

Monthly Performance Report

September 2018

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

CH2MHILL
Plateau Remediation Company

P.O. Box 1600
Richland, Washington 99352

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APPROVED

By Janis D. Aardal at 12:22 pm, Nov 01, 2018

Release Approval

Date

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CH2MHILL
Plateau Remediation Company



L. Ty Blackford
President and Chief
Executive Officer

Monthly Performance Report

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September 2018
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EXECUTIVE SUMMARY

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

- Waste and Fuels Management Project (W&FMP):** Workers at the Waste Encapsulation and Storage Facility (WESF) completed the dimensional verification of 1,782 of the cesium and strontium capsules (Cs/Sr) stored at WESF in support of the Cs/Sr Capsule Dry Storage Project. The WESF team also upgraded lighting inside G-Cell to reduce the heat in the room and improve visibility to support the loading of capsules into sleeves for dry storage. Workers completed all fiscal year (FY) 2018 WESF preparation activities supporting the dry storage project. Crews at T Plant placed the third container filled with K Basin sludge into storage and prepared and shipped the fourth sludge transfer system container to 100-K for filling. Crews completed lighting upgrades at the Central Waste Complex (CWC). The W&FMP team supported the transfer of two former Navy submarine reactor compartments to the Trench 94 inventory.
- Soil and Groundwater Remediation Project (S&GRP):** The S&GRP group exceeded their FY2018 treatment goal, treating more than 2.5 billion gallons of contaminated groundwater. S&GRP also completed uranium sequestration injection efforts in the 300 Area. The S&GRP team will monitor and sample the sequestration area over the next several months to validate its effectiveness.
- Plutonium Finishing Plant (PFP):** Using enhanced controls and a revised demolition strategy, the PFP team began lower-risk work of loading out existing demolition debris already on the ground.
- River Risk Management Project (RRMP):** The 324 Building Disposition Project team performed integrated equipment usage in the B-Cell of the 324 Mockup to remotely fill the first practice waste bin with replicated waste material. At the 324 Building, workers completed the demolition of the Sample Loadout Room glove box and used lessons learned from the mockup to install the first remote excavator arm through-support into the B-Cell wall. Drivers at the Environmental Restoration Disposal Facility (ERDF) achieved the milestone of safely driving more than 750,000 miles across the Hanford Site since 2016.
- Central Plateau Risk Management Project (CPRMP):** The CPRMP team completed the below-grade demolition of the Battelle-owned Research and Technology Laboratory facility. In addition, crews completed removal of two steam line crossovers in the 200W Area, reduced B Plant ventilation system fan speed to reduce rate of foreign material buildup on filtration banks, and made the first entry into REDOX Canyon in 21 years. Crews completed all preparations to begin stabilizing PUREX Tunnel 2 with engineered grout, and on September 28, 2018, received authorization from RL to begin placing grout.
- K Basins Operations (KBO):** Crews at 100-K filled the fourth sludge container and began readying it for shipment to T Plant. Crews continued the excavation and load out at Waste Site 100-K-47:1; and completed the Waste Site 100-K-13 excavation, load out, and verification sample collection. Contract statement of works for the 105KE Interim Safe Storage (ISS) project were completed and are ready to proceed with request for proposal (RFP) preparation once the work is authorized by RL. A nearly three-year effort of removing asbestos from the 165 K East Power Control Building was completed.

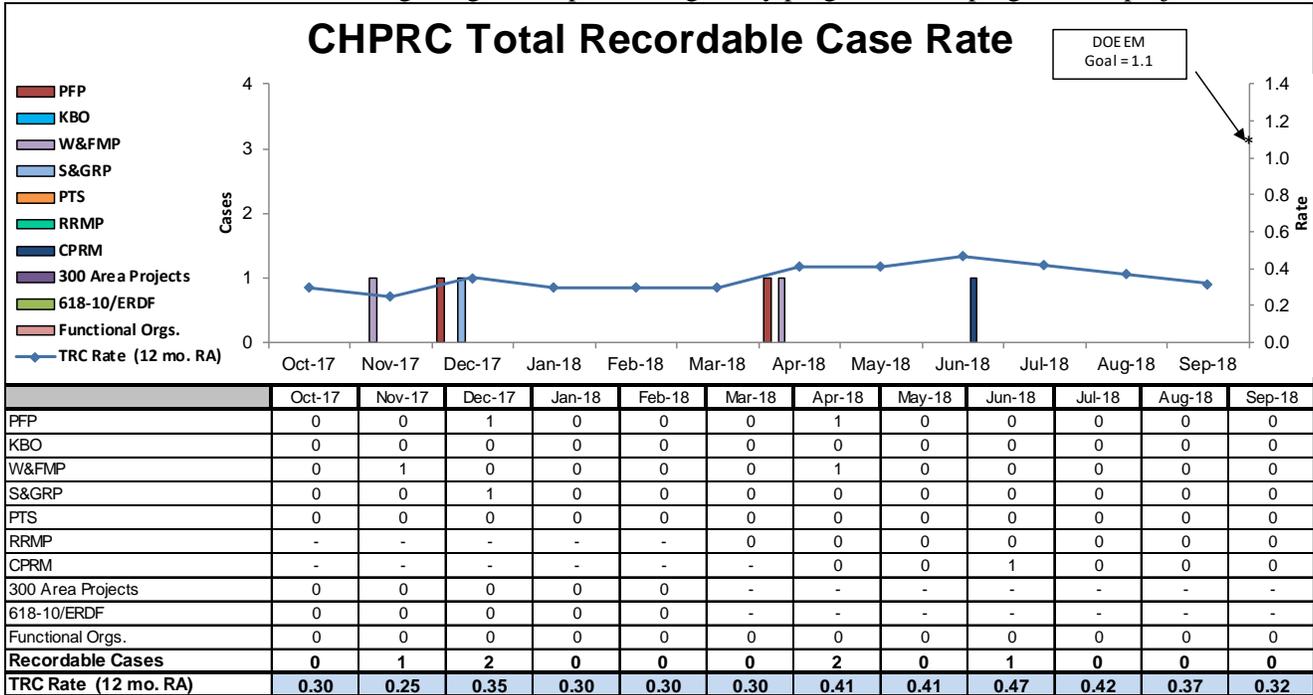


Crews at the Environmental Restoration Disposal Facility celebrate safely driving 750,000 miles across the Hanford Site since 2016.

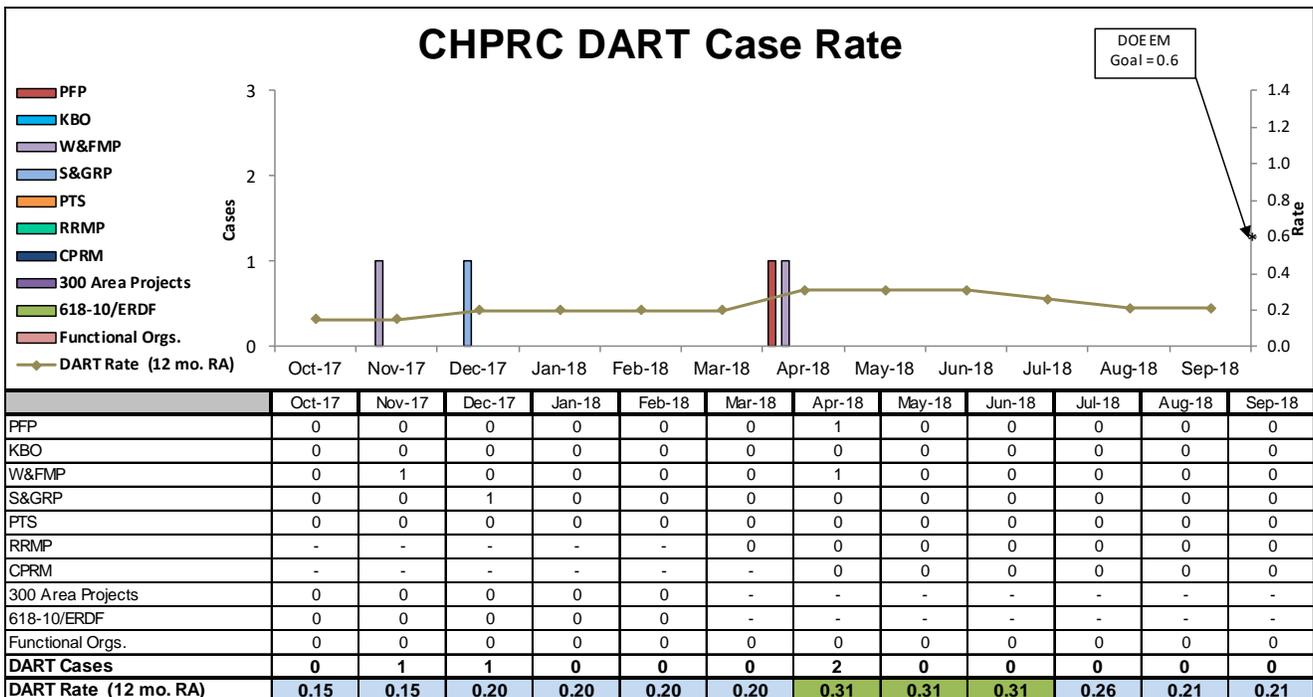
- The President's Zero Accident Council (PZAC) meeting for September was hosted by Project Technical Services (PTS). The three main ideas were:
 - o Plan the work, work the plan.
 - o What do I do if I find myself outside of the plan?
 - o Know when to call.
- Four "*Thinking Target Zero*" (TTZ) bulletins were published to convey important occupational, safety, health, and environmental messages:
 - o VPP Legacy of Stars.
 - o Energy Conservation.
 - o EZAC Elections.
 - o Fall Protection.
- *Weekly Safety Tailgate* briefing packages communicated relevant topics and safety information to the workforce:
 - o Four Lessons Learned: Energizing De-Energized Electrical Equipment in Potentially Flammable Atmospheres (Washington River Protection Solutions [WRPS]); Incidents reveal gaps in construction project lifecycle management (offsite); Not all value regulated lead acid batteries are equal (Mission Support Alliance [MSA]); Energized Heating Element Causes Fire in Empty Portable Safety Shower Poly Tank (WRPS).
 - o Injuries.
 - o Weekly Ethics Moments.
 - o Vehicle Events.
 - o Return to Work SAFELY.
 - o Eye Protection.
 - o Mobile Device Use.
 - o Material Handling and Ergonomics.
 - o Return to Work Process.
 - o September – National Preparedness Month!
 - o Hanford Worksite Flu Clinics.
 - o Avoiding Deer and Elk.
 - o Vehicle Ladder Rack Failed.
 - o Local Waste Collection Event.

TARGET ZERO PERFORMANCE

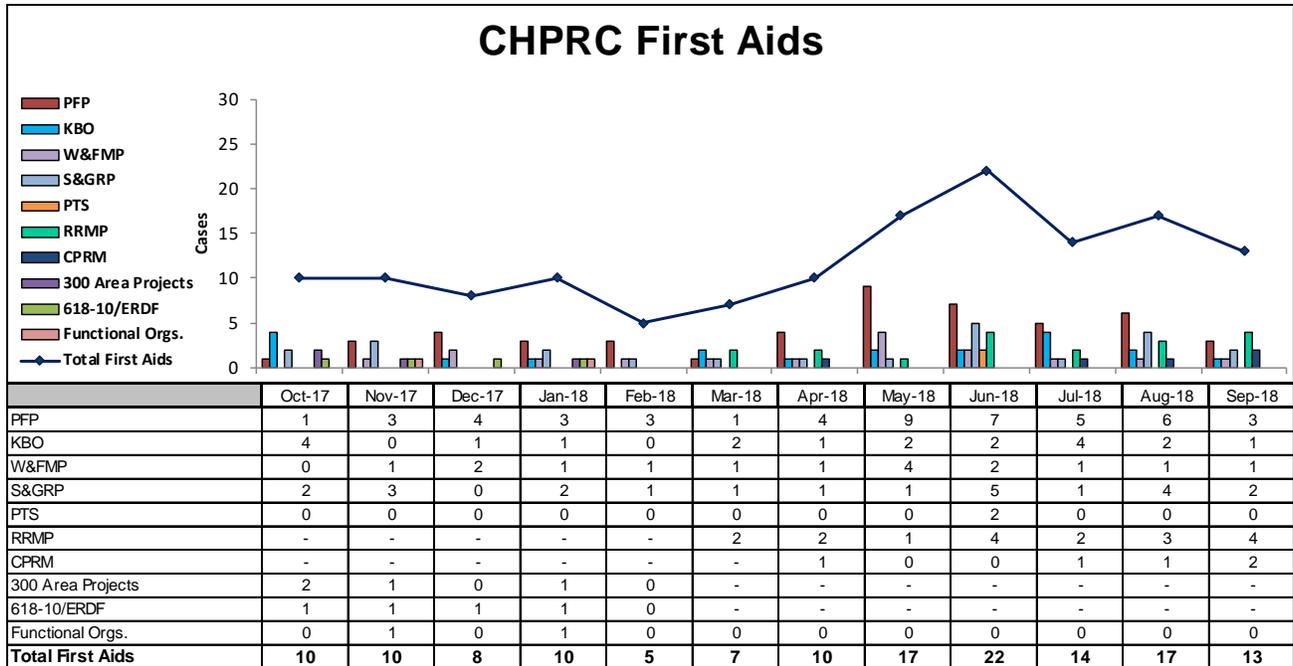
CHPRC continued to focus on integrating and implementing safety programs in all program and project areas.



Total Recordable Injury Case (TRC) Rate: The 12-month rolling average TRC rate of 0.32 is based on a total of six Recordable injuries. September had no reported Recordable cases.



Days Away, Restricted or Transferred (DART) Workdays Case Rate: The 12-month rolling average DART rate of 0.21 is based upon a total of four Days Away cases. September had no reported DART cases.



First Aid Case Summary: CHPRC reported thirteen First Aid cases in September. The contributors were six miscellaneous (burns, rashes, repetitive motion, etc.), five sprains/strains/pains, and two abrasions/bruises/contusions injuries. In addition, two self-treat cases were reported in September.

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

- Refer to Appendix B of this report for overhead support (which is reported quarterly). For specific project support refer to Sections A through G, and Appendix C of this report.

MAJOR ISSUES

Issue:

Significant Contract Change Management must be resolved to retain PRC alignment for FY2017-2018.

Corrective Action:

Work with RL to reach agreement on PRC FY2017-2018 alignment and support RL evaluation and determination of the disposition of undefinitized CHPRC change proposals (CPs)/request for equitable adjustment (REAs).

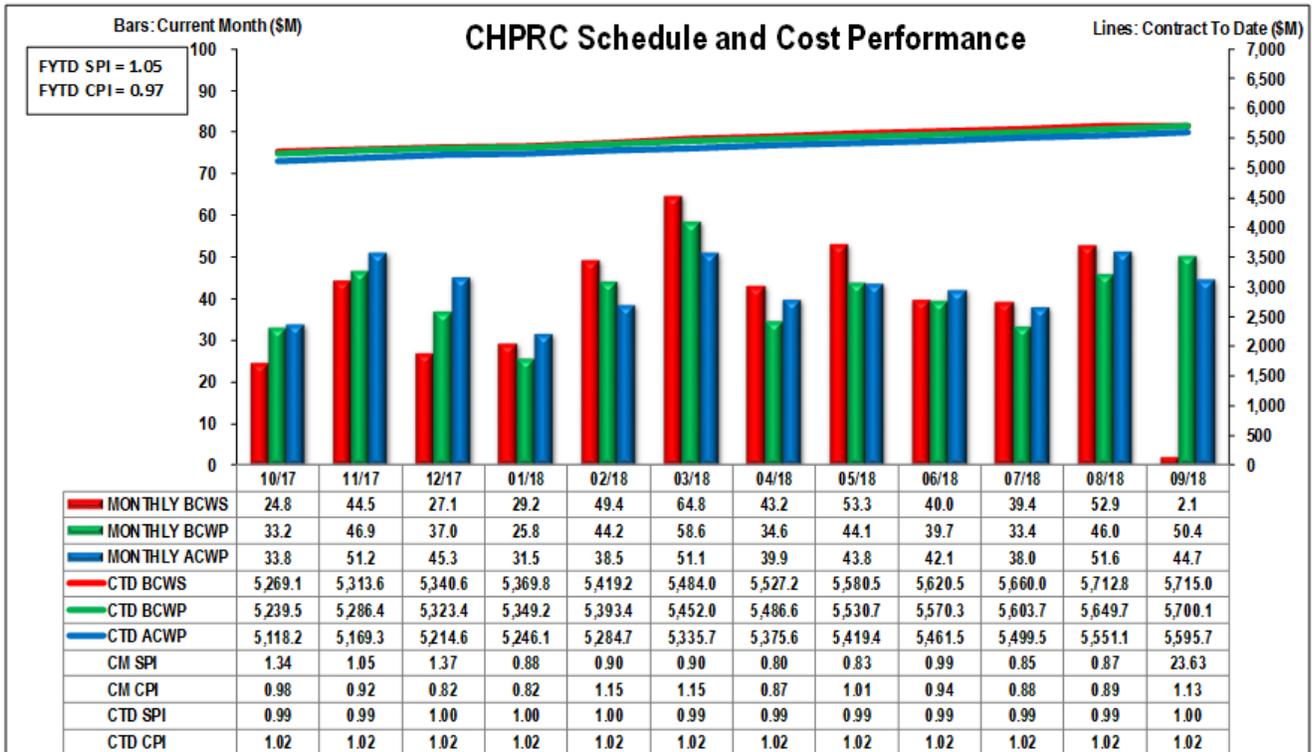
Status:

On September 26, 2018, CHPRC reached verbal agreement with RL on a global settlement of all undefinitized pre-FY2019 Change Orders and Requests for Equitable Adjustment and formally agreed with RL to a bilateral modification to the PRC for a 12 month contract extension through FY2019.

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	1.4	1.4	7.0	0.1	(5.5)	990.6	977.7	1140.9	(13.0)	(163.3)	994.8	1,205.1	(210.3)	
RL-0012 - SNF Stabilization & Disposition	3.2	4.6	3.9	1.4	0.7	744.2	744.2	714.1	(0.0)	30.1	744.4	714.3	30.1	
RL-0013 - Solid Waste Stab & Disposition	9.9	14.2	9.4	4.3	4.8	1343.4	1343.2	1247.9	(0.3)	95.3	1,406.8	1,311.3	95.5	
RL-0030 - Soil & Water Rem-Grndwtr/Vadose	6.7	12.8	10.5	6.1	2.3	1526.7	1526.7	1473.9	(0.0)	52.7	1,594.8	1,542.1	52.7	
RL-0040 - Nuc Fac D&D - Remainder	0.3	6.0	4.4	5.7	1.6	491.7	491.7	467.8	(0.0)	23.9	512.3	488.4	23.9	
RL-0041 - Nuc Fac D&D - RC Closure Project	(19.6)	11.2	9.2	30.7	1.9	591.8	590.2	529.1	(1.6)	61.1	610.7	548.1	62.6	
RL-0042 - Nuc Fac D&D - FFTF Project	0.2	0.2	0.2	(0.0)	0.0	26.5	26.5	22.0	(0.0)	4.5	26.5	22.0	4.5	
(Values are rounded to the nearest \$0.1M)														
(Values do not have UB breakout)	Total	2.1	50.4	44.7	48.3	5.8	5,715.0	5,700.1	5,595.8	(14.8)	104.3	5,890.3	5,831.3	59.0

*Per e-mail direction received December 6, 2017, from the RL contracting officer, CHPRC is authorized to incorporate the value of proposed changes into the baseline, as well as remove work that is not authorized from our execution plan. When a contract alignment settlement is reached, baseline change requests (BCRs) will be processed to align the Performance Measurement Baseline (PMB) with the settlement values.

Performance Summary

CHPRC continues to track completion of the contract scope within budget and is currently projecting a variance at completion (VAC) of \$59.0 million, with \$63.3 million of management reserve (MR), for a total positive variance of \$122.3 million. For September, the project was 2,263.0 percent ahead of schedule and 11.4 percent under planned cost. Contract to date (CTD), the project was 0.3 percent behind schedule and 1.8 percent under planned cost.

The current month (CM) positive schedule variance is primarily due to \$28.9 million in BCRs to revise the baseline to better reflect the FY2018 effort required to perform scope or align undefinitized Change Proposal scope with Truthful Cost of Pricing Data (TCoPD) submittals. These were necessary to allow proper base plus option year contract performance reporting.

The CM positive cost variance is primarily due to Project Breakdown Structure (PBS) RL-0013 continued project management underruns due to cost efficiency initiatives. Additionally, the ERDF rate credit based on significant unplanned increase in Other Hanford Contractor waste volume in FY2018 was experienced.

Also contributing are positive cost variances across RL-0030 due to lower chemical use than planned and less staff required at Pump & Treat (P&T) due to active resin management.

The positive cost variance is partially offset by PBS RL-0011 due to the resumption actions and implementation of the new demolition requirements associated with a December 2017 contamination event. This includes fixative applications, performance of radiological surveys, revising radiological postings, infrastructure modifications, and stabilization activities to support resumption of PFP demolition. This also includes additional material and equipment purchases to support the revised demolition approach. As resumption corrective actions and mockups are performed, costs for labor, subcontracts, and material purchases add to the current month variance.

FUNDING ANALYSIS

FY2018 Funds vs. Fiscal Year Spend Forecast

(\$M)

PBS	Project	FY2018		Variance
		Total Funding	Actual Cost	
RL-0011	Nuclear Materials Stabilization and Disposition	80.0	56.3	23.8
RL-0012	Spent Nuclear Fuel Stabilization and Disposition	41.9	35.6	6.4
RL-0012	15-D-401 Sludge Retrieval Project	18.8	17.1	1.7
RL-0013	Waste and Fuels Management Project	144.3	130.3	13.9
RL-0013	Management of Cesium and Strontium Capsules	6.5	0.9	5.6
RL-0030	Soil, Groundwater and Vadose Zone Remediation	121.9	111.0	10.9
RL-0040	Nuclear Facility D&D, Remainder of Hanford	72.2	44.0	28.2
RL-0041	Nuclear Facility D&D, River Corridor	143.8	114.4	29.4
RL-0042	Fast Flux Test Facility Closure	4.0	2.0	2.1
Total Estimate at Complete		633.4	511.5	121.9

Funds/Variance Analysis

In September, FY2018 final unplanned funding obligations were provided by RL, \$3.3 million in RL-0040, and \$0.2 million in RL-0041, increasing FY2018 funding to a total of \$633.4 million. Year-end variance distributions totaling a credit of \$5.8 million are reflected in the actual cost. FY2018 carryover funding totals \$121.9 million.

BASELINE CHANGE REQUESTS

In September 2018, CHPRC approved and implemented 28 BCRs into the performance measurement baseline (PMB) budget. Nineteen of the 28 BCRs impacted the PMB. Each change request is identified in the table below:

Change Request #	Title	PBS	Summary of Change
BCR-011-18-008R0	<i>PFP OA Project Completion Correction</i>	RL-0011	This BCR implemented the revised scope, cost and schedule baseline for the remaining FY2018 Operational Expense support for the completion of the RL-0011.C2 project. This BCR did not change the PMB value.
BCR-011C-18-009R0	<i>Move Balance of FY2018 Management Reserve to FY2019 – PFP CAP 1</i>	RL-0011	This BCR moved unused FY2018 MR associated with PFP CAP 1 Project scope to FY2019. This BCR did not change the PMB value.
BCR-011C-18-010R0	<i>Move Balance of FY2018 Management Reserve to FY2019 – PFP CAP 2</i>	RL-0011	This BCR moved unused FY2018 MR associated with PFP CAP 2 Project scope to FY2019. This BCR did not change the PMB value.
BCR-012C-18-009R0	<i>Move Balance of FY2018 Management Reserve to FY2019 – SRP CAP</i>	RL-0012	This BCR moved unused FY2018 MR associated with SRP CAP Project scope to FY2019. This BCR did not change the PMB value.

Change Request #	Title	PBS	Summary of Change
BCR- 013-18- 023R0	<i>Incorporate FY2018 Scope Alignment – FY2018 Work Authorization</i>	RL-0013	This BCR removed scope that will not be completed within the original contract period. This BCR decreased the PMB value by \$345K.
BCR-013-18-024R0	<i>Incorporate FY2018 RL-0013 Baseline Scope Alignment</i>	RL-0013	This BCR removed scope that will not be completed within the original contract period. This BCR decreased the PMB value by \$1,569K.
BCR-013C-18-025R0	<i>Incorporate FY2018 Scope Alignment -W-135 CAP</i>	RL-0013	This BCR removed scope that will not be completed within the original contract period. This BCR decreased the PMB value by \$261K.
BCR-013-18-026R0	<i>Incorporate CO 322 FY2018 Scope Alignment</i>	RL-0013	This BCR modified the PMB to be consistent with the current planned effort for change order (CO) 322 <i>Integrated Disposal Facility Revised Operational Requirements</i> . This BCR decreased the PMB value by \$151K.
BCR-013-18-027R0	<i>Incorporate CO 308 FY2018 Scope Alignment</i>	RL-0013	This BCR removed scope that will not be completed within the original contract period. This BCR decreased the PMB value by \$394K.
BCR-030-18-024R0	<i>Incorporate FY2018 Scope Alignment –FY2018 Work Authorization</i>	RL-0030	This BCR removed scope that will not be completed within the original contract period. This BCR decreased the PMB value by \$56K.
BCR-030-18-025R0	<i>Incorporate FY2018 RL-0030 Baseline Scope Alignment</i>	RL-0030	This BCR removed scope that will not be completed within the original contract period. This BCR decreased the PMB value by \$3,315K.
BCR-040-18-014R0	<i>Incorporate CO #311 FY2018 Scope Alignment</i>	RL-0040	This BCR modified the PMB to incorporate changes to CO #311 that are not reflected in the current TCoPD submittal for CO #311. This BCR decreased the PMB value by \$477K.
BCR-040-18-015R0	<i>Incorporate CO #324 FY2018 Scope Alignment</i>	RL-0040	This BCR modified the PMB to incorporate changes to CO #324 that are not reflected in the current TCoPD submittal for CO #324. This BCR decreased the PMB value by \$379K.
BCR-040-18-016R0	<i>Incorporate FY2018 RL-0040 Baseline Scope Alignment</i>	RL-0040	This BCR removed scope that will not be completed within the original contract period. This BCR decreased the PMB value by \$1,844K.
BCR-041-18-001R0	<i>Alignment of Basis of Estimate Documentation</i>	RL-0041	This BCR updated the WBS Dictionary and Basis of Estimate (BOE) documentation related to changes in BCR-041C-17-003R0 and BCR-041-17-042R0. This BCR did not change the PMB value.
BCR-041-18-023R0	<i>Incorporate Remaining FY2018 Scope for CO #319 GF STSC Instrumentation</i>	RL-0041	This BCR incorporated the remaining scope associated with CO #319, <i>Garnet Filter Media Removal</i> . This BCR increased the PMB value by \$300K.
BCR-041-18-024R0	<i>Incorporate CO 328 Alignment With TCoPD</i>	RL-0041	This BCR modified the PMB to be consistent with the most current TCoPD submittal for CO #328. This BCR decreased the PMB value by \$22,236K.
BCR-041-18-025R0	<i>Incorporate CO 305 FY2018 Scope Alignment</i>	RL-0041	This BCR modified the PMB to be consistent with the most current TCoPD submittal for CO #305. This BCR decreased the PMB value by \$1,769K.
BCR-041-18-026R0	<i>Incorporate CO 319 FY2018 Scope Alignment</i>	RL-0041	This BCR modified the PMB to incorporate changes to CO #319 that are not reflected in the current TCoPD submittal for CO #319. This BCR decreased the PMB value by \$529K.
BCR-041-18-028R0	<i>Incorporate CO #330 FY2018 Scope Alignment</i>	RL-0041	This BCR modified the PMB to incorporate changes to CO #330 that are not reflected in the current TCoPD submittal for CO #330. This BCR decreased the PMB value by \$4,529K.

