Schedule:** The current month schedule variance is within reporting thresholds.

**Current Period Cost:** PBS-RL-0011 implemented tropical working shifts to mitigate future weather impacts. Projects will continue to utilize O.T. when appropriate to attempt schedule recovery.

**Cumulative Schedule:** N/A

**Cumulative Cost:** N/A

**Monthly Summary** (to include technical causes of VARs, Impacts, and Corrective Action(s):

CHPRC continues to track completion of the contract scope within budget and is currently projecting a Variance at Completion of \$139.6 million, with \$66.8 million of Management Reserve (MR), for a total positive variance of \$206.4 million. For July, the project was 17.7 percent ahead of schedule and 5.8 percent under planned cost. Contract to Date (CTD), the project was 1.3 percent behind schedule and 2.6 percent under planned cost.

There were 11 of the 18 BCRs in the period that impacted the PMB; BCR-013-17-017R0, Incorporate CO 325 Implementation of CRD 474.2 Change 3, BCR-013-17-018R0, Unilateral Definitization of REA 013 1591, BCR-013-17-019R0, RL-0013 Defer TRU Small Containers Repackaging PP to 2018, BCR-040-17-013R0, RL-040 Incorporate CO #311, Increase the NTE, BCR-040-17-017R0, RL-0040 Defer Increased Planning Capability Planning Package to FY2018, BCR-041-17-022R0, Incorporate CO #307 100K Area Waste Site Quantity Increase, BCR-041-17-031R0, Incorporate CO #328 Additional Scope for 300-296, BCR-041-17-032R0, Incorporate Revised Scope for 300-296 and Remaining NTE, BCR-041-17-033R0, Incorporate CO#326 Increase the NTE Cost Authority, BCR-041-17-034R0, Incorporate CO#319 Increase the NTE Cost Authority, and BCR-PRC-17-032R0, Undistributed Budget Adjustments July 2017.

**Contractually Required Cost, Schedule, EAC variance, Management Reserve Use**

Variance in Performance BAC and EAC: The variance at complete (VAC) between the BAC and EAC this month is a + \$139.6 million, +2.4% and is within reporting thresholds.

**Format 1 and 3 Contract Data:**

**Contract Price Adjustments**

CPS - In Process		
	Total Authorized Unpriced Work	\$202,049
Approved Adjustments to Contract Price (not reflected in B.4-1 Table)		
	Total Negotiated Cost Changes	-
	<b>Grand Total Adjustments</b>	<b>\$202,049</b>

**Use of Undistributed Budget (UB), Management Reserve (MR), and Fee Activity:**

**Undistributed Budget Activity**

BCR Number	Title	PBS	Fiscal Year	UB
BCR-PRC-17-032R0	<i>Undistributed Budget Adjustments July 2017</i>	RL-0012, RL-0013, RL-0040, RL-0041	2017-2018	\$2,124K

The Undistributed Budget increased by \$2,124K.

**Management Reserve Activity**

BCR Number	Title	PBS	Fiscal Year	MR
BCR-013-17-018R0	<i>Unilateral Definitization of REA 013 1591 Submit Solid Waste Operations Complex Part B</i>	RL-0013	2017 – 2018	\$-553K

Overall, there was a decrease in Management Reserve (MR) of \$553K during July.

**FORMAT 5, DD FORM 2734/5, EXPLANATION AND PROBLEM ANALYSIS**

Fee Activity				
BCR Number	Title	PBS	Fiscal Year	Fee
BCR-013-17-018R0	<i>Unilateral Definitization of REA 013 1591 Submit Solid Waste Operations Complex Part B</i>	RL-0013	2017 – 2018	\$42K

Overall, there was an increase to the Fee of \$42K during July.

**Best/Worst/Most Likely Estimate:** The Best EAC is the EAC reported this month, which assumes all efficiencies gained contract-to-date will remain at completion with no use of management reserve. The most likely EAC is the EAC reported this month plus the to-go (available) management reserve, which assumes all efficiencies gained contract-to-date will remain at completion but all available management reserve is used (e.g., all identified risks realized). The worst EAC is the ACWP plus the ECWR or BCWR if greater plus the to-go (available) management reserve, which assumes all efficiencies gained contract-to-date will be eroded at completion and all available management reserve is used (e.g., all identified risks realized), plus the scope identified in the Trend Log that is not in the EAC. The Best/Worst and Most Likely EAC values are documented in the Format 1 Report.

<b>Prepared by:</b> Project Control Staff	<b>Date:</b> 8/23/2017	<b>Approved by:</b>	<b>Date:</b>
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*\* In regards to RL-0041, CHPRC has implemented the River Corridor Closure Contract (RCCC) transitioned scope into the Performance Measurement Baseline (PMB) for Earned Value Management (EVM) reporting purposes. When the change orders (CO #304, #305, #306) are definitized, BCRs will be processed to align the PMB with the definitized values.*

# Appendix B

## Project Services and Support (WBS 000)



T. L. Vaughn  
Vice President for  
Safety, Health, Security  
and Quality

M. A. Wright  
Vice President for  
Project Technical  
Services

July 2017  
CHPRC-2017-07, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

M. N. Jaraysi  
Vice President for  
Environmental Program  
and Strategic Planning

S. E. Johnson  
Director of  
Communications

R. M. Millikin  
Vice President for  
Prime Contract and  
Project Integration

T. A. Heidelberg  
Vice President for  
Business Services  
Chief Financial Officer

## PROGRAM SUMMARY

Project Services and Support functional activities continue to provide support and technical services to all CHPRC projects as well as central management of cross-cutting services.

### EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
17-EMS-ADMIN-OB1-T1	Reduce energy intensity.	Increase facility occupancy rates to greater than 83 percent by compressing occupancy and vacating underutilized facilities. Vacated/unoccupied facilities declared unusable and designated inactive; placed in Care Taker system.	9/30/17	20%
17-EMS-ADMIN-OB2-T1	Maximize the acquisition and use of environmentally preferable products in the conduct of operations.	Establish/utilize green catalogs to maximum extent for products beyond office supply purchases on the website.	10/9/17	48%
17-EMS-PTS-OB1-T1	Universal Waste, Recycling Compliance, Spill Prevention, and Satellite Accumulation Area Inspections.	Monitor and evaluate universal waste, other recycling, and satellite accumulation areas for compliance with CHPRC procedures and WAC 173-303 regulations.	9/30/17	80%
17-EMS-PTS-OB2-T1	Monthly chemical management inspection.	Ensure chemical products are accurately tracked, maintained, and excessed/disposed. Perform quarterly assessment on chemical inventory locations.	9/30/17	80%

## TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	Current Month	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	0	N/A
Total Recordable Injuries	0	1	N/A
First Aid Cases	0	11	N/A
Near-Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

### Safety, Health, Security, and Quality (SHS&Q)

- There were no reported First Aid cases during the month of July in the functional groups.
  - o Occupational Safety and Industrial Hygiene (OS&IH) accomplishments:
    - Supported the development of an Industrial Hygiene Technician Fundamentals training program to be provided by HAMMER.
    - Provided technical support and management oversight to reduction and oxidation (REDOX) roof repair project.
    - Continued the Driver Awareness safety campaign.
    - Assisted projects in developing compensatory measures to address 3M Adflo respirator issue.
    - Developed New Manager Overview Presentation pertaining to OS&IH topical areas.
  - o Radiological Control accomplishments:
    - Continued to provide Health Physicist support to the Waste Encapsulation and Storage Facility and Central Plateau Surveillance and Maintenance.
    - Completed reviews and approved Technical Evaluations (TEs) for:
      - Plutonium Finishing Plant Complex Waste Load-Out Dispersion Modeling.
      - Soil & Groundwater Remediation Project (S&GRP) Area Dosimetry program.
    - Provided procedure transition and Project Point of Contact (PPOC) qualifications support to Environmental Restoration Disposal Facility and 300 Area Projects.
    - Provided drill package review support to Emergency Preparedness (EP) for 324 Building and Solid Waste Operations Complex (SWOC).
  - o Nuclear Operations Support & Compliance accomplishments:
    - Correspondence transmitted to Department of Energy Richland Operations Office (RL):
      - Letter, CHPRC-1701172.1, dated July 13, 2017, *Resubmittal of the 2017 Annual Update to the Plutonium Uranium Extraction Facility Documented Safety Analysis, CP-14977, Revision 10, and the Fire Hazards Analysis for the Plutonium-Uranium Extraction Facility, CP-41822, Revision 2.*
      - Letter, CHPRC-1703152, dated July 18, 2017, *Transmittal of the 2017 Annual Update of the Waste Encapsulation and Storage Facility and Unreviewed Safety Question Determination Summary.*
      - Letter, CHPRC-1701350A R2, dated July 26, 2017, *Resubmittal of the 2016 Annual Update to the Solid Waste Operations Complex Master Documented Safety Analysis,*

*HNF-14741, Revision 12 and the Technical Safety Requirements for the Solid Waste Operations Complex, HNF-15280, Revision 12.*

- Letter, CHPRC-1702855.1, dated July 26, 2017, *Resubmittal of the Hanford Sitewide Transportation Safety Document, DOE/RL-36-2001, Revision 2.*
  - Letter, CHPRC-1700081A R5, dated July 27, 2017, *Corrective Action Plan to Improve CHPRC Nuclear Safety Documented Safety Analyses and Technical Safety Requirements.*
  - Letter, CHPRC-1703120, dated July 27, 2017, *Request for Recategorization of the 618-10 Burial Ground and Cancellation of Documented Safety Analysis for Remediation of the 618-10 Burial Ground and the 316-4 Waste Site, Formerly WCH Rev. 4, CP-59916, Revision 1.*
- Letters received from RL:
- Letter, 17-NSD-0037\_RL, dated June 29, 2017, *Approval of the “105KW Basin Final Safety Analysis Report,” HNF-SD-WM-SAR-062, Revision 23, and the “105-KW Basin Technical Safety Requirements,” HNF-SD-SNF-TSR-001, Revision 19.*
  - Letter, 17-NSD-0036\_RL, dated June 30, 2017, *Transmittal of the Nuclear Safety Division Surveillance Report S-17-NSD-PRC-001, June 2017 Reactive Surveillance.*
  - Letter, 17-NSD-0031\_RL, dated July 6, 2017, *Approval of the Annual Update to the 324 Building Basis for Interim Operation, CHPRC-02979, Revision 2, the 324 Building Technical Safety Requirements, CHPRC-02980, Revision 1, and the Addendum to the 324 Building Basis for Interim Operation for Stabilization, CHPRC-02983, Revision 1.*
  - Letter, 17-NSD-0034\_RL, dated July 21, 2017, *Approval of the One-Time Request for Shipment (OTRS) for Sludge Transport from K West Basin to T Plant, CHPRC-03111, Revision 0.*
  - Letter, 17-NSD-0041\_RL, dated July 31, 2017, *Approval of the 2016 Annual Update to the “Solid Waste Operations Complex Master Documented Safety Analysis,” HNF-14741, Revision 12; the “Technical Safety Requirements for the Solid Waste Operations Complex,” HNF-15280, Revision 12; the Unreviewed Safety Question Determinations Summary; and the “Solid Waste Operations Complex Fire Hazards Analysis,” HNF-21239, Revision 7.*
- o Contractor Assurance Regulatory Reporting (CARR) accomplishments:
- 208 Condition Reports (CRs) were screened:
    - No significant issue identified.
    - Four adverse issues identified.
    - 82 Track Until Fixed issues identified.
    - 53 Trend Only items identified.
    - 64 Opportunity for Improvement (OFI) items identified.
    - Five screened out.
  - 190 CRs administratively closed.
  - 257 CRs actions administratively closed.
  - Providing full-time support to Plutonium Finishing Plant (PFP) Issues Management and Occurrence Reporting activities.
  - Completed Apparent Cause Evaluation for and transmitted Final Occurrence Reporting and Processing System (ORPS) report EM-RL--CPRC-PFP-2017-0013, *Contamination During Gallery Glovebox Removal Demolition Activities.*
  - Transmitted Notification ORPS report EM-RL--CPRC-324FAC-2017-0001, *Suspect/Counterfeit Item - 3 inch Cap.*
  - Transmitted Notification ORPS report EM-RL--CPRC-ERDF-0217-0004, *Discovery of Radiologically Contaminated Plastic.*
  - Provided course 080983, *DOE Enforcement Program (PAAA/WSH) Oversight*, to nine employees.

- Provided support and coordination for the Bi-Monthly Defense Nuclear Facility Safety Board (DNFSB) Site Representative Meeting.
- Eighteen documents were provided in response to DNFSB requests for information.
- Provided support and coordination for the 300-296 Soil Removal Project Presentation to the DNFSB.
- Four external Lessons Learned were submitted to OPEXShare in July 2017:
  - LL-2017-SHS&Q-0001, *Fire Protection Systems Preventative Maintenance*
  - 2017-RL-HNF-0016, *Tracking of Commitments to RL is Key to Configuration Management*
  - LL-2017-S&GRP-0003, *Energized Conductor Discovered on 480 Volt Cable*
  - LL-2017-SHS&Q-0001, *Stop Work Issued for 3M Adflo PAPR and Hand Radio Use.*
- o Performance Oversight, Assessment, and Quality Assurance accomplishments:
  - Completed in-field activities for the 10 CFR 835 Subpart E, “Monitoring of Individuals and Areas,” surveillance.
  - Supported the RL audit of the CHPRC Independent Assessment process.
  - Provided coaching/mentoring of Project Assessment Coordinators for fiscal year (FY) 2018 assessment planning.
  - SHS&Q-2017-SURV-16458, *PRC-PRO-QA-599 Quality Assurance Program*, NQA-1 Requirement 10, “Inspections,” fieldwork is complete.
  - Continued development of Quality Assurance Engineer Qualification Card, draft Qualification Card developed, DIF (Difficulty, Importance and Frequency) performed.
- o Fire Protection accomplishments:
  - Central Fire Protection (FP) staff are in the process of completing all FP procedure updates.
  - The SWOC and T Plant Fire Hazard Analysis (FHAs) are being modified to support the Master Documented Safety Analysis/Technical Safety Requirement (TSR) updates.
  - Support was provided to PFP for the stack demolition, 234-5Z/ZA deactivation analyses, permits and walk downs.
  - Fire Alarm deactivation analyses are in progress for 2727W and MO433.
  - The following TSR activities were completed:
    - SWOC:
      - o 2T-17-02954 – T Plant Quarterly Combustible Surveillance.
    - PFP:
      - o SR 5.18.4.2 – Monthly inspection of facility and exterior for compliance with fire protection combustible controls.
      - o SR 5.19.4.3 – Monthly inspection of facility for energized power cords, energized battery chargers and spontaneous ignition source material.
    - FHA:
      - o The Plutonium Uranium Extraction Plant (PUREX) FHA needed to support the Tunnel Stabilization was completed and published.
      - o PFP Revision 5 FHA (CHPRC-00179) was completed and published.
    - There were seven Facility Fire Protection Assessments completed in July.
- SHS&Q Focus Areas:
  - o **Issue:** Beryllium program assessment findings from Department of Energy (DOE-HQ), Office of Safety, Health and Security Independent Oversight Inspection report.
  - o **Status:** Revision 4 continues to be developed by the Hanford Beryllium Committee, Revision 3 has been pulled back by RL.
  - o **Action:** Beryllium facility assessments and characterization remain on schedule. Beryllium facility assessments have been completed on 1,476 CHPRC facilities.

- o **Issue:** Accident & Injury Reduction.
- o **Status:** Continue investigating recordable, days away, restricted, or transferred, and first aid injuries to determine cause, prevention, reduction, to prevent recurrence. Project safety campaigns are being effective.
- o **Action:** Injury trends continue to improve across the PRC. Only one recordable injury occurring in the last six months.
- o **Issue:** PFP support.
- o **Status:** Supporting PFP and other projects with dedicated OS&IH personnel and Radiological Control personnel, from the SHS&Q Central group for Senior Supervisory Watch of high-risk work activities and other project work activities.
- o **Action:** Continuing senior supervisory watch for PFP demolition activities based upon specific hazard activities in coordination with PFP management.
- o **Issue:** Fire Protection program improvements.
- o **Status:** CHPRC Fire Protection personnel are actively interfacing with Hanford Fire Department (HFD) and RL regarding Fire Protection program improvements related to fire hazard analyses.
- o **Action:** Weekly fire protection program status and initiatives presented each week to the SHS&Q Vice President continue to show improvement.

### **Environmental Program and Strategic Planning (EP&SP)**

- **Environmental Protection**
  - o **Compliance Status**
    - CHPRC and RL received an Administrative Order (AO) from the Washington Department of Ecology on May 10, 2017 (17-NWP-053; Order Docket 14156) in response to the PUREX Tunnel partial collapse discovered on May 9, 2017. The Order requires three corrective actions to be completed between July 1, 2017, and October 2, 2017. The first corrective action (structural integrity evaluations for PUREX Tunnels 1 and 2) was submitted to Ecology on June 29, 2017, to meet the AO requirement. The second corrective action (actions to ensure safe storage of waste in PUREX Tunnels 1 and 2) is on schedule to be submitted to Ecology by the August 1, 2017 due date. CHPRC is leading the corrective action response team and working collaboratively with RL to complete the remaining two corrective actions on schedule.
- **Environmental Compliance & Quality Assurance (EC&QA)**
  - o **Assessment Program**
    - A surveillance to determine compliance with asbestos requirements and CHPRC's asbestos procedure at four CHPRC demolition projects was conducted by EC&QA. The surveillance identified one finding and three opportunities for improvement.
    - A surveillance of compliance with environmental requirements associated with spills and releases was conducted at 100-K area and ERDF by EC&QA. The surveillance identified one opportunity for improvement.

### **Business Services**

- **Supply Chain:**
  - o Met with representatives of the PUREX Tunnel Stabilization project to establish the procurement strategy, proposal, and pricing formats. Made contact with a number of specialty grout vendors for the purposes obtaining product information and capabilities statements at it relates to grout material that could be used for PUREX Tunnel Stabilization project. Contacted a number of platform/pedestrian bridge manufacturers to determine pricing and availability of standard platform delivery to support two week demand.

- o Met with Property Management representatives at Washington River Protection Solutions (WRPS) to coordinate the transfer of radiological lights and cameras. CHPRC will use the WRPS components as part of the CHPRC work to place engineered grout in PUREX Tunnel 1.
- o Completed a study on the appropriate transactional value that would be assigned to transactions using Blanket Purchase/Leveraged Agreements.
- o Worked with the 300-296 Project to identify the method of obtaining a temporary water connection for services at the Mock-Up/Testing facility. Reviewed agreements and pricing with the City of Richland.
- o Completed a review of the planned procurement spend for FY2018 and CHPRC's year-to-date progress against the FY2017 plan. Provided information to the Supply Chain Management Center for the purposes of establishing FY2018 strategic sourcing goals.
- o Developed a planned procurement approach for testing and engineering support to the Sludge Treatment Project. The support included the development of special tooling and testing of techniques that will be used at K Basin at the conclusion of sludge removal. These activities are needed to commence with the deactivation of the facility after sludge is removed and stored at T Plant.
- o Developed an acquisition strategy and statement of work to perform additional custodial services in the Federal Building including proper environmentally preferred products referenced as part of scope requirements.
- o Met with representatives from CHPRC Industrial Safety to discuss the Subcontract Performance Evaluation tool and its planned overall implementation within the supply chain process.
- o Met with representatives from the Waste and Fuels Management Project to discuss lessons learned from the WESF construction activities associated with Project W130.
- o Organized a conference call with representatives from Fluor-BWXT Portsmouth for the purposes of discussing strategic sourcing agreements and efforts throughout the DOE complex. Discussions included the type of complex-wide agreements available for use and method of completing transactions.
- o Provided supplier information to CHPRC Project Technical Services (PTS) for the purchase of bio-harnesses. These harnesses are used to monitor employee individual health signs during field work.
- **Facilities & Property Management (F&PM):**
  - o The FY2017 Inventory campaign continues – 80.11 percent complete to date.
  - o Move planning/execution for RL and CHPRC between the Federal Building and 2420 Stevens Center Place continues. All CHPRC moves to the Federal Building were completed in July 2017. Some CHPRC personnel remain in temporary offices. Final Federal Building configuration anticipated to be complete in September 2017.
  - o Support to new shower trailer for S&GRP Drilling and Sampling Operations at Waste Sampling and Characterization Facility (WSCF) continues. Trailer is planned in place at WSCF. New trailer will be ready for use no later than August 7, 2017.
  - o New single-wide office trailer in the 400 Area (MO4100) in support of potable water operations is complete.
  - o New five-wide trailer at WESF (MO-199) has been completed and turned over to Waste and Fuels. Occupancy is expected in August 2017.
  - o Demobilization of MO-885 and MO-806 continues. Electrical power has been isolated to both facilities. MO-885 will be demobilized and returned to vendor, PTS is currently proceeding with request for trailer return.
  - o MO-806 demobilization and relocation to PUREX for setup is scheduled to start August 8, 2017, to support PUREX tunnel stabilization.
  - o Began initial planning to relocate seven mobile trailers from PFP to be setup at REDOX.
  - o Worked with D&D on setup of two double-wide job trailers and one shower/restroom/change trailer that will support demolition of RTL labs.

- o Transferred office/shop space in Building 2101M from PFP to S&GRP (rooms 211G/211M).
- **Finance:**
  - o July month-end completed with no cost suspensions.
  - o Construction Work in Progress (CWIP) reconciliation is continuing.
  - o Provided data for first sample request for FY2016 Q3 & Q4 invoice assessment.
  - o Provided annual submittal of FY2016 erroneous payment report and related templates.
  - o Provided third quarter submittal of FY2017 international transaction report
  - o Provided third quarter submittal of FY2017 erroneous payments.
  - o Provided quarterly reconciliation of DOE's 2110 account. (DOE Finance accounting of PRC)
  - o Completed the final draft of the FY2017 Management Representation letter. Plan transmittal to RL no later than August 4, 2017.
  - o Completed the final version of FY2018 rates. Plan transmittal to RL no later than August 4, 2017.
- **Human Resources (HR):**
  - o Workforce Restructuring:
    - Opened and conducted a self-select program for employees in the Nuclear Chemical Operator (NCO) classification.
    - Conducted two self-select information sessions.
    - Accepted 18 self-select applications.
    - Conducted Involuntary Reduction of Force (IROF) activities for 18 NCOs exiting CHPRC as of July 27, 2017.
  - o The CHPRC JuMP Network provided a development opportunity for about 70 CHPRC JuMP attendees (Junior-Mid Level Professional) with a presentation by Paul Casey. Paul Casey is a corporate coach that helps leaders identify their strengths and passions, provides tools to help grow the leader in his/her company scenario and personal self-leadership, and helps to solidify a team's mission/vision/values to strategically-plan and unify their team. Paul presented the topic, "JuMP Start your Life, Career, and Relationships." Using several assessment tools, he helped JuMPers to determine where they are now and how to grow forward to a bigger vision for their life.
- **Labor Relations (LR):**
  - o The following is the current status of grievances in the Arbitration Process:
    - PRC-015-011 – union claiming mis-assignment of work in regard to respirator maintenance. Status: Arbitration scheduled for October 11, 2016, was postponed by mutual agreement as parties work to reach settlement in the matter. CHPRC is awaiting a response from the Union on the company's settlement proposal.
    - PRC-016-044, 049, & 050 – termination. Status: Arbitration scheduled for April 25 and 26, 2018.
    - PRC-016-059 – failure to meet CHPRC pre-employment screening. Status: Arbitration scheduled for November 1, 2017.
    - PRC-017-010 – union claiming employee should have been paid for three days between when he was ready to return to work and when he started with Mission Support Alliance, LLC (MSA), as CHPRC did not have an open position when he returned. Status: Arbitration scheduled for February 28 and March 1, 2018.
  - o Labor Relations continues to support Work Force Restructuring activities for affected bargaining unit employees working with all of the CHPRC projects and the other Hanford contractors to coordinate staffing needs and skills mix issues, and provide opportunities for affected employees.
- **Procurement:**
  - o Awarded/amended 144 contracts with a total value of \$7.35 million. Additionally, awarded 158 new material purchase orders (PO) valued at \$280,353 to support ongoing project objectives.
  - o At the end of the first 106 months of the CHPRC project, procurement volume has been significant; \$2.56 billion in contract activity has been recorded with approximately 55.18 percent,

or \$1.4 billion, in awards to small businesses. These awards include 7,823 contract releases, 23,420 POs, and 279,441 PCard transactions.

- o Major contract awards:

Contract/Release	Award Date	Awarded To	Title	Contract Type	Value
36538-102	7/6/2017	Watts Construction Inc.	Temporary Haul Road/Surfacing (PUREX Tunnel Project)	T&M	\$ 77,850.00
63304	7/6/2017	Oxarc Inc.	Trailers, Equipment And Compressed Gas JIT Delivery for Ammonia Sequestration Treatability Test	FFU	\$784,276.48
63709	7/11/2017	HukariAscendent	Independent Assessment of Nuclear & Criticality Program	T&M	\$102,980.91

FFU - Firm Fixed Unit Price

T&M - Time and Materials

### Prime Contract and Project Integration (PC&PI)

- o PC&PI Chaired a Project Review Board (PRB) review of the Waste and Fuels Management Project (WFMP) Management of the Cesium and Strontium Capsules (MCSC) Project (W-135) readiness to submit the CD-1 package for review and approval. Approval of a CD-1 package by DOE signifies that the project has completed an Analysis of Alternatives and established a Range estimate Cost and Schedule (not to be exceeded value is 150 percent of the top end of the range estimate). The PRB Report (CHPRC-03307) was approved on July 19, 2017 in support of the Project W-135 target of CD-1 submittal by July 31, 2017. The report provides recommendations for the Project as the Project proceeds from CD-1 to CD-2/3.
- **Prime Contract Compliance (PCC):**
  - o In July, PCC received and processed three contract modifications (613-615) from RL.
  - o The Correspondence Review Team received and determined the distribution for 69 incoming letters/documents. The PCC Manager reviewed 34 outgoing correspondence packages.
  - o Issued CHPRC-1702434 “*Notification of Impacts to Performance Measure PM-30-2-17, Complete Stage B Uranium Sequestration Injections at the 300 Area.*” Issued CHPRC-1702742AR1, “*Impact Analysis for Contractor Requirements Document Order 206.2 (Supplement Revision 0), Identify, Credential, and Access Management (ICAM).*”
- **Integrated Services**
  - o **Estimating & Program Support**
    - One Change Proposal/Request for Equitable Adjustment (CP/REA) was submitted to RL in July 2017:
      - CP 041 328 1656 - 300-296 Waste Site Additional Scope, submitted July 10, 2017.
    - Twenty-three CPs/REAs have been submitted in FY2017 to-date, twenty-two on or ahead of schedule with one CP/REA submitted late.

- Began/continued development of eight CPs/REAs:
  - CP 040 329 1657 - PUREX Tunnel Recovery and Stabilization.
  - CP 040 PRC 1658 - U Plant Demolition Deductive Proposal.
  - CP 040 PRC 1660 - Resource Conservation and Recovery Act (RCRA) Permit Revision 9.
  - CP 013 PRC 1663 - Central Waste Complex and Waste Receiving and Processing Facility Roof Integrity.
  - CP 013 PRC 1664 - Management of Plutonium Finishing Plant (PFP) Waste.
  - REA 011 PRC 1661 - 242Z Decontamination Effort as a Result of Criticality Alarm.
  - REA 011 PRC 1665 - PFP Extreme Weather Impacts.
  - REA 011 PRC 1666 - PFP Additional Asbestos Abatement Impacts.
- Supported eight Truthful Cost or Pricing Data (TCoPD) updates for CPs/REAs:
  - CP 041 306 1597 - River Corridor Closure Contract (RCCC) Remaining Closure Operations, submitted July 26, 2017.
  - CP 041 306 1613 – Remaining Closure Operations, Minor Capital Sites, submitted July 31, 2017.
  - CP 041 307 1621 - 100-K Additional Tons FY2016 and FY2017, submitted July 13, 2017.
  - CP 013 317 1631 - Compliance with Tri-Party Agreement Milestone Change Control Form M-91-15-01.
  - CP 041 319 1640 - Garnet Filter Media Removal.
  - CP 041 320 1642 - Sand Filter Media Removal Design.
  - CP 040 321 1645 - Resource Conservation and Recovery Act (RCRA) Revision 9 Management & Coordination, submitted a notice of “no change” on July 31, 2017.
  - CP 040 324 1641 - Miscellaneous PBS RL-040 Work Scope.
- Supported RL requests for information (RFIs) for five CPs/REAs:
  - CP 041 305 1616 - 300-296 Waste Site Design Change, Initiate Procurements, Initiate Testing, and Initiate Removal of Debris, submitted response July 6, 2017.
  - CP 040 306 1595 - Environmental Restoration Disposal Facility (ERDF), submitted all responses by July 19, 2017.
  - CP 041 319 1640 - Garnet Filter Media Removal, all responses submitted July 27, 2017.
  - CP 041 326 1651 - 105-KW Fuel Storage Basin, response submitted July 26, 2017.
  - CP 041 328 1656 - 300-296 Waste Site Additional Scope.
- Miscellaneous estimating support:
  - Completed support for the development of the FY2018 Performance Measurement Baseline (PMB) update and the out-years Long Range Plan (LRP) Annual Update deliverables, submitted to RL in July 26, 2017.
  - Supported the kick-off of the RL directed audit of the CHPRC Change Proposals associated with the former RCCC scope transitioned to CHPRC, being performed by Cohn Reznick. The Change Orders (COs) associated with CHPRC’s RCCC replaced Change Proposals include CO #304, *Initiate Transition of River Corridor Contract (RCC) Scope Activities into the Plateau Remediation Contract (PRC)*, CO #305, *300-296 Waste Site Design Change, Initiate Procurements, Initiate Testing, and Initiate Removal of Debris*, and CO #306, *Remainder of RCC Project Transition Activities*.

o **Interface Management:**

- Interfaces (Technical, Administrative, and Regulatory):
  - Groundwater well assignments are complete between WRPS and CHPRC. Wells have been re-assigned in the in the site Sunflower property system.
  - Communications between WRPS at 222-S and CHPRC's efforts at REDOX included communications related the application of polymeric barrier system (PBS), fixative to the roof at REDOX and upcoming asbestos abatement on the REDOX silo. CHPRC will resume regular interface/communication meetings with WRPS at 222-S.
  - Supported and provided information to the Hanford Fire Marshal's office related to an assessment of the explosives management program/process.
  - Continued coordinating multi-contractor responses and impacts related to the PUREX Tunnel recovery actions. July actions included completing the site evaluation process for temporary trailer installation and working with MSA transportation on the grout truck routing plan. Also, established a procurement agreement with WRPS for the purchase of cameras, lighting and borescope equipment.
  - Worked on a loan agreement with MSA for their temporary use of a Super Dump truck from ERDF.
  - Facilitated information flow from ERDF to MSA Water Utilities regarding design requirements for backflow prevention on the main water line supply to ERDF.
  - Participated in the preliminary design review of MSA project L-894, *Raw Water Cross-Connection Isolation 200E/W*.
  - Facilitated prioritization of the 2740W HVAC repair that was lagging in repair response time.
- Annual Forecast of Services:
  - Supported discussions and provided clarification to MSA related to the annual service forecast update. Support will be provided to the CHPRC Projects as they update and finalize the FY2018 service forecast; a final forecast is planned for submittal to MSA in September.
  - Continued flow of communication/requests for MSA resources, as required by emerging project needs. During July, PFP's work hours changed, adding a shift, which required increased communication with MSA service managers.
- Inter-Contractor Issue Resolution:
  - Communications between MSA Infrastructure Projects (water/sewer upgrades) and CHPRC Surveillance & Maintenance and Remedy Selection Project have resulted in the development of an Administrative Interface Agreement (AIA) to capture concerns related to new infrastructure crossing over, under, and through waste management units/sites slated for near-term remediation and the MSA actions required to cross through these sites. CHPRC Interface Management will manage the review and release of this document as well as continue to facilitate discussions.
  - MSA Electrical Utilities (EU) identified issues with the locations of CHPRC pump and treat water lines/piping and the EU "right-of-way" for access to their overhead power lines/poles. MSA EU and personnel from the Groundwater Project performed a walk down and identified mitigation activities. Groundwater will design and implement the solutions to restore the EU right-of-way.
- Controlling and Service Agreements:
  - Sent one Service Delivery Documents (SDDs) out for review and comment during the month of July.
  - Completed CHPRC review of six SDDs and provided response to MSA.

- J.3 Table Maintenance: no performance level actions occurred within the month of July 2017.
- J.13 and J.14 Tables Maintenance:
  - Provided MSA with proposal to transfer 200 East Area water distribution supply components (2902HV80 Tank and 2902HV Pump) to MSA Water Utilities for future operation and maintenance, as needed by the site. Response anticipated in August 2017.
- Internal Operations:
  - Two document revisions remaining related to the RCCC scope transfer to CHPRC. Involved parties include, Pacific Northwest National Laboratory (PNNL), and MSA. One revision (300 Area Utilities) has required additional attention to the Contractor “real estate” responsibilities depicted in a map in the document. All parties have agreed to a final version that will be included in the document, the other is a major revision (environmental data integration) that is about 50 percent complete.
  - Prepared a proposed strategy for CHPRC craft supporting training development on the Comprehensive Beryllium Disease Prevention Program.
  - Closed out 300-296 project team concerns with an MSA Information Technology project cost over runs. Negotiated a cost credit with the MSA Information Technology Vice President regarding a lapse in all the project costs being estimated and communicated to the 300-296 team. CHPRC appreciated the response and recognizes this as a good leadership example by the MSA Vice President.
  - Reviewed a proposed new CHPRC internal procedure for directing and prioritizing MSA craft resource assignments across all CHPRC Projects.
  - Participated in an ERDF operations and maintenance tour.
- o **Information Management:**
  - Processed 21,750 Electronic Records into the Integrated Document Management System (IDMS).
  - Completed construction and began testing of Document Review and Concurrence (DRC) workflow. The DRC will be used for routing and approval of outgoing correspondence.
  - Completed consolidation of Information Management staff into the Federal Building. Move of staff from 200W in support of facility needs of KBO&PR CP/S&M.
- **Project Integration**
  - o During July, Project Integration facilitated and supported the processing of 16 baseline change requests (BCRs).
  - o Submitted the FY2018 Annual PMB to RL, accomplishing a major contract deliverable. The PMB outlines the work planned to be performed in FY2018, which was based on a joint CHPRC/RL Risk Based Priority List.
- **Program Integration**
  - o **000 Project EVM Support:**
    - Completed indirect FY2018 funding scenarios and identified potential impacts.
    - Prepared and submitted June Indirect Project Review.
    - Finalized and obtained approval of indirect BCR-000-17-004R0, *Incorporate CO #321 Increase the NTE Cost Authority*, incorporating \$200K not-to-exceed (NTE) associated with RCRA Revision 9
  - o **Risk Management and Reporting:**
    - Issued the CHPRC June Monthly Performance Report to RL.
    - Compiled Internal Project Team package for June performance data.
    - Conducted Project Reviews for June performance data.

- Provided PC&PI input into Contractor Assurance System (CAS) June Report.
- Issued CHPRC June Corporate Program Performance report.
- Supported development of the CHPRC June Monthly Highlights to the Nuclear Business Group.
- Completed risk elicitations in support of LRP / FY2018 Annual Estimate to Complete (ETC) for PBS RL-0041.
- Completed CHPRC Risk Database crosswalk to ensure risk values are consistent with PRC-PRO-PC-40079, *Risk Management Plan*.
- Completed Risk Management compliance/best practice matrix and submitted to Energy Facility Contractors Group (EFCOG) for comments by September.
- Completed third quarter risk reviews with the projects.
- o **Strategic Management:**
  - In July, Strategic Management conducted a partnering workshop with RL on risk matrix assessment of CHPRC-led projects, as well as other aging infrastructure. The risk matrix rated all projects on three main criteria: risk reduction, mortgage reduction/return of investment (ROI), and regulatory drivers. In addition, all projects were assessed based on costs, proximity to major facilities, consequences of failure, and proposed timeframes. The outcome of the workshop will support priority discussions with RL.
  - Updated CHPRC FY2017 Execution Year Priority list per the July field execution schedule (FES) projected completion dates and posted on the CHPRC internal website.
  - Completed the LRP effort as part of the PMB deliverable for this year. During July, strategic management reviewed all the projects planning and support documentation for this effort, which includes detailed scope through FY2020 and a higher-level scope through FY2022. Strategic management supported various projects in this effort, and providing resources to ensure successful completion of the LRP.
  - In July, continued supporting the administrative orders and response to the PUREX Tunnel collapse incident and additional prioritization on aging infrastructure reviewing similar structures with potential for external aging-related issues. Strategic management took the lead in preparing for a workshop on aging infrastructure and near-term/long-term priorities.
  - Held a Productivity Tracking Log meeting with the projects in July. Discussed company-level metrics, and the projects briefed their metrics of productivity delays and efficiencies. Began improvement initiative to ensure process provides key data and decision making information back to project stakeholders.
  - Prepared summary cards with key project information to support site manager meeting with DOE-HQ.
  - Finalized the CHPRC 2-5-10 year plan and distributed to the CHPRC senior leadership team.
  - Compiled information from WRPS, MSA, and CHPRC to support potential inquiry from the Government Accountability Office (GAO). A letter was sent from several congressionals to the GAO related to the PUREX tunnels and legacy infrastructure.