Change Request #	Title	PBS	Summary of Change
BCR-041-18-029R0	<i>Incorporate CO #306 FY2018 Scope Alignment</i>	RL-0041	This BCR modified the PMB to be consistent with the current planned effort for CO #306. This BCR decreased the PMB value by \$815K.
BCR-041C-18-030R0	<i>Move Balance of FY2018 Management Reserve to FY2019 – 618-10 CAP</i>	RL-0041	This BCR moved unused FY2018 MR associated with 618-10 CAP Project scope to FY2019. This BCR did not change the PMB value.
BCR-PRC-18-036R0	<i>Incorporate CO 331 FY2018 Scope Alignment</i>	RL-0013, RL-0030, RL-0041	This BCR modified the PMB to be consistent with the current planned effort for CO #331. This BCR decreased the PMB value by \$1,003K.
BCR-PRC-18-037R0	<i>Move Balance of FY2018 Management Reserve to FY2019 – OA</i>	RL-0012, RL-0013, RL-0030, RL-0040, RL-0041, RL-0042	This BCR moved unused FY2018 MR associated with non-Capital Asset Project scope to FY2019. This BCR did not change the PMB value.
BCR-PRC-18-038R0	<i>Incorporate CO #326 FY2018 Scope Alignment</i>	RL-0041	This BCR modified the PMB to incorporate changes to CO #326 that are not reflected in the current TCoPD submittal for CO #326. This BCR decreased the PMB value by \$341K.
BCRA-PRC-18-033R1	<i>HPIC Updates August 2018</i>	000, RL-0011, RL-0012, RL-0013, RL-0030, RL-0040, RL-0041, RL-0042	This BCR corrected BCRA-PRC-18-033R0 implemented in August FY2018, which did not incorporate all of the Hanford Programs Integrated Control Module (HPIC) changes that were implemented. This BCR did not change the PMB value.
BCRA-PRC-18-034R0	<i>HPIC Updates September 2018</i>	000, RL-0011, RL-0030, RL-0040, RL-0041, RL-0042	This BCR incorporated September FY2018 HPIC updates. This BCR did not change the PMB value.

The Allocated (Distributed) Budget decreased by \$39,713K.

Undistributed Budget Activity

BCR Number	Title	PBS	Fiscal Year	UB
BCR-PRC-18-035R0	<i>Undistributed Budget Adjustments September 2018</i>	RL-0012, RL-0013, RL-0030, RL-0040, RL-0041	2018	-\$28,906K

The Undistributed Budget decreased by \$28,906K.

Management Reserve Activity

BCR Number	Title	PBS	Fiscal Year	MR
BCR-011C-18-009R0	<i>Move Balance of FY2018 Management Reserve to FY2019 – PFP CAP 1</i>	RL-0011	2018-2019	\$0
BCR-011C-18-010R0	<i>Move Balance of FY2018 Management Reserve to FY2019 – PFP CAP 2</i>	RL-0011	2018-2019	\$0
BCR-012C-18-009R0	<i>Move Balance of FY2018 Management Reserve to FY2019 – SRP CAP</i>	RL-0012	2018-2019	\$0
BCR-041C-18-030R0	<i>Move Balance of FY2018 Management Reserve to FY2019 – 618-10 CAP</i>	RL-0041	2018-2019	\$0
BCR-PRC-18-037R0	<i>Move Balance of FY2018 Management Reserve to FY2019 – OA</i>	RL-0012, RL-0013, RL-0030, RL-0040, RL-0041, RL-0042	2018-2019	\$0

Overall, there was no change to MR in September.

Fee Activity

BCR Number	Title	PBS	Fiscal Year	Fee
N/A	N/A	N/A	2018	N/A

Overall, there was no change to the fee during September.

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 FY. The PMB values of change requests are summarized by FY in the tables below (dollars in thousands).

September 2018 Summary of Changes

	FY 2009-2013	FY2014	FY2015	FY2016	FY2017	FY2018	FYs 2014-2018	FY2019	Contract Period Total	Total PMB
August 2018 Estimate										
PMB	3,391,477	391,653	471,323	504,826	485,028	714,622	2,567,452	0	5,958,928	5,958,928
MR	0	0	0	0	0	63,278	63,278	0	63,278	63,278
Fee	155,504	14,325	14,501	27,804	10,612	18,860	86,101	0	241,605	241,605
Total	3,546,981	405,978	485,824	532,630	495,639	796,760	2,716,831	0	6,263,812	6,263,812
September 2018 Change										
PMB										
Change to PMB	0	0	0	0	0	-243,974	-243,974	175,358	-68,616	-68,616
MR										
Change to MR	0	0	0	0	0	-63,278	-63,278	63,278	0	0
Fee										
Change to Fee	0	0	0	0	0	0	0	0	0	0
Total Change	0	0	0	0	0	-307,252	-307,252	238,636	-68,616	-68,616
September 2018 Estimate										
PMB	3,391,477	391,653	471,323	504,826	485,028	470,649	2,323,478	175,358	5,890,312	5,890,312
MR	0	0	0	0	0	0	0	63,278	63,278	63,278
Fee	155,504	14,325	14,501	27,804	10,612	18,860	86,101	0	241,605	241,605
Total	3,546,981	405,978	485,824	532,630	495,639	489,509	2,409,579	238,636	6,195,196	6,195,196

Changes to/Utilization of Management Reserve in September 2018

	FY2009-2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2014-2018	FY2019	Total
August 2018 MR Totals									
RL-0011	0	0	0	0	0	5,828	5,828	0	5,828
RL-0012	0	0	0	0	0	8,163	8,163	0	8,163
RL-0013	0	0	0	0	0	6,185	6,185	0	6,185
RL-0030	0	0	0	0	0	17,863	17,863	0	17,863
RL-0040	0	0	0	0	0	8,700	8,700	0	8,700
RL-0041	0	0	0	0	0	16,350	16,350	0	16,350
RL-0042	0	0	0	0	0	189	189	0	189
Total	0	0	0	0	0	63,278	63,278	0	63,278
September 2018 MR Changes/Utilization									
RL-0011	0	0	0	0	0	(5,828)	-5,828	5,828	0
RL-0012	0	0	0	0	0	(8,163)	-8,163	8,163	0
RL-0013	0	0	0	0	0	(6,185)	-6,185	6,185	0
RL-0030	0	0	0	0	0	(17,863)	-17,863	17,863	0
RL-0040	0	0	0	0	0	(8,700)	-8,700	8,700	0
RL-0041	0	0	0	0	0	(16,350)	-16,350	16,350	0
RL-0042	0	0	0	0	0	(189)	-189	189	0
Total	0	0	0	0	0	-63,278	-63,278	63,278	0
September 2018 MR Totals									
RL-0011	0	0	0	0	0	0	0	5,828	5,828
RL-0012	0	0	0	0	0	0	0	8,163	8,163
RL-0013	0	0	0	0	0	0	0	6,185	6,185
RL-0030	0	0	0	0	0	0	0	17,863	17,863
RL-0040	0	0	0	0	0	0	0	8,700	8,700
RL-0041	0	0	0	0	0	0	0	16,350	16,350
RL-0042	0	0	0	0	0	0	0	189	189
Total	0	0	0	0	0	0	0	63,278	63,278

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 (\$M)				Projection to FY2018 (\$M)	
10/1/2008 - 9/30/2018				Planned Subcontracting:	\$2,720.1
Reporting Category				Contract-to-date awards:	\$2,782.8
				Bal remaining to award:	-\$62.7
	\$ Value	%	Goal %	Goal award\$	Bal to Goal
SB	\$1,581.6	56.84%	49.3%	\$1,341.0	-\$240.6
SDB	\$300.2	10.79%	8.2%	\$223.0	-\$77.2
SWOB	\$291.9	10.49%	7.5%	\$204.0	-\$87.9
HUB	\$84.4	3.03%	2.2%	\$59.8	-\$24.5
VOSB	\$242.9	8.73%	3.5%	\$95.2	-\$147.7
SDVO	\$154.4	5.55%	1.3%	\$35.4	-\$119.0
NAB	\$70.9	2.55%	N/A	PRC clause H.20b small business requirement	
Large	\$701.1	25.19%	N/A	≥ 17% of CHPRC Contract Price performed by SB.	
GOVT	\$4.8	0.17%	N/A	CHPRC Contract Value:	\$5,824.8
GOVT CONT	\$483.2	17.36%	N/A	SB actual:	\$1,581.6
EDUCATION	\$0.1	0.00%	N/A	SB Performed %:	27.15%
NONPROFIT_	\$4.1	0.15%	N/A	PRC clause H.20a max self performed requirement	
FOREIGN	\$7.9	0.28%	N/A	≤ 65% of Contract Price Self Performed	
Total	\$2,782.8	100.00%	N/A	CHPRC Contract Value:	\$5,824.8
				CHPRC Self Performed:	\$3,272.9
				CHPRC Self Performed %:	56.19%

Notes:

1. Since the CHPRC contract award in October 2008, CHPRC has subcontracted more than \$2.7 billion in goods and services, with more than 56 percent going to small businesses. 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
CONTRACT			
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 (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) in Carlsbad, New Mexico: 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 remaining 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)

CH2MHILL
Plateau Remediation Company



K. A. Wooley
Vice President for
Plutonium Finishing Plant
Closure Project

September 2018
CHPRC-2018-09, Rev. 1
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

All corrective actions and resumption pre-start items identified in the management assessment (MA) related to the December 2017 contamination event have been completed and RL has provided concurrence for the resumption of lower risk work. The stop work issued by CHPRC management on demo activities has been lifted and resumption of low-risk debris disposition has been initiated. The DOE Headquarters has also completed the Independent Cost Estimate (ICE)/External Independent Review (EIR) for the Capital Asset Project RL-0011.C2 project and items resulting from that review are currently being addressed.

Key Metrics

<i>Key Performance Indicators</i>	<i>Current Month</i>	<i>Contract To Date</i>
COMPLETE Glovebox/ Hood Removed or Dispositioned in Place	0	232 gloveboxes/hoods
COMPLETE KPP Rooms/Areas Ready for Demo	0	72 rooms/areas
COMPLETE Asbestos/Asbestos Containing Material (ACM) Removed	0	35,827
COMPLETE Process Vacuum Piping Dispositioned	0	7,231 feet
COMPLETE Process Transfer Line Dispositioned	0	1,525 feet
COMPLETE Pencil Tank Units Removed (Shipped)	0	196 pencil tank units
COMPLETE Buildings Ready for Demo	0	68 structures
Buildings Demolished or Removed	0	63 structures
Non-radioactive Waste Shipped	0 m ³	89.5 m ³
Transuranic/Transuranic Mixed (TRU/TRU-M) Shipped	0 m ³	5,014 m ³
LLW/MLLW Shipped	133 m ³	16,496 m ³

EMS Objectives and Target Status

Objective #	Objective	Targets	Actions	Status
18-EMS-PFP-OB1-T1	Minimize emissions resulting from demolition (including rubble management) of 234-5Z and 236Z.	Establish controls to minimize radioactive air emissions during PFP demolition activities and monitor the effectiveness of the controls.	Evaluate radioactive emissions on a weekly basis, identify if there are gaps in implementing the controls, and if the controls are effective when implemented. If problems are identified, ensure that prompt corrective actions are taken. Provide a monthly report on results and actions.	100%

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	3	49	<p>9/11/2018 - Employee reported back discomfort and was taken to HPMC for evaluation. Employee mentioned that the discomfort could be from recent activities outside of work which included an extensive motorcycle trip. Employee was also involved in an incident on 9/11/18 as a passenger in a utility vehicle being used within the Contamination Area / Airborne Radioactivity Area. The incident involved the foot of the driver slipping off the brake of the vehicle onto the gas and the quick application of the brake again. This caused the vehicle to lunge or buck. This action caused the powered air purifying respirator being worn to push into the worker/s back. (24966)</p> <p>9/19/2018 - The employee was re-positioning water lines within the PFP demo zone (north of 234-5Z) when they inadvertently tripped over a piece of rebar protruding from the ground causing the employee to fall to their knees. The employee sustained a minor abrasion to his right knee and reported minor lower back pain as well. The employee returned to work with a temporary radiological work restriction. (24972)</p> <p>9/20/2018 - Employee reported when they were getting out of PFP shuttle vehicle they experienced an electrical shock (probably static discharge) to pinky finger of the right hand. Employee had been riding in the front passenger seat on the shuttle vehicle with their hand on the arm rest of the door and their foot on the running board. This was after using the handle to</p>

	Current Month	Rolling 12 Month	Comment
			open the door and after swinging the door open. Shock was significant to cause pain in the pinky finger up to the elbow. The employee reported numbness in the hand. Employee was taken to HPMC for evaluation and was released back to work without restrictions. The PFP shuttle vehicle was taken out of service until it could be evaluated. No electrical issues were identified associated with the vehicle. Shock was likely due to a significant discharge of static electricity. (24973)
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

RL-0011 Accomplishments

- Accomplishments to achieve stabilization following the December 2017 contamination event include:
 - o Continued maintenance applications of fixative.
 - o Routine radiological surveys.
 - o Extra radiological surveys when sustained winds are 30 miles per hour or greater.
- Continued implementation of new demolition requirements associated with the December 2017 contamination event. Efforts include:
 - o Completed corrective actions and resumption pre-start items identified in the management assessment.
 - o Received RL concurrence for the resumption of lower risk work.
 - o Lifted the Stop Work called by CHPRC management on demo activities.
 - o Initiated 234-5Z debris loadout.
 - o Shipped nineteen previously loaded Environmental Restoration Disposal Facility (ERDF) containers.
 - o Completed ICE/EIR DOE Headquarters Review.

MAJOR ISSUES

Issue:

On December 15, 2017, contamination was found outside of the established Plutonium Finishing Plant (PFP) radiological boundaries. On December 18, 2017, follow-up radiological surveys found additional contamination present in the administrative office area. CHPRC has identified resumption requirements based on a finalized root cause analysis (RCA) and working with RL and regulators to implement plan to enable demolition activities to resume.

Corrective Action:

Work was stopped after the second event, pending completion of pre-start resumption activities. Pre-start resumption activities include: material relocation, waste shipments, and infrastructure modifications to support enhanced radiological postings. Demolition activities will resume after pre-start items are complete and the project is approved to initiate low-level debris loadout and demolition.

Status:

All corrective actions and resumption pre-start items identified in the management assessment have been completed, and the DOE has provided concurrence for the resumption of lower risk work. The Stop

Work issued by CHPRC management on demo activities has been lifted and resumption of low risk debris disposition has been initiated. This issue has been closed.

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																
RL-0011/WBS-011.OA																			
Explanation of major changes to the project monthly stoplight chart: Risks PFP-P-005, <i>Unexpected Contamination Event Within Established Boundaries</i> and PFP-P1-003, <i>Weather Impacts During Stabilization, Waste Disposition & Support</i> , were closed and have been removed from the stoplight chart.																			
Realized Risks (Risks that are currently impacting project cost/schedule)																			
No realized risks identified in September .																			
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)																			
FY2018 Risk Triggers (Risk could be realized in FY2018)																			
PFP-P-004: Stop Work From Concerned Workers	Concerned workers result in a stop work to address an off-normal or safety issues. The work cannot be restarted until the implementation of corrective actions is completed, resulting in schedule impacts to the project. Risk Handling Strategy: Accept Probability: Very Likely (>90%) Worst Case Impacts: \$0, 52 days	●		Risk Event: During resumption of PFP demolition activities, an increase in stop works could result in delays. <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>Update communications as positions change.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Provide new maps, with entry/exit instructions when boundaries are revised.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Encourage additional worker involvement.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Increase frequency of post-job reviews.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> Mitigation Assessment: No major changes in September . Increased communication and worker involvement to avoid confusion and concern in an effort to minimize stop works.	Mitigation action(s)	FC Date	%	Update communications as positions change.	Ongoing	N/A	Provide new maps, with entry/exit instructions when boundaries are revised.	Ongoing	N/A	Encourage additional worker involvement.	Ongoing	N/A	Increase frequency of post-job reviews.	Ongoing	N/A
Mitigation action(s)	FC Date	%																	
Update communications as positions change.	Ongoing	N/A																	
Provide new maps, with entry/exit instructions when boundaries are revised.	Ongoing	N/A																	
Encourage additional worker involvement.	Ongoing	N/A																	
Increase frequency of post-job reviews.	Ongoing	N/A																	
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)																			
No high threat risks identified in September .																			
Unassigned Risks (Pending ownership of identified risks/opportunities)																			
Risk PFP-P-013, <i>Contamination Spread Beyond RBA</i> was identified during the ICE/EIR, and risk ownership was transferred and accepted by DOE.																			

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	1.4	1.4	7.0	0.0	3.6%	(5.5)	-383.0%

Numbers are rounded to the nearest \$0.1 million.

CM Schedule Variance: (\$0.0M/3.6%)

The CM schedule variance is within threshold.

CM Cost Variance: (-\$5.5M/-383.0%)

The current month negative cost variance is due to the resumption actions and implementation of the new demolition requirements associated with a December 2017 contamination event. This includes fixative applications, performance of radiological surveys, revising radiological postings, infrastructure modifications, and stabilization activities to support resumption of PFP demolition. This also includes additional material and equipment purchases to support the revised demolition approach. As resumption corrective actions and mockups are performed, costs for labor, subcontracts, and material purchases add to the current month variance.

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	990.6	977.7	1,140.9	(13.0)	-1.3%	(163.3)	-16.7%	994.8	1,205.1	64.2	(210.3)
Numbers are rounded to the nearest \$0.1 million											

Contract-to-Date (CTD) Schedule Variance (-\$13.0M/-1.3%)

The CTD schedule variance is within threshold.

CTD Cost Variance (-\$163.3M/-16.7%)

The negative CTD cost variance is primarily a result of prior year unrecoverable costs, as well as impacts to the D&D work scope. Unplanned costs to support implementation of schedule efficiency initiatives at PFP (i.e., foaming, Perma-Fix Northwest [PFNW] size reduction support, implementation of the PremAire Breathing System); increased training costs of additional Health Physics Technicians (HPT) and D&D workers assigned to PFP; additional resources to recover schedule for asbestos removal activities and to support the unplanned asbestos identified for removal (about 10,000 feet); unplanned shipping materials (waste shipping containers TL-1800s, SLB2s, IP-1 bags, etc.) required to support waste loadout activities for TRU waste disposition efforts, and unplanned work to reconfigure the high-density polyethylene (HDPE) water loop to support the new radiological boundaries also contributed to this variance.

Other contributors to the negative cost variance include resumption actions associated with the December 2017 contamination event: fixative applications, performance of radiological surveys, revising radiological postings, infrastructure modifications, and stabilization activities to support resumption of PFP demolition. Reassignment of CHPRC personnel to support the RCA and programmatic assessments have also contributed to the variance.

The negative cost variance is partially offset by using fewer breathing air suits and hoses than originally planned for 242-Z entries. This is a result of fewer field work team members being required to perform hands-on work in 242-Z because of the confined space and number of suits (three suits per day versus five). In addition, there were 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 were performed more efficiently than planned due to the main electrical power being disconnected outside of the building rather than performing individual isolations within the facility. Hazardous

material removal, stabilization, and decontamination was more efficient than originally planned. (i.e., using powerful fans to assist with vertical fixative flow up the stack).

Implementation of a Baseline Change Request (BCR) was processed in September 2017 to draw down RL contingency to recover cost impacts to the project breakdown structure (PBS) RL-0011 C.2 project associated with realized RL risks, which also partially offset the variance. Areas impacted were associated with weather delays, stop works, PRF contamination events, and Mission Support Alliance (MSA) resources retained to prevent bump and roll impacts. Recognition of efficiencies associated with demolition of 242-Z, 291-Z, and 234-5ZA are also contributing to the offset of the negative variance.

Variance at Completion (-\$210.3M/-21.1%)

The unfavorable variance at completion (VAC) is reflective of extended hotel load and field resource costs due to delays in demo-ready and demolition activities.

As a result of wall removals and electrical isolations, it was discovered that approximately 10,000 additional feet of asbestos was found between the walls that required removal. CHPRC is working with RL to use contingency for the additional 10,000 feet of identified asbestos, impacts from the criticality alarm, and relief from the 30 days of weather delays experienced from December 2016 through March 2017.

Overtime was used to ready the 234-5Z Facility for demolition by September 2017. Also, unplanned work on the HDPE water loop is contributing to this variance. 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 and the 291-Z demolition activities.

After a stop work was called due to the December 2017 contamination event, the estimate at completion (EAC) and VAC is reflective of the projected date to reach slab-on-grade in June 2019. The EAC and VAC are reflective of resumption activities and revised demolition approach implementation.

VAC does not include FY2019 scope that was submitted via Change Proposal PRC-1710 Plateau Remediation Contract Extension. The change proposal will be implemented via a BCR in October.

Contract Performance Report Formats are provided in Appendix A.

FUNDS vs. SPEND FORECAST (\$M)

WBS 011/RL-0011 Nuclear Matl Stab & Disp PFP	FY2018		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	80.0	56.3	23.8
Incremental Scope Pending Change Management	0.0	0.0	0.0
RL-0011 - Total	80.0	56.3	23.8

Numbers are rounded to the nearest \$0.1 million

Funds/Variance Analysis

Fiscal Year (FY) 2018 expected required funding for the PBS RL-0011 is \$56.3 million to allow for recovery actions and continuation of demolition activities to achieve slab-on-grade. Projected funding is \$80.0 million.

Critical Path Schedule

The PFP Critical Path schedule begins with resumption of debris disposition of the 234-5Z rubble piles starting with the frontside waste. Once the waste debris is loaded out, demolition will resume on the remaining sections of zones 2 and 7, with the exception of the drain line. Remote Mechanical C process line demolition, Remote Mechanical A process line demolition, and loadout of glovebox HA-46, in parallel with completion of the basement of 234-5Z demolition, will begin after a second MA and concurrence is obtained to resume high-risk demo from DOE. The 234-5Z demolition is projected to complete April 11, 2019. The 236-Z canyon demolition will then resume with completion scheduled for June 12, 2019, 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. Completion of demolition is followed by site stabilization and demobilization, turnover to surveillance and maintenance, and project closeout activities completing in September 2019.

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 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	9/30/2017		6/12/2019	On Friday, December 15, 2017, swing shift RadCon personnel performing routine surveys following the day shift demolition activities discovered low-level contamination on a cookie sheet. This led to a wider search, and a “speck” of contamination was smeared from a government vehicle. A CHPRC management stop work on demolition activities was declared and a critique held to discuss the contamination spread, possible causes, and a path forward. An RCA has been conducted and resumption actions and expected completion have been established. Fourteen days were lost on the schedule in September due to identified pre-start corrective actions required to resume demolition activities at PFP.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

Contract Section	Project	GFS/I	Status
CONTRACT			
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 PFNW locations. RL is the authorized shipper and acts as signatory on the shipping papers, and ensures compliance with DOE Manual 460.2-1. RL arranges for Commercial Motor Vehicle Safety Alliance 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 requirements.	Ongoing

DOE ACTIONS / DECISIONS

None at this time.

Section B

Spent Nuclear Fuel Stabilization and Disposition (RL-0012)

CH2MHILL
Plateau Remediation Company



R. M. Geimer
Vice President for
K Basin Operations

September 2018
CHPRC-2018-09, Rev. 1
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

Sludge Transport & Storage Container (STSC) 3 was disconnected and prepped for shipment on September 4, 2018, and the third shipment of sludge was placed in interim storage at T Plant on September 6, 2018. The fourth STSC was disconnected and prepped for shipment on September 27, 2018, and is forecasted to be placed in interim storage at T Plant on October 3, 2018. The fifth STSC is forecast to be placed in interim storage at T Plant the end of October.

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	0	0	N/A
Recordable Injuries	0	0	N/A
First Aids	1	18	9/10/2018 – Employee reported performing surveys when striking arm on an overhead metal object causing an abrasion. (24963)
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 to sort, characterize and relocate/containerize the high dose sludge material in the center bay.

KW Basin Sludge Removal

- The 100K Operations support team performed preventive maintenance and calibrations on both Engineered Container Retrieval and Transfer System components and Annex Utility System components.
- STSC 3 was placed in interim storage at T Plant on September 6, 2018.
- The fourth STSC was filled with and prepped for disconnect and shipment on September 27, 2018. The STSC is forecast to be placed in interim storage at T Plant the week of October 3, 2018.

MAJOR ISSUES

Issue:

It is likely additional STSCs for interim storage of sludge, above the baseline assumptions of 22, will be required.

Engineered container sludge mass is likely greater than assumed in the baseline. The material-balance calculations completed to forecast the total number of STSCs required to execute the Sludge Removal Project (SRP) may have utilized sludge density values that do not accurately characterize the sludge stored in the 105KW Engineered Containers (ECs). If the actual sludge mass in the ECs ($\text{mass} = \text{density} \times \text{volume} = \rho \times V$) is greater than the mass currently projected in source documents, additional STSCs may be required to remove and store the remaining sludge.

Corrective Action:

Video inspections of each of the sludge ECs have recently been completed to estimate current volumes. Upon completion of STSC 5; engineering personnel will complete evaluation of settled density values in EC-230, Settler Sludge, and EC-250, KE Sludge, and make final recommendations on the estimated number of STSCs to complete the sludge campaign.

Status:

100K engineering personnel believe the average archived sample density established in PNNL-27704 for sludge material removed from each of the six ECs, is likely a more accurate representation of existing EC sludge density (rather than the density values produced 24 hours after sample settling). Applying the more conservative settled density values indicates that the existing material will require between 24 to 26 STSCs, rather than the 22 STSCs currently planned.

Issue:

Attrition of qualified personnel. Since the initiation of sludge removal activities in June, 2018 there has been a greater than 25 percent attrition of Nuclear Chemical Operators (NCOs) and Radiation Control Technicians (RCTs) that have either left the organization or taken leave via short-term disability. The loss of qualified personnel may potentially impact achieving sludge removal schedule goals.

Corrective Action:

A requisition has been submitted to acquire up to eight additional NCOs who will require training and qualification before they are deployed.

Status:

Although there are currently sufficient NCOs/RCTs to support dayshift 105KW Basin and Engineered Container Retrieval and Transfer System (ECRTS) Operations, the attrition over the last 4 months has been significant. Approximately seven additional RCTs have been hired and are in the training/qualification process. While several exempt employees have left the project in the last four months, replacements were more quickly deployable.