## PTS

- Engineering Services
  - o Performed periodic review of PRC-CHRT-EN040303, *Confinement Ventilation Systems Center of Expertise Committee*.
  - o Continued company and site-wide committee coordination activities for implementation of a revision to the site-wide electrical safety procedure.
  - o Participated in the preparation of a charter for the Hanford Electrical Codes Board.
  - o Issued a management directive for the verification of electrical distribution system protective devices owned by MSA Electrical Utilities.

- o Facilitated the performance of an arc flash analysis for the Building 2740W HVAC units to allow the MSA refrigeration equipment services (RES) organization to perform maintenance.
- o Approved qualification cards and study guides for electrical supervisor qualifications to meet requirements for DOE-0359 Revision 3.
- o Ongoing discussion with MSA Fire System maintenance regarding Ops Acceptance and Work Closure of PM activities.
- Training and Procedures
  - o Implemented checklists and study guides to support the new Hanford Site Electrical Safety Program requirements for Electrical and Instrument Technician Supervisors.
  - o Published new Driver Awareness training in support of Central Waste Complex (CWC) vehicle incident corrective actions.
  - o Transitioned Training and Qualification Plans (used to support project readiness assessments) to PRC Procedure System (PPS) to ensure revisions can be retrieved under configuration control.
- Operations Program
  - o ConOps/Work Control/Conduct of Work
    - Constructing new webpage for General Hazards Analysis (GHA) and Crafted Hazard Analysis (CHAs) rollout.
    - Continued to work on combining all projects Con Ops matrix documents into single document.
    - Performed follow up action for failed Brady Lockout/Tagout (LOTO) devices with Quality Assurance to determine no additional actions required for the failed devices.
    - Updated the ConOps web page with a new page for the Conduct of Work Mentors.
  - o Emergency Preparedness (EP)
    - Updating Building Emergency Plan / Facility Response Plans for RL directed RCRA Permit change.
    - Conducted EP Team Building Workshop.
    - Conducted EP Coordinator Drill Hotwash and Drill report Workshop.
- Project Delivery
  - o Continued Federal Building Upgrades.

### Communications

- Communications supported RL in conducting interviews and providing information to support media coverage of the implosion of the PFP ventilation stack and an informational meeting related to safe storage of waste in the PUREX facility tunnels.
- Communications supported RL in the development of several social media posts, including:
  - o 200 West Pump and Treat facility update
  - o 618-10 Project and ERDF
  - o Demolition at PFP
  - o Groundwater Team surpassed uranium extraction goal for FY2017
  - o Removal of soft waste from 324 Building airlock
  - o Removal of contaminated filter boxes at PFP
- Communications supported RL in developing presentations for:
  - o (July 12, 2017) Public Meeting: 1301-N and 1325-N Addendum to Closure Activities
  - o (July 20, 2017) Public Meeting: PUREX Tunnel 2

**PROJECT BASELINE PERFORMANCE**  
**Current Month**  
**(\$M)**

<b>WBS 000 Project Services and Support</b>	<b>Budgeted Cost of Work Scheduled</b>	<b>Budgeted Cost of Work Performed</b>	<b>Actual Cost of Work Performed</b>	<b>Schedule Variance (\$)</b>	<b>Schedule Variance (%)</b>	<b>Cost Variance (\$)</b>	<b>Cost Variance (%)</b>
Office of the President	0.1	0.1	0.2	0.0	0.0%	0.0	-9.9%
Internal Audit	0.1	0.1	0.1	0.0	0.0%	0.0	-0.6%
General Counsel	0.1	0.1	0.1	0.0	0.0%	0.0	28.3%
Communications	0.1	0.1	0.1	0.0	0.0%	0.0	-10.0%
Safety, Health, Security, and Quality	1.2	1.2	1.1	0.0	0.0%	0.1	10.5%
Environmental Program and Strategic Planning	0.4	0.4	0.4	0.0	0.0%	0.1	18.9%
Business Services	1.8	1.8	1.9	0.0	0.0%	(0.1)	-8.0%
Prime Contract and Project Integration	1.8	1.8	1.8	0.0	0.0%	0.0	-0.2%
Project Technical Services	0.6	0.6	0.5	0.0	3.1%	0.1	13.7%
<b>Indirect WBS 000 Total</b>	<b>6.2</b>	<b>6.2</b>	<b>6.1</b>	<b>0.0</b>	<b>0.3%</b>	<b>0.1</b>	<b>2.4%</b>

Numbers are rounded to the nearest \$0.1 million.

**Indirect WBS 000**

**CM Schedule Performance: (+\$0.0M/+0.3%)**

The variance is within reporting thresholds.

**CM Cost Performance: (+\$0.1M/+2.4%)**

The variance is within reporting thresholds.

## Fiscal Year-to-Date (FYTD) (\$M)

WBS 000 Project Services and Support	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)
Office of the President	1.5	1.5	1.6	0.0	0.0%	(0.1)	-5.7%	1.8
Internal Audit	0.9	0.9	0.7	0.0	0.0%	0.3	29.5%	1.2
General Counsel	1.2	1.2	1.0	0.0	0.0%	0.2	18.9%	1.5
Communications	0.9	0.9	1.0	0.0	0.0%	(0.1)	-17.1%	1.1
Safety, Health, Security and Quality	12.7	12.7	10.6	0.0	0.0%	2.1	16.5%	15.7
Environmental Program and Strategic Planning	4.7	4.7	3.8	0.0	0.0%	1.0	20.8%	5.9
Business Services	19.5	19.5	19.8	0.0	0.0%	(0.4)	-1.9%	24.1
Prime Contract and Project Integration	19.8	19.8	17.6	0.0	0.0%	2.2	11.2%	24.5
Project Technical Services	6.1	6.1	5.8	0.0	0.4%	0.3	5.2%	7.5
<b>Indirect WBS 000 Total</b>	<b>67.3</b>	<b>67.3</b>	<b>61.8</b>	<b>0.0</b>	<b>0.0%</b>	<b>5.5</b>	<b>8.2%</b>	<b>83.4</b>

Numbers are rounded to the nearest \$0.1 million.

### Indirect WBS 000

#### FYTD Schedule Performance: (+\$0.0M/+0.0%)

The variance is within reporting thresholds.

#### FYTD Cost Performance: (+\$5.5M/+8.2%)

The FYTD positive cost variance is primarily due to continued lower-than-planned on-demand services for information resource and technology management support, as well as lower-than-planned subcontractor cost for document control support. Also contributing to the positive cost variance is open vacancies in the SHS&Q and Environmental Program & Strategic Planning organizations. Additionally, the National Beryllium Program has experienced a decrease in activity as the Beryllium Corrective Action Plan has concluded and the Awareness Group meetings are required less frequently.

## FY2017 G&A Analysis (\$M)

WBS 000 Project Services and Support	FY 2017					
	FYTD	FYTD	FYTD	FY2017	FY2017	FY2017
	BCWS	Actual	Variance (O)/U	BCWS	Forecast	Variance (O)/U
<b>General &amp; Administrative (G&amp;A)</b>	<b>67.3</b>	<b>61.8</b>	<b>5.5</b>	<b>83.4</b>	<b>78.8</b>	<b>4.6</b>
Office of the President	1.5	1.6	(0.1)	1.8	1.9	(0.1)
Internal Audit	0.9	0.7	0.3	1.2	0.9	0.3
General Counsel	1.2	1.0	0.2	1.5	1.2	0.3
Communications	0.9	1.0	(0.1)	1.1	1.3	(0.2)
Safety, Health, Security and Quality	12.7	10.6	2.1	15.7	13.7	2.1
Env. Program & Strategic Planning	4.7	3.8	1.0	5.9	4.7	1.2
Business Services	19.5	19.8	(0.4)	24.1	24.7	(0.6)
Prime Contract and Project Integration	19.8	17.6	2.2	24.5	22.8	1.8
Project Technical Services	6.1	5.8	0.3	7.5	7.6	(0.1)
<b>FY2017</b>						
<b>G&amp;A Distribution</b>			<b>(64.0)</b>			<b>(83.5)</b>
<b>G&amp;A Liquidation (Over)/Under</b>			<b>(2.2)</b>			<b>(4.7)</b>

### Liquidation Analysis

As of July the application of the general and administrative (G&A) rate over liquidated total-to-date G&A cost by \$10.2 million. In June, an over liquidation passback was processed for \$8.0 million, which leaves the FYTD balance at \$2.2 million. The FY2017 year-end projected over-liquidation balance of \$4.7 million, reflected in the fiscal year spend forecast, reflects a projected decrease in G&A costs as well as an increase to the G&A base.

Consistent with CHPRC prospective Cost Accounting Disclosure Statement, under liquidations would be distributed to users at a minimum, when the combined projected year-end under liquidation is equal to or greater than \$4 million. Over liquidations would be distributed to users at a minimum, when the combined projected year-end over liquidation is equal to or greater than \$6 million. Variances may be liquidated to users at lower thresholds if variances are determined to be significant to cost control. All remaining variances will be distributed at fiscal year-end.

## MAJOR ISSUES

None currently identified.

## RISK MANAGEMENT STATUS

No key risks currently identified.

## MILESTONE STATUS

None currently identified.

## GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

# Appendix C

## Capital Asset Projects



July 2017  
CHPRC-2017-07, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

Appendix C.1  
Capital Asset Project  
RL-0011.C1 - PFP D&D  
(Removal of 174 Gloveboxes from 234-5Z)



T. E. Bratvold  
Vice President for  
Plutonium Finishing  
Plant Closure  
Project

July 2017  
CHPRC-2017-07, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

Progress continued to work toward critical decision (CD)-4 closure as teams continued to prepare glovebox/hoods for extraction during demolition. Final preparations are expected to be completed on July 25, 2017. At that time, gloveboxes will be staged until demolition of 234-5Z commences and completion of the Capital Asset Project (CAP) discrete scope will be completed. The total number of gloveboxes removed to date is 97 percent complete.

The following are key metrics associated with this Capital Asset Project.

<i>Key Metrics</i>	<i>Current Month Plan</i>	<i>Current Month Actuals</i>	<i>Cumulative Plan</i>	<i>Cumulative Actuals</i>
Glovebox/Hood Removed	-	2	174	168
<b>COMPLETE</b> KPP Rooms/Areas Ready for Demo	-	-	60	60 rooms/areas

## KEY ACCOMPLISHMENTS

### RL-0011\_C1 Accomplishments

- Work remaining on this capital asset project is removal of the gloveboxes from the 234-5Z Facility. All work associated with the glovebox process equipment removal has been completed. Final preparations to support the physical removal of the remaining gloveboxes will be completed by July 25, 2017. As the project nears the ready-for-demolition milestone for the 234-5Z building, additional gloveboxes will begin to be removed from the facility.
- HC-7C and 227T gloveboxes were removed from 234-5Z and loaded into Super 7A waste container for shipment to Perma-Fix Northwest (PFNW) for size reduction.

## MAJOR ISSUES

None currently identified.

## CORRECTIVE ACTION LOG

Reference Appendix C.1 Format 5 for specific corrective actions for this CAP.

## RISK MANAGEMENT STATUS

**Unassigned Risk**  
**Risk Passed**  
**New Risk**  
**Change**

- Opportunity currently realized, or mitigation efforts are currently working toward, or after risk trigger with no foreseeable impacts.
- Mitigation efforts are currently working toward risk trigger with the possibility of actions not in place prior to risk occurrence. Recovery actions may be needed.
- Risk currently realized, or risk mitigation efforts are past risk trigger date with foreseeable impacts. Recovery actions needed.

- Increased Confidence
- No Change
- Decreased Confidence

Risk Title Risk Owner	Unmitigated Risk Impacts	Assessment		Comments		
		Month	Trend			
<b>RL-0011/WBS-011.05.01.01.06 (CAP.1)</b>						
<b>Explanation of major changes to the project monthly spotlight chart:</b> No major changes to the monthly spotlight chart in the month of July.						
<b>Realized Risks</b> (Risks that are currently impacting project cost/schedule)						
No realized risks identified for RL-0011/WBS-011.05.01.01.06 (CAP.1) in the month of July.						
<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)						
<b>FY2017 Risk Triggers</b> (Risk could be realized in FY2017)						
PFP-DEMO-21: Glove Box/Equipment Removal/Demolition Material Handling Event	A material handling event (e.g. dropped piece of process equipment) occurs during the Plutonium Finishing Plant (PFP) demolition, resulting in cost impacts and schedule delays. <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Low (10% to 25%) <b>Worst Case Impacts:</b> \$150K, 30 days	<span style="color: green;">●</span>		<b>Risk Trigger:</b> During pre-demolition/demolition activities in FY2017.		
				<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Mitigation action(s)</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td style="text-align: center;">N/A</td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table>	Mitigation action(s)	FC Date
Mitigation action(s)	FC Date	%				
None identified at this time.	N/A	N/A				
<b>Mitigation Assessment:</b> Mitigation Assessment: No change in the month of July. The mitigation strategies have been put in place; as a result, the risk strategy is to accept with no further mitigation actions identified at this time. PFP will continue to adhere to the CHPRC Integrated Safety Management System (ISMS) program/hoisting and rigging program to include detailed analyses of potential hazards and identification of preventive measures to implement prior to starting the work. At this time, no alternative course of actions are needed.						
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)						
No high threat value risks identified for RL-0011/WBS-011.05.01.01.06 (CAP.1) in the month of July.						
<b>Unassigned Risks</b> (Pending ownership of identified risks/opportunities)						
No unassigned risks identified for RL-0011/WBS-011.05.01.01.06 (CAP.1) in the month of July.						

## CRITICAL PATH SCHEDULE

The PFP Critical Path schedule begins with the continuation of duct removal/fixative application and small diameter tubing isolations in Remote Mechanical C (RMC) Process Line. The heating ventilation, and air conditioning (HVAC) activities are performed in parallel with the mechanical isolations throughout 234-5Z to support the transition to demolition. Once ready for demo in 234-5Z, A-Labs is the first section of the building to be demolished. After A-labs is complete, demolition of Backside Rooms/Plutonium Process Support Laboratories (PPSL) will begin, which then moves to Front Side Demolition. The demolition of A-Labs also drives demolition of the 236-Z canyon. 236-Z Canyon demolition will run in parallel with the remainder of 234-5Z demolition. After completion of the Front Side of 234-5Z, the Remote Mechanical A (RMA) Process Line and RMC Process Line will be demolished. Finally, the removal of the last C1 gloveboxes from 234-5Z during demolition of the Radioactive Acid Digestion Test Unit (RADTU) area. Completion of the removal of the final gloveboxes is followed by performing CD-4 closeout activities for RL-0011.C1.

## SCHEDULE MARGIN/MANAGEMENT RESERVE

Reference Appendix C.1 Formats 1, 2, 3, and 5 for specific schedule margin/Management Reserve (MR) utilization for this CAP.

## CRITICAL DECISION MILESTONE STATUS

Number	Title	* Due Date	**Forecast Date	Status/ Comment
CAP.1	Removal of 174 gloveboxes from 234-5Z	11/30/17	12/2/2017	Progress continued to work toward CD-4 closure as teams continued to prep glovebox/hoods for extraction during demolition. Final preparations for the removal are expected to be completed on July 25, 2017. At that time, remaining gloveboxes will be staged until demolition of 234-5Z commences and completion of CAP.1 discrete scope will be completed. There was a 1-day loss, which is insignificant. As the PFP Project continues to make progress on the behind schedule critical path work scope being performed, it is expected that efficiencies will be recognized, evaluated, and as appropriate, implemented to help recover some of the schedule delays. The total gloveboxes removed to date is at 97 percent complete.

\*Due date reflects CD-4 due date with DOE contingency.

\*\*Forecasted Date reflects CD-4 due date without DOE contingency.

## GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

Nothing to report at this time.

## DOE ACTIONS / DECISIONS

Working with DOE on CD-4 closure actions.