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													
RL-0012/WBS-012															
Explanation of major changes to the project monthly spotlight chart: Risks STP-152, <i>Attrition, Acquisition, & Retention of Qualified Exempt Employees</i> , and STP-156, <i>Sludge Removal Campaign Impacted by Variations in Engineered Container Sludge Density/Volume</i> , were added to the spotlight chart in September.															
Realized Risks (Risks that are currently impacting project cost/schedule)															
STP-151: Leak Tightness of Sludge Transportation System Casks	<p>A failed leak test of the Sludge Transportation System (STS) Cask could result in in-scope unplanned work and significant schedule delays not assumed in the Sludge Removal Project (SRP) baseline.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Low (10% to 25%)</p> <p>Worst Case Impacts: \$1,000K, 48 days</p>	● ↑	<p>Risk Event: Although the project did not realize a failed cask leak rate test, a negative trend on Cask 2 resulted in a project management determination that it was necessary to procure a replacement lid.</p> <table border="1"> <thead> <tr> <th>Risk recovery action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Verify that both casks can pass the leak test criteria prior to initiating sludge removal operations.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Institute procedural controls that maintain cask sealing surfaces in a condition that leak tightness is not compromised.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Procure a replacement cask lid if a negative leak rate trend is observed.</td> <td>10/22/18</td> <td>90</td> </tr> </tbody> </table> <p>Risk Action Assessment: Fabrication progress continued in September. A procurement order has been processed to procure a new STS Cask Lid. Cask 2 will not be used until the new lid has been received and successfully leak tested.</p>	Risk recovery action(s)	FC Date	%	Verify that both casks can pass the leak test criteria prior to initiating sludge removal operations.	Complete	100	Institute procedural controls that maintain cask sealing surfaces in a condition that leak tightness is not compromised.	Complete	100	Procure a replacement cask lid if a negative leak rate trend is observed.	10/22/18	90
Risk recovery action(s)	FC Date	%													
Verify that both casks can pass the leak test criteria prior to initiating sludge removal operations.	Complete	100													
Institute procedural controls that maintain cask sealing surfaces in a condition that leak tightness is not compromised.	Complete	100													
Procure a replacement cask lid if a negative leak rate trend is observed.	10/22/18	90													
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)															
No critical risks identified in September.															
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)															
FY2018 Risk Triggers (Risk could be realized in FY2018)															
STP-073-C: Processing Efficiency - Retrieval & Shipping	<p>The realized processing efficiency associated with sludge retrieval and shipping operations does not match the baseline plan.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Medium (26% to 74%)</p> <p>Worst Case Impacts: \$0K, 60 days</p>	● ↓	<p>Risk Triggers: Actual processing efficiency associated with sludge retrieval and shipping operations does not match baseline assumptions. While Management Directive (MD) PRC-MD-RP-53085, Suspension of 67 percent Confidence Level Surveys, was rescinded for 100K Radiological Area Activities, conservative radiological practices may extend operational activities beyond what was assumed in the baseline. This risk will continue in fiscal year (FY) 2018/FY2019 during operations campaign.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Establish a Production Control Center to facilitate maximum efficiency integrating SRP operations and maintenance activities.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Review operations and maintenance activities required to produce each sludge STSC and establish a "typical" schedule integrating all activities in the most efficient sequence possible.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Revised plan to establish the appropriate campaign schedule</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p>Mitigation Assessment: No major changes in September. Project personnel completed a revised plan to establish the appropriate campaign schedule, taking into account ion exchange module (IXM) change outs and performance of preventive maintenance activities. A revised plan has been provided to RL via the FY2019 Post Contract Baseline submittal and RL is currently reviewing this plan.</p>	Mitigation action(s)	FC Date	%	Establish a Production Control Center to facilitate maximum efficiency integrating SRP operations and maintenance activities.	Complete	100	Review operations and maintenance activities required to produce each sludge STSC and establish a "typical" schedule integrating all activities in the most efficient sequence possible.	Complete	100	Revised plan to establish the appropriate campaign schedule	Complete	100
Mitigation action(s)	FC Date	%													
Establish a Production Control Center to facilitate maximum efficiency integrating SRP operations and maintenance activities.	Complete	100													
Review operations and maintenance activities required to produce each sludge STSC and establish a "typical" schedule integrating all activities in the most efficient sequence possible.	Complete	100													
Revised plan to establish the appropriate campaign schedule	Complete	100													
STP-152: Attrition, Acquisition, & Retention of Qualified Exempt Employees	<p>Improving job markets/funding uncertainties or site wide priorities result in competition for key resources, resulting in schedule delays to the project. In addition, higher than anticipated attrition impacts project baseline costs.</p> <p>Risk Handling Strategy: Accept</p>	● ↓	<p>Risk Triggers: Due to the current job market, in addition to the need for specialized resources to complete the planned sludge retrieval activities, qualified and trained resources are needed to support planned activities.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Revised schedule sequencing to allow shift work to be performed.</td> <td>12/31/18</td> <td>--</td> </tr> </tbody> </table>	Mitigation action(s)	FC Date	%	Revised schedule sequencing to allow shift work to be performed.	12/31/18	--						
Mitigation action(s)	FC Date	%													
Revised schedule sequencing to allow shift work to be performed.	12/31/18	--													

Unmitigated Risk Impacts	Assessment		Comments												
	Month	Trend													
RL-0012/WBS-012															
	Probability: Low (10% to 25%) Worst Case Impacts: \$50K, 36 days		Mitigation Assessment: No major changes in September. The project is currently evaluating their need to backfill chronic staff absences, in addition to sequencing activities to allow for shift work.												
STP-156: Sludge Removal Campaign Impacted by Variations in Engineered Container Sludge Density/Volume	The actual mass of sludge stored in the 105KW Basin Engineered Containers is not consistent with the mass assumed in the SRP Technical Basis, resulting in cost and schedule delays. Risk Handling Strategy: Control Probability: Very Likely (>90%) Worst Case Impacts: \$1,500K, 72 days	 	Risk Triggers: The actual sludge mass in the Engineered Containers (ECs) (mass = density x volume = ρ*V) is greater than the mass currently projected in source documents, resulting in the need for additional STSCs to remove & store the remaining sludge. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Mitigation action(s)</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr> <td>Revisit Sludge Removal Project Basis Documents HNF-SD-SNF-TI-015 R28, Spent Nuclear Fuel Project Technical Databook, Volume 2, Sludge, and HNF-41051 R13, STP Container and Settler Sludge Process Description and Material Balance based upon PNNL-27769, STP K Basin Sludge Sample Archive Status FY2018.</td> <td style="text-align: center;">4/30/19</td> <td style="text-align: center;">--</td> </tr> <tr> <td>Complete visual inspections of sludge stored in Engineered Containers SCS-CON-210/220/230 (at a minimum) to assess volume information specified in technical basis documents.</td> <td style="text-align: center;">10/31/18</td> <td style="text-align: center;">80</td> </tr> <tr> <td>Evaluate and implement feasible opportunities to more efficiently disposition remaining Engineered Container Sludge.</td> <td style="text-align: center;">3/31/19</td> <td style="text-align: center;">10</td> </tr> </tbody> </table> Mitigation Assessment: Project personnel are currently reviewing Sludge Removal Project Basis Documents in order to determine how the baseline project assumptions were impacted. After the final review of the documents and completion of visual inspections of sludge stored in Engineered Containers SCS-CON-210/220/230, the project will determine how to more efficiently disposition the remaining sludge.	Mitigation action(s)	FC Date	%	Revisit Sludge Removal Project Basis Documents HNF-SD-SNF-TI-015 R28, Spent Nuclear Fuel Project Technical Databook, Volume 2, Sludge, and HNF-41051 R13, STP Container and Settler Sludge Process Description and Material Balance based upon PNNL-27769, STP K Basin Sludge Sample Archive Status FY2018.	4/30/19	--	Complete visual inspections of sludge stored in Engineered Containers SCS-CON-210/220/230 (at a minimum) to assess volume information specified in technical basis documents.	10/31/18	80	Evaluate and implement feasible opportunities to more efficiently disposition remaining Engineered Container Sludge.	3/31/19	10
Mitigation action(s)	FC Date	%													
Revisit Sludge Removal Project Basis Documents HNF-SD-SNF-TI-015 R28, Spent Nuclear Fuel Project Technical Databook, Volume 2, Sludge, and HNF-41051 R13, STP Container and Settler Sludge Process Description and Material Balance based upon PNNL-27769, STP K Basin Sludge Sample Archive Status FY2018.	4/30/19	--													
Complete visual inspections of sludge stored in Engineered Containers SCS-CON-210/220/230 (at a minimum) to assess volume information specified in technical basis documents.	10/31/18	80													
Evaluate and implement feasible opportunities to more efficiently disposition remaining Engineered Container Sludge.	3/31/19	10													
Unassigned Risks (Pending ownership of identified threats/opportunities)															
No unassigned risks identified in September .															

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	3.2	4.6	3.9	1.4	45.1%	0.7	14.9%

Numbers are rounded to the nearest \$0.1 million

CM Schedule Performance (+\$1.4M/+45.1%)

The current month positive schedule variance is due to recovery of previously behind conditions for loading and shipment of STSC 3 and 4 which were planned to complete in August. STSC 3 was shipped to T Plant in early September and STSC 4 was filled with sludge but held for shipment until October 1, 2018.

CM Cost Performance (+\$0.7M/+14.9%)

During September the operations crews were able to complete two sludge retrievals (STSC 3 and 4) with minimal overtime. In addition, material requirements have been associated with maintenance and other 105KW activities, rather than retrieval operations which was reflected in the planning.

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	744.2	744.2	714.1	(0.0)	-0.0%	30.1	4.0%	744.4	714.3	0.2	30.1

Numbers are rounded to the nearest \$0.1 million

CTD Schedule Performance (-\$0.0M/-0.0%)

The variance is within reporting thresholds.

CTD Cost Performance (+\$30.1M/+4.0%)

The variance is within reporting thresholds.

Variance at Completion (+\$30.1M/+4.0%)

The variance is within reporting thresholds. VAC does not include FY2019 scope that was submitted via change proposal (CP) PRC-1710 Plateau Remediation Contract Extension. The CP will be implemented via a baseline change requests (BCRs) in October.

Contract Performance Report Formats are provided in Appendix A.

FUNDS vs. SPEND FORECAST (\$M)

RL-0012 Spent Nuclear Fuel Stabilization and Disposition	FY2018		Variance
	Projected Funding	Spending Forecast	
Expense – Spending Forecast	41.9	35.6	6.4
Incremental Scope Pending Change Management	0.0	0.0	(0.0)
Expense – Subtotal	41.9	35.6	6.4
Line Item (LI)	18.8	17.1	1.7
Incremental Scope Pending Change Management	0.0	0.0	(0.0)
LI – Subtotal	18.8	17.1	1.7
RL-0012 – Total	60.7	52.7	8.1

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis

Fiscal year (FY) 2018 funding for project breakdown structure (PBS) RL-0012 is \$60.7 million. Positive variance of \$6.4 million in expense funding is due to revised funding levels in the Central Plateau control point provided by RL in March 2018 and due to delays in the start of retrieval operations. Positive variance in the line item is the result of efficiencies gained due to acceleration of the installation activities and risk mitigation efforts.

Critical Path Schedule

The project critical path schedule runs through completion of retrieval operations, including the filling of STSCs with sludge, transporting to T Plant, and placement in T Plant cell. Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Milestone M-016-176, Complete Sludge Removal from 105KW Fuels Storage Basin, is due by December 31, 2019.

MILESTONE STATUS

Tri-Party Agreement milestones represent significant events in project execution. RL Enforceable Agreement (EA) 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 shows the Tri-Party Agreement milestone 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	6/12/2018 (A)	Complete	

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS / DECISIONS

None currently identified.

Section C

Solid Waste Stabilization and Disposition (RL-0013)

CH2MHILL
Plateau Remediation Company



K. R. Shupe
Vice President for
Waste and Fuels Management
Project

September 2018
CHPRC-2018-09, Rev. 1
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

T. L. Hobbes
Vice President for
River Risk Management Project

M. A. Wright
Vice President for Project
Technical Services

PROJECT SUMMARY

During the September reporting period, August 27 – September 30, 2018, Waste and Fuels Management Project (W&FMP) maintained facilities in a safe and compliant condition. Overall, the project continues to deliver ongoing efficiencies that were identified in the fiscal year (FY) 2012-2013 time frame, but continues to be impacted by emerging work and realized risks. The River Risk Management Project operated the Environmental Restoration Disposal Facility (ERDF) and continued document preparations and permit modifications associated with the Integrated Disposal Facility (IDF).

This month:

- Management of Cesium and Strontium Capsule (MCSC) Project: Work continues on the final design for the Cask Storage System (CSS). The CSA Final Design was completed and issued through document control. The preliminary design activities for the Waste Encapsulation and Storage Facility (WESF) modifications was submitted to CHPRC for review and approval on September 27, 2018. Design subcontractor submitted the final CSS design for CHPRC review and approval on September 28, 2018. Dimension checks for 1,782 capsules using the new gauge is complete. All capsules checked to date have passed satisfactorily. The draft Preliminary Documented Safety Analysis (PDSA) is completed. The final PDSA is anticipated to be submitted to RL for approval once the CSS final design is issued.
- At T Plant, the sludge receipt team received the third shipment of sludge from the 100K West Reactor Basin to T Plant. The fourth sludge shipment is forecasted for receipt on October 1, 2018.
- The W&FMP team supported the transfer of two former Navy submarine reactor compartments, the ex-USS Indianapolis and ex-USS Atlanta to Trench 94.

EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
18-EMS-WFMP-OB1-T1	Reuse equipment from West Valley DOE site/conserves resources/minimize waste.	Reuse West Valley equipment for cesium (Cs) and strontium (Sr) capsule storage. Receive, manage, and use equipment as received.	9/30/2018	100%
18-EMS-WFMP-OB2-T1	Chemical management compliance.	Evaluate the chemical inventories for WESF and T Plant and disposition items that do not have a future use.	9/30/2018	65%*
18-EMS-WFMP-OB4-T1	Reduce environmental impact of contaminants along the Columbia River and minimize accompanying risks.	Complete T Plant Readiness Assessment and Master Documented Safety Analysis (MDSA) Revision 12 implementation in order to prepare for sludge receipt at T Plant.	9/30/2018	100%
18-ERDF-OB1-T1	Conserve resources/waste minimization	Procure and use metal liner substitutes for the macro-encapsulation treatment of waste instead of using functional roll-on/roll-off (RO/RO) waste containers as sacrificial containers.	9/30/2018	100%

Objective #	Objective	Target	Due Date	Status
18-ERDF-OB2-T1	Improve compliance/pollution prevention	Monitor and evaluate universal waste (UW) and recycling accumulation areas for compliance with CHPRC procedures.	9/30/2018	100%

*Not all chemicals identified at WESF and T Plant were shipped prior to the end of September.

TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	2	N/A
Total Recordable Injuries	0	2	N/A
First Aid Cases	1	16	9/26/2018 – Employee was walking up the cement staircase using the handrail when the left foot did not get completely on the step. The employee felt a pop and the left knee folded backward, causing injury. (24980)
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

Waste and Fuels Management Project

13.01 Project Management

- o Performed/Completed:
 - Current Consent Agreement and Final Order (CAFO) document development status: On August 2, 2018, CHPRC transmitted certified revised Closure Plans for the 277-T Building, 271-T Cage, 211-T Pad, and 2401-W Waste Storage Building to RL, and RL subsequently transmitted the plans to Ecology. The revised plans and accompanying Review Comment Record (RCR) forms reflect changes agreed upon with Ecology. On September 12, 2018, Ecology requested additional photographs, figures, and text. CHPRC is preparing the information for transmittal to RL.
 - Continued responses to Ecology comments on the Process Information Addenda for the Solid Waste Operations Complex (SWOC) part B Permit Application.

13.02 Capsule Storage & Disposition

- o Performed/Completed:
 - WESF Documented Safety Analysis (DSA) / Technical Safety Requirements (TSR), Revision 12 implementation activities.
 - Fieldwork activities for pool cell beta monitoring system upgrades.
 - W-135 Project WESF Preparations and Support:
 - Hazard Review Board Approval of Work Package for canyon waste removal, decontamination and painting.

- G Cell lighting updates.
- Replacement of the two canyon auxiliary hoists.
- o Completed Surveillances/Preventive Maintenance (PM):
 - 40 PM packages.
- 13.03 Canister Storage Building (CSB)**
 - o Performed/Completed:
 - Ninety-day video scope Multi-Canister Overpack (MCO) pressure temperature monitoring of four MCO.
 - Monthly inspections.
 - Air Handler 004 testing acceptance documentation and Construction Completion Document.
 - o Completed Surveillances/PMs:
 - 26 PM packages.
- 13.06 Transuranic (TRU) Repackaging**
 - o Repackaging:
 - Received three shipments of M-091 legacy suspect transuranic mixed (TRUM) waste from Perma-Fix Northwest (PFNW) into Central Waste Complex (CWC). Contributing 119.5 cubic meters (m³) toward the next volumetric objective, bringing the total to date to 529.0m³.
- 13.07 Waste Receiving and Processing (WRAP)**
 - o Performed/Completed:
 - Monthly inspections for WRAP.
 - o Completed Surveillances/PMs:
 - 217 surveillances.
 - 27 PM packages.
- 13.08 T Plant**
 - o Performed/Completed:
 - Update to Canyon High Bay lights with Light-emitting diodes (LEDs).
 - Removal of Cover Blocks from cell 15L, in support of the Sludge Transport & Storage Container (STSC) receipt.
 - Replacement of canyon crane filters.
 - Re-lamping of crane way.
 - o Completed Surveillances/PMs:
 - 486 surveillances.
 - 55 PM packages.
 - Sludge Receipt**
 - o Performed/Completed:
 - Relocation of four STSCs to Canyon Deck from 2706TA.
 - o Shipments Received:
 - One STSC from 105KW to T Plant in one shipment.
 - o Shipments Shipped:
 - Two STSCs from T Plant to 105KW in two shipments.
 - Two drums from T Plant to PFNW.
- 13.09 Central Waste Complex (CWC) and Low-level Burial Ground (LLBG)**
 - o Performed/Completed:
 - 2402-WL lighting upgrades.
 - o Completed Surveillances/PMs:
 - 362 surveillances.
 - 32 PM packages.
 - o Shipments Shipped:
 - Ten boxes from CWC to PFNW in one shipment.
 - Super 7A from CWC to PFNW in one shipment.

13.15 TRU Disposition

- o Performed/Completed:
 - Detailed review of fifth TRU waste stream.
 - Received letter from Carlsbad Field Office (CBFO) initiating site input to the FY2018 Container Specific Inventory report.

13.16 Offsite Spent Nuclear Fuel Disposition

- o Performed/Completed:
 - Maintained coordination for offsite Spent Nuclear Fuel Disposition.

13.21 Mixed Waste Disposal Trenches (MWT)

- o Completed surveillances/PMs:
 - 157 surveillances.
- o Shipments Received:
 - Fifteen boxes from PFNW into MWT34 in three shipments.
 - Five boxes from PFNW into MWT31 in one shipment.

Work for Others:

- o Navy Reactor Compartments:
 - Received two reactor compartments.

13.24 Management of Cesium and Strontium Capsules Project

- o Performed/Completed:
 - CSA Design: The CSA Final Design was completed and issued through document control
 - WESF Modifications Design: The Preliminary Design (ARES) was submitted to CHPRC for review and approval on September 27, 2018. The Preliminary design formal review kickoff meeting is scheduled for October 1, 2018.

13.25 Capsules Interim Storage Operations

- o Performed/Completed:
 - CSS design: CHPRC has received clarification from DOE on their request for evaluation of the project cost and schedule impacts. CHPRC is preparing a response to the request considering clarification.
 - Design subcontractor submitted the final CSS design for CHPRC review and approval on September 28, 2018.
 - Engineering: Dimension checks for 1,782 capsules using the new gauge are complete. All capsules checked to date have passed satisfactorily.
 - Nuclear Safety: The draft Preliminary Documented Safety Analysis (PDSA) has been completed. The final PDSA is anticipated to be submitted to DOE for approval once the CSS final Design has been issued.

River Risk Management Project**13.10 Environmental Restoration Disposal Facility**

- o Successfully disposed legacy waste from Plutonium Finishing Plant (PFP) using the new enhanced radiological controls.
- o Received 19,587 tons in September.
- o Received 192,222 tons fiscal year-to-date (FYTD).
- o Used the non-standard crane to offload one long length item (LLI) for disposal.

13.12 Integrated Disposal Facility (IDF)

- o Care & Custody
 - Performed/completed September monthly inspections.
- o IDF Operational Readiness
 - Continued work on Part A, Security and Closure Plan addenda to support IDF Resource Conservation and Recovery Act of 1976 (RCRA) permit modifications.

- Selected contractor to design the facility modifications and site infrastructure. Contract will be awarded in October.
- Continued work on the IDF performance assessment documents to address DOE Low-Level Waste Disposal Facility Federal Review Group (LFRG) review comments.
- Continued preparation of the IDF Waste Acceptance Criteria (WAC) and Waste Analysis Plan (WAP).
- Initiated work with Mission Support Alliance, LLC (MSA) to add additional property (the triangle area near the IDF entrance) for the IDF waste receiving infrastructure.

Project Technical Services (PTS) Support

- o Project Delivery:
 - Trench 31 and 34 Manway extension and void fill:
 - Mobilized and completed work scope.
 - Construction Completion Document (CCD) issued and turned over to operations.
 - NR-1 Reactor Surface Prep
 - Completed design review of the NR-1 precast supporting blocks. Finalized cost estimate and issued deliverable package to Puget Sound Naval Shipyard (PSNS).

MAJOR ISSUES

Issue:

Ecology has indicated that they may require the 90 percent design package for the CSA prior to issuing the permit for public comment.

Corrective Action:

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

Status:

The permit application was formally submitted to Ecology on November 21, 2017, with the 30 percent design information. Ecology's completeness review for the WESF permit modification request was received on February 5, 2018. Ecology's completeness review for the Capsule Interim Storage (CIS) permit application was received on February 13, 2018. Ecology concluded that the permit applications were incomplete. Additional information to address the completeness review was transmitted to Ecology on May 8, 2018. Specific comments on the proposed permit addenda have not yet been received from Ecology and are not anticipated until October 2018.

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. Ecology is working through the rule-making process to incorporate these requirements into the regulations but continues to identify this issue in recent inspections. The project continues to await direction from RL.

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) in Carlsbad, New Mexico. 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; over-packing drums). Streamlined and consolidated container management procedures. RL authorized the additional FY2019 TRU commercial repackaging, allowing shipments to PFNW for repackaging to continue throughout the year.

Issue:

MSA Cross-Connection Control Program performed a Health Hazard Level Re-Evaluation following the guidance listed in Washington Administrative Code 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-connections installed.

Corrective Action:

The WAC requires the 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 is required, unless RL approves an alternate (no action) approach that was transmitted on July 6, 2016 (CHPRC-1602928). The project continues to await RL direction for sanitary water system facility modifications. The MSA water purveyor also performed the annual cross-connection review at WESF on February 6, 2018. WESF is currently awaiting the report. Additionally, at MSA’s request, a letter was transmitted that describes to the MSA water purveyor the recently completed risk reduction activities at WESF (e.g., W-130 Project) and the current schedule for removal of capsules to dry storage. On May 7, 2018, CHPRC received a response to this status stating that “the facility hazard level can be reduced from severe to high ONLY after Project W-135 is fully executed, with the capsules removed and protective basins drained.” CHPRC has notified RL that they will include work for the planning and preparations necessary for modifications to the potable water system in the FY2019 Post Contract Baseline (PCB) to be authorized in the FY2019 work authorization. CHPRC received correspondence 1804117A, from RL accepting the risk of continued water system

cross-connection and allowing continued non-compliance. Upon transfer of the cesium and strontium capsules currently stored at WESF, the facility can proceed to cold shutdown and securing of the water systems. This will no longer be reported as a major issue and will be removed from future reports.

Issue:

TK-100 is a collection tank located underground to the south of the 225B Building and collects miscellaneous contaminated or potentially contaminated waste liquids. TK-100 has an approximate capacity of 4,000 gallons. The current volume of TK-100 is approximately 3,200 gallons. Recent sampling of TK-100 indicated a Cs-137 sample result higher than the acceptance criteria at the Effluent Treatment Facility (ETF). As a result, disposal of the tank contents via the normal route to the ETF via tanker truck may not be possible.

Corrective Action:

Determine the most cost effective path forward for disposal of the TK-100 contents.

Status:

Discussions have been in progress with ETF on their acceptance options. Additionally, an analysis has been initiated to determine additional options for disposal of the TK-100 contents.

Issue:

On August 14, 2018, notification was received (18-AMRP-0151) informing CHPRC that RL is supportive of enhancing the operating margin for the cesium salt-metal interface temperature by increasing the number of casks (as appropriate up to 24 casks) to reduce the heat load in each individual cask, in order to bound the range of uncertainty.

Corrective Action:

CHPRC is preparing a response to RL that will identify the proposed path forward and preliminary cost and schedule impacts.

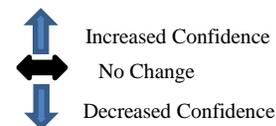
Status:

Draft letter has been developed and shared with RL project personnel and RL Nuclear Safety.

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													
RL-0013/WBS-013																
Explanation of major changes to the project monthly stoplight chart: Risk WSD-TR-01, DOE Provided Drivers Not Available, was removed from the monthly stoplight chart.																
Realized Risks (Risks that are currently impacting project cost/schedule)																
WSD-CSA-007: Delays in CSS Design Impact PDSA	The final development of the PDSA is impacted due to delays in completing the CSS final design, resulting in schedule impacts to the CSA construction and CSS fabrication. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$0K, 96 days			Risk Event: The CSS final design is delayed due to late identification of the need for additional shielding in the cask design due to the unique nature of the capsules. Accident analysis needed to support development of the PDSA cannot be completed until the final design is complete. The PDSA development cannot complete until CSS design is complete. <table border="1"> <thead> <tr> <th>Risk recovery action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>CHPRC has provided draft PDSA for review and comment to internal reviewers and DOE to allow early feedback and comment incorporation.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>CHPRC is working with the CSS design contractor to prioritize accident analysis needed for the PDSA development.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Complete shielding design and accompanying analysis for final design</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> Risk Action Assessment: No significant changes in September . CSS final design was submitted by the design contractor to CHPRC. CHPRC will conduct an in-process review of the G Cell operational and CSS loading equipment pending outcome of the impacts of DOE letter 18-AMRP-0151 to increase cask storage temperature operating margin.	Risk recovery action(s)	FC Date	%	CHPRC has provided draft PDSA for review and comment to internal reviewers and DOE to allow early feedback and comment incorporation.	Complete	100	CHPRC is working with the CSS design contractor to prioritize accident analysis needed for the PDSA development.	Complete	100	Complete shielding design and accompanying analysis for final design	Complete	100
Risk recovery action(s)	FC Date	%														
CHPRC has provided draft PDSA for review and comment to internal reviewers and DOE to allow early feedback and comment incorporation.	Complete	100														
CHPRC is working with the CSS design contractor to prioritize accident analysis needed for the PDSA development.	Complete	100														
Complete shielding design and accompanying analysis for final design	Complete	100														
WSD-TR-03: Equipment fails CVSA Inspection or is Non-Operational	The Commercial Vehicle Safety Alliance (CVSA) Inspection identifies defects/issues with MSA Managed Fleet equipment that requires repairs or replacement, resulting in cost impacts and schedule delays. Risk Handling Strategy: Accept Probability: Medium (26% to 74%) Worst Case Impacts: \$500K, 64 days			Risk Event: On March 29, 2018, the clutch on the tractor that is used to pull the Super 7A went out. In addition, during a return shipment from PFNW, water inside the Super 7A was discovered. <table border="1"> <thead> <tr> <th>Risk recovery action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Perform tractor clutch repair.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Perform leak test on Super 7A.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Perform four shipments to PFNW in June.</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> Risk Action Assessment: No significant changes in September . Due to the realization of this risk, the project performed a repair on the tractor clutch. The tractor was returned to service following the repair. The Super 7A was returned from PFNW with water inside, which could indicate a leak. The investigations and leak test show no indication of a leak and the Super 7A-1 has returned to service. This risk will no longer be reported on as a key risk, and will be removed from the stoplight chart prior to October reporting. However, the risk will continue to be monitored internally through the remainder of its lifecycle.	Risk recovery action(s)	FC Date	%	Perform tractor clutch repair.	Complete	100	Perform leak test on Super 7A.	Complete	100	Perform four shipments to PFNW in June.	Complete	100
Risk recovery action(s)	FC Date	%														
Perform tractor clutch repair.	Complete	100														
Perform leak test on Super 7A.	Complete	100														
Perform four shipments to PFNW in June.	Complete	100														
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)																
Lifecycle Risk Triggers (Risk could be realized at any point of the project)																

Risk Title	Unmitigated Risk Impacts	Assessment		Comments															
		Month	Trend																
RL-0013/WBS-013																			
WSD-097: Major Equipment Failure - T-Plant	<p>T Plant suffers a major equipment failure (crane, primary power supply, etc.), resulting in cost impacts and schedule delays.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Medium (26% to 74%)</p> <p>Worst Case Impacts: \$3 million, 96 days</p>	●	↔	<p>Risk Trigger Metric: 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, 2019) contract.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Identify and procure critical spare parts for the T Plant crane.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in September. The project has put into place mitigating strategies (i.e., aggressive Surveillance and Maintenance [S&M] activities) to help reduce this risk including the upcoming annual mechanical crane maintenance. 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 project has received mechanical brake, motor parts, electrical parts, and spare parts. Engineering addressed quality assurance clause for the National Electrical Manufacturers Association (NEMA) MG1 standards to complete the mechanical motor parts order.</p>	Mitigation action(s)	FC Date	%	Identify and procure critical spare parts for the T Plant crane.	Ongoing	N/A									
Mitigation action(s)	FC Date	%																	
Identify and procure critical spare parts for the T Plant crane.	Ongoing	N/A																	
WSD-019: MLLW & TRU Treatment Impacts	<p>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.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Likely (75% to 90%)</p> <p>Worst Case Impacts: \$1.25 million, 0 days</p>	●	↔	<p>Risk Trigger Metric: Will continue throughout the contract (September 30, 2019).</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Establish multiple treatment contracts or obtain additional capability for the processing of MLLW and TRU waste, with terms extending to the end of the current CHPRC contract with RL (i.e. September 30, 2019).</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Continue to work with RL to fund the processing of TRU/M waste at PFNW at a rate that keeps them viable (i.e. keeps the doors open).</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Evaluate the benefit(s) associated with an increase to the PFNW plutonium (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 took place in conjunction with the M-091-52 engineering study.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>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.</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in September. 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 the Perma-Fix East treatment facility in Tennessee (M&EC). Additional treatment capabilities will be needed to meet future anticipated MLLW treatment needs. 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. Additional authorization has been received by DOE for FY2019, which will maintain PFNW's minimum optimization processing volumes through the remainder of the fiscal year.</p>	Mitigation action(s)	FC Date	%	Establish multiple treatment contracts or obtain additional capability for the processing of MLLW and TRU waste, with terms extending to the end of the current CHPRC contract with RL (i.e. September 30, 2019).	Ongoing	N/A	Continue to work with RL to fund the processing of TRU/M waste at PFNW 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 plutonium (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 took place in conjunction with the M-091-52 engineering study.	Complete	100	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
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Continue to work with RL to fund the processing of TRU/M waste at PFNW at a rate that keeps them viable (i.e. keeps the doors open).	Ongoing	N/A																	
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Risk Title	Unmitigated Risk Impacts	Assessment		Comments															
		Month	Trend																
RL-0013/WBS-013																			
WSD-125: Multi-Year Pause in Waste Processing Results in Unexpected Container Integrity Issues	<p>A pause in waste processing results in an unexpected container degradation within Solid Waste Operations Complex (SWOC) (excluding TRU retrieval activities) and requires additional resources to respond.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Likely (75% to 90%)</p> <p>Worst Case Impacts: \$5 million, 0 day</p>	●	↑	<p>Risk Trigger Metric: Degraded containers are discovered in CWC.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Perform daily/weekly waste container surveillances to identify container abnormalities.</td> <td>Ongoing</td> <td>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>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Process waste packages at a rate funded by RL.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Procuring stainless steel 85-gallon overpacks for alternative storage of containers that show signs of degradation.</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in September. The project continued to perform container surveillances in September to identify container and container cover abnormalities. Twenty five drums have been placed in overpacks in FY2018, in addition to 24 containers in 2404WC with signs of exterior corrosion, which were placed in stainless steel overpacks on October 18, 2017. Furthermore, the overpack of storage box 75DMA16F3 was completed. RL authorized additional FY2019 TRU commercial repacking, allowing shipments to PFNW for repackaging to continue. The remaining containers will continue to require surveillance and enhanced monitoring.</p>	Mitigation action(s)	FC Date	%	Perform daily/weekly waste container surveillances to identify container abnormalities.	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 overpacks for alternative storage of containers that show signs of degradation.	Complete	100
Mitigation action(s)	FC Date	%																	
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Process waste packages at a rate funded by RL.	Ongoing	N/A																	
Procuring stainless steel 85-gallon overpacks for alternative storage of containers that show signs of degradation.	Complete	100																	
FY2019 Risk Triggers (Risk could be realized in FY2019)																			
WSD-W135-16: Content and Approval of Critical Decision Packages	<p>The content of the critical decision (CD) packages required by DOE O 413.3B are more extensive than anticipated and require an extensive RL review.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Very Likely (>90%)</p> <p>Worst Case Impacts: \$2,000K, 0 days</p>	●	↑	<p>Risk Trigger Metric: No change from last month.</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>Mitigation Assessment: No significant changes in September. The pre-conceptual design of the project was based on DOE O 413.3A; the current version is DOE O 413.3B, Change Order 2. New requirements will impact the content of the CD packages or impact the duration and extent of the RL review. DOE-HQ issued a new policy for management of Capital Asset Projects (CAP) less than \$50 million on August 31, 2018. RL is evaluating the impacts. CHPRC continues to work closely with RL on the tailoring strategy to meet the DOE O 413.3B requirements.</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 more modifications to WESF than planned.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Very Likely (>90%)</p> <p>Worst Case Impacts: \$7,300K, 0 days</p>	●	↔	<p>Risk Trigger Metric: 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>Mitigation Assessment: No changes in September. The approach incorporated into the pre-conceptual design for the transfer of the capsules required minimal modifications to WESF. Currently, the WESF modification design is in progress and supports the needs of the Cask Storage System equipment design. This risk will no longer be reported on as a key risk, and will be removed from the stoplight chart prior to October reporting. However, the risk will continue to be monitored internally through the remainder of its lifecycle.</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																	

Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
RL-0013/WBS-013										
WSD-W135-28: RCRA Permit Requires 90% Design Information for the Capsule Storage Area (CSA)	<p>Ecology may require the 90 percent design package for the CSA to be completed prior to issuing the permit for public comment.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Medium (20% to 74%)</p> <p>Worst Case Impacts: \$1,775K, 360 days</p>			<p>Risk Trigger Metric: Ecology requires the 90 percent design package for the CSA to be completed prior to issuing the permit for public comment.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Mitigation action(s)</th> <th style="text-align: left;">FC Date</th> <th style="text-align: left;">%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No changes in September. CHPRC continues to have regular interfaces with Ecology to discuss the issue and are evaluating options should the 90 percent be required. The permit application was formally submitted to Ecology on November 21, 2017, with the 30 percent design information. The project received a determination of incompleteness on February 13, 2018. The determination of incompleteness is primarily associated with the need for additional design information. CHPRC submitted supplemental design information for the WESF Mods and CSA to RL in May to support Ecology’s completeness determination. RL has transmitted this information to Ecology. Ecology is currently reviewing the design information. The project anticipates that a temporary authorization will be necessary if the permitting process is not timely.</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								

Risk Title	Unmitigated Risk Impacts	Assessment		Comments												
		Month	Trend													
RL-0013/WBS-013																
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)																
WSD-086: W&FMP Industrial Accident or Contamination	An industrial accident or contamination event requires corrective actions, resulting in cost impacts. Risk Handling Strategy: Accept Probability: Medium (26% to 74%) Worst Case Impacts: \$3 million, 0 days			<p>Risk Trigger Metric: The spread of contaminated tumbleweeds at W&F laydown areas and burial grounds require additional personnel to monitor and mitigate the spread of contamination.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Additional radiation surveys, first line supervisors, and supporting staff are required to support herbicide spraying required to monitor and mitigate the spread of contamination in the burial grounds associated with biological vectors.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in September. The migration of tumbleweeds has the potential of spreading contamination to site “neighbors;” therefore, increased use of herbicide spraying and surveillances are required to help minimize contamination spread. Based on the qualitative analysis of this risk, it is no longer classified as a “high risk threat”. As such, this risk will be removed from the stoplight chart prior to October reporting. However, the risk will continue to be monitored internally through the remainder of its lifecycle.</p>	Mitigation action(s)	FC Date	%	Additional radiation surveys, first line supervisors, and supporting staff are required to support herbicide spraying required to monitor and mitigate the spread of contamination in the burial grounds associated with biological vectors.	Ongoing	N/A						
Mitigation action(s)	FC Date	%														
Additional radiation surveys, first line supervisors, and supporting staff are required to support herbicide spraying required to monitor and mitigate the spread of contamination in the burial grounds associated with biological vectors.	Ongoing	N/A														
WSD-133: Results of External Audits/Assessments Impact Operations	External oversight groups identify gaps in licensing/permitting, surveillance, and maintenance activities at WSD facilities. This includes but is not limited to a change in the current interpretation of required electrical PMs and additional permitting at T Plant for sludge receipt. These gaps require additional resources to address discrepancies, resulting in cost impacts. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$3,000K, 0 days			<p>Risk Trigger Metric: WESF operations continue longer than assumed due to delays in the implementation of the Cs/Sr capsule dry storage project, which results in increased maintenance demands and the need to replace select systems required for operation due to their age and difficulty in obtaining spare parts. The WRAP facility extended dormant period requires increased maintenance work.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Replace WESF pool cell instrumentation systems, add 21 PM/S WRAP electrical system activities, and perform WRAP floor repair.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Provide RL information to substantiate the current project position.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Participate in technical mitigations to ensure compliance.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in September. The project has replaced the bulk of the WESF pool cell instrumentation system and modified the on-line beta monitoring. WRAP floor repairs are ongoing. Completed maintenance on the High Energy Real Time Radiography Linear Accelerator. Additional maintenance work will be performed based on facility work priority. Based on the qualitative analysis of this risk, it is no longer classified as a “high risk threat”. As such, this risk will be removed from the stoplight chart prior to October reporting. However, the risk will continue to be monitored internally through the remainder of its lifecycle.</p>	Mitigation action(s)	FC Date	%	Replace WESF pool cell instrumentation systems, add 21 PM/S WRAP electrical system activities, and perform WRAP floor repair.	Ongoing	N/A	Provide RL information to substantiate the current project position.	Ongoing	N/A	Participate in technical mitigations to ensure compliance.	Ongoing	N/A
Mitigation action(s)	FC Date	%														
Replace WESF pool cell instrumentation systems, add 21 PM/S WRAP electrical system activities, and perform WRAP floor repair.	Ongoing	N/A														
Provide RL information to substantiate the current project position.	Ongoing	N/A														
Participate in technical mitigations to ensure compliance.	Ongoing	N/A														

Risk Title	Unmitigated Risk Impacts	Assessment		Comments																		
		Month	Trend																			
RL-0013/WBS-013																						
WSD-136: CWC/WRAP Components Fail	<p>CWC facilities and components may reach their end of life. These items will need to be replaced and/or repaired outside of planned funding profiles, resulting in cost impacts.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Medium (26% to 74%) Worst Case Impacts: \$2 million, 0 days</p>	●	↔	<p>Risk Trigger Metric: Maintenance activities at CWC increase due to aging facilities.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Floor repairs, Master Documented Safety Analysis (MDSA) container stacking requirements, replacement of exhaust fans.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Obtain spare parts for the Fire Alarm Control Units (FACU) via deactivation of old FACUs.</td> <td>1/2019</td> <td>N/A</td> </tr> <tr> <td>Conduct fieldwork for 2727W deactivation.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Conduct fieldwork for MO433 deactivation.</td> <td>1/2019</td> <td>5</td> </tr> <tr> <td>Conducting doorframe replacements and electrical equipment repairs as necessary.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in September. The WRAP roof was analyzed for structural integrity following water intrusion. There was insufficient basis for the roof's integrity, which may lead to an eventual roof replacement. The MDSA container stacking requirements are complete. Maintenance work at CWC will be scheduled based on facility work priorities. The WRAP facility experienced failure of the majority of the breakers earlier in the year and repaired Motor Control Centers (MCC). A sinkhole in the WRAP parking lot was repaired in April 2018. Repair to the line and fire hydrant causing the sinkhole were completed in October 2017. Additional FACU spare parts are being obtained through the deactivation of MO433 for which the FMP is complete.</p>	Mitigation action(s)	FC Date	%	Floor repairs, Master Documented Safety Analysis (MDSA) container stacking requirements, replacement of exhaust fans.	Ongoing	N/A	Obtain spare parts for the Fire Alarm Control Units (FACU) via deactivation of old FACUs.	1/2019	N/A	Conduct fieldwork for 2727W deactivation.	Complete	100	Conduct fieldwork for MO433 deactivation.	1/2019	5	Conducting doorframe replacements and electrical equipment repairs as necessary.	Ongoing	N/A
Mitigation action(s)	FC Date	%																				
Floor repairs, Master Documented Safety Analysis (MDSA) container stacking requirements, replacement of exhaust fans.	Ongoing	N/A																				
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Conduct fieldwork for 2727W deactivation.	Complete	100																				
Conduct fieldwork for MO433 deactivation.	1/2019	5																				
Conducting doorframe replacements and electrical equipment repairs as necessary.	Ongoing	N/A																				
Unassigned Risks (Pending ownership of identified risks/opportunities)																						
No unassigned risks identified in September .																						

PROJECT BASELINE PERFORMANCE

Current Month (CM)

(\$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	9.9	14.2	9.4	4.3	43.5%	4.8	33.7%

Numbers are rounded to the nearest \$0.1 million

CM Schedule Performance (+\$4.3M/+43.5%)

The CM favorable schedule variance is primarily associated with baseline modifications to remove work scope that could not be completed within the original contract period. Scope that could not be completed within the original contract period include permitting document delays due to responses from Ecology as well as re-work of previously submitted documents as a result of maturing Ecology expectations, and CSS design delays in the W-135 Project due to additional shielding analysis and scope being more complex than assumed.

CM Cost Performance (+\$4.8M/+33.7%)

The CM favorable cost variance is primarily associated with Other Hanford Contractor (OHC) credits in September. The Research and Technology Laboratory (RTL) project, funded by Pacific Northwest National Laboratory (PNNL), generated about 24,000 tons of waste in August and September. The cost to ERDF to transport and dispose of this waste was credited back to ERDF in the current period. In addition, year-end adjustments were made to the ERDF FY2018 rate, resulting in additional credits in the current period.

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	1,343.4	1,343.2	1,247.9	(0.3)	-0.0%	95.3	7.1%	1,406.8	1,311.3	63.5	95.5

Numbers are rounded to the nearest \$0.1 million

CTD Schedule Performance (\$-0.3M/-0.0%)

The CTD schedule variance is within threshold.

CTD Cost Performance (+\$95.3M/+7.1%)

The CTD favorable cost variance is a result of realizing efficiencies such as organizational flattening and streamlining; right-sizing capabilities for planned scope; optimizing resources with reorganization and consolidation of engineering capabilities across W&FMP; combined administrative/records functions across WESF and CSB; removing waste from building(s) and reducing the need for inspections/surveillances; reducing the size and number of Radioactive Areas/Radioactive Material Areas

(RAM) and associated surveillances/routines and records; tagging out unneeded equipment and reducing the frequency and number of preventive maintenance activities; increasing shared resources across all of SWOC; reducing dedicated resources for the Corrective Action System (CAS) and using project-wide support; optimizing maintenance scheduling and execution reducing Operations Field Work Supervision; increasing emphasis on managing planned absence coverage within existing resources; simplifying and optimizing acquisition and procurement management within W&FMP; and eliminating the separate waste forecast system by integrating forecasting as part of the baseline process and the Solid Waste Inventory Tracking System (SWITS). The cost variance is also partially due to significant credits from the transportation and disposal of other Hanford contractor waste at ERDF.

Variance at Completion (+\$95.5M/+6.8%)

VAC does not include FY2019 scope that was submitted via Change Proposal (CP) PRC-1710 Plateau Remediation Contract Extension. The CP will be implemented via a Baseline Change Request (BCR) in October.

The favorable VAC variance is a result of realizing efficiencies such as organizational flattening and streamlining; right-sizing capabilities for planned scope; optimizing resources with reorganization and consolidation of engineering capabilities across W&FMP; combined administrative/records functions across WESF and CSB; removing waste from building(s) and reducing the need for inspections/surveillances; reducing the size and number of Radioactive Areas/RAM and associated surveillances/routines and records; tagging out unneeded equipment and reducing the frequency and number of preventive maintenance activities; increasing shared resources across all of the SWOC; reducing dedicated resources for CAS and utilizing project-wide support; optimizing maintenance scheduling and execution; reducing Operations Field Work Supervision; increasing emphasis on managing planned absence coverage within existing resources; simplifying and optimizing acquisition and procurement management within W&FMP; and eliminating the separate waste forecast system by integrating forecasting as part of the baseline process and SWITS. Significant credits from the transportation and disposal of other Hanford contractor waste at ERDF, as well as the optimization of ERDF project resources, also contribute to the variance at completion.

Contract Performance Report Formats are provided in Appendix A

FUNDS vs. SPEND FORECAST (\$M)

WBS 013/RL-0013	FY2018		Variance
	Projected Funding	Spending Forecast	
Waste Stabilization & Disposition	144.3	130.3	13.9
Management of Cesium and Strontium Capsules (Line Item)	6.5	0.9	5.6
Incremental Scope Pending Change Management	0	0	0
RL-0013 – Total	150.8	131.2	19.5

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis

The FY2018 projected funding level for project baseline summary (PBS) RL-0013 of \$150.8 million is based on the revised guidance provided by RL following passage of the FY2018 Omnibus. The \$19.5 million variance increased approximately \$3.6 million in September. The overall positive variance is primarily due to the MCSC Project (W-135) not experiencing subcontract charges at the anticipated levels as result of slow ramp-up for the WESF modification design, and deferral of regulatory document preparations (Revision 9, Part B, and CAFO closure plans) due to delay in receipt of regulatory comments and realization of reduced projected staffing levels. Additionally, the variance between funding levels and actual costs for FY2018 is partially due to significant OHC credits from waste transportation and disposal at ERDF.

Critical Path Schedule

Critical Path Analysis will 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 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-092-00	Acquire Facilities for Cs/Sr, Na & SCW	9/30/2018	9/28/2018 (A)		Completed
M-091-53	Submit Milestone Change Request to Replace Target Dates for Capabilities to Process TRUM Waste	12/31/2018		12/12/2018	On schedule
M-026-07D	Evaluation of Tritium Treatment Technology to EPA & Ecology	3/31/2019		3/31/2019	On schedule
C-026-07M	Submit Tritium Treatment Technology Developments to Ecology & EPA	3/31/2019		3/31/2019	On schedule
M-091-03M	Submit Revision of TRUM Waste and MLLW PMP to Ecology	6/30/2019		6/30/2019	On schedule

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

Contract Section	Project	GFS/I	Status
CONTRACT			
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 Northwest 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 treatment, storage, and disposal (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 Carlsbad Field Office (CBFO).	No WIPP shipments are planned within the remaining contract period of performance.

DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
CSB – Obtain RL DSA Approval	1/31/2018 (A)	9/27/2018

Section D

Soil and Groundwater Remediation Project (RL-0030)

CH2MHILL
Plateau Remediation Company



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

M. A. Wright
Vice President for
Project Technical
Services

September 2018
CHPRC-2018-09, Rev. 1
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 completed in September 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	29.2	389.1	2.5	27.6						
HX P&T	30.0	376.0	2.8	26.4						
KR-4 P&T	12.1	128.9	0.2	1.3						
KW P&T	12.3	159.5	0.5	10.3						
KX P&T	37.8	403.8	2.2	24.9						
200 West P&T	79.1	1,108.9	7.6	102.7	165.0	2,287.0	.17x10 ¹²	2.57x10 ¹²	9.8	147.6
Combined	200.5	2,566.2	15.7	193.2	165.0	2,287.0	.17x10¹²	2.57x10¹²	9.8	147.6
FY2018 KPG	--	2,200.0	--	160.0	--	1,800.0	--	N/A	--	120

Well Drilling by Area	FY2018 Planned	Current Month	FY2018 Cumulative
100-KR-4	3	1	3
100-HR-3	6	0	6
200-UP-1	5	0	5
200-ZP-1	4	1	4
M-24 Milestone	1	0	1
Total Wells	19	2	19
Site Wide Boreholes	29	0	29

EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
<u>18-EMS-SGRP-OB1-T1</u>	Reduce adverse environmental impact to health and the environment by monitoring and confirming low-carbon tetrachloride emissions at the 200 West Pump and Treat Facility.	Evaluate treated off-gas analytical results from compliance sampling and process sampling each quarter.	7/31/2018	100%
<u>18-EMS-SGRP-OB2-T1</u>	Improve compliance margin by improving expired chemical inventory management.	Better define the process of proper disposal of expired chemicals and/or chemicals with no future use.	9/30/2018	100%

TARGET ZERO PERFORMANCE

(Reported on a calendar month basis)

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	1	NA
Total Recordable Injuries	0	0	NA
First Aid Cases	2	23	9/10/2018 – Employee reported pain and looseness in left shoulder as a result of repetitive movements associated with current and past work assignments. The individual was treated with a cold pack and returned to work with no restrictions. (24962) 9/24/2018 – Employee experienced stinging and redness on the left forearm after coming in contact with tall weeds while performing work. The individual was treated at HPMC with over-the-counter ointment and returned to work with no restrictions. (24974)
Near-Misses	0	0	NA

KEY ACCOMPLISHMENTS

RL-0030.01 RL-0030 Operations

Environmental Integration

- The third of three workshops planned in fiscal year (FY) 2018 to discuss development of the cumulative impact evaluation (CIE) approach document was held with participants from CHPRC, RL, Office of River Protection (ORP), Environmental Protection Agency (EPA) and Ecology on September 18, 2018, to discuss development of the CIE approach document. Workshop Three focused on the topics of geologic representation and vadose zone modeling. The CIE will provide a dynamic set of tools to enable the evaluation of cumulative impacts to groundwater from potential sources, including existing groundwater contamination. With an objective to be modular, maintainable, flexible, and efficient, it is envisioned that the tools will support evaluation of alternative remediation and closure decisions for source areas and groundwater across the Central Plateau.
- Prepared and published the Administrative Record (AR) Index for the 100-D/H Area Record of Decision (ROD). The AR Index provides an organized, user-friendly means for locating key documents and references associated with a ROD.

River Corridor

300-FF-5 OU

- Initiated polyphosphate injections on September 4, 2018, and reached the targeted injection quantity, completing injections on September 20, 2018.
- Performed the daily groundwater, periodically rewetted zone, and injection skid sampling to monitor Stage B chemical injections from September 4 – 27, 2018.

- Performed continuous electro resistivity tomography geophysical surveys to evaluate polyphosphate delivery to the vadose zone during Stage B Uranium Sequestration chemical injections.

100-KR-4 OU

- Submitted the Decisional Draft Remedial Investigation (RI) report to RL for review on September 27, 2018.
- Received final signatures from RL and EPA on August 29, 2018, on 100-KR-4 Groundwater Operable Unit Well Installation Sampling and Analysis Plan (SAP), Addendum 6: Wells 199-K-235 and 199-K-236.
- Received signatures from RL and EPA on August 29, 2018, on Revision 1 of the Operations and Maintenance Plan for the 100-KR-4 Pump and Treat Systems.
- Received signatures from RL, Ecology, and EPA on September 10, 2018, on TPA-CN-0823. The change notice modifies the 100-HR-3 and 100-KR-4 waste management plan to include the FY2019 wells.
- Received signatures from RL and EPA on September 17, 2018, on TPA-CN-0831. The TPA-CN updates and modifies the 100-KR-4 Groundwater Monitoring Plan to include wells installed during FY2018.

100-NR-2 OU

- RL submitted the draft technical impracticability waiver documentation to Ecology and EPA on September 10, 2018, for review.

100-BC-5 OU

- Provided revised Draft Revision 0 Proposed Plan to RL for review on September 12, 2018. The revision incorporates EPA legal comments received on July 26, 2018.
- Received EPA comments on the revised National Historic Preservation Act text within Chapters 3 and 9 of the Draft Revision 0 RI/Feasibility Study (FS) report on September 10, 2018. Comments were resolved on September 17, 2018, and the revised Chapters 3 and 9 of the Draft Revision 0 RI/FS provided to RL on September 21, 2018.

Central Plateau

200-UP-1 OU

- Transmitted the Draft A 200-UP-1 SE Chromium Plume Remedial Design Investigation Report to RL on September 19, 2018. RL transmitted the report to EPA for review on September 27, 2018, which completed Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) M-016-193.

200-BP-5/200-PO-1 Revision 0 OU

- Transmitted the 200-BP-5 RI Report and Revision 0 200-PO-1 RI Addendum to RL on September 19, 2018. RL transmitted these documents to Ecology on September 25, 2018.
- Submitted the Decisional Draft 200-BP-5/200-PO-1 Interim Record of Decision FS to RL for review on September 11, 2018.
- Provided draft comment response to RL on September 26, 2018, on the regulator comments (received September 12, 2018) and Yakama Nation comments (received September 17, 2018) on the 200-BP-5 Drilling SAP.
- Delivered the Decisional Draft 200-PO-1 OU SAP to RL for review on September 25, 2018.

200-DV-1 OU

- Briefed RL, EPA, and Ecology on the results of the Deep Vadose Zone Treatability Test Report on September 11, 2018.
- Delivered the draft Deep Vadose Zone Treatability Test Report to RL for review on September 19, 2018.
- Held a meeting with RL on September 17, 2018, to brief them on the 200-DV-1 Baseline Human Health and Ecological Risk Assessment monthly status/progress.
- Briefed RL, EPA, and Ecology on the results of the B-Complex Characterization Conceptual Site Model.
- Transmitted the Deep Vadose Zone Treatability Test of Soil Desiccation for the Hanford Central Plateau: Final Report, PNNL-26902 and the Deep Vadose Zone Treatability Test of Uranium Reactive Gas Sequestration for the Hanford Central Plateau: Final Report, PNNL 27773, to RL on September 20, 2018.

200-ZP-1 OU

- Briefed EPA on August 27, 2018, on the progress toward attainment of the 200-ZP-1 remedial action objectives after the first five years of operation.
- Briefed RL on the Fourth Quarter FY2018 Injection Well performance on September 20, 2018. Delivered the Fourth Quarter FY2018 Injection Well Performance to RL on September 24, 2018.
- Completed drilling, construction and well development of new injection well YJ-33 (C9878). Tie-in of both YJ-33 and YJ-34 to the 200 West P&T was completed September 11, 2018, and the operational acceptance test (OAT) was completed on September 25, 2018.
- Delivered the draft 200-ZP-1 Remedial Design/Remedial Action Work Plan (RD/RAWP), Revision 1, and the draft 200-ZP-1 Performance Monitoring Plan (PMP), Revision 3, to RL for review on September 20, 2018, and the draft 200-ZP-1 O&M Plan to RL for review on September 25, 2018.
- Delivered the 200 West P&T performance against remedial action objectives specified in the 200-ZP-1 Operable Unit Record of Decision (ROD) on September 17, 2018.

Central Plateau Groundwater Remediation

- Briefed RL on September 25, 2018, on the Central Plateau Groundwater Remediation Strategy, which is an integrated approach to meet the current and future regulatory commitments for Central Plateau groundwater remediation.
- Delivered the draft Groundwater Remediation Strategy for the Central Plateau to RL for review on September 26, 2018.

200-WA-1 and 200-BC-1

- Provided draft Revision 1 200-WA-1 SAP to RL on September 12, 2018, for transmittal to EPA for review.

200-EA-1

- Continued working toward finalization of the 200-EA-1 RI/FS Work Plan and SAP:
 - Received EPA comments on the Draft A 200-EA-1 Work Plan and SAP on September 10, 2018.
 - Received comments from the Confederated Tribes and Bands of the Yakama Nation on the Draft A 200-EA-1 Work Plan and SAP on September 10, 2018.

RCRA Revision 9 Permitting and Groundwater Monitoring

- Delivered the three annual reports for calendar year 2017 (Annual Groundwater Report, Annual 100 Area P&T Report, and Annual 200 Area P&T Report) to RL.

Closure Plans

- Met with Ecology on September 5, 2018, to discuss their request for additional information on the design requirements for the Non-Radioactive Dangerous Waste Landfill closure plan. Ecology took the action to set up a team to define design requirements.

Project Technical Services Accomplishments

- Training and Procedures
 - Developed an “Attention to Detail” presentation at the request of the Soil and Groundwater Remediation Project (S&GRP) in response to a management concern related to administrative errors at S&GRP.
 - Developed and conducted a “Cultural Sensitivity at 300-FF-5” presentation. The information is required for Nuclear Chemical Operators (NCO) working in a specific portion of the 300 Area to ensure that culturally significant artifacts and locations are not disturbed.
- Operations Program
 - Emergency Preparedness
 - Completed a review of the Uranium Reactive Gas Sequestration (URGS) Emergency Planning Hazardous Analysis. Approval has been requested from RL to retire the document due to the cancellation of the project.
- Project Delivery
 - 200-ZP-1 Wells YJ33/YJ34
 - Completed tie in of wells.
 - Construction Completion Document (CCD) was signed and turned over to Operations.

Modular Storage Units (MSUs)

- The available water storage at the MSUs is 1,137,500 gallons as of September 24, 2018.
- Initiated planning discussions in September to use the MSU pipeline when completed in November, pending acceptable weather, to pump up to 500,000 gallons to the 200 West P&T facility.

Groundwater P&T Facilities

- Overall, the P&T systems operated above target as depicted in the P&T performance graph below.