# Appendix C.1

## RL-0011.C1 – PFP D&D

### (Removal of 174 Gloveboxes from 234-5Z)

## Contract Performance Reports

Format 1 - Work Breakdown Structure

Format 2 - Organizational Categories

Format 3 - Baseline

Format 4 - Staffing

Format 5 - Explanation and Problem Analysis



July 2017  
CHPRC-2017-07, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1



CLASSIFICATION (When Filled In)

**CONTRACT PERFORMANCE REPORT  
FORMAT 2 - ORGANIZATIONAL CATEGORIES**

DOLLARS IN Thousands of \$

FORM APPROVED  
OMB No. 0704-0188

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>			<b>4. REPORT PERIOD</b>		
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME RL_0011_C1 - PFP D&D (ARRA/Base)			a. FROM (YYYYMMDD) 2017 / 06 / 26		
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE			b. TO (YYYYMMDD) 2017 / 07 / 23		
		c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE NO <input type="checkbox"/> X <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18					

WBS.Resp Org Group  ITEM (1)	CURRENT PERIOD						CUMULATIVE TO DATE						REPROGRAMMING			AT COMPLETION		
	BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (9)	VARIANCE		ADJUSTMENTS			BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)		
	WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)	COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)					
35 - Business Services	0	0	0	0	0	60,427	60,427	52,580	0	7,847	0	0	0	60,427	52,580	7,847		
3B - PFP Closure Project	0	87	3	87	84	254,725	254,346	279,781	-379	-25,435	0	0	0	254,725	280,064	-25,339		
<b>b. COST OF MONEY</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
<b>c. GENERAL AND ADMINISTRATIVE</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
<b>d. UNDISTRIBUTED BUDGET</b>																		
<b>e. SUBTOTAL (Performance Measurement Baseline)</b>	0	87	3	87	84	315,152	314,773	332,361	-379	-17,588	0	0	0	315,152	332,645	-17,493		
<b>f. MANAGEMENT RESERVE</b>														2,393				
<b>g. TOTAL</b>	0	87	3	87	84	315,152	314,773	332,361	-379	-17,588	0	0	0	317,545				

CLASSIFICATION (When Filled In)



**CONTRACT PERFORMANCE REPORT  
FORMAT 4 - STAFFING**

Dollars in: FTE

**FORM APPROVED**  
**OMB No. 0704-0188**  
**a. FROM (YYYYMMDD)**  
2017 / 06 / 26  
**b. TO (YYYYMMDD)**  
2017 / 07 / 23

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME RL_0011_C1 - PFP D&D (ARRA/Base)	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE	
		c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18	

5. PERFORMANCE DATA													
WBS.Resp Org Group  ORGANIZATIONAL CATEGORY  (1)	ACTUAL CURRENT PERIOD  (2)	ACTUAL END OF CURRENT PERIOD (Cumulative)  (3)	FORECAST (Non-Cumulative)										AT COMPLETION  (15)
			SIX MONTH FORECAST BY MONTH (Enter names of months)						ENTER SPECIFIED PERIODS				
			+1 AUG 2017 (4)	+2 SEPT 2017 (5)	+3 OCT 2017 (6)	+4 NOV 2017 (7)	+5 DEC 2017 (8)	+6 JAN 2018 (9)	2nd Qtr FY18 (10)	3rd Qtr FY18 (11)	FY18 (12)	FY19-LC (13)	
35 - Business Services	0	17	0	0	0	0	0	0	0	0	0	0	17
3B - PFP Closure Project	0	15428	9	7	0	0	0	0	0	0	0	0	15445
<b>g. TOTAL DIRECT</b>	0	15445	9	7	0	0	0	0	0	0	0	0	15462

CLASSIFICATION (When Filled In)

**CONTRACT PERFORMANCE REPORT  
FORMAT 5 - Explanations and Problem Analysis**

**FORM APPROVED  
OMB No. 0704-0188**

<b>1. CONTRACTOR</b>	<b>2. CONTRACT</b>	<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>
a. NAME CH2M HILL Plateau Remediation Company	a. NAME Plateau Remediation Contract	a. NAME MPB - RL_0011_C1 - PFP D&D (ARRA/Base)		a. FROM (YYYYMMDD)  2017/06/26
b. LOCATION (Address and ZIP Code) Richland, WA	b. NUMBER RL14788	b. PHASE		b. TO (YYYYMMDD)  2017/07/23
	c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE No X Yes (YYYYMMDD) 2009 / 09 / 18	

**Direct Projects**

5. Evaluation	Budget	Earned	Actuals	SV in \$	SV in %	CV in \$	CV in %	SPI	CPI
Current:	0	87	3	87		84	97%	-	29.08
Cumulative:	315,152	314,773	332,361	-379	-0.1%	-17,588	-5.6%	1.00	0.95
	<b>BAC</b>	<b>EAC</b>	<b>VAC in \$</b>	<b>VAC in %</b>	<b>TCPI to BAC</b>	<b>TCPI to EAC</b>			
At Complete:	315,152	332,645	-17,493	-5.6%	-	1.34			

**Explanation of Variance/Description of Problem:**

Current Period:  
Schedule Variance: The schedule variance is due to working historical BCWS associated with Glovebox prep and removal activities in 234-5Z for the HC-7C and 227S and 227T gloveboxes. The baseline assumed this scope would complete by November 2016 but work was re-sequenced to optimize other critical path activities at the PFP Facility (i.e., PRF read for demo, 242-Z Ready for demo and 234-5Z duct level).

Cost Variance: The current month cost variance is associated with incorrect charging. Charges for the work on removal of the gloveboxes were incorrectly charged to Control Account 011.05.C2.06. Time sheets will be corrected and will appear in the August month end reporting data.

Cumulative To Date:  
Schedule Variance: Within Threshold  
Cost Variance: Within Threshold

**Impact:**  
Impact: The RL-011.C1 project baseline completion date is February 16, 2016. The current schedule now reflects a completion date of December 2, 2017. There was a 1 day loss which is insignificant.

The current RL-11 performance schedule indicates that the PFP project will achieve slab-on-grade by September 29, 2017. During the month of July, the PFP project stayed on track to meet the forecasted completion date as identified in the June month end forecast completion date of the Tri-Party Agreement milestone for the PFP Project to reach slab-on-grade. Efficiencies have previously been identified in readying the 234-5Z facility for demolition wherein NDA and characterization data supports leaving more piping and ducting in place for demolition. In addition, efficiencies were recognized in 236-Z (PRF) wherein work was performed on filter boxes in parallel with the gallery gloveboxes which allowed for acceleration of the start of 236-Z demolition. This is turn accelerated when additional field team resources were reallocated from 236-Z to 234-5Z to get the facility ready for demolition. This is partially offset by delay in readying the 234-5Z facility for demolition as a result of lack of RCT resources. 234-5Z contains the gloveboxes requiring removal to meet the end state of the KPP and TPA milestone. The project expects to increase progress in the 234-5Z facility as all resources have been reassigned to complete the demo preparations in this facility. The PFP Project is currently at risk to meet the re-negotiated TPA milestone M-083-00A due date of 9/30/17 for achieving slab-on-grade. However, the CD-4 closure date is at risk.

Cost Impact: The historical negative cost variance of ~\$17.6M and 5.6%, and CPI of .95 reflect impacts of the safety pauses, stop works, contamination events, and increased complexity of the HA-9A/HC-9B size reduction efforts and preparations and removal of the HA-7A, HC18M and HC-7C and 227S and 227T gloveboxes. This is partially offset by recognized efficiencies in cleaning up the RMA/RMC control rooms after completion of the size reduction efforts of the 9A/9B gloveboxes.

Cost variance is not considered recoverable as there is only a small amount of scope remaining to complete the KPP. As efficiencies continue to be recognized, the EAC will be adjusted.

**Corrective Action:**  
Timesheets are being corrected for the mischarging that occurred in the month of August. ECD 9/30/17 - Tim Trevis

- No Corrective Actions Required**
- Schedule Margin Analysis: There is no schedule margin associated with the RL-011.C1 capital asset account.
  - IMS Data dictionary Changes: None in the month of July.
  - Forecast Schedule with No Baseline: None in the month of July.
  - UB Balance: None in the month of July.
  - Negative ACWP: None in the month of July.
  - EAC Analysis: Best Case = \$332,645; Most Likely = \$335,133; Worst Case = \$335,038
  - Negative CV > VAC: Scope to perform size reduction efforts on the high gram glovebox removal efforts was estimated to be completed in a much shorter time frame with much fewer resources than originally planned causing the large Cost Variance. The EAC is reflective of the current approach to perform the remaining work scope.
  - MR Transactions: None in the month of July.
  - Freeze Period Changes: None in the month of July.
  - Retroactive Changes: None in the month of July.
  - EVT Changes: None in the month of July.

\*During the Month of April CHPRC kicked off the FY2018 comprehensive EAC process (ZZCSMILE1117A, Kickoff FY18 Annual Comprehensive EAC), and is expected to finish mid-September (ZZCSMILE1117B, Submit Final FY18 Annual Comprehensive EAC).

Prepared by: \_\_\_\_\_ Date: \_\_\_\_\_ Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

# Appendix C.2

## Capital Asset Project

### RL-0011.C2 - Demolition of PFP Facilities



T. E. Bratvold  
Vice President for  
Plutonium Finishing  
Plant Closure  
Project

July 2017  
CHPRC-2017-07, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

Progress continued to work toward critical decision (CD)-4 closure as teams continued to ready the Plutonium Finishing Plant (PFP) facilities for demolition. Demolition on the Plutonium Reclamation Facility (PRF) began on November 8, 2016. Demolition of 291-Z commenced on June 30, 2017. The 291-Z stack was demolished on July 15, 2017, and loadout commenced. Completion of all demolition activities are scheduled to occur in late September 2017.

The following are key metrics associated with this CAP.

<i>Key Metrics</i>	<i>Current Month Plan</i>	<i>Current Month Actuals</i>	<i>Cumulative Plan</i>	<i>Cumulative Actuals</i>
Complete Cold and Dark/Demo Ready activities for 234-5Z	-	-	1	-
<b>COMPLETE</b> Cold and Dark/Demo Ready activities for 236-Z	-	-	1	1
<b>COMPLETE</b> Cold and Dark/Demo Ready activities for 242-Z	-	-	1	1
<b>COMPLETE</b> Cold and Dark/Demo Ready activities for 291-Z	-	1	1	1
Complete Cold and Dark/Demo Ready activities for PFP Ancillary Facilities	-	-	15	3
Complete Demolition of 234-5Z	-	-	1	-
Complete Demolition of 236-Z	-	-	1	-
<b>COMPLETE</b> Demolition of 242-Z	-	-	1	1
Complete Demolition of 291-Z	-	-	1	-
Complete Demolition of PFP Ancillary Facilities	-	-	15	3
Turnover Facility to Long Term Surveillance & Maintenance	-	-	-	-

## KEY ACCOMPLISHMENTS

### RL-0011\_C2 Accomplishments

- Demolished the 291-Z stack and began waste loadout.
- Began 291-Z demolition and waste loadout.

## MAJOR ISSUES

Nothing to report at this time.

## CORRECTIVE ACTION LOG

Reference Appendix C.2 Format 5 for specific corrective actions for this CAP.

## RISK MANAGEMENT STATUS

**Unassigned Risk**  
**Risk Passed**  
**New Risk**  
**Change**

- Opportunity currently realized, or mitigation efforts are currently working toward, or after risk trigger with no foreseeable impacts.
- Mitigation efforts are currently working toward risk trigger with the possibility of actions not in place prior to risk occurrence. Recovery actions may be needed.
- Risk currently realized, or risk mitigation efforts are past risk trigger date with foreseeable impacts. Recovery actions needed.

- ↑ Increased Confidence
- ↔ No Change
- ↓ Decreased Confidence

Risk Title Risk Owner	Unmitigated Risk Impacts	Assessment		Comments								
		Month	Trend									
<b>RL-0011/WBS-011.05.C3 (CAP.2)</b>												
<b>Explanation of major changes to the project monthly stoplight chart:</b> No major changes to the monthly stoplight chart in the month of July.												
<b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>												
PFP-DEMO-05: Inclement Weather	Inclement weather, including moderate winds, low or high temperatures, and thunderstorms will impact the demolition of PFP. <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$0K, 32 days  *Cost increase will result in cost per day impacts from crews and hotel load.	<span style="color: green;">●</span>	<span style="color: blue;">↓</span>	<p><b>Risk Event:</b> This risk was realized during the month of May due to high winds and lightening, limiting demolition activities.</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Risk Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Implement "tropical" shift and OT shifts as necessary to mitigate further impacts associated with weather.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Recovery Assessment:</b> During the month of July, due to implementation of recovery actions, no additional impacts have occurred as a result of weather. The risk remains critical due to upcoming high-wind and continued high-heat weather having the ability to impact the planned demolition. The PFP project will continue to adjust the daily work scope to plan for projected weather impacts.</p>	Risk Recovery Action(s)	FC Date	%	Implement "tropical" shift and OT shifts as necessary to mitigate further impacts associated with weather.	Ongoing	N/A		
Risk Recovery Action(s)	FC Date	%										
Implement "tropical" shift and OT shifts as necessary to mitigate further impacts associated with weather.	Ongoing	N/A										
PFP-DEMO-16: Contamination Spread Beyond Established Boundaries	Unplanned transport of contamination from posted areas due to dust suppression liquid flow, natural events or wildlife result in cost impacts and schedule delays. <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$3 million, 30 days	<span style="color: red;">●</span>		<p><b>Risk Event:</b> A Continuous Air Monitoring (CAM) alarm sounded while crews were removing and packaging the third section of GB3 the PRF on Thursday, June 8, 2017. Demolition activities were stopped, and RCTs began surveys in preparation to egress personnel.</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Risk Recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>                     1. Add caution to work package direction to not apply a focused beam of water to high materials at risk (MAR) components that have been breached.                      2. Evaluate the use of the foggers.                      3. Revise or incorporate additional controls into the work package as appropriate.                      4. Evaluate the boundaries to incorporate available radiological data.                      5. Evaluate the fixative concentration.                      6. Incorporate case-by-case consideration when handling items of accessible gram values during adverse weather conditions into the work package.                      7. Evaluate the method for determining acceptable wind speed.                      8. PFP provides real-time data from the event to Dr. Napier (PNNL) for consideration with future models.                 </td> <td style="text-align: center;">6/8/17</td> <td style="text-align: center;">TBD</td> <td style="text-align: center;">0</td> </tr> </tbody> </table> <p><b>Recovery Actions Assessment:</b> The work package for the remaining activities for the 236-Z demolition work will be revised to incorporate all corrective actions. Corrective actions continue to be evaluated, with implementation forthcoming.</p>	Risk Recovery action(s)	Risk Date	FC Date	%	1. Add caution to work package direction to not apply a focused beam of water to high materials at risk (MAR) components that have been breached. 2. Evaluate the use of the foggers. 3. Revise or incorporate additional controls into the work package as appropriate. 4. Evaluate the boundaries to incorporate available radiological data. 5. Evaluate the fixative concentration. 6. Incorporate case-by-case consideration when handling items of accessible gram values during adverse weather conditions into the work package. 7. Evaluate the method for determining acceptable wind speed. 8. PFP provides real-time data from the event to Dr. Napier (PNNL) for consideration with future models.	6/8/17	TBD	0
Risk Recovery action(s)	Risk Date	FC Date	%									
1. Add caution to work package direction to not apply a focused beam of water to high materials at risk (MAR) components that have been breached. 2. Evaluate the use of the foggers. 3. Revise or incorporate additional controls into the work package as appropriate. 4. Evaluate the boundaries to incorporate available radiological data. 5. Evaluate the fixative concentration. 6. Incorporate case-by-case consideration when handling items of accessible gram values during adverse weather conditions into the work package. 7. Evaluate the method for determining acceptable wind speed. 8. PFP provides real-time data from the event to Dr. Napier (PNNL) for consideration with future models.	6/8/17	TBD	0									
<b>Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)</b>												
No critical risks identified in the month of July.												

Risk Title Risk Owner	Unmitigated Risk Impacts	Assessment		Comments					
		Month	Trend						
<b>RL-0011/WBS-011.05.C3 (CAP.2)</b>									
<b>FY2017 Risk Triggers</b> (Risk could be realized in FY2017)									
PFP-DEMO-21: Glovebox/Equipment Removal/Demolition Material Handling Event	A material handling event (e.g., dropped piece of process equipment) occurs during the PFP demolition, resulting in cost impacts and schedule delays. <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Low (10% to 25%) <b>Worst Case Impacts:</b> \$150K, 30 days	●	↑	<b>Risk Trigger:</b> During pre-demolition/demolition activities in fiscal year (FY) 2017.					
				<table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table>	Mitigation action(s)	FC Date	%	None identified at this time.	N/A
Mitigation action(s)	FC Date	%							
None identified at this time.	N/A	N/A							
PFP-DEMO-07: Removal/Extraction of Equipment Takes Longer Than Planned	Controlled demolition of equipment, gloveboxes, and portions of the crosscutting process support systems (i.e. ventilation) result in cost impacts and schedule delays. <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$3 million, 60 days	●	↔	<b>Risk Trigger:</b> During pre-demolition/demolition activities in FY2017. Dates tracked in the field execution schedule (FES).					
				<table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Identify and pre-rig equipment with lifting slings.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Initiate discussions early in the demo planning of the equipment being left in place for removal during demolish.</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table>	Mitigation action(s)	FC Date	%	Identify and pre-rig equipment with lifting slings.	Complete
Mitigation action(s)	FC Date	%							
Identify and pre-rig equipment with lifting slings.	Complete	100							
Initiate discussions early in the demo planning of the equipment being left in place for removal during demolish.	Complete	100							
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)									
PFP-DEMO-12: PFP/PRF Demolition Contamination Levels	Contamination levels on the canyon walls, floors, ventilation ducts, and the remaining areas of PFP will be higher than expected, thus requiring more stringent controls than expected or larger than expected waste volumes, resulting in cost impacts, and schedule delays. <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$1.5 million, 22 days	●	↔	<b>Risk Trigger:</b> During pre-demolition/demolition activities in FY2017. Dates tracked in the FES.					
				<table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table>	Mitigation action(s)	FC Date	%	None identified at this time.	N/A
Mitigation action(s)	FC Date	%							
None identified at this time.	N/A	N/A							
<b>Unassigned Risks</b> (Pending ownership of identified risks/opportunities)									
No unassigned risks identified in the month of July.									

## CRITICAL PATH SCHEDULE

The PFP Critical Path schedule begins with the continuation of duct removal/fixative application and small diameter tubing isolations in Remote Mechanical C (RMC) Process Line. The heating ventilation, and air conditioning (HVAC) activities are performed in parallel with the mechanical isolations throughout 234-5Z to support the transition to demolition. Once ready for demo in 234-5Z, A-Labs is the first section of the building to be demolished. After A-labs is complete, demolition of Backside Rooms/Plutonium Process Support Laboratories (PPSL) will begin, which then moves to Front Side Demolition. The demolition of A-Labs also drives demolition of the 236-Z canyon. 236-Z canyon demolition will run in parallel with the remainder of 234-5Z demolition. After completion of the Front Side of 234-5Z, the Remote Mechanical A (RMA) Process Line and RMC Process Line will be demolished. Finally, the demolition of the Radioactive Acid Digestion Test Unit (RADTU) and basement areas completes the 234-5Z Facility, meeting the requirements for the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Milestone – M-083-00A – *PFP Facility Transition and Selection Disposition Activities*. After demolition is complete, site stabilization and demobilization occur, leading to CD-4 closeout activities for RL-0011.C2.

## SCHEDULE MARGIN/MANAGEMENT RESERVE

Reference Appendix C.2 Formats 1, 2, 3, and, 5 for specific schedule margin/MR utilization for this CAP.

## CRITICAL DECISION MILESTONE STATUS

Number	Title	* Due Date	**Forecast Date	Status/ Comment
RL-011.C2	Completion Demolition of all PFP Facilities.	8/31/18	2/7/18	Progress continued to work toward CD-4 closure as teams continued to ready the PFP facilities for demolition. The PRF facility initiated demolition on November 8, 2016, and completion of demolition activities will occur in September 2017. Demolition on the 291-Z facility commenced on June 30, 2017, and the 291-Z stack was demolished on July 15, 2017. There was no schedule loss for the month of July. As the PFP Project continues to make progress on the behind schedule critical path work scope being performed, it is expected that efficiencies will be recognized, evaluated, and as appropriate, implemented to help recover some of the schedule delays.