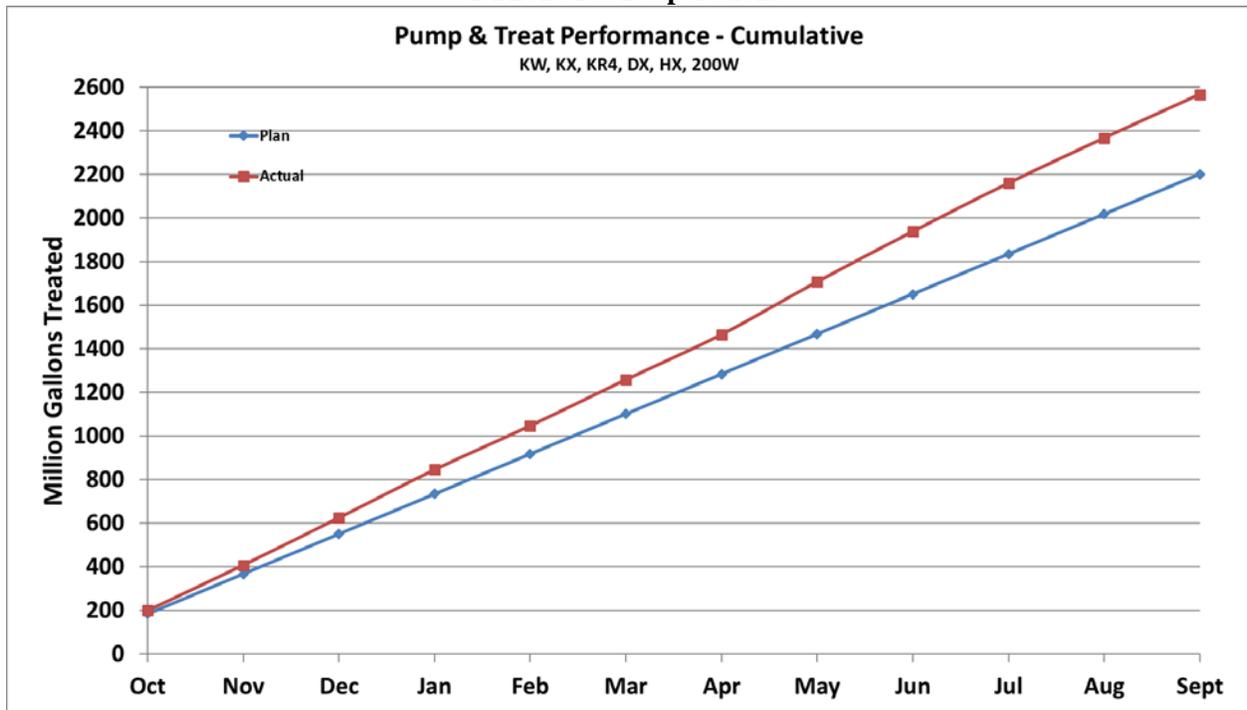
200 West P&T

- Operated the 200 West P&T at an average of 1,830 gallons per minute (gpm) in September.
- Completed Tc-99 vessel resin change out.

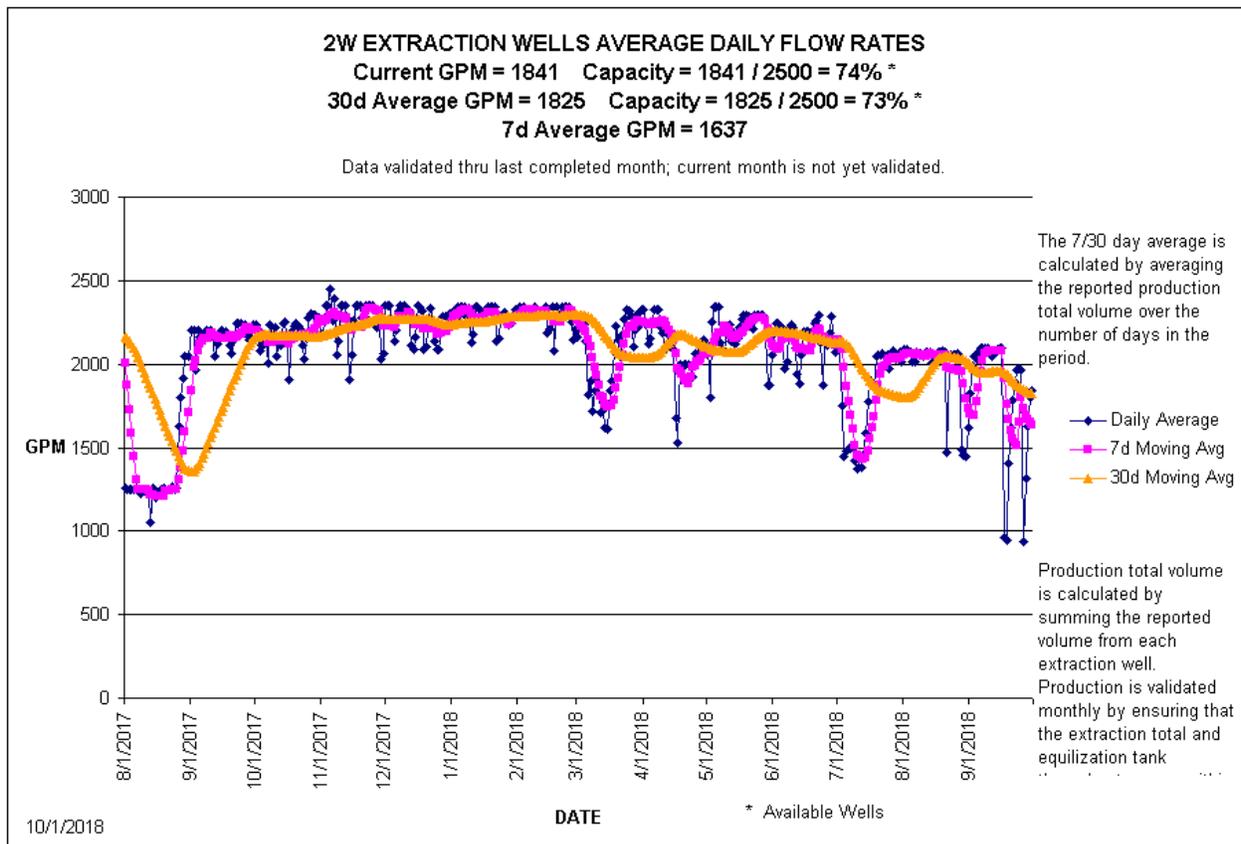
100 Area P&Ts

- Operated the DX P&T at 676 gpm, below the facility capacity of 775 gpm.
- Completed construction and operations acceptance testing of new extraction well ME55.
- Operated the KR-4 P&T at 281 gpm, below the facility capacity of 330 gpm.
- Operated the KW P&T at 284 gpm, below the facility capacity of 330 gpm.
- Operated the KX P&T at 875 gpm, below the facility capacity of 900 gpm.
- Operated the HX P&T at 694 gpm, below the facility capacity of 900 gpm.

FY2018 P&T Operations



200 West P&T



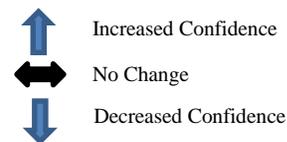
MAJOR ISSUES

None.

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	
RL-0030/WBS-030				
Explanation of major changes to the project monthly stoplight chart: No major changes in September .				
Realized Risks (Risks that are currently impacting project cost/schedule)				
No realized risks identified in September .				
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)				
No critical risks identified in September .				
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)				
No high risks identified in September .				
Unassigned Risks (Pending ownership of identified risks/opportunities)				
No unassigned risks identified in September .				

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	6.7	12.8	10.5	6.1	90.4%	2.3	17.8%

Numbers are rounded to the nearest \$0.1 million.

CM Schedule Performance (+\$6.1M/+90.4%)

The current period positive schedule variance primarily resulted from the September 2018 implementation of three baseline change requests (BCRs): BCR-030-18-024R0, *Incorporate FY2018 Scope Alignment – FY2018 Work Authorization*; BCR-030-18-025R0, *Incorporate FY2018 RL-0030 Baseline Scope Alignment*; and BCR-PRC-18-036R0, *Incorporate CO 331 FY2018 Scope Alignment*. The BCRs removed activities from the performance measurement baseline (PMB) that would not be completed within the contract period, causing negative current period budgeted cost of work scheduled (BCWS) and generating a corresponding positive schedule variance in the current period. Scope deducted includes activities supporting the following:

- 200-BP-5 Removal Action SAP Issuance, Draft B FS, and Draft A and Draft B Proposed Plan.
- 200-PO-1 issuance of Draft A and Draft B Proposed Plan.

- 200-UP-1 PMP Decisional Draft A, and incorporation of RL comments for the RD/RAWP Revision 1, as well as the Proposed Plan Decisional Draft and Draft A.
- Development of Groundwater Flow and Transport Models, Exposure Pathways, and Scenarios supporting the Composite Analysis.
- Completion of the Biomobilization/Biointrusion SAP.
- Drilling and field support for 3 of 5 UP-1 wells.
- Engineering Evaluation Reports and Groundwater Monitoring Plans.
- 100-BC-5 RI/FS, Revision 0 and Proposed Plan.
- 100-KR-4 RI/FS, Draft B and Proposed Plan.
- 100-NR- RI/FS Draft B.
- 100-HR-3 RD/RAWP.
- 200-EA-1 RI/FS Work Plan.
- Closure plans for NRDWL/SWL, 216-S-10, 216-A-29 Ditch, 216-A-37-1 Crib, and 216-B-63 Trench.
- 200-DV-1 Treatment Technology Evaluation Report and RCRA Facility Investigation RI Report.

Completion of the 300-FF-5 Stage B Uranium Sequestration injections further contributed to the positive schedule variance. This work, initially planned to be performed in 2017 but was delayed in order to address Yakama Nation concerns, was completed in September.

CM Cost Performance (+\$2.3M/+17.8%)

The current period positive cost variance is the result of:

- An FY2018 general and administrative (G&A) rate variance redistribution (pass-back), which generated approximately \$1 million credit to cost in the current period.
- Non-essential environmental database maintenance was not performed as planned in order to fund higher priority work scope.
- The project management account experienced less labor than planned due to providing more Quality Assurance and Project Management support directly to projects, experiencing more vacation, bereavement, and short term disability absences, and unfilled open positions.
- The Groundwater Monitoring and Performance Assessment accounts continue to realize efficiencies for geophysical logging; the subcontract was competitively rebid with a subsequent reduction in contract costs. Sample analyses performed this month were less than planned due to both a decrease in usage and average requested analysis price. Sample packaging and shipments were performed efficiently, further contributing to the positive cost variance with fewer failed sampling trips and less down time due to unplanned maintenance.
- The 100-HR-3 and 100-KR-4 Operations and Maintenance (O&M) accounts experienced continued cost efficiencies due to required maintenance being lower than planned. Labor resources were loaned to support modutank decanting and the 300-FF-5 Stage B Uranium Sequestration project, and the performance of SIR-700™ has been greater than expected, resulting in the lower number of resin changes than planned.
- The 200-ZP-1 O&M account experienced cost efficiencies when labor resources were loaned to other projects, including modutank decanting, 300-FF-5 Stage B Uranium Sequestration, and Plutonium Finishing Plant (PFP) support. This combined with active resin management and better than planned resin performance has resulted in the lower number of resin changes than planned.

- Costs for the Usage Based Services (UBS) Distributions account for leased vehicles, fuel, inspection, and maintenance were less than planned because travel to field locations to support sampling drilling, and well maintenance was not required as frequently as planned.

These positive cost variances were offset in part by 200-ZP-1 Well Realignment where additional resources were required to accelerate completion of the scope to meet the September 30, 2018, delivery date, and an accrual transposition generated poor subcontract cost performance in Technical Integration.

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	1,526.7	1,526.7	1,473.9	(0.0)	0.0%	52.7	3.5%	1,594.8	1,542.1	68.2	52.7

Numbers are rounded to the nearest \$0.1 million.

CTD Schedule Performance (-\$0.0M/-0.0%)

The variance is within reporting thresholds.

CTD Cost Performance (+\$52.7M/+3.5%)

The variance is within reporting thresholds.

Variance at Completion (+\$52.7M/+3.3%)

The variance is within reporting thresholds. VAC does not include FY2019 scope that was submitted via Change Proposal PRC-1710 Plateau Remediation Contract Extension. The Change Proposal will be implemented via a BCR in October.

Contract Performance Report Formats are provided in Appendix A.

FUNDS vs. SPEND FORECAST (\$M)

FY2018			
RL-0030 Soil and Groundwater Remediation	Projected Funding	Spending Forecast	Variance
Spending Forecast	121.9	111.0	10.9
Incremental Scope Pending Change Management	0.0	0.0	0.0
RL-0030 –Total	121.9	111.0	10.9

Numbers are rounded to the nearest \$0.1 million

Funds/Variance Analysis

The FY2018 projected funding for project breakdown structure (PBS) RL-0030 is \$121.9 million. There was no significant change to forecast this period.

Critical Path Schedule

Critical path analysis will be provided upon request.

MILESTONE STATUS

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
Milestones on Schedule					
M-015-92A	Submit RFI/CMS & RI/FS Work Plan for 200-EA-1 OU to Ecology	7/31/2018	7/12/2018 (A)		Completed
M-024-69-T01	Conclude discussions of well commitments initiated under M-024-58	8/1/2018	7/11/2018 (A)		Completed
M-016-193	Investigate SE Chromium Plume, Install Wells, Evaluate GW Monitoring Data & Install Monitoring -Wells	9/30/2018	9/25/2018 (A)		Completed
M-015-21A	Submit 200 BP-5 & 200 PO-1 OU FS Report and PP(s) to Ecology	3/31/2019		2/26/2019	On Schedule
Milestones at Risk					
M-015-93C	Initiate Characterization Field Work for 200-SW-2 Operable Unit Landfills	10/31/2018		TBD	Dispute resolution was initiated on July 9, 2018 (18-AMRP-0135).

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
RL Submit Regulatory Review Draft SST WMA U Groundwater Monitoring Plan to Ecology	7/9/2018 (A)	10/1/2018
RL Submit Regulatory Review Draft SST WMA S-SX Groundwater Monitoring Plan to Ecology	8/3/2018 (A)	11/1/2018
RL Submit Regulatory Review Draft SST WMA TX-TY Groundwater Monitoring Plan to Ecology	8/3/2018 (A)	11/1/2018
RL Submit Regulatory Review Draft SST WMA T Groundwater Monitoring Plan to Ecology	8/17/2018 (A)	10/1/2018
RL Submit Regulatory Review Draft LLBG WMA-3 to Ecology	8/27/2018 (A)	12/3/2018
RL Provide Comments on 200-DV-1 Decisional Draft Technology Evaluation and Treatability Studies Assessment for Hanford Central Plateau Deep Vadose Zone	9/11/2018 (A)	10/12/2018
RL Review Decisional Draft B Revision 1 200-ZP-1 RD/RAWP	9/19/2018 (A)	10/31/2018
RL Review 200-ZP-1 PMP Revision 3 Draft	9/20/2018 (A)	10/22/2018
RL Review 200-ZP-1 PMP Revision 3 Draft	9/20/2018 (A)	10/22/2018
RL Review Decisional Draft B Revision 1 200-ZP-1 O&M Plan	9/25/2018 (A)	10/12/2018
RL Provide Comments on Decisional Draft 200-PO-1 OU Groundwater Monitoring SAP	9/25/2018 (A)	10/25/2018
RL Review Decisional Draft B Remedial Investigation	9/27/2018 (A)	10/31/2018
RL Transmit Draft IDF Engineering Evaluation Report to Ecology for Review	10/11/2018	10/12/2018
RL Transmit 200-EA-1 RI/FS Work Plan Revision 0 to Regulators	11/2/2018	11/9/2018
RL Approve 200-EA-1 RI/FS Work Plan	11/9/2018	12/9/2018
RL Transmit Draft A 100-HR-3 RD/RAWP to Regulators for Review	11/29/2018	12/14/2018
RL Submit Revision 0 100-BC-5 RI/FS Report to Regulators	11/29/2018	12/14/2018
RL to Issue Proposed Plan for Public Review	12/3/2018	12/10/2018
RL Approve the 100-BC-5 RI/FS	12/3/2018	12/14/2018
RL Submit Revision 0 100-BC-5 Proposed Plan to Regulators	12/3/2018	12/18/2018

Section E

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

CH2MHILL
Plateau Remediation Company



T.E. Bratvold
Vice President for
Central Plateau Risk
Management Project

September 2018
CHPRC-2018-09, Rev. 1
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

M. A. Wright
Vice President for
Project Technical
Services

PROJECT SUMMARY

All readiness activities to start grout placement at the Plutonium Uranium Extraction Plant (PUREX) Tunnel 2 were completed in September. The Department of Ecology issued a temporary authorization for placement of grout on Friday, September 28, 2018. Grout placement is scheduled to commence on Monday, October 1, 2018. Additionally, the Surveillance and Maintenance (S&M) group continues to perform Reduction and Oxidation Plant (REDOX) Canyon entries to assess the current conditions.

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	1	N/A
First Aid Cases	2	6	<p>9/6/2018 - D&D worker over the past few weeks has been using a portaband and sawzall to remove interferences for the insulators to build a negative pressure enclosure. The D&D worker came to the field work supervisor (FWS) on Thursday and said that his wrists had been bothering him. The FWS took him to HPMC for evaluation and made all notifications. The D&D worker was given restrictions of no lifting or carrying over 15 pounds, applying to both hands and no forceful gripping either hand. (24961)</p> <p>9/27/2018 - While cleaning tumbleweeds, employee's arm brushed against tumbleweeds, causing an allergic reaction. (24981)</p>
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

RL-0040 Accomplishments

Central Plateau Risk Management Project Surveillance and Maintenance (CPRM S&M)

- Completed the semi-annual presumed asbestos-containing material (PACM) Waste Information Data System (WIDS) Site Surveillances for the year ahead of schedule.
- Completed annual ignitable/reactive inspection.
- Completed radiological tumbleweed removal at PUREX.
- Completed the annual inspection and lube of REDOX exhaust fans and air compressor.
- Completed quarterly treatment, storage, or disposal (TSD) site inspection of CX-70/71/72.
- Completed radioactive material area consolidation at U Plant.

- Performed annual steam line surveillance.
- Completed B Plant exhaust fan sheave replacement. Removed lockout/tagout (LO/TO) of SM-18-009.
- Reactivated doors and made first REDOX Canyon entries in over 20 years.

B Plant Pre-filter and High Efficiency Particulate Air (HEPA) Filter Change-out

- Made two additional entries (a total of five in fiscal year [FY] 2018) into the B Plant Canyon to investigate elevated dose rates at the filter.
- Performed investigative walkthrough of the entire facility.
- Slowed the fans on the ventilations system.
- Awaiting sample results from 222-S Laboratory on the filter media.

PUREX Tunnel 2 Stabilization Project

Project Technical Services (PTS) Support

- Received temporary authorization allowing for interim stabilization activities issued by Department of Ecology on September 28, 2018.
- Resolved hazard review board comments and released tunnel grouting work package.
- Reviewed freeze protection plan for the grout conveyance system and provided feedback.
- Grout Conveyance
 - Connected the HEPA skid to Riser 2.
 - Completed installation, energization, and optimization of all cameras and lights.
 - Demobilized contractor from site and performed turnover of spare equipment.
 - Negotiated final change orders (COs) on the conveyance contract and began closeout activities.
- Grouting Contract
 - Mobilized fourth (last) storage guppy.
 - Conducted readiness checks at both tunnel pumping stations.
 - Installed cement extension silo for additional storage capacity, reinstalled bag house, and brought mobile batch plant back on-line.
 - Filled cement extension silo to capacity.
 - Fabricated hot box for batch plant water supply hydrant.
 - Completed dry-run and traffic loop readiness checks.
 - Completed start-up and sequencing of the batch plant.
 - Completed successful trial batch out of on-site plant.

REDOX Canyon Risk Mitigation

- Completed REDOX radiological technical evaluation associated with discovery of Strontium 90.
- Revised and released new radiological work permits and work packages with new Strontium 90 requirements to resume work in REDOX Silo and Canyon.
- Completed Blower Room 3 work assignment determination and commenced contract preparation.
- Obtained laptop computer and cables to enable download of camera data across radiological boundaries, thereby minimizing survey requirements and equipment bottlenecks.
- Continued scheduling for additional bioassay requirements anticipated from newly discovered isotopic profile at REDOX.
- Removed waste from REDOX Yard.
- Relocated equipment not requiring climate controlled storage to existing Connex boxes at REDOX Yard.
- Received ecological and cultural survey clearance to install climate controlled Connex box power.
- Staged power and lighting equipment for installation of temporary power to REDOX silo.

Steamline Removal

- Mobilized equipment in the 200 West Area for steamline and crossover removal activities.
- Completed work planning for steamline and crossover removal.
- Completed two crossover removals in 200 West Area.

MAJOR ISSUES

Issue

During the past 12 months, the rate of radiological and foreign material buildup on both pre- and primary filter media at B Plant has exceeded historical trends. In the past year, the ventilation pre-filters have been replaced three times, as opposed to previous years with replacements only every 18 to 24 months. Additionally, debris collected on filter media indicate corrosion upstream of the filters.

Corrective Action

Perform B Plant Canyon entries to investigate elevated radiological dose rates.

Status

Five entries have been made in B Plant Canyon. The exhaust fans have been slowed to mitigate contamination of pre-filters. Awaiting sample analysis results from 222-S Laboratory. Continued the engineering evaluation to determine potential solutions for B Plant filter build up.

Issue

On January 11, 2018, Department of Ecology Nuclear Waste Program performed a Dangerous Waste Compliance Inspection at B Plant. During their review of the “2017 B Plant Complex Annual Surveillance Issue List,” it was noted in the B Plant 221-B “Issue” column, “White residue on the floor (not new).” In addition, the “issue” column also noted “Expansion joint crack, white residue on floor.” As a result of these observations, Ecology has requested that within 90 days upon receipt of the compliance report, designation results of the white residue on the floor of the canyon building, 221-B pipe, and operating gallery be submitted.

Corrective Action

RL and CHPRC, with legal representation, have met to establish a path forward.

1. Perform a records search to determine when the white powder was first identified.
2. During upcoming entries as part of the annual surveillance, data (photos and description of surroundings) will be obtained and evaluated to determine if it is sufficient to support designation based on process knowledge.
3. Actual cost information associated with sampling and analysis of the white powder at PUREX will be used to develop a cost estimate for sampling and analysis of the white powder at B Plant.
4. The PUREX Sample Analysis Plan (SAP) will be revised to support sampling and analysis of the white powder in the event that it is determined as part of item number 2 that process knowledge is not sufficient to support designation.
5. If sampling is required to support designation, PRC will determine if designation can be accomplished in the required 90-day period, and notify RL if an extension is needed.

Status

RL developing integrated strategy to address white residue in PUREX and B Plant.

Issue

On September 25, an entry into the REDOX Canyon was performed for the first time since 1997. During the entry, significant combustible loading (liquid and solid) throughout the canyon was discovered.

Corrective Action

Fire Protection Engineering (FPE) to evaluate as-found condition against National Fire Protection Association (NFPA) requirements for combustible material loading.

Status

On-going.

RISK MANAGEMENT STATUS

<p>Unassigned Risk </p> <p>Risk Passed </p> <p>New Risk Change </p>	<p>Opportunity realized, or mitigation efforts are currently working toward, or after risk trigger with no foreseeable impacts.</p> <p>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.</p> <p>Risk currently realized, or risk mitigation efforts are past risk trigger date with foreseeable impacts. Recovery actions needed.</p>	<p> Increased Confidence</p> <p> No Change</p> <p> Decreased Confidence</p>
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Risk Title	Unmitigated Risk Impacts	Assessment		Comments																																					
		Month	Trend																																						
RL-0040/WBS-040																																									
Explanation of major changes to the project monthly stoplight chart:																																									
Risk PRXT-S2-004: <i>Design Maturity</i> was removed from the stoplight chart, as a revised change proposal was submitted to RL that included the most updated design changes.																																									
Realized Risks (Risks that are currently impacting project cost/schedule)																																									
D4-042: Unexpected Site Conditions - D4	<p>Unexpected site conditions are encountered during Deactivation, Decommission, Decontamination, and Demolition (D4) activities that result in recovery actions, causing unplanned, in-scope work, and schedule delays to the project.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Likely (75% to 90%)</p> <p>Worst Case Impacts: \$0K, 300 day</p>			<p>Risk Event: The B Plant ventilation system was shut down due to elevated differential pressure readings in the ACT-002 filter bank. Upon initial investigation, it was determined that the pre-filters were saturated with water and there was standing water within the ACT-001 filter bank. The result of this unexpected occurrence is that the pre-filters and HEPA filters in the ACT-002 bank, and presumably the pre-filters and the HEPA filters in the ACT-001 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 resulted in delays to the pre-filter replacement. After initial filter change out was completed in October 2017, dose rates on the pre-filters quickly became elevated and were replaced in December 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>Work package change notice (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;">August 2016</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100%</td> </tr> <tr> <td>Recovery actions were performed in April and May 2017 to fix contamination associated with ACT-002 in and around the containment tent.</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">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 style="text-align: center;">Complete</td> <td style="text-align: center;">100%</td> </tr> <tr> <td>Execute pre-filter and HEPA filter change out.</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100%</td> </tr> <tr> <td>Repair tents and perform second pre-filter change out in ACT-001 and ACT-002 filter banks.</td> <td style="text-align: center;">November 2017</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100%</td> </tr> <tr> <td>Perform dose rate monitoring of pre-filters in ACT-001 and ACT-002 filter banks.</td> <td style="text-align: center;">January 2018 – Current</td> <td style="text-align: center;">Ongoing</td> <td style="text-align: center;">N/A</td> </tr> <tr> <td>Order and receive additional materials (e.g., tents, bags) to support additional pre-filter replacement.</td> <td style="text-align: center;">February 2018</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100%</td> </tr> <tr> <td>Develop revision to pre-filter change out work package to improve ALARA and general efficiency.</td> <td style="text-align: center;">February 2018</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100%</td> </tr> <tr> <td>Complete site setup and replace pre-filters.</td> <td style="text-align: center;">May 2018</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	%	Work package change notice (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.	August 2016	Complete	100%	Recovery actions were performed in April and May 2017 to fix contamination associated with ACT-002 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.	Complete	100%	Repair tents and perform second pre-filter change out in ACT-001 and ACT-002 filter banks.	November 2017	Complete	100%	Perform dose rate monitoring of pre-filters in ACT-001 and ACT-002 filter banks.	January 2018 – Current	Ongoing	N/A	Order and receive additional materials (e.g., tents, bags) to support additional pre-filter replacement.	February 2018	Complete	100%	Develop revision to pre-filter change out work package to improve ALARA and general efficiency.	February 2018	Complete	100%	Complete site setup and replace pre-filters.	May 2018	Complete	100%
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Risk Title	Unmitigated Risk Impacts	Assessment		Comments												
		Month	Trend													
RL-0040/WBS-040																
				Recovery Action Assessment: No major changes in September . The replacement of the pre-filters was completed in June. Daily (M-Th) dose rate surveys are being performed on the pre-filter banks to track the increasing dose rates. Investigative entries into B Plant were performed and sampling of the B Plant filter media was sent offsite for analysis.												
PRXT-S2-012: Excessive Comments from Regulators	<p>Comments from RL or other regulators on documents submitted for approval (e.g. proposed plans, permits) are excessive, need multiple rounds of resolution, or change requirements resulting in increased schedule and labor requirements; causing cost and schedule impacts to the project.</p> <p>Risk Handling Strategy: Transfer</p> <p>Probability: Medium (26% to 74%) Worst Case Impacts: \$750K, 90 day</p>			<p>Risk Event: The approved Resource Conservation and Recovery Act (RCRA) permit modification was not issued in July as originally planned allowing start of PUREX Tunnel 2 grouting activities. Ecology has requested additional information on the degradation/corrosion discovered under the PUREX Tunnel 2 Riser 16 during the camera investigation.</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>Issue final structural analysis of PUREX Tunnel #2 corrosion</td> <td>July 2018</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>DOE issue temporary authorization to proceed with PUREX Tunnel 2 grouting activities</td> <td>August 2018</td> <td>9/28/18</td> <td>100</td> </tr> </tbody> </table> <p>Recovery Action Assessment: The CHPRC Project Technical Services (PTS) engineering team performed a structural analysis of the corrosion under PUREX Tunnel 2 Riser 16 and submitted a white paper to Ecology. The information was presented by CHPRC at public hearings held by Ecology in review of the RCRA permit modification. The public comment period commenced August 13 with a duration of 45 calendar days. The Temporary Authorization to allow for interim stabilization was issued by Ecology on September 28, 2018.</p>	Risk recovery action(s)	Risk Date	FC Date	%	Issue final structural analysis of PUREX Tunnel #2 corrosion	July 2018	Complete	100	DOE issue temporary authorization to proceed with PUREX Tunnel 2 grouting activities	August 2018	9/28/18	100
Risk recovery action(s)	Risk Date	FC Date	%													
Issue final structural analysis of PUREX Tunnel #2 corrosion	July 2018	Complete	100													
DOE issue temporary authorization to proceed with PUREX Tunnel 2 grouting activities	August 2018	9/28/18	100													
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)																
No critical risks identified in September .																
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)																
No high risk threat value risks in September .																
Unassigned Risks (Pending ownership of identified risks/opportunities)																
No unassigned risks identified in September .																

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	0.3	6.0	4.4	5.7	1662.5%	1.6	26.5%

Numbers are rounded to the nearest \$0.1 million

CM Schedule Performance: (+\$5.7M/+1662.5%)

The current month (CM) positive schedule variance is mainly attributed to PUREX Tunnel 2 stabilization activities. Specifically, starting the batch plant and conducting trial batching from onsite for grouting. The start-up and trial batching at the mobile batch plant were purposely “slowed” once the temporary authorization to start grouting was not granted (originally anticipated August 20, 2018, and then September 5, 2018). The start-up and trial batching completed only three days after the original baseline dates; however, the budgeted cost of work scheduled (BCWS) resided in August and the performance was claimed in September, which created the large current month variance. In addition, a baseline change request (BCR) was implemented, which modified the performance measurement baseline (PMB) to remove scope that could not be completed within the original contract period.

CM Cost Performance: (+\$1.6M/+26.5%)

The current month positive cost variance is mainly attributed to PUREX Tunnel 2 due to underruns on the grout contract. Change orders incurred are significantly less than the planned 20 percent of the total contract value (approx. \$700K). The standby/delay costs for the contractor also resulted in a \$150K savings per the original baseline. Initial negotiations with the contractor have proven value in good contract management/working relationships, as the contractor has offered to reduce total days delayed by a week. The third contributor of the positive variance is due to the breakdown of milestone payments per the grouting contract. Approximately \$430K of the total mobilization cost budgeted in FY 2018 cannot be paid until 5,000 yards of grout has been placed. The actual costs to date are accurate per the contract. This payment will be incurred in October/November once that metric is achieved.

**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	491.7	491.7	467.8	(0.00)	-0%	23.9	4.9%	512.3	488.4	20.6	23.9

Numbers are rounded to the nearest \$0.1 million

Cost to Date (CTD) Schedule Performance: (-\$0.0M/-0.0%)

The CTD schedule variance is within reporting thresholds.

CTD Cost Performance: (+\$23.9M/+4.9%)

The CTD cost variance is within reporting thresholds.

Variance at Completion (+\$23.9M/+4.7%)

The variance at completion (VAC) is within reporting thresholds. VAC does not include FY2019 scope that was submitted via Change Proposal PRC-1710 Plateau Remediation Contract Extension. The Change Proposal will be implemented via a BCR in October.

Contract performance report formats are provided in Appendix A.

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

WBS 040/RL-0040 Nuclear Facility D&D	FY2018		Variance
	Projected Funding	Spending Forecast	
RL-0040 Spending Forecast	72.2	44.0	28.2

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis

FY2018 funding for project breakdown structure (PBS) RL-0040 is \$72.2 million. The spending forecast reduced from August due to delays in the authorization to begin PUREX Tunnel 2 grouting.

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 (EA) 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 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-016-250C	Submit to Ecology a 3-Year Rolling Prioritized Schedule to Implement Waste Site Removal Actions	3/31/2018	3/28/2018 (A)		Completed
M-016-255	Complete Removal of All Waste Sites for FY18 as Updated/Modified in M-16-17-01	9/30/2018		9/30/2019	In negotiation with RL to adjust schedule to FY2020

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
224B (B Plant) Removal Action Work Plan (RAWP) (2017-34) to RL for Review	8/16/2017 (A)	11/30/2018
202A (PUREX) Draft B EE/CA Ecology review	12/11/2017 (A)	12/31/2018
REDOX RAWP (2017-06) to RL for Review	3/15/2018 (A)	10/30/2018
Tier 2 Misc. (B Plant North) SAP (2017-47) to RL for Review	4/17/2018 (A)	10/30/2018
Tier 2 Misc. Fac. (B Plant North) RAWP (2016-50) to RL for Review	5/2/2018 (A)	10/30/2018
REDOX AM (2016-52) to RL for Review	6/21/2018 (A)	10/18/2018

Section F

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

CH2MHILL
Plateau Remediation Company



R. M. Geimer
Vice President for
K Basin Operations

September 2018
CHPRC-2018-09, Rev. 1
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

T. L. Hobbes
Vice President for
River Risk Management Project

M. A. Wright
Vice President for
Project Technical Services

PROJECT SUMMARY

The 100K Closure Project continued remediation of Waste Site 100-K-47:1; continued preparations to return to excavate Waste Site 116-KE-2, pending finalization of radiation controls and work package development; and performed characterization activities in K West Basin. The 324 Building Disposition Project continued to make progress with equipment procurements, testing, and fabrication, and also installed the first remote excavator arm through-support into the B-Cell wall.

EMS Objectives and Target Status (Draft)

Objective #	Objective	Target	Due Date	Status
18-EMS-KBOPR-OB1-T1	Improve compliance/pollution and spill prevention	Monitor and evaluate universal waste (UW) and recycling accumulation areas for compliance with CHPRC procedures. Survey spill prevention measures.	9/30/2018	100%
18-EMS-324BDP-OB1-T1	Increase EMS awareness	Promote and increase 324 Building Disposition Project (324 BDP) personnel EMS awareness via various means throughout fiscal year (FY) 2018.	9/30/2018	100%
18-EMS-324BDP-OB2-T1	Improve compliance	Review and update as needed Resource Conservation and Recovery Act of 1976 (RCRA) inspection implementing procedures, inspection forms, checklists, and work packages (WP) to capture operating record information and assign appropriate metadata.	9/30/2018	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	0	N/A
First Aid Cases	4	27	<p>9/10/2018 – Employee experienced lower back strain after driving a bulldozer and experiencing repetitive impact between the bulldozer blade and a large rock. Employee was examined and released to work without restrictions. (24964)</p> <p>9/19/2018 – Employee received an abrasion to a finger after a drill pulled the employee’s hand to the bit while they were changing the bit. Employee was taken to HPMC for evaluation and released to work without restrictions. (24971)</p> <p>9/20/2018 – Two employees experienced eye and respiratory irritation from an odor while disposing of waste. Lab work was completed on both employees and they returned to work without restrictions. (24976, 24977)</p>

	Current Month	Rolling 12 Months	Comment
Near Misses	0	2	

KEY ACCOMPLISHMENTS

K Basin Operations

- 100K Closure Project:
 - o 100K Soil Remediation:
 - Preparing for Waste Site 116-KE-2 radioactive waste crib removal. Hazard Review Board is anticipated for late October 2018 (excavation is approximately 74 percent complete).
 - Continuing excavation and load out at Waste Site 100-K-47:1 (excavation is approximately 17 percent complete).
 - Completed Waste Site 100-K-13 excavation, load out, and verification sample collection.
 - Sent Waste Site 100-K-50:2 closure documentation to technical publications for final edit.
 - Submitted Waste Site 100-K-94 closure documentation for internal review.
 - o K West Basin Deactivation:
 - Garnet Filter Media Removal System (GFMRS):
 - GFMRS full-scale system mockup remains in place for operations familiarization training and operating procedure development. Completed the draft operating procedure for removing media from Garnet Filter Number 1.
 - Completed GFMRS process equipment facility modification package constructability review. Review comment record (RCR) comments have been dispositioned and are ready for signoff. Revisions to the GFMRS construction aid document are approximately 50 percent complete.
 - The fabrication of Sludge Transport & Storage Containers (STSCs) vessels 425, 426, 427, and 428 was completed and the vessels were delivered to the 400 Area.
 - Garnet Filter Number 3 Sluice Outlet Valve V-305 Risk Mitigation:
 - o Valve V-305 air operator was removed, a manual operator installed, and the valve partially opened by Apollo Construction. Work instructions will be prepared to verify Valve V-305 opens fully and closes properly using the manual operator valve handle installed by Apollo.
 - Sand Filter Media Removal System (SFMRs):
 - The ALARA design review, the environmental screening, and the preliminary hazard analysis all continue to be worked.
 - K West Basin Below-water Debris Characterization:
 - Progressed work packages and procedures for vacuum sampling K West Basin settled solids, and surveying the basin floor for discrete data collection targeted to affirm debris item information used in dose-to-curie modeling of the radioactive source term, and to support deployment of the Gamma Camera.
 - Progressed sparging of high dose material in the northwest region of the K West Basin Center Bay to a point where the material can be placed into an empty fuel canister. Sparging of high dose material was suspended due to concerns with shortening the Skimmer System IXM-4 in-service time.
 - Submitted an Engineering Change Request to install a piping jumper to connect Integrated Water Treatment System IXM-1, 2, and 3 to the IXM discharge header. The modification will enable future floor sparging activity to support characterization without shortening IXM-4 in-service time and therefore not affect sludge removal operations.

- Completed the draft of the K West Basin Waste Disposition Plan.
- Completed Attila 3D model training for radiological engineers.
- Briefed the RL River Corridor Division on the K West Basin Deactivation Strategy. The session introduced waste disposition strategies that are being formulated.
- o K East Reactor Interim Safe Storage (ISS):
 - Finalized the 105K East Reactor asbestos removal contract and the ISS design modification contract statements of work (SOW). The project stands ready to develop and issue requests for proposal when the work is authorized by RL.
 - Conducted walk down with 100K Engineering to determine requirements for re-energizing temporary power in the area southeast of 105K East Reactor to support trailer hookup during asbestos removal and construction activities.
 - Incorporated remaining functional review comments into the 105K East Reactor Safe Storage Enclosure (SSE) structural contract SOW (scope includes earthwork, laying the foundation, and the Safe Shutdown Enclosure structural work). The project stands ready to develop and issue requests for proposal for the design review, asbestos removal, and structural contracts should the work be authorized by RL.
 - Incorporated fire suppression system exemption statements into the 105K East Reactor Fire Hazards Analysis (FHA) revision and completed all internal reviews.
 - Finished updating cost estimates and backup cost documentation for new/modified ISS project scope and activity durations with the most recent project schedule.
- o Ancillary Facility Deactivation & Demolition (D&D):
 - Completed thermal system insulation abatement in 165K East Power Control Building. Minor demobilization activities remain.
 - Awaiting EPA feedback on draft DOE/RL-2005-26, Removal Action Work Plan (RAWP) for 100K Reactor and Ancillary Facilities.
 - Continued 166KE Fuel Storage Bunker (FSB)/Waste Site 130-KE-2 demolition/waste site remediation planning. Worked with mobile samplers to schedule and perform pre-sampling walk down. The device for measuring the level of fuel and water in the FSB has arrived and is ready for use.
 - Incorporated comments from EPA and RL on draft DOE/RL-2018-47 Remedial Action Report for 100D/H Waste Sites.
- o Remaining Closure Operations:
 - Provided responses to additional bidder questions on the 618-10 complex revegetation RFP and SOW.
 - Received contractor proposals on the 618-10 complex revegetation RFP after extension was requested and granted.
 - Waste Sites 331LSLT1 and 331LSLT2:
 - Completed and stamped as-built drawings for the impermeable covers installed at the 300-5, 331-LSLT1 and 331-LSLT2 waste sites and developed a new Engineering change request (ECR) in order to release the as-built drawings into Document Management & Control System (DMCS) and Integrated Document Management System (IDMS). ECR was routed for review and approval.
 - Completed draft Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) change notice to identify completed work and identify as-built drawing number in DOE/RL-2014-13-ADD1 Remedial Design Report/Remedial Action Work Plan for 300-FF-2 Soils. Routed Tri-Party Agreement change notice documentation for internal review.

River Risk Management Project

- 618-10 Burial Ground
 - MSA completed removal of the power poles out to the 400 Area, completing infrastructure demobilization activities and all work scope associated with the 618-10 Burial Ground Project.
- 324 Building Disposition Project
 - Minimum Safe
 - Completed ten preventative maintenance (PM) packages.
 - Two PM packages have extended into October due to the conversion of the annual and semi-annual packages in Job Control System (JCS).
 - Released the annual update to the 324 Basis for Operations (BIO) to include the addendums, fire hazard analysis, safety equipment list, etc.
 - Initiated development of a work package for execution of the 324 Building Heating, ventilation, and air conditioning (HVAC) system test procedure.
 - Equipment Procurement and Fabrication
 - The grout design for the grout study contract was completed. Continued the design and fabrication of the shielded probe collimator, rad assay system, floor saw system for mockup facility, HVAC snorkels, cell dams, and water delivery system for the 324 Building.
 - The A-Cell and D-Cell filter frames and off-set tool, modified airlock rail system, and the 324 Building remote excavator arms (REA) were delivered.
 - Cell Cleanout
 - Removed the legacy, non-functioning B-Cell camera from the 324 Building.
 - Removed final legacy airlock track section from B-Cell.
 - Moved pipe cutting tool into B-Cell and began cutting legacy piping from the B-Cell walls. Removal of these pipes allows the installation of the REA through-supports.
 - Facility Preparations
 - C-Cell foundation investigation
 - Pipes were prepared for removal (sleeved and installed hot taps) and four pipes were removed.
 - Removed two sections of compressed air pipe and installed shoring to allow hand excavation inside 324 Building for scanning of the C-Cell footer. Completed excavation for footing scan.
 - Geoprobes
 - Completed excavation to expose the geoprobes and set up for pulling the geoprobes.
 - Core Drilling
 - Completed the last REA through-support core drill at the southeast corner of B-Cell.
 - Installed shield covers for the REA holes at the southwest corner of B-Cell.
 - Engineering continued core drill layout to support REA and camera installation.
 - Sample Loadout (SLO) Room
 - Started demolishing SLO room walls and continued demolition and cleanup of the SLO room, including demolition of HEPA duct.
 - Completed SLO room glove box demolition.
 - Attached lifting device to SLO room shield door.
 - Equipment Installations
 - Installed new B-Cell temporary camera.
 - Installed REA through-support assembly into B-Cell wall, completed drilling and epoxy of all REA through-support assembly anchors, and completed grouting lower arm of REA through-support assembly.
 - Structural Modifications
 - The 60 percent structural design review is complete and the design is ongoing.
 - Continued drilling the micropile test locations on the north side of 324 Building and completed the first ultimate test.

- Completed installation of Pit 6 trailer; geotechnical information is being collected at Pit 6 to provide data for the structural modification design.
- o Mockup / Readiness
 - Issued Quarterly Startup Notification Report, identifying the level of readiness review required for 324 Building floor and soil removal activities.
 - Performed Mockup demonstration for the first portion of 324 Building REA through-support installation and completed proficiency demonstration.
 - Transported REA through-support and associated installation equipment to 324 Building.
 - Installed the Mockup water delivery system and performed construction acceptance testing.
 - Initiated and completed remote equipment integrated testing.
- o Tours
 - Provided a Mockup tour for the WSU Tri-Cities Chancellor and Columbia Basin College President on August 30, 2018.
 - Provided a Mockup tour to a group of visitors from DOE-HQ and RL on September 5, 2018.
 - Completed local media tour at the Mockup.

Project Technical Support

- Training and Procedures
 - o Worked with 324 Certified Industrial Hygienist (CIH) to complete an Industrial Hygiene Exposure Assessment for use of wire rope lubricants; established <50 percent Occupational Exposure Limit (OEL).
- Operations Program - Emergency Preparedness (EP)
 - o Supported 300/400 Areas annual protective action drill.

MAJOR ISSUES

Issue

In February 2018, a higher-than-expected ratio of alpha to beta/gamma contamination was detected in a localized area in the Radiochemical Engineering Complex (REC) airlock after removing waste from C-Cell. Discovery of an elevated latent contamination level upon removal of the waste was unexpected and beyond the reasonable control of CHPRC. This condition is the realization of risk RCC-300-296-01, Latent Conditions Impact Facility Modification.

Corrective Action

Determine cause for high alpha reading and update appropriate procedures as necessary. Perform a follow-on review to identify previously unknown legacy activities conducted in the REC cells to determine contributing factors to elevated alpha levels.

Status

The Alpha personal contamination monitors (i-PCM-12s) were received. At this time, risk RCC-300-296-01, Latent Conditions Impact Facility Modification, is no longer realized and the project will no longer track this issue.

Issue

A shortage of radiation control technicians, radiation control engineers, radiation control work planners, and radiation control first line managers is hampering 100K Closure Project soil remediation and basin characterization work.

Corrective Action

The project continues to work with labor relations and central radiation protection management to fill needed positions.

Status
Ongoing.

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										
RL-0041/WBS-041													
Explanation of major changes to the project monthly stoplight chart:													
Risk 100K-SR-05: <i>Unexpected Site Conditions – 100K Waste Site and 100K-KWB-102: KW Basin – Resources Unavailable</i> was added to the realized risk section.													
Realized Risks (Risks that are currently impacting project cost/schedule)													
RCC-300-296-08: 300-296 Failure of a cell shield door	Failure of shield door(s) or crane shield door(s) shuts down cleanout of REC cells/airlock, penetration sealing in airlock, and equipment installation efforts. It may not be possible to repair a shield door due to radiation dose rate and location. The door failure results in in-scope unplanned work and subsequently causes cost and schedule impacts to the project. Risk Handling Strategy: Accept Probability: Medium (26% to 74%) Worst Case Impacts: \$460K, 48 days	●		Risk Event: During operation of cleanout activities on June 19, 2018, the A-Cell crane door became restricted from closing, prohibiting airlock entry. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Recovery action(s)</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr> <td>Airlock Entry Recovery from A-Cell Crane Door Malfunction</td> <td style="text-align: center;">7/10/2018</td> <td style="text-align: center;">100</td> </tr> <tr> <td>A-Cell Crane Door Malfunction Recovery</td> <td style="text-align: center;">11/13/2018</td> <td style="text-align: center;">Ongoing</td> </tr> </tbody> </table> Recovery Assessment: No major changes in September . A-Cell crane door became restricted from closing, prohibiting airlock entry. No personnel were affected. Airlock operations were delayed for three weeks while technical response teams deliberate planning actions and evaluations were performed in advance of successfully closing the A-Cell crane door. A-Cell debris cleanout operations will be impacted while the A-Cell crane door is repaired. Recovery continues to progress, as crews and manlift were prepped for A-Cell crane door survey and inspection.	Recovery action(s)	FC Date	%	Airlock Entry Recovery from A-Cell Crane Door Malfunction	7/10/2018	100	A-Cell Crane Door Malfunction Recovery	11/13/2018	Ongoing
Recovery action(s)	FC Date	%											
Airlock Entry Recovery from A-Cell Crane Door Malfunction	7/10/2018	100											
A-Cell Crane Door Malfunction Recovery	11/13/2018	Ongoing											
RCC-300-296-30: 300-296 Design Changes Result in Increased Subcontractor Change Order(s) / Claims	Structural modifications estimate is currently based on the vendor’s estimate as of the 30 percent design. The 60 percent design through initiation of 90 percent design and testing of the currently identified 324 Building structural modifications to support design are ongoing. Due to the uncertainty and evolution of developments, design changes may be required upon completion of all design phases. Risk Handling Strategy: Control Probability: Very Likely (>90%) Worst Case Impacts: \$3,318K, 136 days	●		Risk Event: On review of the 30 percent design submittal, it was determined that the cell wall loading/limitations were inadequate and required additional clarification. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Recovery action(s)</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr> <td>Contractor Prepare and Submit Structure Modification Design -30%-60% (VE2810)</td> <td style="text-align: center;">8/15/2018</td> <td style="text-align: center;">100</td> </tr> <tr> <td>Contractor Prepare and Submit Structure Modification Design – Final (VE2810A)</td> <td style="text-align: center;">1/8/2019</td> <td style="text-align: center;">Ongoing</td> </tr> </tbody> </table> Recovery Assessment: No major changes in September . The 30 percent to 60 percent Structural Modification Design was submitted on August 15, 2018. The review process for the 90 percent submittal is ongoing to support development of the Final Structural Modification Design. To reduce the potential impacts associated with conflicting drawing information, applicable design efforts were updated to encompass further analysis of cell footings, load limitations, and field demonstrations to ensure safe and successful completion. Additional efforts through progress on the 60 percent design activities have been incorporated into the field execution schedule (FES), along with the estimate to complete (ETC), to reflect impacts of risk being realized.	Recovery action(s)	FC Date	%	Contractor Prepare and Submit Structure Modification Design -30%-60% (VE2810)	8/15/2018	100	Contractor Prepare and Submit Structure Modification Design – Final (VE2810A)	1/8/2019	Ongoing
Recovery action(s)	FC Date	%											
Contractor Prepare and Submit Structure Modification Design -30%-60% (VE2810)	8/15/2018	100											
Contractor Prepare and Submit Structure Modification Design – Final (VE2810A)	1/8/2019	Ongoing											

<p>RCC-300-296-03: Mockup Testing and Qualification of Remote Equipment / Process Identifies Major Modification Requirements.</p>	<p>Issues such as equipment interferences, differing as-found conditions than planned, equipment reliability, etc., arise prior to/during mockup testing, leading to re-design of equipment and resulting in cost and schedule delays.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Medium (26% to 74%) Worst Case Impacts: \$773K, 80 Days</p>			<p>Risk Event: During Vendor FAT and/or Mockup Testing, issues and conditions were identified with mockup equipment, resulting in additional redesign, materials, and/or fabrication efforts greater than planned. Remote equipment procurements that have resulted in cost and/or schedule impacts include the REA system components (through supports and dummy post assemblies) and transfer mechanism (electrical components).</p> <table border="1"> <thead> <tr> <th>Recovery action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Perform Construction Acceptance Test (CAT) for Mockup Equipment Install - Cameras and Lighting; REA system with HPUs; Transfer Mechanism (VE0640)</td> <td>8/23/2018</td> <td>100</td> </tr> <tr> <td>Install Floor Saw & Support System (Includes CAT)</td> <td>2/13/2019</td> <td>-</td> </tr> </tbody> </table> <p>Recovery Assessment: Construction Acceptance Testing (CAT) for Remotely Operated Mockup Equipment procurements was completed in August. Integrated Testing of Remotely Operated Equipment at the Mockup was completed in September. However, interferences with nearby equipment/tools was discovered, leading to modifications. The remainder of miscellaneous supporting equipment is scheduled to arrive at the Mockup over the upcoming periods. Once installed, successful integration with Remotely Operated Equipment, through testing and training at the mockup will continue with preparations for 324 Building equipment. The remaining equipment procurements will be continuously monitored and tracked to account for additional redesign efforts, materials, and fabrication efforts resulting in cost and/or schedule impacts. Impacts have been incorporated into the project schedule, along with the ETC, to reflect further impacts of risk being realized.</p>	Recovery action(s)	FC Date	%	Perform Construction Acceptance Test (CAT) for Mockup Equipment Install - Cameras and Lighting; REA system with HPUs; Transfer Mechanism (VE0640)	8/23/2018	100	Install Floor Saw & Support System (Includes CAT)	2/13/2019	-
Recovery action(s)	FC Date	%											
Perform Construction Acceptance Test (CAT) for Mockup Equipment Install - Cameras and Lighting; REA system with HPUs; Transfer Mechanism (VE0640)	8/23/2018	100											
Install Floor Saw & Support System (Includes CAT)	2/13/2019	-											
<p>100K-SR-05: Unexpected Site Conditions - 100K Waste Sites</p>	<p>Unexpected site conditions are encountered during soil excavation activities resulting in recovery actions, causing unplanned, in-scope work and schedule delays to the project.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Likely (75% to 90%) Worst Case Impacts: \$380K, 12 Days</p>			<p>Risk Event: While performing well decommissioning to support remediation of 116-KE-2 waste site elevated radiological readings were encountered deeper than originally planned for, thus increasing the depth of the excavation resulting in more material to be excavated increasing cost and schedule.</p> <table border="1"> <thead> <tr> <th>Recovery action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Redesign to contaminated depth</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Remediate contaminated material</td> <td>11/27/18</td> <td>74</td> </tr> </tbody> </table> <p>Recovery Assessment: The excavation design was revised to include the increased depth to remediate the radiological contaminants successfully and contract was revised to reflect the change in conditions.</p>	Recovery action(s)	FC Date	%	Redesign to contaminated depth	Complete	100	Remediate contaminated material	11/27/18	74
Recovery action(s)	FC Date	%											
Redesign to contaminated depth	Complete	100											
Remediate contaminated material	11/27/18	74											
<p>100K-KWB-102: KW Basin – Resources Unavailable</p>	<p>Other higher CHPRC priority work results in reallocation of key resources (Rad Planners, RCTs, IH and NCOs), results in cost and schedule delays as projects compete for key CHRPC resources.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Low (10% to 25%) Worst Case Impacts: \$15K, 16 Days</p>			<p>Risk Event: 100K Closure Project soil remediation and basin characterization work is experiencing a shortage of radiation control technicians, radiation control engineers, radiation control work planners, and radiation control first line managers.</p> <table border="1"> <thead> <tr> <th>Recovery action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>The project continues to work with labor relations and central radiation protection management to fill needed positions.</td> <td>Ongoing</td> <td>Ongoing</td> </tr> </tbody> </table> <p>Recovery Assessment: Ongoing</p>	Recovery action(s)	FC Date	%	The project continues to work with labor relations and central radiation protection management to fill needed positions.	Ongoing	Ongoing			
Recovery action(s)	FC Date	%											
The project continues to work with labor relations and central radiation protection management to fill needed positions.	Ongoing	Ongoing											
<p>Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)</p>													
<p>RCC-300-296-02: 300-296 Loss of ventilation in the 324 hot cells or Zone II</p>	<p>Zone I or II ventilation system failure causes loss of ventilation and shutdown of soil remediation activities, resulting in in-scope unplanned work, and subsequently resulting in schedule impacts.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Medium (26% to 74%) Worst Case Impacts: \$0K, 48 days</p>			<p>Risk Trigger Metric: Ventilation fan or other system component failure may prevent airlock entry, which is needed for cleanout of REC cells, penetration sealing, and installation of equipment.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>324 Min. Safe Spare Parts and Routine Preventive Maintenances (PMs) (R03095)</td> <td>9/30/2018</td> <td>100</td> </tr> </tbody> </table> <p>Mitigation Assessment: No major changes in September. Ventilation PMs are being routinely performed. Spare fan parts are available for minor failures if occurrence is realized.</p>	Mitigation action(s)	FC Date	%	324 Min. Safe Spare Parts and Routine Preventive Maintenances (PMs) (R03095)	9/30/2018	100			
Mitigation action(s)	FC Date	%											
324 Min. Safe Spare Parts and Routine Preventive Maintenances (PMs) (R03095)	9/30/2018	100											

<p>RCC-300-296-07: 300-296 Failure of a REC Cranes (B-Cell, A-Cell, A-D & Airlock, or CHA cranes)</p>	<p>Major crane repair must be performed during operations. This in-scope, unplanned work results in cost and schedule impacts to the project.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Likely (75% to 90%) Worst Case Impacts: \$832.7K, 144 days</p>			<p>Risk Trigger Metric: REC crane failure occurs during operations.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Order and Procure Spare Parts – REC Cranes (VE1235)</td> <td>10/28/2019</td> <td>Ongoing</td> </tr> </tbody> </table> <p>Mitigation Assessment: No major changes in September. The project experienced loss of the CHA crane in November 2017. Final repairs and load testing for the 30-ton CHA crane were completed and the crane was returned to service in January 2018. The project is in the process of reviewing evaluations and recommendations with manufacturers to assist with determining Preventive Maintenance, spare parts requirements, and Corrective Maintenance in the event of necessary repairs. These efforts are expected to reduce the potential for impacts.</p>	Mitigation action(s)	FC Date	%	Order and Procure Spare Parts – REC Cranes (VE1235)	10/28/2019	Ongoing
Mitigation action(s)	FC Date	%								
Order and Procure Spare Parts – REC Cranes (VE1235)	10/28/2019	Ongoing								
<p>RCC-300-296-01: Latent Conditions Impact Facility Modification</p>	<p>Latent conditions, poor visibility in Radiochemical Engineering Complex (REC) cells, or drawing omissions, inconsistency, or errors impact facility modifications (e.g. mechanical, electrical IH/RADCON hazards), resulting in unplanned work and subsequently, and cost and schedule impacts.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Likely (75% to 90%) Worst Case Impacts: \$294.5K, 72 days</p>			<p>Risk Trigger Metric: Available drawings may not reflect the actual conditions in the 324 Building or REC cells. Debris within the REC cells, as well as poor visibility may prevent the verification of in-cell features for installing penetrations, removing interferences and supporting preparation activities for structural modifications.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>324 Min. Safe Spare Parts and Routine Preventive Maintenances (PMs) (R03095)</td> <td>9/30/2018</td> <td>100</td> </tr> </tbody> </table> <p>Mitigation Assessment: No major changes in September. Uncertainties associated with aging 324 Building systems (e.g., stack sampling), sealing penetrations, and electrical outages needed for interference removal, there exists a potential for this risk to be realized. Based on recent discovery of an elevated latent contamination level (NOC, CHPRC-1801178); Corrective Actions have been implemented along with additional controls. This risk will continuously be monitored as routine preventative maintenance activities are in place to reduce the likelihood of occurrence.</p>	Mitigation action(s)	FC Date	%	324 Min. Safe Spare Parts and Routine Preventive Maintenances (PMs) (R03095)	9/30/2018	100
Mitigation action(s)	FC Date	%								
324 Min. Safe Spare Parts and Routine Preventive Maintenances (PMs) (R03095)	9/30/2018	100								

High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)

No high risks identified in **September**.