\*Due date reflects CD-4 due date with DOE contingency.

\*\*Forecasted Date reflects CD-4 due date without DOE contingency.

## GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None to report at this time.

## DOE ACTIONS / DECISIONS

Working with DOE on CD-4 closure actions.

# Appendix C.2

## RL-0011.C2 - Demolition of PFP Facilities

### Contract Performance Reports

Format 1 - Work Breakdown Structure

Format 2 - Organizational Categories

Format 3 - Baseline

Format 4 - Staffing

Format 5 - Explanation and Problem Analysis



July 2017  
CHPRC-2017-07, Rev. 0  
Contract DE-AC07-08RL14788  
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

**CONTRACT PERFORMANCE REPORT  
FORMAT 1 - WORK BREAKDOWN STRUCTURE**

DOLLARS IN Thousands of \$

FORM APPROVED  
OMB No. 0704-0188

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>													
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME RL_0011_C2 PFP Demolition Capital Asset Project		a. FROM (YYYYMMDD)  2017 / 06 / 26													
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD)  2017 / 07 / 23													
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE															
				NO <input type="checkbox"/> X <input checked="" type="checkbox"/>		YES (YYYYMMDD) 2009 / 09 / 18													
<b>5. CONTRACT DATA</b>																			
a. QUANTITY 1	b. NEGOTIATED COST 51,683	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 0	d. TARGET PROFIT/FEE 5,000	e. TARGET PRICE 56,683	f. ESTIMATED PRICE 50,318	g. CONTRACT CEILING 56,683	h. ESTIMATED CONTRACT CEILING 50,318												
<b>6. ESTIMATED COST AT COMPLETION</b>				<b>7. AUTHORIZED CONTRACTOR REPRESENTATIVE</b>															
		MANAGEMENT ESTIMATE AT COMPLETION (1)	CONTRACT BUDGET BASE (2)	VARIANCE (3)	a. NAME (Last, First, Middle Initial) Dickerson, Kala K		b. TITLE Prime Contract Compliance Manager												
a. BEST CASE		42,346			c. SIGNATURE		d. DATE SIGNED (YYYYMMDD)												
b. WORST CASE		58,017																	
c. MOST LIKELY		45,318	51,683	6,365															
<b>8. PERFORMANCE DATA</b>																			
CAPN.PBS Control Account.PARS 2 WBS (2)		CURRENT PERIOD			CUMULATIVE TO DATE			REPROGRAMMING ADJUSTMENTS			AT COMPLETION								
ITEM (1)		BUDGETED COST		ACTUAL		BUDGETED COST		ACTUAL		COST VARIANCE		BUDGETED		ESTIMATED		VARIANCE			
		WORK SCHEDULED (2)	WORK PERFORMED (3)	COST WORK PERFORMED (4)	SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	COST WORK PERFORMED (9)	SCHEDULE (10)	COST (11)	COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	(14)	(15)	(16)		
RL-0011 Nuclear Mat Stab & Disp PFP																			
RL_0011_C2.05 Disposition PFP Facility		0	7,606	2,214	7,606	5,391	48,712	24,055	29,125	-24,657	-5,070	0	0	0	48,712	42,346	6,365		
b. COST OF MONEY		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
c. GENERAL AND ADMINISTRATIVE		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
d. UNDISTRIBUTED BUDGET															0	0	0		
e. SUBTOTAL		0	7,606	2,214	7,606	5,391	48,712	24,055	29,125	-24,657	-5,070	0	0	0	48,712	42,346	6,365		
f. MANAGEMENT RESERVE															2,971				
g. TOTAL		0	7,606	2,214	7,606	5,391	48,712	24,055	29,125	-24,657	-5,070	0	0	0	51,683				
<b>9. RECONCILIATION TO CONTRACT BUDGET BASELINE</b>																			
a. VARIANCE ADJUSTMENT																			
b. TOTAL CONTRACT VARIANCE										-24,657		-5,070		51,683		42,346		9,337	

**CONTRACT PERFORMANCE REPORT  
FORMAT 2 - ORGANIZATIONAL CATEGORIES**

DOLLARS IN Thousands of \$ OMB No. 0704-0188

FORM APPROVED

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME RL_0011_C2 PFP Demolition Capital Asset Project		a. FROM (YYYYMMDD)  2017 / 06 / 26	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD)  2017 / 07 / 23	
		c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18	

WBS.Resp Org Group	CURRENT PERIOD						CUMULATIVE TO DATE					REPROGRAMMING			AT COMPLETION		
	BUDGETED COST		ACTUAL	VARIANCE		BUDGETED COST		ACTUAL	VARIANCE		ADJUSTMENTS			BUDGETED	ESTIMATED	VARIANCE	
	WORK SCHEDULED (2)	WORK PERFORMED (3)	COST WORK PERFORMED (4)	SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	COST WORK PERFORMED (9)	SCHEDULE (10)	COST (11)	COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	(14)	(15)	(16)	
3B - PFP Closure Project	0	7,606	2,214	7,606	5,391	48,712	24,055	29,125	-24,657	-5,070	0	0	0	48,712	42,346	6,365	
b. COST OF MONEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
c. GENERAL AND ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
d. UNDISTRIBUTED BUDGET														0	0	0	
e. SUBTOTAL (Performance Measurement Baseline)	0	7,606	2,214	7,606	5,391	48,712	24,055	29,125	-24,657	-5,070	0	0	0	48,712	42,346	6,365	
f. MANAGEMENT RESERVE														2,971			
g. TOTAL	0	7,606	2,214	7,606	5,391	48,712	24,055	29,125	-24,657	-5,070	0	0	0	51,683			

CLASSIFICATION (When Filled In)



CLASSIFICATION (When Filled In)

**CONTRACT PERFORMANCE REPORT  
FORMAT 4 - STAFFING**

Dollars in: FTE

FORM APPROVED  
OMB No. 0704-0188

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME RL_0011_C2 PFP Demolition Capital Asset Project		a. FROM (YYYYMMDD) 2017 / 06 / 26	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017 / 07 / 23	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18			

5. PERFORMANCE DATA														
WBS.Resp Org Group  ORGANIZATIONAL CATEGORY (1)	ACTUAL CURRENT PERIOD (2)	ACTUAL END OF CURRENT PERIOD (Cumulative) (3)	FORECAST (Non-Cumulative)											AT COMPLETION (15)
			SIX MONTH FORECAST BY MONTH (Enter names of months)						ENTER SPECIFIED PERIODS					
			+1 AUG 2017 (4)	+2 SEPT 2017 (5)	+3 OCT 2017 (6)	+4 NOV 2017 (7)	+5 DEC 2017 (8)	+6 JAN 2018 (9)	2nd Qtr FY18 (10)	3rd Qtr FY18 (11)	FY18 (12)	FY19-LC (13)		
3B - PFP Closure Project	36	486	96	140	27	42	6	6	3	0	0	0	807	
<b>g. TOTAL DIRECT</b>	<b>36</b>	<b>486</b>	<b>96</b>	<b>140</b>	<b>27</b>	<b>42</b>	<b>6</b>	<b>6</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>807</b>	

**CLASSIFICATION (When Filled In)**

**CONTRACT PERFORMANCE REPORT**

**FORMAT 5 - Explanations and Problem Analysis**

**FORM APPROVED**  
OMB No. 0704-0188

<b>1. CONTRACTOR</b>	<b>2. CONTRACT</b>	<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>
a. NAME CH2M HILL Plateau Remediation Company	a. NAME Plateau Remediation Contract	a. NAME RL_0011_C2 PFP Demolition Capital Asset Project	a. FROM (YYYYMMDD) 2017/06/26	
b. LOCATION (Address and ZIP Code) Richland, WA	b. NUMBER RL14788	b. PHASE	b. TO (YYYYMMDD) 2017/07/23	
	c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE No X Yes (YYYYMMDD) 2009 / 09 / 18	

<b>Direct Projects</b>									
<b>5. Evaluation</b>	<b>Budget</b>	<b>Earned</b>	<b>Actuals</b>	<b>SV in \$</b>	<b>SV in %</b>	<b>CV in \$</b>	<b>CV in %</b>	<b>SPI</b>	<b>CPI</b>
Current:		0.0	7,605.6	2,214.3	7,605.6	-	5,391.3	70.9%	3.43
Cumulative:		48,711.9	24,054.9	29,125.3	-24,657.0	-50.6%	-5,070.5	-21.1%	0.83
	<b>BAC</b>	<b>EAC</b>	<b>VAC in \$</b>	<b>VAC in %</b>	<b>TCPI to BAC</b>	<b>TCPI to EAC</b>			
At Complete:		48,711.9	42,346.5	6,365.4	13.1%	1.26	1.86		

**Explanation of Variance/Description of Problem:**

**Current Month:**

**Schedule Variance:** The schedule variance for the current month is due to working historical BCWS on discrete demolition activities (apportioned). The demolition activities were originally planned to be initiated in the third quarter of 2016, however, delays in getting the facilities ready for demolition negatively impacted the start of physical demolition. The 291-Z demolition began in July 2017 and is scheduled to complete in August 2017. Demolition of 234-5Z and 236-Z is currently scheduled to complete in September 2017. Significant progress toward demolishing 291-Z (demolition of the 291-Z stack and vent house) and removal of filter boxes in 234-5Z resulted in significant performance claimed for this month. Because all work is historical, the current schedule variance will be favorable going forward.

**Cost Variance:** The favorable cost variance relates to the progress on discrete demolition work scope (apportioned) (see the schedule variance explanation), while a constant staff provides D&D support services. Recognized efficiencies associated with demolition of the 291-Z facility and implosion of the 291-Z stack are also contributing to this variance.

**Cumulative to Date:**

**Schedule Variance:** The cumulative unfavorable schedule variance is due to delay of demolition of ancillary buildings and 236-Z caused by resources being redirected to support higher priority critical path work associated with decommissioning of 234-5Z, 242-Z, and 236-Z, as well as ready for demo activities associated with impacts from 236-Z Canyon Crane failure, contamination impacts from an unplanned criticality alarm failure, contamination recovery in the duct level of 234-5Z (two week delay in July 2016), increased characterization efforts, weather delays (snow and wind), recovery from demolition contamination events, and greater efforts to complete 242-Z demolition than originally planned. In addition, the PUREX Tunnel collapse caused a four day delay due to closure of the Hanford site restricting access to PFP and a contamination event associated with removal of PRF gallery gloveboxes causing a 20 day delay of demolition activities on the 236-Z facility. Finally, As a result of delays in the ready for demolition activities, the C2 CD-4 has been delayed but not in jeopardy of being met. However, the TPA milestone M-083-00A was re-negotiated to a due date of 9/30/2017 and is at risk. This is partially offset by the completion of demolition of the 2729-Z, and 2727-Z facilities, removal of gloveboxes, the completion of demolition activities for the 2nd, 3rd, 4th, 5th, and 6th floors, South Canyon Airlock of 236-Z, removal of three sections of gallery gloveboxes from 236-Z, demolition of 242-ZA, completion of demolition activities in the 242-Z facility, and progress on the 291-Z demolition and completion of the implosion of the 291-Z stack.

**Cost Variance:** The cumulative negative cost variance is associated with MSA subcontracted resources arriving to support PFP demolition that were planned as P/Q shift support with a baseline start date of February 2016. Because the project is behind schedule in initiating demolition activities, and because the decision was made not to execute demolition activities for the 236-Z/242-Z facilities on P/Q shift, these resources currently have limited work to support which contributes to inability to take performance until the ready for demolition work scope is completed. To ensure that the project is able to continue demolition activities as identified in the current schedule, these costs will continue to be realized resulting in a potential unrecoverable cost variance. Additionally, Readiness Assessment activities lagged due to a delay in the start of 236-Z Demolition and increased requirements to show readiness resulting in increased costs due to additional time and effort required from subcontracted and direct labor resources. In addition, the apportioned project management activities (i.e. project oversight and planning) and support activities are ongoing, while a delay in the discrete field work is resulting in minimal apportioned BCWP. Finally, demolition mobilization activities took longer than originally assumed because of recommendations made during the readiness assessment and purchasing unplanned PBS fixative to support 236-Z demolition. In addition, significant winter weather impacts (i.e., snow, wind, freezing rain, etc.) have been recognized on the Hanford Site. Site closures, freezing temperatures and significant snowfall that required clearing of the demolition zone rather than performing physical demolition on the facilities while a constant staff provides demolition support services is the contributing factor, as a result of the weather impacts and an unexpected contamination events in the PRF demolition zone. In addition unplanned Management Assessment efforts for the 234-5Z and 291-Z facilities took longer than originally assumed. As the project gets further into the demolition phase of the PRF Canyon, increased utilization of Personnel Protective Equipment to align with the original plan as well as increased material procurements to align with the scope being performed (i.e., P-100 filters, Labounty Shear, additional fixative, etc.) are also contributing to this variance. This is partially offset by recognized efficiencies associated with the demolition of the 2727-Z and 2729-Z facilities, the 242-ZA and 242-Z Facilities, and demolition of the 291-Z facility and 291-Z stack.

**Impact:**

**Schedule Impact:** Work efforts in getting 234-5Z ready for Cold & Dark resulted in a loss of zero days for the month of July. As the PFP Project continues to make progress on the behind schedule critical path work scope being performed, it is expected that continued efficiencies will be recognized, evaluated, and implemented as schedule delays occur. The baseline completion date is not considered recoverable. The TPA Milestone TPA-083-00A, complete PFP facility transition and selected disposition activities of September 30, 2017 is at risk.

**Cost Impact:** Stop Works, Safety Pauses, weather impacts (i.e., unusual winter, heat, wind, etc.) multiple contamination events, the PRF Crane failure, and associated recovery actions have negatively impacted the field work to ready 234-5Z, 236-Z, 242-Z, and 291-Z for demolition. In addition, readiness activities took longer than originally assumed as a result of increased requirements required by the Readiness Assessment team to demonstrate readiness for demolition of the PRF facility and efforts to mobilize took longer than originally assumed as a result of implemented recommendations from the readiness assessment team. An unplanned Management Assessment for the 234-5Z and 291-Z facilities to incorporate lessons learned from the demolition of the 236-Z and 242-Z facilities are also contributing to the cost impacts. Finally, in the early stages of this project subcontracted MSA resources specializing in facility demolition charged the project until the ready for demo status was achieved. Unexpected contamination events that occurred during demolition of the PRF facility in January and June 2017, and delays with the 242-Z demolition has contributed to the cost impacts on this project. This is partially offset by recognized efficiencies during the 291-Z demolition and 291-Z stack implosion.

The positive VAC is reflective of working one shift during demolition of 236-Z, 242-Z and 291-Z building and stack rather than two as planned in the PMB. In addition, the duration for demolition of 234-5Z has been adjusted as it has been determined that due to the time of year demolition will occur, the number of days to demolish the facility will be less than originally planned. This reduces the amount of demolition and supervision labor resources needed, resulting in the reduction of EAC to BCWS values.

**Corrective Action:**

Schedule: The PFP Project will shift to a P/Q, Z shift schedule late July to support demolition activities in the 234-5Z facility to ensure that the TPA milestone of 9/30/17 is met. Action: Chris Pearson Complete.

The PFP Project will utilize overtime when appropriate to attempt schedule recovery. Action: Chris Pearson 8/31/17

NOTE: Corrective actions associated with stop works/safety pauses, contamination events, and 236-Z Canyon Crane failure, and additional asbestos removal activities that are impacting the ability to initiate demolition activities in the RL-011.C2 capital asset project were previously addressed in the Operations project corrective action plan.

**Monthly Summary (to include technical causes of VARs, Impacts) and Corrective Action(s):**

The following items are addressed, as applicable, per the EVMSIH:

1. Schedule Margin Analysis: In the EAC there is currently no remaining schedule margin in this capital asset account. Schedule margin was lost in July 2016 as a result of impacts from stop works associated with PremAire breathing air issues related to size reduction of the HA-9A glovebox and impacts from a safety pause associated with a PremAire Breathing Air radiological event resulting in increased survey requirements for PPE and a requirement for removing additional asbestos in the 234-5Z facility prior to demolition activities commencing.
2. IMS Data dictionary Changes: No change in the month of July
3. Forecast Schedule with No Baseline: No change in the month of July
4. UB Balance: No change in the month of July
5. Negative ACWP: No change in the month of July
6. EAC Analysis: Best Case = \$42,346; Most Likely = \$45,318; Worst Case = \$58,017
7. Negative CV > VAC: No change in the month of July
8. MR Transactions: No change in the month of July
10. Retroactive Changes: No change in the month of July
11. EVT Changes: No change in the month of July

\*During the Month of April CHPRC kicked off the FY2018 comprehensive EAC process (ZZCSMILE1117A, Kickoff FY18 Annual Comprehensive EAC), and is expected to finish mid-September (ZZCSMILE1117B, Submit Final FY18 Annual Comprehensive EAC).

Prepared by:

Date:

Approved by:

Date:

Appendix C.3  
Capital Asset Project  
RL-0012\_C1\_1 - Sludge Retrieval Project  
15-D-401



R. M. Geimer  
Vice President for  
K Basin Operations and  
Plateau Remediation

July 2017  
CHPRC-2017-07, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

M. A. Wright  
Vice President for  
Project Technical  
Services

## PROJECT SUMMARY

The K Basin Pre-operational Acceptance Testing (KPAT), which commenced on April 20, 2017, continued through July. The test is forecast to complete October 31, 2017.

The 105KW Basin Final Safety Analysis Report (FSAR) and Technical Safety Requirements (TSR) revision required to support integrated KPAT testing, was approved on June 30, 2017. Implementation is forecast to begin August 17, 2017.

Comments provided by the RL Safety Basis Review Team (SBRT) were incorporated into the integrated TSR, and a final draft was provided to the SBRT on July 18, 2017. RL has indicated they will complete their review by July 26, 2017, and forecast a Safety Evaluation Report (SER) by August 25, 2017. Approval of the 105KW Facility Documented Safety Analysis (DSA) and TSR precedes finalization of Sludge Removal Project (SRP) training material/procedures and completion of readiness preparation activities prior to the Operational Readiness Reviews (ORRs) authorizing full-up Engineered Container Retrieval and Transfer System (ECRTS) Operation.