Unassigned Risks (Pending ownership of identified risks/opportunities)

<p>RCC-300-296-04DOE: 300-296 Seismic Event (Force Majeure)</p>	<p>A Force Majeure incident, such as a seismic event, results in the loss of structural integrity; causing cost and schedule impacts to the project delivery. CHPRC Comment: CHPRC cannot manage the geological seismic movement that may impact the structural integrity of a building. Therefore, this risk is proposed to be transferred to DOE. DOE has “informally” accepted this risk as a transfer risk. A formal letter of acceptance (CHPRC-1705651) was sent to RL on December 12, 2017. Once this risk has been formally accepted, via acknowledgement from the RL contracting officer, it will be removed from the stoplight chart.</p>
<p>RCC-300-296-23DOE: 300-296 Large Brush Fire (Force Majeure)</p>	<p>A brush fire ignited on the Hanford Site near the proximity of the 300-296 Waste Site, resulting in cost and schedule delays. CHPRC Comment: This risk was identified as “Force Majeure” and is beyond the capabilities of CHPRC to manage. Therefore, this risk was proposed to be transferred to DOE. DOE has “informally” accepted this risk as a transfer risk. A formal letter of acceptance (CHPRC-1705651) was sent to RL on December 12, 2017. Once this risk has been formally accepted, via acknowledgement from the RL contracting officer, it will be removed from the stoplight chart.</p>
<p>RCC-300-296-27: 300-296 Requirement Changes Result in Additional Work/Entry Prerequisite Training</p>	<p>Due to complex-wide or facility specific changes in requirements outside of CHPRC’s ability to manage (e.g. technical documents, procedures, training), project delivery will be impacted in terms of cost and schedule. CHPRC Comment: Changes to DOE orders, federal or state regulations, waste acceptance criteria established by another site contractor, or another DOE site could impact the baseline scope/schedule/cost. Although a contract change is required to incorporate changes to DOE orders, no contract change is required for federal or state regulations or for waste acceptance criteria changes. The potential criteria changes are outside of CHPRC’s ability to manage. Therefore, this risk was proposed to be transferred to DOE. DOE has “informally” accepted this risk as a transfer risk. A formal letter of acceptance (CHPRC-1705651) was sent to RL on December 12, 2017. Once this risk has been formally accepted, via acknowledgement from the RL contracting officer, it will be removed from the stoplight chart.</p>

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	(19.6)	11.2	9.2	30.7	-157.0%	1.9	17.2%

Numbers are rounded to the nearest \$0.1 million

CM Schedule Performance (+\$30.7M/-157.0%)

The current month favorable schedule variance is primarily due to baseline change requests (BCRs) that were implemented that modified the PMB to be consistent with the most current Truthful Cost or Pricing Data (TCOPD) for undefinitized change orders resulting in a reduction to budgeted cost of work scheduled (BCWS) in September of approximately \$30 million. BCWS was impacted by Change Order Numbers 305, 306, 319, 328, and 330.

CM Cost Performance (+\$1.9M/+17.2%)

The current month favorable cost variance is primarily due to a BCR that was implemented that modified the PMB to be consistent with the most current truthful cost or pricing data (TCOPD) submittal for Change Order 328. Activities modified by these BCRs also included scope planned in previous periods, including the incorporation of additional complexities with the 324 structural modifications design. Scope had been performed and actuals were collected in previous periods, and this BCR allowed the project to claim performance on this scope in the current period. In addition, level of effort resources from MSA and program management support have not required the level of resources anticipated due to resource sharing and re-assignment of resources to other priority work. All required work scope is being accomplished with the reduced staff.

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	591.8	590.2	529.1	(1.6)	-0.3%	61.1	10.3%	610.7	548.1	19.0	62.6

Numbers are rounded to the nearest \$0.1 million

CTD Schedule Performance (-\$1.6M/-0.3%)

The contract-to-date schedule variance is within reporting thresholds.

CTD Cost Performance (+\$61.1M/+10.3%)

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 K East Sedimentation Basin and fewer resources are supporting the level of effort (LOE) program management and usage based services scope. Some resources have been diverted to other priority work scope and some resource sharing has occurred. The 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 and the 618-10 Burial Ground. These favorable variances are slightly offset by a negative CTD variance caused by difficulties at the 324 Building Disposition Project in execution of cell and airlock cleanout, higher-than-planned engineering costs resulting from mockup and 324 structural design changes, and increased expenditures for the design and fabrication of essential procurements.

Variance at Completion (+\$62.6M/+10.3%)

The 100K Closure positive variance at completion (VAC) is primarily due to labor; fewer resources have been supporting the LOE program management and usage based services scope. Some resources have been diverted to other priority work scope, and some resource-sharing has occurred. The remaining VAC is primarily due to the implementation of efficiencies and staffing ramp downs at the 618-10 Burial Ground. Offsetting the positive variance, the 324 Building Disposition Project experienced increased costs associated with airlock cleanout, engineering and design activities, continued staff ramp up, and equipment procurement activities.

The VAC does not include FY2019 scope that was submitted via change proposal (CP) PRC-1710 Plateau Remediation Contract Extension. The CP will be implemented via a BCR in October.

Contract Performance Report Formats are provided in Appendix A.

FUNDS vs. SPEND FORECAST (\$M)

WBS 041/RL-0041 Nuclear Facility D&D – River Corridor	FY2018		Variance
	Total Funding	Actual Cost	
RL-0041 - Total	143.8	114.4	29.4

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis:

FY2018 funding for project breakdown structure (PBS) RL-0041 was \$143.8 million. The delta between the actual costs and funding levels for FY2018 is primarily due to scope deferral at the 324 Building Disposition Project. As a result of structural design and electrical issues and the A-Cell crane door failure, work scope associated with core drilling, cell sealing, interference removal and structural modifications activities have been delayed. The 324 Building Disposition Project also reduced expenditures for system repairs and maintenance and minimum safe consumables. Additionally, attrition and staffing ramp-downs at the 618-10 Burial Ground Project have decreased actuals below the FY2018 funding levels.

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 (EA) 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 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-016-00B	Complete all 300 Area remedial actions in accordance with Record of Decision (ROD) requirements.	9/30/2018	8/2/2018 (A)	CHPRC issued the cleanup verification package for the 618-10 Burial Ground on 8/2/2018.
M-094-00	Complete disposition of all 300 Area surplus facilities, excluding 324 Building.	9/30/2018	7/10/2017 (A)	On October 19, 2017, issued letter-notifying RL of the completion on July 10, 2017.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
RL Approval of SNR	8/29/2018 (A)	9/26/2018 (A)
RL Certify Information – RL Manager Letter to Ecology (1301 ,1325)	9/25/2018	10/6/2018
EPHA Draft – RL Review	10/1/2018	10/15/2018
DOE Authorize SPA SEC for Hot Cell Disposal	10/2/2018	1/6/2019
DOE Authorize SPA SEC for Soils – 300-296	10/5/2018	1/9/2019
Ecology Receive the Certified CHPRC and RL Information (1301, 1325)	10/7/2018	10/7/2018
DOE Perform 60 percent Design Review	10/18/2018	11/7/2018
Class 1 Prime Modification RL Certification send Class 1 Prime to Ecology for Action to close 1301-N and 1325-N	10/20/2018	11/2/2018
EPHA Final – RL Approval	10/31/2018	11/14/2018
Deliver Attachment(s) and Certification(s) to RL (1301, 1325)	11/6/2018	11/6/2018
Review DSA/TSR Revision	11/9/2018	12/28/2018
DOE Independent Structural Modification Review	12/28/2018	1/26/2019
Provide Comments on DSA/TSR in RCR	12/29/2018	1/7/2019
Concur on DSA/TSA Revision Comment Resolution	1/10/2019	1/23/2019
Prepare DSA/TSA Revision SER	1/24/2019	1/26/2019
SRB Review SER for DSA/TSR Revision	2/13/2019	2/19/2019
Issue SER for 324 DSA/TSR	2/20/2019	2/26/2019
DOE Review WCH-539, Treatment Plan for Macro Encapsulation – 324	3/18/2019	4/23/2019
324 Add A Part A – Review Addendum & Conduct Workshop	8/21/2019	9/4/2019

Section G

Fast Flux Test Facility Closure (RL-0042)

CH2MHILL
Plateau Remediation Company



T. E. Bratvold
Vice President for
Central Plateau Risk
Management Project

September 2018
CHPRC-2018-09, Rev. 1
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

- Incorporated initial reviewer comments into the draft Acceptance Test Plan (ATP) for replacement of the C-670 fire pump control panel and routed for additional review.
- Completed assembly of new 4" fire suppression system water supply line and new pipe bracing in the 481 Building.
- Routed an Engineering Change Request (ECR) documenting drawing updates that were identified during the 400 Area circuit verification activities for review and comment.
- Continued preparing an ECR to support final installation of the P16 pump.

MAJOR ISSUES

Issue:

Identified and investigated a Lockout/Tagout (LO/TO) incident associated with previous electrical work (2017) on the P-16 pump motor starter.

Corrective Action:

A new work package (WP) to physically verify 400 Area electrical circuits for water utility equipment has been developed and the verification has been completed. A new ECR has been drafted documenting necessary changes to drawings based on observations made during the field verifications.

Status:

Circuit Verification ECR needs to be approved before further work is performed on the 400 Area water utility equipment. This also affects the completion of the P-16 installation ECR and work package. Once the circuit verification ECR is approved the issue is considered closed.

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	0.2	(0.0)	-1.5%	0.0	20.1%

Numbers are rounded to the nearest \$0.1M

CM Schedule Performance: (-\$0.0M/-1.5%)

The schedule variance is within reporting thresholds.

CM Cost Performance: (\$0.0M/+20.1%)

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	26.5	26.5	22.0	(0.0)	-0.0%	4.5	17.0%	26.5	22.0	0	4.5

Numbers are rounded to the nearest \$0.1 million

CTD Schedule Performance (-\$0.0M/-0.0%)

The schedule variance is within reporting thresholds.

CTD Cost Performance (+\$4.5M/+17.0%)

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

Variance at Completion (+\$4.5M/+17.0%)

The Variance at Completion reflects efficient use of resources to support deactivation activities.

Contract Performance Report Formats are provided in Appendix A.

FUNDS VS. SPEND FORECAST (\$M)

RL-0042 FFTF Closure	FY2018		Variance
	Projected Funding	Spending Forecast	
RL-0042 Spending Forecast	4.0	2.0	2.0

Numbers are rounded to the nearest \$0.1 million

Funds Analysis

Fiscal year (FY) 2018 funding for project breakdown structure (PBS) RL-0042 is \$4 million. The spending forecast of \$2 million includes inspections of the fire suppression system tanks and minor repairs.

Critical Path Schedule

Critical path analysis is not applicable to this project. The remaining contract scope is the 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

CH2MHILL
Plateau Remediation Company



September 2018
CHPRC-2018-09, Rev. 1
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

1. CONTRACTOR		2. CONTRACT		3. PROGRAM			4. REPORT PERIOD		
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME Plateau Remediation Contract			a. FROM (YYYYMMDD) 2018 / 08 / 27		
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE			b. TO (YYYYMMDD) 2018 / 09 / 30		
		c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE NO X YES (YYYYMMDD) 2009 / 09 / 18					

5. CONTRACT DATA									
a. QUANTITY 1	b. NEGOTIATED COST 5,588,957	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 357,590	d. TARGET PROFIT/FEE 241,605	e. TARGET PRICE 5,830,563	f. ESTIMATED PRICE 6,136,152	g. CONTRACT CEILING 5,830,563	h. ESTIMATED CONTRACT CEILING 6,136,152	i. DATE OF OTB/OTS (YYYYMMDD)	

6. ESTIMATED COST AT COMPLETION				7. AUTHORIZED CONTRACTOR REPRESENTATIVE					
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 5,831,269						c. SIGNATURE		d. DATE SIGNED (YYYYMMDD)	
b. WORST CASE 6,039,443									
c. MOST LIKELY 5,894,547		5,946,548		52,001					

8. PERFORMANCE DATA																
CAPN.PBS	CURRENT PERIOD					CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
ITEM (1)	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)
RL-0011 Nuclear Mat Stab & Disp PFP	1,396	1,447	6,988	50	-5,541	990,610	977,654	1,140,934	-12,957	-163,281	0	0	0	990,610	1,200,880	-210,269
RL-0012 SNF Stabilization & Disp	3,167	4,594	3,909	1,428	686	744,220	744,220	714,112	0	30,108	0	0	0	744,220	714,112	30,108
RL-0013 Solid Waste Stab & Disp	9,891	14,197	9,413	4,306	4,784	1,343,444	1,343,189	1,247,852	-255	95,336	0	0	0	1,343,444	1,247,976	95,468
RL-0030 Soil & Water Rem-Grndwtr/Vadose	6,714	12,786	10,511	6,072	2,275	1,526,679	1,526,650	1,473,936	-29	52,715	0	0	0	1,526,679	1,473,965	52,715
RL-0040 Nuc Fac D&D - Remainder Hanfrd	343	6,046	4,445	5,703	1,601	491,743	491,743	467,845	0	23,898	0	0	0	491,743	467,845	23,898
RL-0041 Nuc Fac D&D - RC Closure Proj	-19,591	11,157	9,243	30,748	1,914	591,772	590,193	529,123	-1,579	61,070	0	0	0	591,772	529,158	62,614
RL-0042 Nuc Fac D&D - FFTF Proj	214	211	169	-3	42	26,487	26,476	21,977	-11	4,499	0	0	0	26,487	21,977	4,510
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														175,358	175,358	0
e. SUBTOTAL	2,134	50,438	44,677	48,303	5,761	5,714,955	5,700,124	5,595,779	-14,831	104,345	0	0	0	5,890,313	5,831,269	59,043
f. MANAGEMENT RESERVE														63,278		
g. TOTAL	2,134	50,438	44,677	48,303	5,761	5,714,955	5,700,124	5,595,779	-14,831	104,345	0	0	0	5,953,591		

9. RECONCILIATION TO CONTRACT BUDGET BASELINE																	
a. VARIANCE ADJUSTMENT																	
b. TOTAL CONTRACT VARIANCE																	
										-14,831	104,345				5,953,591	5,831,269	122,321

* Per email direction received December 6, 2017 from the RL Contracting Officer, CHPRC is authorized to incorporate the value of proposed changes into the baseline, as well as remove work that is not authorized from our execution plan. When a contract alignment settlement is reached, baseline change requests (BCRs) will be processed to align the PMB with the settlement 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 \$

FORM APPROVED
OMB No. 0704-0188

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME Plateau Remediation Contract		a. FROM (YYYYMMDD) 2018 / 08 / 27	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2018 / 09 / 30	
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	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)						
34 - Env Program & Strategic Plng	355	979	1,019	623	-40	84,936	84,936	77,773	0	7,163	0	0	0	84,936	77,773	7,163
35 - Business Services	0	0	61	0	-61	477,296	477,296	453,596	0	23,700	0	0	0	477,296	453,596	23,700
36 - Prime Contract & Proj Integr	0	0	0	0	0	1,111	1,111	492	0	618	0	0	0	1,111	492	618
37 - Resource Mgmt & Strategic Intg	186	186	73	0	113	7,696	7,696	4,751	0	2,945	0	0	0	7,696	4,751	2,945
3B - PFP Closure Project	1,396	1,447	6,979	50	-5,532	901,828	888,872	1,059,869	-12,957	-170,998	0	0	0	901,828	1,119,815	-217,987
3C - Waste & Fuels Management Project	6,927	11,164	10,178	4,236	985	1,198,106	1,197,851	1,111,829	-255	86,022	0	0	0	1,198,106	1,111,952	86,153
3D - Soil & Groundwater Remediation	6,303	11,752	9,477	5,449	2,274	1,340,159	1,340,129	1,288,659	-29	51,471	0	0	0	1,340,159	1,288,688	51,471
3G - K Basin Oper & Plateau Remediation Project	1,458	7,664	6,370	6,206	1,294	1,038,427	1,038,334	978,530	-93	59,804	0	0	0	1,038,427	978,564	59,863
3H - River Risk Management Project	-15,027	11,012	5,940	26,039	5,072	235,595	234,109	209,860	-1,486	24,249	0	0	0	235,595	209,860	25,735
3K - Central Plateau Risk Reduction	535	6,235	4,580	5,700	1,655	429,802	429,791	410,420	-11	19,370	0	0	0	429,802	410,420	19,382
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														175,358	175,358	0
e. SUBTOTAL (Performance Measurement Baseline)	2,134	50,438	44,677	48,303	5,761	5,714,955	5,700,124	5,595,779	-14,831	104,345	0	0	0	5,890,313	5,831,269	59,043
f. MANAGEMENT RESERVE														63,278		
g. TOTAL	2,134	50,438	44,677	48,303	5,761	5,714,955	5,700,124	5,595,779	-14,831	104,345	0	0	0	5,953,591		

* Per email direction received December 6, 2017 from the RL Contracting Officer, CHPRC is authorized to incorporate the value of proposed changes into the baseline, as well as remove work that is not authorized from our execution plan. When a contract alignment settlement is reached, baseline change requests (BCRs) will be processed to align the PMB with the settlement values.

CONTRACT PERFORMANCE REPORT FORMAT 3 - BASELINE										DOLLARS IN THOUSANDS					Form Approved OMB No. 0704-0188		
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 a. NAME: Plateau Remediation Contract b. PHASE c. EVMS ACCEPTANCE d. YES X 9/18/2009			4. REPORT PERIOD a. FROM: 2018/08/27 b. TO: 2018/09/30							
b. LOCATION: Richland, WA																	
5. CONTRACT DATA																	
a. ORIGINAL NEGOTIATED COST 4,312,366			b. NEGOTIATED CONTRACT CHANGE \$1,276,591		c. CURRENT NEGOTIATED COST (A + B) \$5,588,957		d. ESTIMATED COST AUTH UNPRICED WORK \$357,590		e. CONTRACT BUDGET BASE (C + D) \$5,946,548		f. TOTAL ALLOCATED BUDGET \$5,953,590		g. DIFFERENCE (E - F) (\$7,042)				
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 Oct-18 (4)	+2 Nov-18 (5)	+3 Dec-18 (6)	+4 Jan-19 (7)	+5 Feb-19 (8)	+6 Mar-19 (9)	FY09-13 (10)	FY14 (11)	FY15 (12)	FY16 (13)	FY17 (14)	FY18 (15)			
a. PM BASELINE (BEGIN OF PERIOD)	5,712,820	246,108	0	0	0	0	0	0	3,391,477	391,653	471,323	504,826	485,027	510,358	204,264	5,958,928	
b. BASELINE CHANGES AUTH DURING REPORT PERIOD																	
BCR-011-18-008R0 - PFP OA Completion Correction																	
BCR-013-18-023R0 - Incorporate FY2018 Scope Alignment -FY2018 Work Authorizatio																	
BCR-013-18-024R0 - Incorporate FY2018 RL-0013 Baseline Scope Alignment																	
BCR-013-18-026R0 - Incorporate CO 322 FY2018 Scope Alignment																	
BCR-013-18-027R0 - Incorporate CO 308 FY2018 Scope Alignment																	
BCR-013C-18-025R0 - Incorporate FY2018 Scope Alignment -W-135 CAP																	
BCR-030-18-024R0 - Incorporate FY2018 Scope Alignment -FY2018 Work Authorizatio																	
BCR-030-18-025R0 - Incorporate FY2018 RL-0030 Baseline Scope Alignment																	
BCR-040-18-014R0 - Incorporate CO 311 FY2018 Scope Alignment																	
BCR-040-18-015R0 - Incorporate CO 324 FY2018 Scope Alignment																	
BCR-040-18-016R0 - Incorporate FY2018 RL-0040 Baseline Scope Alignment																	
BCR-041-18-023R0 - Incorporate Remaining FY2018 Scope for CO 319 GF STSC Instru																	
BCR-041-18-024R0 - Incorporate CO 328 Alignment With TCoPD																	
BCR-041-18-025R0 - Incorporate CO 305 FY2018 Scope Alignment																	
BCR-041-18-026R0 - Incorporate CO 319 FY2018 Scope Alignment																	
BCR-041-18-028R0 - Incorporate CO 330 FY2018 Scope Alignment																	
BCR-041-18-029R0 - Incorporate CO 306 FY2018 Scope Alignment																	
BCR-PRC-18-036R0 - Incorporate CO 331 FY2018 Scope Alignment																	
BCR-PRC-18-038R0 - Incorporate CO 326 FY2018 Scope Alignment																	
BCR-PRC-18-035R0 - Undistributed Budget Adjustments September 2018																	
BCRA-PRC-18-034R0 - HPIC Updates September 2018																	
c. PM BASELINE (END OF PERIOD)																	
	5,714,955	2,135	0	0	0	0	0	0	3,391,477	391,653	471,323	504,826	485,027	470,649	175,358	5,890,312	
7. MANAGEMENT RESERVE																	
																63,278	
8. TOTAL																	
																5,953,590	

CLASSIFICATION (When Filled In)

**CONTRACT PERFORMANCE REPORT
FORMAT 4 - STAFFING**

Dollars in: FTE

FORM APPROVED
OMB No. 0704-0188

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME Plateau Remediation Contract		a. FROM (YYYYMMDD) 2018 / 08 / 27	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2018 / 09 / 30	
		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 OCT 2018 (4)	+2 NOV 2018 (5)	+3 DEC 2018 (6)	+4 JAN 2019 (7)	+5 FEB 2019 (8)	+6 MAR 2019 (9)	APR 2019 (10)	MAY 2019 (11)	FY19 END (12)	FY19-LC (13)	ATCOMPLETE (14)		
300 - Office of the President	7	807	0	0	0	0	0	0	0	0	0	0	0	0	807
303 - Internal Audit	6	530	0	0	0	0	0	0	0	0	0	0	0	0	530
304 - General Counsel	4	495	0	0	0	0	0	0	0	0	0	0	0	0	495
31 - Communications	7	1117	0	0	0	0	0	0	0	0	0	0	0	0	1117
32 - Safety Health Security & Quality	58	7780	0	0	0	0	0	0	0	0	0	0	0	0	7780
34 - Env Program & Strategic Plng	43	5290	0	0	0	0	0	0	0	0	0	0	0	0	5290
35 - Business Services	55	7416	0	0	0	0	0	0	0	0	0	0	0	0	7416
36 - Prime Contract & Proj Integr	41	3927	0	0	0	0	0	0	0	0	0	0	0	0	3927
37 - Resource Mgmt & Strategic Intg	30	2878	0	0	0	0	0	0	0	0	0	0	0	0	2878
38 - Project Technical Services	38	5995	0	0	0	0	0	0	0	0	0	0	0	0	5995
3B - PFP Closure Project	180	51335	196	197	194	189	189	187	180	186	402	0	0	0	53256
3C - Waste & Fuels Management Project	360	53843	2	1	1	0	0	0	0	0	0	0	0	0	53846
3D - Soil & Groundwater Remediation	257	39565	0	0	0	0	0	0	0	0	0	2	0	0	39567
3G - K Basin Oper & Plateau Remediation Project	224	34146	2	0	0	0	0	0	0	0	0	0	0	0	34149
3H - River Risk Management Project	216	6232	0	0	0	0	0	0	0	0	0	0	0	0	6232
3K - Central Plateau Risk Reduction	141	17507	0	0	0	0	0	0	0	0	0	0	0	0	17507
g. TOTAL DIRECT	1667	238864	200	197	195	189	189	187	180	186	402	2	0	0	240792

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		
1. CONTRACTOR			2. CONTRACT			3. PROGRAM		4. REPORT PERIOD	
a. NAME CH2M HILL Plateau Remediation Company			a. NAME Plateau Remediation Contract			a. NAME Plateau Remediation Contract		a. FROM (YYYY/MM/DD) 2018/08/27	
b. LOCATION (Address and ZIP Code) Richland, WA 99354			b. NUMBER DE-AC06-08RL14788			b. PHASE Base		b. TO (YYYY/MM/DD) 2018/09/30	
			c. TYPE CPAF	d. SHARE RATIO		c. EVMS ACCEPTANCE 2009/09/18 NO YES X			

	BCWS	BCWP	ACWP	SV in \$	SV in %	CV in \$	CV %	SPI	CPI
Current:	2,135	50,438	44,677	48,303	2263.0%	5,761	11.4%	23.63	1.13
Cumulative:	5,714,955	5,700,124	5,595,779	(14,831)	-0.3%	104,345	1.8%	1.00	1.02
	BAC	EAC	VAC in \$	VAC in %	TCPI				
At Complete:	5,890,312	5,831,269	59,043	1.0%	0.81				

Explanation of Variance/Description of Problem:

Current Period Schedule Variance: The current month (CM) positive schedule variance is primarily due to \$28.9 million in BCRs to revise the baseline to better reflect the FY2018 effort required to perform scope or align undefinitized Change Proposal scope with Truthful Cost of Pricing Data (TCOPD) submittals. These were necessary to allow proper base plus option year contract performance reporting.

Current Period Cost Variance: The CM positive cost variance is primarily due to Project Breakdown Structure (PBS) RL-0013 continued project management underruns due to cost efficiency initiatives. Additionally, the ERDF rate credit based on significant unplanned increase in Other Hanford Contractor waste volume in FY2018 was experienced.

Also contributing are positive cost variances across RL-0030 due to lower chemical use than planned and less staff required at Pump & Treat (P&T) due to active resin management.

The positive cost variance is partially offset by PBS RL-0011 due to the resumption actions and implementation of the new demolition requirements associated with a December 2017 contamination event. This includes fixative applications, performance of radiological surveys, revising radiological postings, infrastructure modifications, and stabilization activities to support resumption of PFP demolition. This also includes additional material and equipment purchases to support the revised demolition approach. As resumption corrective actions and mockups are performed, costs for labor, subcontracts, and material purchases add to the current month variance.

Cumulative Schedule Variance: The variance is within reporting thresholds.

Cumulative Cost Variance: The variance is within reporting thresholds.

Impact:

Current Period Schedule: The current month schedule variance is not expected to impact the overall contract schedule.

Current Period Cost: Cost impacts are being estimated and will be incorporated in the project estimate to complete (ETC).

Cumulative Schedule: N/A

Cumulative Cost: N/A

Corrective Action:

Current Period Schedule: No corrective actions have been identified.