Based upon discussions between RL and CHPRC senior management, the Sludge Treatment Project (STP) team has modified the field execution schedule (FES) to implement acceleration opportunities, which could facilitate the transfer of all sludge to T Plant in fiscal year (FY) 2018. On March 27, 2017, CHPRC formally submitted letter CHPRC-1701045 R1 - *Contract Number DE-AC06-08RL14788 – Change Proposal CP 012 PRC 1646, Revision 0, Sludge Removal Project Acceleration of 105K and T Plant* for RL approval. In order to meet the accelerated schedule, support from CHPRC and RL is required for the following assumptions:

- Significant overtime/weekend work is required to reduce the schedule duration (overtime/weekend work expected to continue through ORR).
- Approval of the integrated 105KW DSA must not affect the project's critical path. This integrated DSA/TSR includes as-built information from installation activities, and therefore, a subsequent "as-built" DSA/TSR submittal is not required (DSA/TSR delaying the start of retrieval and forecast to be approved August 25, 2017).
- SRP CD-4 approval must occur concurrently with commencing sludge retrieval operations (this is being worked through RL).
- Approval of the T Plant safety documentation must be completed within 120 days of submittal (forecast to be approved July 31, 2017).

To demonstrate the current forecast date of the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) M-016-175, *Begin Sludge Removal From 105-KW Fuel Storage Basin*, the milestone has been disconnected from the risk analysis schedule margin. The current non-risk adjusted forecast date to begin sludge removal is February 23, 2018.

The effort to retrieve and containerize the sludge pile in the KW Basin Center Bay discovered during debris mapping continued. Work must be completed prior to the start of sludge retrieval (Tri-Party Agreement M-016-175).

Project breakdown structure (PBS) RL-0012 scope is 92.4 percent complete, with a cumulative Schedule Performance Index (SPI) of 1.00 and a Schedule Cost Performance Index (CPI) of 1.05.

## KEY ACCOMPLISHMENTS

### **RL-0012 C1 1 Accomplishments**

#### **KW Basin Sludge Removal Capital Asset Project**

- **KPAT**
  - KPAT testing, which was initiated on April 20, 2017, continued as scheduled. A substantial number of component level and system leak tests were completed. As of July month end, the test is approximately 32 percent complete; however, completion rate will accelerate next month with initiation of system interlock checks.
  - The KPAT Team continued working through challenges in the Annex Heating Ventilation and Air Conditioning (HVAC) System and Auxiliary Ventilation System with notable progress on both. The Sludge Transportation System (STS) Cask Trailer was temporarily removed from the Annex for critical Maintenance and HEPA filter testing Recertification then reinstalled.
- 17-NSD-0034 *RL Contract Number DE-AC06-08RL14788 - Approval of the One-Time Request for Shipment (OTRS) for Sludge Transport from K West Basin to T Plant, CHPRC-03111, Revision 0* was approved on July 21, 2017, and is scheduled to be transmitted to CHPRC on July 24, 2017. CHPRC Transportation Safety personnel can now focus on finalizing the OTRS implementation compliance matrix and ensuring all implementing documents are released.
- ECRS Procurement: Installation of Sludge Transport & Storage Container (STSC) Instrumentation & Appurtenances continued through the fiscal month. The project is on track to complete the first 12 STSC assemblies by August 31, 2017 – five of 12 STSC assemblies have been completed as of July month-end. The remaining seven STSC assemblies are scheduled for Mass Spectrometer Leak Detector (MSLD) testing in August with delivery to CHPRC to follow.
- American Boiler Works (ABW) will complete fabrication of the final 11 STSC shells by September 30, 2017. Once the final 11 STSC shells are fabricated, they will be transported to HiLine for installation of associated instrumentation and appurtenances.
- Development of the Operations and Maintenance Procedures supporting sludge removal and packaging operations continues in parallel with approval of safety documentation. As of July month end, 34 of 91 procedures were drafted.

## MAJOR ISSUES

### **Sludge Removal Project**

#### **Issue:**

The schedule for receipt and implementation of the integrated DSA/TSR for Sludge Removal Operations is impacting the SRP critical path.

#### **Corrective Action:**

CHPRC updated the DSA/TSR to incorporate RL comments and retransmitted the document sent to RL for approval. Approval of these documents precedes preparation of SRP training material, procedures, formal safety basis implementation, and completion of readiness preparation activities prior to the ORR authorizing full-up ECRS Operation.

#### **Status:**

CHPRC personnel updated the Integrated DSA/TSR to incorporate comments provided by the RL SBRT and retransmitted the updated files to RL on April 12, 2017, via CHPRC-1700081A R3 - *Transmittal of PRC-STP-00946, Revision 0, 105KW Facility Documented Safety Analysis, PRC-STP-00992, Revision 0, 105KW Facility Technical Safety Requirements, and HNF SD SNF-FHA-001, Revision 5, Fire Hazards Analysis for the 105KW Facility*. The current schedule forecast for RL approval is August 25, 2017.

In order to prevent a schedule delay on the initiation of the integrated KPAT, CHPRC submitted a revision to the FSAR/TSR for the 105KW Basin that addresses the control necessary to facilitate completion of that integrated test. The FSAR revision was approved by RL on June 29, 2017.

## CORRECTIVE ACTION LOG

Reference Appendix C.3 Format 5 for specific corrective actions for this CAP.

### RISK MANAGEMENT STATUS

**Unassigned Risk**  
**Risk Passed**  
**New Risk**  
**Change**

- Opportunity currently realized, or mitigation efforts are currently working toward, or after risk trigger with no foreseeable impacts.
- Mitigation efforts are currently working toward risk trigger with the possibility of actions not in place prior to risk occurrence. Recovery actions may be needed.
- Risk currently realized, or risk mitigation efforts are past risk trigger date with foreseeable impacts. Recovery actions needed.

- ↑ Increased Confidence
- ↔ No Change
- ↓ Decreased Confidence

Risk Title	Unmitigated Risk Impacts	Assessment		Comments																								
		Month	Trend																									
<b>RL-0012/WBS-012 (CAP)</b>																												
<b>Explanation of major changes to the project monthly stoplight chart:</b> No major changes to the monthly stoplight chart in the month of July.																												
<b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>																												
STP-072: Delayed STSC/ECRTS Procurement & Delivery	Material delivery and fabrication issues at ECRTS vendor facilities delay the delivery of the components to the STP resulting in cost impacts and schedule delays. Additionally, discovery of additional components requiring fabrication results in deliveries that challenge project baseline schedules.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Very Likely (>90%) <b>Worst Case Impacts:</b> \$3 million, 120 days	●	↑	<b>Risk Event:</b> Event 1: In order to establish a reliable Sludge Transportation System Cask configuration capable of meeting the project’s needs, several ports must be reconfigured to ensure reliable leak-tight integrity. This discovery was outside of baseline material procurement plans.  <table border="1" style="width: 100%; border-collapse: collapse; font-size: 10px;"> <thead> <tr> <th style="width: 70%;">Risk recovery action(s)</th> <th style="width: 10%;">Risk Date</th> <th style="width: 10%;">FC Date</th> <th style="width: 10%;">%</th> </tr> </thead> <tbody> <tr> <td>Event 1 - Finalize Field FES activities dates consistent with change orders.</td> <td>12/7/16</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Complete Procurement/Fabrication.</td> <td>12/7/16</td> <td>Complete</td> <td>90</td> </tr> <tr> <td>Deliver equipment to 100K Area.</td> <td>12/7/16</td> <td>Complete</td> <td>90</td> </tr> <tr> <td>Replace STS Cask Seals.</td> <td>12/7/16</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Conduct post repair leak test.</td> <td>12/7/17</td> <td>08/29/17</td> <td>50</td> </tr> </tbody> </table> <b>Recovery Action Assessment:</b> Event 1: Additional leak test tooling arrived in July. Proof test on new seals was successfully completed on Cask #2 Lid, with Cask #1 Lid testing remains in process. This risk is no longer a significant project risk and will be dropped from the stoplight chart next month.	Risk recovery action(s)	Risk Date	FC Date	%	Event 1 - Finalize Field FES activities dates consistent with change orders.	12/7/16	Complete	100	Complete Procurement/Fabrication.	12/7/16	Complete	90	Deliver equipment to 100K Area.	12/7/16	Complete	90	Replace STS Cask Seals.	12/7/16	Complete	100	Conduct post repair leak test.	12/7/17	08/29/17	50
Risk recovery action(s)	Risk Date	FC Date	%																									
Event 1 - Finalize Field FES activities dates consistent with change orders.	12/7/16	Complete	100																									
Complete Procurement/Fabrication.	12/7/16	Complete	90																									
Deliver equipment to 100K Area.	12/7/16	Complete	90																									
Replace STS Cask Seals.	12/7/16	Complete	100																									
Conduct post repair leak test.	12/7/17	08/29/17	50																									

Risk Title	Unmitigated Risk Impacts	Assessment		Comments																				
		Month	Trend																					
<b>RL-0012/WBS-012 (CAP)</b>																								
STP-067A Safety Classification of SSCs - DSA/TSR	<p>RL requires CHPRC to upgrade the safety classification of systems, structures, and/or components to a more conservative safety classification, requiring CHPRC to revise key safety documentation (DSA and TSR), procedures and/or design(s). Upon submittal of revised Documented Safety Analysis (DSA)/Technical Safety Requirements (TSR), procedures and/or design(s), RL approval takes longer than the assumptions planned for in the baseline.</p> <p><b>Risk Handling Strategy:</b> Accept</p> <p><b>Probability:</b> Very Likely (&gt;90%)</p> <p><b>Worst Case Impacts:</b> \$300K, 120 days</p>	●	↑	<p><b>Risk Event:</b> CHPRC sent the DSA and TSR to RL for review and approval on October 20, 2016, in letter CHPRC-1604692. RL rejected this submittal via correspondence 1700081A/17-NSD-0006. CHPRC resubmitted the DSA/TSR via CHPRC-1700081A R3 on April 12, 2017. The original project baseline included 120 calendar days for RL to approve the safety basis document; however, it has now been 276 days (as of July 23, 2017) since the original submittal, with formal approval forecasted for August 25, 2017.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Risk recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Solicit Senior RL &amp; CHPRC involvement in resolving deficiencies.</td> <td>1/28/17</td> <td>As Needed</td> <td>N/A</td> </tr> <tr> <td>Conduct interface meetings between RL Safety Basis Review Team (SBRT) &amp; CHPRC Nuclear Safety personnel to negotiate a product that is acceptable to RL.</td> <td>1/28/17</td> <td>As Required</td> <td>55</td> </tr> <tr> <td>CHPRC to appoint an independent facilitator to assist in resolution of RL comments.</td> <td>1/28/17</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Prepare a change order to obtain Management Reserve for realized risk.</td> <td>1/28/17</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b> RL and CHPRC Senior Management have met multiple times in an attempt to resolve differences on the DSA/TSR submittal. All DSA/TSR comments from the initial submittal were dispositioned as of February 17, 2017, CHPRC resubmitted an updated version of the DSA/TSR incorporating RL comments on April 12, 2017. Obtaining RL concurrence on comment resolution is in progress and is now forecasted to complete on August 17, 2017. The current forecast for receiving a SER approving the DSA/TSR is August 25, 2017. Once CHPRC has received the SER and confirmed no changes to assume safety classification is needed, this risk may be closed.</p>	Risk recovery action(s)	Risk Date	FC Date	%	Solicit Senior RL & CHPRC involvement in resolving deficiencies.	1/28/17	As Needed	N/A	Conduct interface meetings between RL Safety Basis Review Team (SBRT) & CHPRC Nuclear Safety personnel to negotiate a product that is acceptable to RL.	1/28/17	As Required	55	CHPRC to appoint an independent facilitator to assist in resolution of RL comments.	1/28/17	Complete	100	Prepare a change order to obtain Management Reserve for realized risk.	1/28/17	Complete	100
Risk recovery action(s)	Risk Date	FC Date	%																					
Solicit Senior RL & CHPRC involvement in resolving deficiencies.	1/28/17	As Needed	N/A																					
Conduct interface meetings between RL Safety Basis Review Team (SBRT) & CHPRC Nuclear Safety personnel to negotiate a product that is acceptable to RL.	1/28/17	As Required	55																					
CHPRC to appoint an independent facilitator to assist in resolution of RL comments.	1/28/17	Complete	100																					
Prepare a change order to obtain Management Reserve for realized risk.	1/28/17	Complete	100																					
<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)																								
No critical risks identified in the month of July.																								
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)																								
<b>FY2017 Risk Triggers</b> (Risk could be realized in FY2017)																								
STP-103: K Basin Pre-Operational Acceptance Testing (KPAT) & ECRTS Startup	<p>The ECRTS equipment does not operate as expected, requiring increased engineering, startup, operations, and construction. Firm Fixed Price contractor support; as well as equipment replacement, procurement, and retesting. Realization of this risk would also require additional training, procedure revision, and design modifications because of construction testing and/or Lines of Inquiry for Readiness Review resulting in cost impacts and schedule delays.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Medium (26% to 74%)</p> <p><b>Worst Case Impacts:</b> \$4.5 million, 90 days</p>	●	↔	<p><b>Risk Trigger:</b></p> <ol style="list-style-type: none"> <li>The ECRTS equipment does not operate as expected.</li> <li>Unexpected attrition of critical testing personnel.</li> </ol> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Develop and refine procedures based upon feedback from testing and operations personnel.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Develop streamline strategy (work packages and procedures) to perform in-basin/annex integrated testing and troubleshooting.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Utilize overtime to offset schedule impacts.</td> <td>As Needed</td> <td>N/A</td> </tr> <tr> <td>Closely monitor employee satisfaction and consider employee incentive to retain key test personnel.</td> <td>As Needed</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> No major changes in the month of July. KPAT Testing is in progress. No significant equipment failures as of 5/21/17.</p>	Mitigation action(s)	FC Date	%	Develop and refine procedures based upon feedback from testing and operations personnel.	Complete	100	Develop streamline strategy (work packages and procedures) to perform in-basin/annex integrated testing and troubleshooting.	Complete	100	Utilize overtime to offset schedule impacts.	As Needed	N/A	Closely monitor employee satisfaction and consider employee incentive to retain key test personnel.	As Needed	N/A					
Mitigation action(s)	FC Date	%																						
Develop and refine procedures based upon feedback from testing and operations personnel.	Complete	100																						
Develop streamline strategy (work packages and procedures) to perform in-basin/annex integrated testing and troubleshooting.	Complete	100																						
Utilize overtime to offset schedule impacts.	As Needed	N/A																						
Closely monitor employee satisfaction and consider employee incentive to retain key test personnel.	As Needed	N/A																						
<b>Unassigned Risks</b> (Pending ownership of identified threats/opportunities)																								
No unassigned risks identified in the month of July.																								

## CRITICAL PATH SCHEDULE

The critical path is being driven by receipt of the SER for the integrated DSA/TSR, including implementation of these safety requirements into 100K operation and maintenance procedures. Following a successful Contractor and DOE Operational Readiness Review, RL will provide Authorization to Commence Retrieval Operations in parallel with the DOE-HQ review/approval of CD-4. Completing retrieval operations, including the filling of STSCs with sludge and transporting them to T Plant, to complete Tri-Party Agreement Milestone M-016-176, *Complete Sludge Removal from 105-KW Fuels Storage Basin*, is outside the current contract period in FY2019. However, the STP team has modified the FES to implement acceleration opportunities, which could facilitate the transfer of all sludge to T Plant in FY2018.

## SCHEDULE MARGIN/MANAGEMENT RESERVE

Reference Appendix C.3 Formats 1, 2, 3, and 5 for specific schedule margin/MR utilization for this CAP.

## CRITICAL DECISION MILESTONE STATUS

Number	Title	*Due Date	**Forecast Date	Status/ Comment
15-D-401	CD-4, Project Completion	11/30/2019	4/27/2018	The forecast date includes schedule margin from the project's risk analysis. Project schedule margin is 123 days. The current forecast date before schedule margin and allowance for CD-4 is February 23, 2018.

\*Due date reflects CD-4 due date with DOE contingency.

\*\*Forecasted Date reflects CD-4 due date without DOE contingency.

## GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

## DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
RL Review & Comment on Emergency Planning Hazard Assessment (EPHA)	5/22/17(A)	8/21/17
RL Issue SER for KW Facility DSA/TSR	4/11/17(A)	8/25/17
RL Concur on KW Facility DSA/TSR Comment Resolution	4/11/17(A)	7/26/17
RL Prepare KW Facility DSA/TSR SER	4/11/17(A)	8/23/17
RL SRB Review of KW Facility DSA/TSR	4/11/17(A)	8/24/17
RL Final Approval of POA - K Basins	8/18/17	8/31/17
RL Approve OTRS	6/01/17(A)	7/24/17
DOE-RL Approve IKPAT SNR	8/14/17	8/20/17

# Appendix C.3

## RL-0012\_C1\_1 – Sludge Retrieval Project 15-D-401

### Contract Performance Reports

Format 1 - Work Breakdown Structure

Format 2 - Organizational Categories

Format 3 - Baseline

Format 4 - Staffing

Format 5 - Explanation and Problem Analysis



July 2017  
CHPRC-2017-07, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

CONTRACT PERFORMANCE REPORT FORMAT 1 - WORK BREAKDOWN STRUCTURE													FORM APPROVED OMB No. 0704-0188			
DOLLARS IN	Thousands of \$															
<b>1. CONTRACTOR</b>				<b>2. CONTRACT</b>				<b>3. PROGRAM</b>				<b>4. REPORT PERIOD</b>				
a. NAME CH2M HILL Plateau Remediation Company				a. NAME Plateau Remediation Contract				a. NAME 15_D_401 KW Basin Sludge Removal Project				a. FROM (YYYYMMDD)				
b. LOCATION (Address and ZIP Code) Richland, WA				b. NUMBER RL14788				b. PHASE				2017 / 06 / 26				
				c. TYPE CPAF				d. SHARE RATIO				c. EVMS ACCEPTANCE NO X YES (YYYYMMDD) 2009 / 09 / 18				
b. TO (YYYYMMDD)												2017 / 07 / 23				
<b>5. CONTRACT DATA</b>																
a. QUANTITY	b. NEGOTIATED COST	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK	d. TARGET PROFIT/FEE	e. TARGET PRICE	f. ESTIMATED PRICE	g. CONTRACT CEILING	h. ESTIMATED CONTRACT CEILING	i. DATE OF OTB/OTS (YYYYMMDD)								
1	295,873	0	7,950	303,823	295,924	303,823	295,924									
<b>6. ESTIMATED COST AT COMPLETION</b>						<b>7. AUTHORIZED CONTRACTOR REPRESENTATIVE</b>										
			MANAGEMENT ESTIMATE AT COMPLETION (1)	CONTRACT BUDGET BASE (2)	VARIANCE (3)			a. NAME (Last, First, Middle Initial)	b. TITLE							
			282,450					Dickerson, Kala K	Prime Contract Compliance Manager							
a. BEST CASE			289,774					c. SIGNATURE								
b. WORST CASE			287,974	295,873	7,899			d. DATE SIGNED (YYYYMMDD)								
c. MOST LIKELY																
<b>8. PERFORMANCE DATA</b>																
CAPN.PBS Control Account.PARS 2 WBS (2)		CURRENT PERIOD				CUMULATIVE TO DATE				REPROGRAMMING ADJUSTMENTS			AT COMPLETION			
		BUDGETED COST		ACTUAL COST WORK PERFORMED	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED	VARIANCE						
ITEM (1)	WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)	COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)
RL-0012 SNF Stabilization & Disp																
RL_0012_C1_1.16 Sludge Treatment Project	0	0	0	0	0	156,861	156,861	156,786	0	75	0	0	0	156,861	156,786	75
RL_0012_C1_1.17 D-401 KW Basin Sludge Removal Project	2,806	2,255	2,912	-552	-657	118,156	116,437	107,245	-1,719	9,192	0	0	0	133,318	125,664	7,653
b. COST OF MONEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
c. GENERAL AND ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
d. UNDISTRIBUTED BUDGET														0	0	0
e. SUBTOTAL	2,806	2,255	2,912	-552	-657	275,017	273,298	264,031	-1,719	9,267	0	0	0	290,179	282,450	7,729
f. MANAGEMENT RESERVE														5,524		
g. TOTAL	2,806	2,255	2,912	-552	-657	275,017	273,298	264,031	-1,719	9,267	0	0	0	295,703		
<b>9. RECONCILIATION TO CONTRACT BUDGET BASELINE</b>																
a. VARIANCE ADJUSTMENT																
b. TOTAL CONTRACT VARIANCE																
													-1,719 9,267 295,703 282,450 13,253			

CLASSIFICATION (When Filled In)

CLASSIFICATION (When Filled In)

**CONTRACT PERFORMANCE REPORT  
FORMAT 2 - ORGANIZATIONAL CATEGORIES**

DOLLARS IN Thousands of \$

FORM APPROVED  
OMB No. 0704-0188

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME 15_D_401 KW Basin Sludge Removal Project		a. FROM (YYYYMMDD) 2017 / 06 / 26	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017 / 07 / 23	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> X YES (YYYYMMDD) 2009 / 09 / 18			

WBS.Resp Org Group	CURRENT PERIOD						CUMULATIVE TO DATE						REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (9)	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)		
	WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)								
3G - K Basin Oper & Plateau Remediation Project	2,806	2,255	2,912	-552	-657	275,017	273,298	264,031	-1,719	9,267	0	0	0	290,179	282,450	7,729		
<b>b. COST OF MONEY</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
<b>c. GENERAL AND ADMINISTRATIVE</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
<b>d. UNDISTRIBUTED BUDGET</b>																		
<b>e. SUBTOTAL (Performance Measurement Baseline)</b>	2,806	2,255	2,912	-552	-657	275,017	273,298	264,031	-1,719	9,267	0	0	0	290,179	282,450	7,729		
<b>f. MANAGEMENT RESERVE</b>														5,524				
<b>g. TOTAL</b>	2,806	2,255	2,912	-552	-657	275,017	273,298	264,031	-1,719	9,267	0	0	0	295,703				

CLASSIFICATION (When Filled In)



CLASSIFICATION (When Filled In)

**CONTRACT PERFORMANCE REPORT  
FORMAT 4 - STAFFING**

Dollars in: FTE

FORM APPROVED

OMB No. 0704-0188

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME 15_D_401 KW Basin Sludge Removal Project		a. FROM (YYYYMMDD) 2017 / 06 / 26	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017 / 07 / 23	
		c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18			

5. PERFORMANCE DATA															
WBS.Resp Org Group  ORGANIZATIONAL CATEGORY (1)	ACTUAL CURRENT PERIOD (2)	ACTUAL END OF CURRENT PERIOD (Cumulative) (3)	FORECAST (Non-Cumulative)								ENTER SPECIFIED PERIODS				AT COMPLETION (15)
			SIX MONTH FORECAST BY MONTH (Enter names of months)												
			+1 AUG 2017 (4)	+2 SEPT 2017 (5)	+3 OCT 2017 (6)	+4 NOV 2017 (7)	+5 DEC 2017 (8)	+6 JAN 2018 (9)	2nd Qtr FY18 (10)	3rd Qtr FY18 (11)	FY18 (12)	FY19-LC (13)			
3G - K Basin Oper & Plateau Remediation Project	62	6976	82	94	79	101	90	69	86	0	0	0	0	7578	
<b>g. TOTAL DIRECT</b>	62	6976	82	94	79	101	90	69	86	0	0	0	0	7578	

**CLASSIFICATION (When Filled In)**

**CONTRACT PERFORMANCE REPORT**

**FORMAT 5 - Explanations and Problem Analysis**

**FORM APPROVED  
OMB No. 0704-0188**

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>			<b>4. REPORT PERIOD</b>		
<b>a. NAME</b> CH2M HILL Plateau Remediation Company		<b>a. NAME</b> Plateau Remediation Contract		<b>a. NAME</b> 012- RL-12 SNF Stabilization and Disposition			<b>a. FROM (YYYYMMDD)</b> 2017/06/26		
<b>b. LOCATION (Address and ZIP Code)</b> Richland, WA		<b>b. NUMBER</b> RL14788		<b>b. PHASE</b>			<b>b. TO (YYYYMMDD)</b> 2017/07/23		
<b>c. TYPE</b> CPAF		<b>d. SHARE RATIO</b>		<b>c. EVMS ACCEPTANCE</b> No                      X                      Yes			<b>(YYYYMMDD)</b> 2009 / 09 / 18		

**5. Evaluation**

<b>Direct Projects</b>										
	<b>Budget</b>	<b>Earned</b>	<b>Actuals</b>	<b>SV in \$</b>	<b>SV in %</b>	<b>CV in \$</b>	<b>CV in %</b>	<b>SPI</b>	<b>CPI</b>	
Current:	2,806.2	2,254.6	2,911.9	-551.5	-19.7%	-657.3	-29.2%	0.80		0.77
Cumulative:	275,017.4	273,297.9	264,031.3	-1,719.5	-0.6%	9,266.7	3.4%	0.99		1.04
	<b>BAC</b>	<b>EAC</b>	<b>VAC in \$</b>	<b>VAC in %</b>	<b>TCPI to BAC</b>	<b>TCPI to EAC</b>				
At Complete:	290,178.7	282,450.2	7,728.5	2.7%	0.65	0.92				

**Explanation of Variance/Description of Problem:**

**Current Period:**  
**Schedule Variance:** The current month negative schedule variance is due to work completed earlier in the Fiscal Year which was planned for the current period. This work included in-basin equipment installation and Annex equipment installation activities. In addition, the K-Basin Pre-operational Acceptance Testing (KPAT) team is working through challenges with operation of the annex bridge crane, operation of the annex HVAC system, and setups of the auxiliary ventilation system.

**Cost Variance:** The current month negative cost variance is due to additional costs associated with resolving challenges of KPAT including operation of the annex bridge crane, operation of the annex HVAC system, and setups of the auxiliary ventilation system. In addition, the preparations for project readiness have required additional effort due to an increase in the number of maintenance and operations procedures that require development or revisions. The procedures cannot be finalized until the 105-K West DSA/TSR has been approved by DOE-RL.

**Cumulative To Date:**  
**Schedule Variance:** Within Threshold.

**Impact:**  
**Schedule Impact:** None identified at this time - project is within threshold. However, as a result of delays in approval of the Documented Safety Analysis/Technical Safety Requirements (DSA/TSR), the project has assumed additional risk to readiness activities, including training and procedure development which are dependent on the final, approved safety documents.

The project continues to pursue initiation of sludge retrieval operations by January, 2018. The project completed TPA milestones M-016-177 "Complete 105-KW Sludge Transfer Equipment Installation" on 4/19/17 and is on schedule to complete M-016-175 "Begin Sludge Removal from 105-KW Fuel Storage Basin" by 9/30/2018.

KPAT was initiated in April, 2017 and is expected to complete in October, 2017  
**Cost Impact:** Within Threshold

The current ETC reflects the expected overall costs and further ETC adjustments will be considered as needed. KPAT testing commenced on April 20, 2017 and is scheduled to complete in mid-October, 2017. Currently, the EAC provided at the end of July is \$282.5M overall for the project, against a life-cycle budget of \$290.2M (excluding management reserve and contingency).

**Corrective Action:**  
 Schedule: N/A

**Cost:** The project has closed all CACNs for 12.16. and all final contract costs and adjustments are reflected in the accounts.. (Action closed.)

The new 105KW Facility DSA and TSR must be approved by the end of June to allow sufficient time to support training, procedure development, formal safety basis implementation, and completion of readiness preparations prior to the Operational Readiness Review (ORR) that will authorize full-up ECRTS Operation. The Project is working closely with DOE-RL to address concerns and issues to allow issuance of the Safety Evaluation Report (SER) by 8/30/17.

**Monthly Summary (to include technical causes of VARs, Impacts) and Corrective Action(s):**

- Schedule Margin Analysis: There were no baseline changes in the month of July which affected the schedule margin. Project schedule margin is 123 days. As a result of schedule acceleration efforts to enable the retrieval of all sludge by 9/30/18, the Project has assumed project risk and schedule margin is assumed to be zero. Project continues to evaluate schedule for efficiencies.
- IMS Data dictionary Changes: None in the month of July.
- Forecast Schedule with No Baseline: None in the month of July.
- UB Balance: None in the month of July.
- Negative ACWP: Two control accounts experienced negative ACWP in July. Both instances were the result of Invoice Costs being less than prior month accrual (012.17.01.06.01 & 012.17.01.19.01).
- EAC Analysis: Best Case = \$282.5M; Most likely = \$288.0M; Worst Case = \$289.8M.
- Negative CV > VAC: None in the month of July.
- MR Transactions: None in the month of July.
- Freeze Period Changes: None in the month of July.
- Retroactive Changes: None in the month of July.
- EVT Changes: None in the month of July.

**Prepared by:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Approved by:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Appendix C.4  
Capital Asset Project  
RL-0041\_C1 – Project 618-10, 316-4 and  
600-63 Waste Sites



T. L. Hobbes  
Vice President for  
618-10 Burial Ground

July 2017  
CHPRC-2017-07, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

Workers at the 618-10 Burial Ground Complex continued successful remediation activities in the month of July. Backfill at the 316-4 Waste Site continued ahead of schedule and under budget. Mass Excavation efforts at the 618-10 Burial Ground achieved significant progress. Remediation of the 600-63 Waste Site began ahead of schedule on July 12, 2017. The project continued to consolidate excess materials and supplies for disposition and disposal. Additionally, the 618-10 Burial Ground Complex celebrated the completion of a 90-Day Safety Campaign and worked alongside Environmental Restoration Disposal Facility (ERDF) personnel to host the President's Zero Accident Council (PZAC) meeting, focusing on three-way communication and personal interest in safety.

## KEY ACCOMPLISHMENTS

### **618-10 Burial Ground Mass Excavation (64 percent complete)**

- 15,031 tons of contaminated soil sent to ERDF; 111,309 total tons sent to ERDF to date.
- Project maintained schedule, even with resources being directed to the 600-63 Waste Site excavation.

### **316-4 Waste Site Backfill (26 percent complete)**

- Backfill activities continued at the 316-4 Waste Site ahead of schedule.

### **600-63 Waste Site (33 percent complete)**

- Excavation of the contaminated soil at the 600-63 Waste Site began on July 12, 2017.
- 13,824 tons excavated of 15,867 estimated total tons.

### **618-10 Burial Ground Complex Demobilization**

- Shipped 40 ecology blocks off the 618-10 Project for use on other Hanford projects.
- Supported Facilities & Property Management in demobilization of trailers MO885 and MO886.

## MAJOR ISSUES

No major issues to report on at this time.

## CORRECTIVE ACTION LOG

Reference Appendix C.4 Format 5 for specific corrective actions for this Cap Asset Project (CAP).

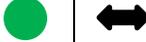
## RISK MANAGEMENT STATUS

**Unassigned Risk**  
**Risk Passed**  
**New Risk**  
**Change**

- Opportunity currently realized, or mitigation efforts are currently working toward, or after risk trigger with no foreseeable impacts.
- Mitigation efforts are currently working toward risk trigger with the possibility of actions not in place prior to risk occurrence. Recovery actions may be needed.
- Risk currently realized, or risk mitigation efforts are past risk trigger date with foreseeable impacts. Recovery actions needed.

- ↑ Increased Confidence
- ↔ No Change
- ↓ Decreased Confidence

	Unmitigated Risk Impacts	Assessment		Comments											
		Month	Trend												
<b>RL-0041/WBS-041</b>															
<b>Explanation of major changes to the project monthly spotlight chart:</b>															
RCC-316-4-09: 316-4 Discovery of Unexpected Waste/Contamination was removed as a realized risk, and is now being reported on as a high-threat risk.															
<b>Realized Risks</b> (Risks that are currently impacting project cost/schedule)															
No realized risks identified in the month of July.															
<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)															
No critical risks identified in the month of July.															
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)															
<b>Lifecycle Risk Triggers</b> (Risk could be realized at any point of the project)															
<p>RCC-316-4-09: 316-4 Discovery of Unexpected Waste/Contamination</p>	<p>Discovery of unexpected waste/contamination, waste/contamination quantities above what is assumed, waste/contamination that is above and beyond COCs and/or waste profile, and/or waste/contamination is found in the assumed clean area of the design. Resulting in greater than planned RAD controls, resulting in cost and schedule impacts.</p> <p><b>Risk Handling Strategy:</b> Accept</p> <p><b>Probability:</b> Very Low (&lt;10%)  <b>Worst Case Impacts:</b> \$240K, 48 day</p>	<span style="color: green; font-size: 1.5em;">●</span>	<span style="color: black; font-size: 1.5em;">↔</span>	<p><b>Risk Event:</b>                      On Tuesday, November 29, 2016, CHPRC discovered debris (wood, metal, etc.) in the 316-4 overburden removal, and on Wednesday, November 30, 2016, radiological contaminated soil and contaminated debris (plastic and piping) was encountered that was buried in the top 6 feet of overburden at the 316-4 waste site. On Wednesday, January 4, 2017, and Tuesday, January 24, 2017, additional contamination was discovered. Contamination was discovered approximately 4 feet above the anticipated location on March 27, 2017.</p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: 0.8em;"> <thead> <tr> <th style="width: 70%;">Risk recovery action(s)</th> <th style="width: 10%;">Risk Date</th> <th style="width: 10%;">FC Date</th> <th style="width: 10%;">%</th> </tr> </thead> <tbody> <tr> <td>Send backfill stockpile to ERDF.</td> <td rowspan="2" style="text-align: center;">11/29/16</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100</td> </tr> <tr> <td>Update TCoPD to align with found conditions.</td> <td style="text-align: center;">5/26/17</td> <td style="text-align: center;">100</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b>                      The TCoPD for change proposal CP 041 304 1600 was submitted on May 26, 2017. The TCoPD captured schedule and cost changes that resulted from the contamination discoveries that occurred prior to March 2017. The excavation of the 316-4 Waste Site was completed on May 23, 2017 and backfill began on June 19, 2017.                      Due to the completion of the excavation, this risk is no longer a realized risk. However, with backfill work being conducted there is still a probability that this risk will be realized again. As such, it is now being reported under the <b>High Risk Threat Value</b> section.</p>	Risk recovery action(s)	Risk Date	FC Date	%	Send backfill stockpile to ERDF.	11/29/16	Complete	100	Update TCoPD to align with found conditions.	5/26/17	100
Risk recovery action(s)	Risk Date	FC Date	%												
Send backfill stockpile to ERDF.	11/29/16	Complete	100												
Update TCoPD to align with found conditions.		5/26/17	100												
<p>RCC-618-10-07: Contamination Event at 618-10 Waste Site</p>	<p>During fieldwork activities, a contamination event occurs that requires corrective actions, resulting in schedule and cost impacts.</p> <p><b>Risk Handling Strategy:</b> Accept</p> <p><b>Probability:</b> Low (10% to 25%)  <b>Worst Case Impacts:</b> \$1,288K, 64 days</p>	<span style="color: green; font-size: 1.5em;">●</span>	<span style="color: black; font-size: 1.5em;">↔</span>	<p><b>Risk Trigger Metric:</b>                      The risk could be triggered by high winds or operational upsets (i.e. spills or airborne release).</p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: 0.8em;"> <thead> <tr> <th style="width: 70%;">Mitigation action(s)</th> <th style="width: 10%;">FC Date</th> <th style="width: 20%;">%</th> </tr> </thead> <tbody> <tr> <td>Enhanced radiological controls implemented on project.</td> <td style="text-align: center;">Ongoing</td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b>                      No changes in the month of July. Much of the 618-10 work is performed in hazardous and radioactive environments. By its nature, the work can be dangerous. Although CHPRC procedures, safety programs, and training programs are designed to minimize the potential loss of control of hazardous/radioactive substances, such an occurrence could be deemed to be significant enough to warrant corrective actions outside of the baseline (i.e. a prolonged work shutdown).</p>	Mitigation action(s)	FC Date	%	Enhanced radiological controls implemented on project.	Ongoing	N/A					
Mitigation action(s)	FC Date	%													
Enhanced radiological controls implemented on project.	Ongoing	N/A													

Unmitigated Risk Impacts	Assessment		Comments			
	Month	Trend				
<b>RL-0041/WBS-041</b>						
RCC-618-10-09: Discovery of Unexpected Waste/Contamination  Discovery of waste/contamination quantities above what is assumed, waste/contamination that is above and beyond COCs or waste profile, or waste/contamination is found in the assumed clean area of the design. Resulting in greater than planned RAD controls resulting in cost and schedule impacts.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Very Low (<10%) <b>Worst Case Impacts:</b> \$1,280K, 64 days			<b>Risk Trigger Metric:</b> This risk has previously been realized as more drums than planned were discovered. This risk has the potential to occur again during mass excavation if additional waste/contamination is discovered.			
			<table border="1" style="width: 100%;"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Closely managing waste inventories and discoveries, and making adjustments as required.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table>	Mitigation action(s)	FC Date	%
Mitigation action(s)	FC Date	%				
Closely managing waste inventories and discoveries, and making adjustments as required.	Ongoing	N/A				
<b>Unassigned Risks</b> (Pending ownership of identified threats/opportunities)						
No unassigned risks identified in the month of July.						

### CRITICAL PATH SCHEDULE

The critical path flows through 618-10 Burial Ground closeout sampling and analysis to support preparing calculations for backfill concurrence. Following receipt of backfill concurrence from RL/EPA, the project will begin backfill fieldwork activities. After successful completion of backfill, the project will finish infrastructure demobilization.

### SCHEDULE MARGIN/MANAGEMENT RESERVE

Reference Appendix C.4 Formats 1, 2, 3, and 5 for specific schedule margin/management reserve utilization for this CAP.

### CRITICAL DECISION MILESTONE STATUS

Number	Title	Due Date	Forecast Date	Status/ Comment
KPG #1	Complete 618-10 Trench remediation and retrieval of remaining 94 vertical pipe units	9/30/2017	9/18/2017	Completion Criteria: Complete trench remediation and waste disposition; retrieve and dispose of VPU waste and remove overcasings.
KPG #2	Complete 316-4 Waste Site and lysimeter facility remediation	9/30/2017	7/27/2017	Completion Criteria: Complete remediation and remove waste from 316-4 Waste Site and 600-63 Lysimeter Waste Site.
KPP #1	Complete the 618-10 Burial Ground Remediation	1/31/2020	6/11/2018	Completion Criteria: Complete remediation, closeout sampling, and backfill of the 618-10 Burial Ground.
KPP #2	Complete the Remediation of the 316-4 and 600-63 Waste Sites	1/31/2020	1/3/2018	Completion Criteria: Complete remediation, closeout sampling, and backfill of the 316-4 Waste Site and 600-63 Lysimeter Waste Site.
	CD-4 Closeout	1/31/2020	TBD	CD-4 closeout pending contract definitization.



## GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None to report at this time.

## DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
RL and Regulator Review of Closeout Sampling Instructions for 618-10 Burial Ground	6/19/17 (A)	7/7/17 (A)
RL and Regulator Review of CVP and Waste Site Reclassification Form for 316-4 Waste Site	10/17/17	11/30/17
RL/EPA Review & Approve Backfill Concurrence for 600-63 Waste Site	10/18/17	10/31/17
RL and Regulator Review of CVP and Waste Site Reclassification Form for 600-63 Waste Site	10/18/17	12/1/17
RL/EPA Review & Approve Backfill Concurrence for 618-10 Burial Ground	1/4/18	1/11/18
RL and Regulator Review of CVP and Waste Site Reclassification Form for 618-10 Burial Ground	2/23/18	4/8/18

# Appendix C.4

## RL-0041\_C1 – Project 618-10, 316-4 and 600-63 Waste Sites

### Contract Performance Reports

Format 1 - Work Breakdown Structure

Format 2 - Organizational Categories

Format 3 - Baseline

Format 4 - Staffing

Format 5 - Explanation and Problem Analysis



July 2017  
CHPRC-2017-07, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

**CONTRACT PERFORMANCE REPORT  
FORMAT 1 - WORK BREAKDOWN STRUCTURE**

DOLLARS IN

Thousands of \$

FORM APPROVED

OMB No. 0704-0188

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>				<b>3. PROGRAM</b>				<b>4. REPORT PERIOD</b>							
a. NAME CH2M HILL Plateau Remediation Company		a. NAME PARS II - RL-0041.C1 Base Funded Nuc Fac D&D River Corr				a. NAME PARS II - RL-0041.C1 Base Funded Nuc Fac D&D River Corr				a. FROM (YYYYMMDD) 2017 / 06 / 26							
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		c. EVMS ACCEPTANCE NO <input type="checkbox"/> X <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18				b. TO (YYYYMMDD) 2017 / 07 / 23							
c. TYPE CPAF		d. SHARE RATIO															
<b>5. CONTRACT DATA</b>																	
a. QUANTITY 1	b. NEGOTIATED COST 0	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 70,486	d. TARGET PROFIT/FEE 0	e. TARGET PRICE 0	f. ESTIMATED PRICE 57,501	g. CONTRACT CEILING 0	h. ESTIMATED CONTRACT CEILING 57,501	i. DATE OF OTB/OTS (YYYYMMDD)									
<b>6. ESTIMATED COST AT COMPLETION</b>						<b>7. AUTHORIZED CONTRACTOR REPRESENTATIVE</b>											
		MANAGEMENT ESTIMATE AT COMPLETION (1)	CONTRACT BUDGET BASE (2)	VARIANCE (3)	a. NAME (Last, First, Middle Initial) Dickerson, Kala K			b. TITLE Prime Contract Compliance Manager			c. SIGNATURE		d. DATE SIGNED (YYYYMMDD)				
a. BEST CASE		57,501															
b. WORST CASE		57,703															
c. MOST LIKELY		57,501	70,486	12,985													
<b>8. PERFORMANCE DATA</b>																	
CAPN.PBS Control Account.PARS 2 WBS (3)		CURRENT PERIOD				CUMULATIVE TO DATE				REPROGRAMMING ADJUSTMENTS			AT COMPLETION				
ITEM (1)		BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (9)	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)
		WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)						
RL-0041 Nuc Fac D&D - RC Closure Proj																	
RL_0041_C1.05.02 618-10 Burial Ground		3,021	2,653	1,548	-368	1,105	39,519	38,371	28,222	-1,148	10,149	0	0	0	57,427	50,825	6,602
RL_0041_C1.05.03 316-4 Waste Site		184	1,150	272	966	878	6,071	7,370	3,686	1,299	3,684	0	0	0	11,434	5,891	5,543
RL_0041_C1.05.04 600-63 Waste Site		0	495	239	495	256	0	612	327	612	286	0	0	0	1,624	785	839
b. COST OF MONEY		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
c. GENERAL AND ADMINISTRATIVE		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
d. UNDISTRIBUTED BUDGET																	
e. SUBTOTAL		3,205	4,298	2,058	1,093	2,240	45,590	46,353	32,235	763	14,119	0	0	0	70,486	57,501	12,985
f. MANAGEMENT RESERVE															0		
g. TOTAL		3,205	4,298	2,058	1,093	2,240	45,590	46,353	32,235	763	14,119	0	0	0	70,486		
<b>9. RECONCILIATION TO CONTRACT BUDGET BASELINE</b>																	
a. VARIANCE ADJUSTMENT																	
b. TOTAL CONTRACT VARIANCE																	
										763	14,119		70,486	57,501	12,985		

CLASSIFICATION (When Filled in)

**CONTRACT PERFORMANCE REPORT  
FORMAT 2 - ORGANIZATIONAL CATEGORIES**

DOLLARS IN Thousands of \$

FORM APPROVED  
OMB No. 0704-0188

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME PARS II - RL-0041.C1 Base Funded Nuc Fac D&D River Corr		a. NAME PARS II - RL-0041.C1 Base Funded Nuc Fact D&D River Corr		a. FROM (YYYYMMDD) 2017 / 06 / 26	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017 / 07 / 23	
		c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> X <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18	

WBS FOC Control Account.PARS 2 WBS (3)  ITEM (1)	CURRENT PERIOD					CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL	VARIANCE		BUDGETED COST		ACTUAL	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)
	WORK SCHEDULED (2)	WORK PERFORMED (3)	COST WORK PERFORMED (4)	SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	COST WORK PERFORMED (9)	SCHEDULE (10)	COST (11)						
041.6 - 618 10 Projects																
RL_0041_C1.05.02 618-10 Burial Ground	3,021	2,653	1,548	-368	1,105	39,519	38,371	28,222	-1,148	10,149	0	0	0	57,427	50,825	6,602
RL_0041_C1.05.03 316-4 Waste Site	184	1,150	272	966	878	6,071	7,370	3,686	1,299	3,684	0	0	0	11,434	5,891	5,543
RL_0041_C1.05.04 600-63 Waste Site	0	495	239	495	256	0	612	327	612	286	0	0	0	1,624	785	839
<b>b. COST OF MONEY</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>c. GENERAL AND ADMINISTRATIVE</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>d. UNDISTRIBUTED BUDGET</b>																
<b>e. SUBTOTAL (Performance Measurement Baseline)</b>	3,205	4,298	2,058	1,093	2,240	45,590	46,353	32,235	763	14,119	0	0	0	70,486	57,501	12,985
<b>f. MANAGEMENT RESERVE</b>																
<b>g. TOTAL</b>	3,205	4,298	2,058	1,093	2,240	45,590	46,353	32,235	763	14,119	0	0	0	70,486		

CONTRACT PERFORMANCE REPORT														Form Approved		
FORMAT 3 - BASELINE														OMB No. 0704-0188		
DOLLARS IN THOUSANDS																
1. CONTRACTOR CH2M HILL Plateau Remediation Company				2. CONTRACT a. NAME: Plateau Remediation Contract b. NUMBER: RL14788 c. TYPE: CPAF d. SHARE RATIO:				3. PROGRAM PARS II - RL-0041.C1 Base Funded Nuc Fact D&D River Corr a. NAME: Plateau Remediation Contract b. PHASE c. EVMS ACCEPTANCE NO YES X 9/18/2009				4. REPORT PERIOD a. FROM: 2017/06/26 b. TO: 2017/07/23				
5. CONTRACT DATA																
a. ORIGINAL NEGOTIATED COST 0				b. NEGOTIATED CONTRACT CHANGE \$0		c. CURRENT NEGOTIATED COST (A + B) \$0		d. ESTIMATED COST AUTH UNPRICED WORK 70,486		e. CONTRACT BUDGET BASE (C + D) \$70,486		f. TOTAL ALLOCATED BUDGET \$70,486		g. DIFFERENCE (E - F) \$0		
h. CONTRACT START DATE 6/19/2008				i. DEFINITIZATION DATE 6/19/2008		j. PLANNED COMPL DATE 9/30/2018		k. CONT COMPLETION DATE 9/30/2018				l. EST COMPLETION DATE 9/30/2018				
6. PERFORMANCE DATA																
ITEM (1)	BCWS CUM TO DATE (2)	BCWS FOR REPORT PERIOD (3)	SIX MONTH FORECAST						BUDGETED COST FOR WORK SCHEDULED (NON - CUMULATIVE)						UNDISTRIB BUDGET (16)	TOTAL BUDGET (17)
			+1 Aug-17 (4)	+2 Sep-17 (5)	+3 Oct-17 (6)	+4 Nov-17 (7)	+5 Dec-17 (8)	+6 Jan-18 (9)	FY09-13 (10)	FY14 (11)	FY15 (12)	FY16 (13)	FY17 (14)	FY18 (15)		
a. PM BASELINE (BEGIN OF PERIOD)	42,385	3,205	2,881	4,182	1,457	1,742	1,741	1,413	0	0	0	3,497	49,156	17,833	0	70,486
b. BASELINE CHANGES AUTH DURING REPORT PERIOD																
RL_0041_C1.05.02 618-10 Burial Ground																
None at this time.													0	0	0	0
RL_0041_C1.05.03 316-4 Waste Site																
None at this time.													0	0	0	0
RL_0041_C1.05.04 600-63 Waste Site																
None at this time.													0	0	0	0
c. PM BASELINE (END OF PERIOD)	45,590	3,205	2,881	4,182	1,457	1,742	1,741	1,413	0	0	0	3,497	49,156	17,833	0	70,486

CLASSIFICATION (When Filled In)

**CONTRACT PERFORMANCE REPORT  
FORMAT 4 - STAFFING**

FORM APPROVED

Dollars in: FTE

OMB No. 0704-0188

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME PARS II - RL-0041.C1 Base Funded Nuc Fac D&D River Corr		a. NAME PARS II - RL-0041.C1 Base Funded Nuc Fact D&D River Corr		a. FROM (YYYYMMDD) 2017 / 06 / 26	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017 / 07 / 23	
		c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18			

5. PERFORMANCE DATA														
WBS.FOC Control Account.PARS 2 WBS (3) ORGANIZATIONAL CATEGORY (1)	ACTUAL CURRENT PERIOD (2)	ACTUAL END OF CURRENT PERIOD (Cumulative) (3)	FORECAST (Non-Cumulative)											AT COMPLETION (15)
			SIX MONTH FORECAST BY MONTH (Enter names of months)						ENTER SPECIFIED PERIODS					
			+1 AUG 2017 (4)	+2 SEPT 2017 (5)	+3 OCT 2017 (6)	+4 NOV 2017 (7)	+5 DEC 2017 (8)	+6 JAN 2018 (9)	2nd Qtr FY18 (10)	3rd Qtr FY18 (11)	FY18 (12)	FY19-LC (13)		
041.6 - 618 10 Projects														
RL_0041_C1.05.02 618-10 Burial Ground	58	884	58	59	36	36	38	42	86	127	76	0	0	1443
RL_0041_C1.05.03 316-4 Waste Site	4	64	7	6	7	7	5	2	0	0	0	0	0	98
RL_0041_C1.05.04 600-63 Waste Site	6	9	6	3	3	3	3	1	0	0	0	0	0	28
<b>g. TOTAL DIRECT</b>	<b>68</b>	<b>957</b>	<b>71</b>	<b>68</b>	<b>45</b>	<b>46</b>	<b>46</b>	<b>45</b>	<b>86</b>	<b>127</b>	<b>76</b>	<b>0</b>	<b>0</b>	<b>1568</b>

CONTRACT PERFORMANCE REPORT FORMAT 5 - Explanations and Problem Analysis										FORM APPROVED OMB No. 0704-0188	
<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>						<b>4. REPORT PERIOD</b>	
<b>a. NAME</b> CH2M HILL Plateau Remediation Company		<b>a. NAME</b> Plateau Remediation Contract		<b>a. NAME</b> 041 - RL-41 Nuclear Facility D&D - River Corridor						<b>a. FROM (YYYYMMDD)</b> 2017 / 06 / 26	
<b>b. LOCATION (Address and ZIP Code)</b> Richland, WA		<b>b. NUMBER</b> RL14788		<b>b. PHASE</b>						<b>b. TO (YYYYMMDD)</b> 2017 / 07 / 23	
<b>c. TYPE</b> CPAF		<b>d. SHARE RATIO</b>		<b>c. EVMS ACCEPTANCE</b> No X Yes (YYYYMMDD) 2009 / 09 / 18							
<b>5. Evaluation</b>											
<b>Direct Projects</b>											
	<b>Budget</b>	<b>Earned</b>	<b>Actuals</b>	<b>SV in \$</b>	<b>SV in %</b>	<b>CV in \$</b>	<b>CV in %</b>	<b>SPI</b>	<b>CPI</b>		
Current:	3,205.0	4,298.1	2,058.4	1,093.1	34.1%	2,239.7	52.1%	1.34		2.09	
Cumulative:	45,590.0	46,353.3	32,234.8	763.3	1.7%	14,118.5	30.5%	1.02		1.44	
	<b>BAC</b>	<b>EAC</b>	<b>VAC in \$</b>	<b>VAC in %</b>	<b>TCPI to BAC</b>	<b>TCPI to EAC</b>					
At Complete:	70,485.7	57,501.1	12,984.5	18.4%	0.63	0.96					
<b>Explanation of Variance/Description of Problem:</b>											
CURRENT MONTH The current month schedule variance is primarily due to backfill activities at the 316-4 Waste Site and excavation at the 600-63 Waste Site being worked ahead of schedule. The current month favorable cost variance is partially due to the 618-10 Burial Ground project management and support accounts that experienced significant underruns due to efficient use of resource sharing across the complex and reduced material usage. Backfill activities at the 316-4 Waste Site experienced cost efficiencies as the project was able to utilize existing crews and equipment to self-perform the work scope instead of hiring a separate subcontractor. Additionally, the 600-63 Waste Site was under budget due to the optimization of resources and equipment at the 618-10 Burial Ground Complex.											
CONTRACT TO DATE The cumulative schedule variance is within threshold. The cumulative favorable cost variance is partially due to the sharing of resources and materials among the projects, which has resulted in fewer purchased materials and lower labor costs. Attrition has led to a reduction in staffing and in cost with work still being completed on time with the resources left. Additionally, excavation efficiencies at the 316-4 Waste Site reduced the total volume of soil to be removed, and the availability of crews to self-perform backfill scope instead of hiring a separate subcontractor resulted in fewer costs than anticipated.											
VARIANCE AT COMPLETION The favorable variance at completion reflects the efficient practice of sharing resources and materials amongst the 618-10 Complex projects. Attrition has also led to a reduction in staffing and in cost with work still being completed on time with the resources left. Excavation efficiencies and self-performing backfill instead of hiring a separate subcontractor at the 316-4 Waste Site reduced the total cost to complete the project, and the optimization of resources and equipment at the 618-10 Burial Ground Complex reduced the total cost to complete excavation at the 600-63 Waste Site.											
IMPACTS There are no current impacts to the project schedule or cost.											
<b>Corrective Action:</b>											
Corrective Action: There are no corrective actions required at this time.											
<b>Monthly Summary (to include technical causes of VARs, Impacts) and Corrective Action(s):</b>											
1. Schedule Margin Analysis: N/A, pending definitization of the scope. 2. IMS Data dictionary Changes: None in the month of July. 3. Forecast Schedule with No Baseline: None in the month of July. 4. UB Balance: N/A 5. Negative ACWP: There was negative ACWP in the 618-10 Backfill account, 41.05.02.05, during this period due to the reversal of an overstated subcontract accrual from the prior period. 6. EAC Analysis: Best Case: \$57,501; Most Likely: \$57,501; Worst Case: \$57,703 7. Negative CV > VAC: N/A 8. MR Transactions: None in the month of July. 9. Freeze Period Changes: None in the month of July. 10. Retroactive Changes: None in the month of July. 11. EVT Changes: None in the month of July.											
*During the Month of April CHPRC kicked off the FY2018 comprehensive EAC process (ZCZSMILE1117A, Kickoff FY18 Annual Comprehensive EAC), and is expected to finish mid-September (ZCZSMILE1117B, Submit Final FY18 Annual Comprehensive EAC).											