Current Period Cost: CHPRC supported a DOE Headquarters led Independent External Review/Independent Cost Estimate review of the a proposed revised scope, cost and schedule baseline for the completion of the RL-0011.C2 project. This review is intended to validate CHPRC's RL-0011.C2 completion plan. CHPRC submitted a change proposal for all PRC FY2019 scope that was authorized for implementation in September.

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 (VAC) of \$59.0 million, with \$63.3 million of management reserve (MR), for a total positive variance of \$122.3 million. For September, the project was 2263.0 percent ahead of schedule and 11.4 percent under planned cost. Contract to date (CTD), the project was 0.3 percent behind schedule and 1.8 percent under planned cost.

There was no increase in the difference between the Contract Budget Base and the Total Allocated Budget on Format 3 since last month.

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

There were 19 of the 28 BCRs in the period that impacted the PMB:

- BCR- 013-18- 023R0, Incorporate FY2018 Scope Alignment – FY2018 Work Authorization
- BCR-013-18-024R0, Incorporate FY2018 RL-0013 Baseline Scope Alignment
- BCR-013C-18-025R0, Incorporate FY2018 Scope Alignment -W-135 CAP
- BCR-013-18-026R0, Incorporate CO 322 FY2018 Scope Alignment
- BCR-013-18-027R0, Incorporate CO 308 FY2018 Scope Alignment
- BCR-030-18-024R0, Incorporate FY2018 Scope Alignment –FY2018 Work Authorization
- BCR-030-18-025R0, Incorporate FY2018 RL-0030 Baseline Scope Alignment
- BCR-040-18-014R0, Incorporate CO #311 FY2018 Scope Alignment
- BCR-040-18-015R0, Incorporate CO #324 FY2018 Scope Alignment
- BCR-040-18-016R0, Incorporate FY2018 RL-0040 Baseline Scope Alignment
- BCR-041-18-023R0, Incorporate Remaining FY2018 Scope for CO #319 GF STSC Instrumentation
- BCR-041-18-024R0, Incorporate CO 328 Alignment With TCoPD
- BCR-041-18-025R0, Incorporate CO 305 FY2018 Scope Alignment
- BCR-041-18-026R0, Incorporate CO 319 FY2018 Scope Alignment
- BCR-041-18-028R0, Incorporate CO #330 FY2018 Scope Alignment
- BCR-041-18-029R0, Incorporate CO #306 FY2018 Scope Alignment
- BCR-PRC-18-036R0, Incorporate CO 331 FY2018 Scope Alignment
- BCR-PRC-18-038R0, Incorporate CO #326 FY2018 Scope Alignment
- BCR-PRC-18-035R0, Undistributed Budget Adjustments September 2018

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 + \$59.04 million, +1.0% and is within reporting thresholds.

Format 1 and 3 Contract Data:

Contract Price Adjustments

CPS - In Process		
	Total Authorized Unpriced Work	\$357,590
Approved Adjustments to Contract Price (not reflected in B.4-1 Table)		
	Total Negotiated Cost Changes	-
	Grand Total Adjustments	\$357,590

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

Undistributed Budget Activity

BCR Number	Title	PBS	Fiscal Year	UB
BCR-PRC-18-035R0	<i>Undistributed Budget Adjustments September 2018</i>	RL-0012, RL-0013, RL-0030, RL-0040, RL-0041	2018	-\$28,906K

The Undistributed Budget decreased by \$28,906K.

Management Reserve Activity

BCR Number	Title	PBS	Fiscal Year	MR
BCR-011C-18-009R0	<i>Move Balance of FY2018 Management Reserve to FY2019 – PFP CAP 1</i>	RL-0011	2018-2019	\$0
BCR-011C-18-010R0	<i>Move Balance of FY2018 Management Reserve to FY2019 – PFP CAP 2</i>	RL-0011	2018-2019	\$0
BCR-012C-18-009R0	<i>Move Balance of FY2018 Management Reserve to FY2019 – SRP CAP</i>	RL-0012	2018-2019	\$0
BCR-041C-18-030R0	<i>Move Balance of FY2018 Management Reserve to FY2019 – 618-10 CAP</i>	RL-0041	2018-2019	\$0

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

BCR-PRC-18-037R0	<i>Move Balance of FY2018 Management Reserve to FY2019 – OA</i>	RL-0012, RL-0013, RL-0030, RL-0040, RL-0041, RL-0042	2018-2019	\$0
Overall, there was no change in MR during September.				
Fee Activity				
BCR Number	Title	PBS	Fiscal Year	Fee
N/A	N/A	N/A	2018	N/A
Overall, there was no change to the Fee during September.				
<p>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.</p>				
Prepared by: Project Control Staff		Date: 10/23/2018	Approved by:	Date:

** Per email direction received December 6, 2017 from the RL Contracting Officer, CHPRC is authorized to incorporate the value of proposed changes into the baseline, as well as remove work that is not authorized from our execution plan. When a contract alignment settlement is reached, baseline change requests (BCRs) will be processed to align the PMB with the settlement values.*

Appendix B

Project Services and Support (WBS 000)

CH2MHILL
Plateau Remediation Company



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

M. A. Wright
Vice President for
Project Technical
Services

September 2018
CHPRC-2018-09, Rev. 1
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

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

D. J. Henderson (Acting)
Director of
Communications

K. K. Dickerson
Vice President for
Prime Contract and
Project Integration

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

C. J. Simiele
Vice President for
Resource Management
and Strategic Integration

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. This section is reported on a quarterly basis.

EMS Objectives and Target Status (Draft)

Objective #	Objective	Target	Due Date	Status
18-EMS-ADMIN-OB1-T1	Reduce energy intensity.	Increase facility occupancy rates to greater than 83 percent by compressing occupancy and vacating underutilized facilities. Occupancy compression to be maintained through disposition of buildings or square footage reduction.	9/30/2018	100%
18-EMS-PTS-OB1-T1	Spill prevention/waste minimization/pollution prevention.	Monitor and evaluate spill prevention program and existing techniques to reduce and/or eliminate spills to the environment by surveillances and on-going training. Also survey universal waste and recycling areas.	9/30/2018	100%
18-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.	9/30/2018	100%

TARGET ZERO PERFORMANCE

	Current Quarter	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	0	N/A
Total Recordable Injuries	0	0	N/A
First Aid Cases	0	4	N/A
Near-Misses	0	0	N/A

KEY ACCOMPLISHMENTS

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

- There were no injuries reported during this quarter in the functional groups.
 - o Occupational Safety and Industrial Hygiene accomplishments:
 - Supported Office of Inspector General (OIG) Audit of Safety Equipment Maintenance at Hanford.
 - Supported Mission Support Alliance (MSA) in the development of a recommended plan of action for a culture of safe vehicle operation at the Hanford Site.
 - Completed revision to PRC-PRO-WKM-079, *Job Hazard Analysis*, to address process improvements.
 - Supported programmatic revision to DOE-0352, *Hanford Site Respiratory Protection Program*.
 - Completed an annual assessment on data quality within the Site Wide Industrial Hygiene Database, SHS&Q-2018-WSA-20039.
 - Initiated program assessment of the implementation of DOE-0346, *Hanford Site Fall Protection Program*.
 - Continued phased transition of industrial hygiene sample management process.
 - Revised the *Heat Stress Clothing Adjustment Factor Technical Evaluation*, IHTE-2017-001, based on feedback from projects.
 - Issued Special Safety Bulletin pertaining to the Voluntary Use of Dust Masks.
 - Completed assessment on *Fall Protection Program*, SHS&Q-2018-WSA-19962.
 - Completed annual assessment of PRC-MP-SH-32219, *Worker Safety & Health Program Description*.
 - Supported Plutonium Finishing Plant (PFP) Closure Project Independent Management Assessment.
 - Issued Special Safety Bulletin regarding proper configuration of cartridges used in the MSA OptimAir® TL Powered Air-Purifying Respirator.
 - Supported the second OIG Audit of Safety Equipment Maintenance site visit.
 - Completed *Usage of Personnel Protective Equipment within Projects*, SHS&Q-2018-WSA-16553.
 - Completed *Evaluation of the CHPRC Worker Safety & Health Program Implementation (SMP 17-10-2)*, SHS&Q-2018-WSA-20017.
 - Developed Industrial Hygiene Technical Evaluation to address the Evaluation and Reporting of Respirable Crystalline Silica Results.
 - Initiated revision to *10 CFR 851, CHPRC Worker Safety and Health Program Description*, PRC-MP-SH-32219, to reflect the implementation of the 10 CFR 851 Technical Amendment. (SMP 17-10-1), SHS&Q-2018-WSA-19733.
 - Performed Senior Supervisory Watch (SSW) at the PFP Closure Project.
 - o Radiological Control accomplishments:
 - Completed 10 CFR 835 assessment to address elements not addressed in the Jacob's engineering corporate review.
 - Developed and briefed Radiological Control management on Management-by-Walk-Around and Focused Management Observation Program.
 - Distributed Monthly Leadership & Excellence Bulletin to Radiological Control management.
 - Published new procedure for Radiological Postings improvements.
 - Conducted monthly Radiological Control project status meetings with Department of Energy Richland Operations Office (RL).
 - Radiological Oversight and Assistance Committee conducted monthly activities in July and August.
 - Completed Radiological Work Planning Work Site Assessment.

- Completed Radioactive Material Area Work Site Assessment.
- Completed As Low As Reasonably Achievable (ALARA) Program Work Site Assessment.
- Implemented use of radon discriminating prototype instrumentation for performing direct field measurements.
- Supported Sentinel implementation planning (new site-wide access control system).
- Supported Hanford Radiological Forum Working Group for Detection Capability of Portable Radiation Detection Instruments.
- Completed review of Radiological Work Permits for clarity and current work scope.
- Conducted Radiological Work Planning Working Group monthly meetings to identify efficiencies and process improvements.
- Completed Radiological Protection Skills Mix and Staffing Levels Gap Analysis.
- Developed and briefed Radiological Protection personnel on Roles, Responsibilities, Accountabilities and Authorities.
- Supported PFP Management Assessment.
- Supported PFP Stoneturn review.
- Assembled a team to perform a mid-point effectiveness review of completed corrective actions associated with the Jacob's engineering corporate review, 10 CFR 835 gap assessment, PFP root cause evaluation, Department of Energy Headquarters oversight and Radiological Protection Improvement Plan.
- Supported companywide evaluation of lapel air sample pumps and provided recommendations for continued use.
- Identified ALARA training course for Radiological Protection staff development.
- Completed review and approved CHPRC Outdoor Air Emissions Monitoring Technical Basis Document.
- Completed review and approved Technical Evaluations for:
 - *Radiological Characterization and Program Implementation for the 200W Pump and Treat Facility Plutonium.*
 - *PFP Radionuclide Characterization Technical Basis Document.*
 - *PFP Closure Project Area Monitoring Program.*
 - *324 Building, Characterization, Workplace Air Monitoring and Dosimetry Technical Evaluation.*
 - *REDOX Facility Surveillance & Maintenance and Hazard Abatement Operations.*
 - *REDOX Workplace Air Monitoring Technical Basis Document.*
 - *Central Plateau Risk Management Project Performance of Real-Time Air Monitoring When Continuous Air Monitors Are Not Used.*
 - *Environmental Restoration Disposal Facility Characterization, Workplace Air Monitoring and Dosimetry Technical Evaluation.*
 - *Canister Storage Building and Interim Storage Area Radiological Technical Evaluation for Dosimetry and Workplace Air Sampling.*
 - *Waste Encapsulation and Storage Facility Characterization, Dosimetry, and Workplace Air Sampling.*
- o Nuclear Operations Support & Compliance accomplishments:
 - Correspondence transmitted to RL:
 - Letter, CHPRC-1802208, dated July 3, 2018, *Transmittal of the 2018 Annual Update of the Waste Encapsulation and Storage Facility Safety Basis and the Unreviewed Safety Question Determination Summary.*
 - Letter, CHPRC-1802453, dated July 3, 2018, *Request for Approval of the 105KW Basin Emergency Planning Hazards Assessment, HNF-SD-PRP-HA-004, Revision 12.*
 - Letter, CHPRC-1802494, dated July 16, 2018, *Transmittal of the Unreviewed Safety Question Process, PRC-PRO-NS-062, Revision 4, Change 0 and the Determining*

- Applicability of the USQ Process to CHPRC Procedures, PRC-PRO-NS-53097, Revision 1, Change 0, for RL Review and Approval.*
- Letter, CHPRC-1802854, dated July 17, 2018, *Transmittal of the 2018 Annual Update to the Documented Safety Analysis for the 216-Z-9 Waste Storage Crib, HNF-58818, Revision 2; the Technical Safety Requirements for the 216-Z-9 Waste Storage Crib Facility, HNF-59125, Revision 2; and the Unreviewed Safety Question Determinations Summary.*
 - Letter, CHPRC-1802468, dated July 31, 2018, *Transmittal of the 2018 Annual Update to the Documented Safety Analysis for the Reduction-Oxidation Facility, HNF-13830, Revision 8, the Technical Safety Requirements for the Reduction-Oxidation Facility, CHPRC-03114, Revision 1, and the Unreviewed Safety Question Determinations Summary for the Reduction-Oxidation Facility.*
 - Letter, CHPRC-1803139A R1, dated August 16, 2018, *CHPRC Response to Perform Actions to Meet NQA-1 Requirements for RADCALC 4.1 Safety Software.*
 - Letter, CHPRC-1803453, dated August 22, 2018, *Transmittal of the Justification for Continued Operation or Evaluation of the Safety of the Situation Regarding a Corrosion Induced Catastrophic Failure of Tunnel 2 of the Plutonium-Uranium Extraction Facility.*
 - Letter, CHPRC-1802494.1, dated August 30, 2018, *Transmittal of the Unreviewed Safety Question Process, PRC-PRO-NS-062, Revision 4, Change 0 and the Determining Applicability of the USQ Process to CHPRC Procedures, PRC-PRO-NS-53097, Revision 1, Change 0; Comment Incorporation.*
 - Letter, CHPRC-1801851.1, dated September 19, 2018, *Transmittal of the 2018 Annual Update for the Tank 241-Z-361 Documented Safety Analysis, HNF-20503, Revision 3, and the Technical Safety Requirements of the Tank 241-Z-361, HNF-20504, Revision 5, Comment Incorporation.*
 - Letter, CHPRC-1803707, dated September 20, 2018, *Transmittal of the 2018 Annual Update of the Canister Storage Building Safety Basis and the Unreviewed Safety Question Determinations Summary.*
 - Letter, CHPRC-1803859, dated September 24, 2018, *Transmittal of the 105KW Facility Documented Safety Analysis, PRC-STP-00946, Revision 1; the 105KW Facility Technical Safety Requirements, PRC-STP-00992, Revision 1; and the Fire Hazards Analysis for the 105KW Facility, HNF-SD-SNF-FHA-001, Revision 6.*
 - Letter, CHPRC-1801146.1, dated September 25, 2018, *Transmittal of the 2018 Annual Update to the Plutonium-Uranium Extraction Facility Documented Safety Analysis, CP-14977, Revision 11, Comment Incorporation.*
 - Letter, CHPRC-1802854.1, dated September 26, 2018, *Transmittal of the 2018 Annual Update to the Documented Safety Analysis for the 216-Z-9 Waste Storage Crib Facility, HNF-58818, Revision 2; and the Technical Safety Requirements for the 216-Z-9 Waste Storage Crib Facility, HNF-59125, Revision 2; Comment Incorporation.*
- Correspondence received from RL:
- Letter, 18-NSD-0028_RL, dated July 11, 2018, *Approval of the 2017 Annual Update to the Documented Safety Analysis (DSA) for the 224-T Facility, CP-14641, Revision 7, Comment Incorporation.*
 - Letter, 18-NSD-0029_RL, dated July 16, 2018, *Review of CH2M HILL Plateau Remediation Company (CHPRC) Transportation Safety Compliance (S-18-NSD-PRC-001).*
 - Email, dated July 16, 2018, *Operational Awareness – CHPRC USQ 2018 Annual Review for the TSD.*
 - Letter, 18-NSD-0030, dated July 23, 2018, *Approval of the Retransmittal of the 2017 Annual Update to the B Plant Documented Safety Analysis, HNF-14804, Revision 8, Comment Incorporation.*

- Email, 1803122, dated July 31, 2018, *Safety Alert Hazardous Material Packaging*.
 - Letter, 18-ESQ-0089, dated July 31, 2018, *Perform Actions to Meet NQA-1 Requirements for RADCALC 4.1 Safety Software*.
 - Letter, 1803205, dated August 6, 2018, *Contract Modification 642 – Update Contract Selection J, Attachment J.2*.
 - Letter, 18-NSD-0034_RL, dated August 23, 2018, *Approval of the Evaluation of the Safety of the Situation (ESS) and Justification for Continued Operation (JCO) Regarding a Corrosion Induced Catastrophic Failure of Tunnel 2 of the Plutonium-Uranium Extraction (PUREX) Facility*.
 - Letter, 18-NSD-0036_RL, dated September 24, 2018, *Review of CH2M HILL Plateau Remediation Company (CHPRC) Implementation of the Hanford Sitewide Transportation Safety Document (TSD), DOE/RL-2001-36, Revision 2*.
 - Letter, 18-NSD-0037_RL, dated September 24, 2018, *Approval of the PRC-PRO-NS-062, Revision 4, “Unreviewed Safety Question Process” and PRC-PRO-NS-53097 Revision 1, “Determining Applicability of the USQ Process”*.
- Other:
- Ongoing staff training has been completed. Seven NTC training seminars, including, Safety Basis Fundamentals, Accident Analysis and Control Selection, DSA/Technical Safety Requirements (TSR), and Unreviewed safety question (USQ).
- o Contractor Assurance Regulatory Reporting (CARR) accomplishments:
- 883 Condition Reports (CRs) were screened:
 - Two significant issues identified.
 - Seven adverse issues identified.
 - 373 Track Until Fixed issues identified.
 - 174 Trend Only items identified.
 - 299 Opportunity for Improvement (OFI) items identified.
 - 28 Screened Out.
 - 851 CRs administratively closed.
 - 1203 CRs actions administratively closed.
 - Provided Course #600082, *CHPRC Responsible Manager Training - Issues Management*, to CHPRC employees.
 - Provided full-time support to PFP Issues Management and Occurrence Reporting activities.
 - Provided Occurrence Reporting support to the River Risk Management Project (RRMP).
 - Transmitted notification and final Occurrence Reporting and Processing System (ORPS) report for EM-RL--CPRC-PFP-2018-0006, *Discovery of Contaminated Spreader Bar*.
 - Notification ORPS report submitted for EM-RL--CPRC-324FAC-2018-0004, *Energized Conductor Discovered While Performing Work in Electrical Panel*.
 - Submitted final ORPS report for EM-RL--CPRC-324FAC-2018-0002, *Employee Potentially Exposed to Hazardous Energy*, and EM-RL--CPRC-324FAC-2018-0003, *Near Miss Event Where Manipulator and Cart Were Upended*.
 - Provided support for the Bi-Monthly Defense Nuclear Facilities Safety Board (DNFSB) Resident Inspector Meeting.
 - Sixty-eight documents were provided in response to DNFSB requests for information.
 - Provided support to the DNFSB Hanford Site Resident Inspectors.
 - Provided support for DNFSB Resident Inspector request to interview PFP personnel.
 - Provided support and coordination for the DNFSB review of PFP demolition resumption activities.
 - One internal Lessons Learned was submitted in OPEXShare: 2018-SGRP-0003 *Lack of Focus Leads to LOTO Administrative Error*.

- One external Just-In-Time was submitted in OPEXShare: 2018-RRMP-0003 *Failures of SKC Lapel Sampler Model 224*.
- o Performance Oversight, Assessment, and Quality Assurance accomplishments:
 - Developed/issued assessment plan, conducted in-field activities, and published a report for the 10 CFR 835 Subparts A and B “General Provisions and Management and Administrative Requirements” surveillance performed in July and August.
 - Initiated planning and conducted field activities for 10 CFR 835 Subpart G, *Posting and Labeling*, assessment that will be conducted September through October.
 - Provided specific mentoring and feedback to assessors and responsible managers that conducted management assessments.
 - Provided specific assessment mentoring to K Basin Operations (KBO), Soil and Groundwater Remediation Project (S&GRP), RRMP, Business Services, and SHS&Q organizations.
 - Completed draft SHS&Q-2018-MA-21321, *Vehicle Mishap at CWS – Effectiveness of Issue Resolution*.
 - Revised Work Site Assessment Form (A-6004-690) to MS Word. The new form allows the user to apply the primary MS Word functions.
 - Completed Project Assessment Coordinator briefings related to the corrective actions associated with SHS&Q-2018-WSA-21102, *Work Site Assessment Performance* that reviewed a sample of the 364 Work Site Assessments completed between October 1, 2017, and May 18, 2018.
 - Completed and submitted SHS&Q-2018-SURV-20067, Review of Quality Assurance Program, Section 1.0.
 - Performed and completed FY2019 Assessment Planning.
 - Issued surveillance report, SHS&Q-2018-SURV-20070, *QA-599 Section 7.0 Procurement*.
 - Issued surveillance report, SHS&Q-SURV-20071, *QAP 599 Section 8.0 Inspection and Acceptance Testing*.
 - Issued SHS&Q-2018-MA-19421, *EM Corporate QA Performance Metric*.
 - Issued SHS&Q-2018-MA-20574, *CHPRC FY2018 ISMS Effectiveness Declaration*.
 - Initiated minor change for PRC-PRO-QA-3144, *Supplier Quality Assurance Program Evaluation*.
- o Fire Protection (FP) accomplishments:
 - Supported project personnel in implementing 16 revised FP procedures published on August 1, 2018. Projects are on track to complete the 90-day implementation period.
 - Completed permitting activities necessary to operate concrete batch plant for PUREX Tunnel 2 grouting.
 - REDOX Fire Hazard Analysis (FHA) is undergoing peer review following incorporation of RL comments. Transmittal to RL expected by end of October.
 - Completed preparations for second week of EA-31 FP assessment of Central Waste Complex (CWC) and T Plant.
 - Completed Facility Fire Protection Assessments (FFPAs) of 225BA, 105KW, and 11 buildings within the T Plant complex.
 - Completed one TSR Fire Protection Assessment at Waste Receiving and Processing Facility (WRAP).
 - Provided support for PFP resumption actions, including working with facility and MSA staff to update the PFP FHA in order to document the Fire Water Loop “compensatory measure for temporary condition.”
 - Supported evaluation of options for Interim Safe Storage (ISS) of K East and K West reactors.
 - Developed Fire Safety Thinking Target Zero (TTZ) to support the upcoming ‘National Fire Protection Week’ (October 7-13, 2018).
 - Developed presentation for October PZAC meeting regarding Fire Protection Engineering.

Environmental Program and Strategic Planning (EP&SP)

- **Environmental Protection**
 - Provided last of the information requested by Washington State Department of Health (WDOH) in its Letter of Concern regarding PFP radioactive contamination spread and submitted Final Response Table to U.S. Environmental Protection Agency (EPA), Ecology, and WDOH.
 - Supported PFP in completing the EPA and Ecology required actions to lift the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Article 32 stop work and receive authorization to resume low hazard demolition activities.
 - Supported Central Plateau Risk Management Project (CPRMP) in obtaining Radioactive Air Emission Licenses for PUREX Tunnel 2 grouting operations.
 - Supported Waste and Fuels Management Project (W&FMP) in obtaining Ecology approval of a Class 2 Modification to the Site Wide Dangerous Waste Permit to update the Integrated Disposal Facility (IDF) Contingency Plan.
 - Facilitated series of meetings to discuss Site Wide Dangerous Waste Permit, Revision 9, Waste Analysis Plan CAP Major Themes.
- **Environmental Compliance and Quality Assurance**
 - Assessment Status
 - Completed Independent Assessment, Regulatory Inspection Process on July 3, 2018, and resulted in one finding and three OFI.
 - Completed Surveillance, Ozone Depleting Substances on July 31, 2018, and resulted in one finding and one OFI.
 - Completed Surveillance, Managing Operating Record Documents on August 8, 2018, and resulted in no findings and one opportunity for improvement.
 - Completed Surveillance, Emergency Planning and Community Right-To-Know Act Reporting on August 15, 2018, and resulted in one finding and four OFIs.
 - Completed Surveillance, T-Plant Kaizen Implementation on September 12, 2018, and resulted in no findings and one OFI
- **Demonstrate active leadership and progress toward obtaining new Resource Conservation and Recovery Act (RCRA) Permit for the Hanford Site**
 - Facilitated and participated in the following meetings:
 - Weekly permit Project Management Team meetings.
 - Weekly permit meeting for Hanford contractors.
 - Weekly schedule strategy discussions with Ecology.
 - Biweekly schedule status meetings with RL, ORP, Ecology, and contractors.
 - Monthly Tier 2 Meeting with RL, ORP, and Ecology senior management.
 - Maintained the permit schedule.
 - Provided a detailed monthly schedule report and analysis for progress on the permit to Ecology, RL, ORP, and the contractors.
 - Provided tracking and status of open issues that are preventing progression of the permit.
 - Provided fulltime regulatory expertise and project management support.
- **Quality and timeliness of key documents submitted**
 - From July through September 2018, 65 environmental documents supporting various CHPRC projects were completed through EP&SP Publication Services.
 - A lead author training course was conducted on July 10, 2018, for 35 attendees representing various CHPRC projects and functions. The course focused on the topics of document planning, writing, and finalization, along with resources and tools that are available to support authors.

Business Services**• Supply Chain / Acquisitions:**

- o Coordinated the final consent package for award of the PUREX Tunnel 2 Stabilization. Consent was received on July 9, 2018. Work is expected to start in October 2018.
 - o Developed long-range procurement planning for operations at the Environmental Restoration Disposal Facility (ERDF). Current plans are to negotiate an extension with the current contractor.
 - o Completed the negotiations, procurement package, and consent package for transuranic (TRU)-waste treatment services. This is a one-year contract with a one-year option to extend. The estimated value including options is approximately \$18 million. Consent package is pending with the RL Contracting Officer.
 - o CHPRC completed contract actions for the fiscal year (FY) 2019 option year. MSA will only accept FY2019 tasks through May 25, 2019.
 - o Reviewed the circumstances behind the recent identified Bechtel National procurement system weaknesses and enhanced solicitation lobbying language to prevent similar occurrences.
 - o Reviewed the circumstances behind recently identified Washington River Protection Solutions LLC (WRPS) subcontractor labor charging practices as Lesson Learned to prevent CHPRC similar occurrences.
 - o Conducted a quarterly Buyer's Technical Representative (BTR) Forum, which is designed to provide BTRs with up-to-date information and a platform to share Lesson Learned and best practices. Topics discussed in the forum included the development of a BTR dashboard and reporting tool, a cost acknowledgement tool for MSA costs, enhancing non-competitive procurement justifications, FY2019 procurement preparations, and renting industrial equipment.
 - o Collaborated with CHPRC Quality Assurance (QA) to identify BTR responsibilities with respect to QA surveillance results and the proper method for dispositioning surveillance comments.
 - o Worked with the Supply Chain Management Center (SCMC) in identifying potential training requirements for contract specialists. SCMC is developing a comprehensive recommendation for consolidated training of contract specialists that could be implemented across the complex by Department of Energy prime contractors.
 - o Developed a procurement strategy for using apprentices on CHPRC construction projects for the long-term success of building trades skill at Hanford.
 - o Coordinated with the Sludge Treatment Project (STP) and others on the excess of the Mobile Solidification System that had been stored in the 2101M warehouse for over 10 years.
 - o Completed analysis of FY2019 procurement volume forecast for the purpose of evaluation of strategic sourcing savings for FY2019. Goal is \$4.2 million.
 - o Issued programming release to develop a BTR cost acknowledgement tool for work performed for CHPRC by MSA. BTRs will use this tool to acknowledge and review monthly costs from MSA. Programming of the tool will commence in October 2018.
 - o Developed a Federal Acquisition Regulation quick reference tool to be used by requestors and others when determining whether certain business practices are an allowable expense.
 - o Identified two best-in-class strategic sourcing agreements for the purposes of procuring computer printers.
- Material Services:**
- o CHPRC Internal Audit completed their FY2019 PCard audit. The audit scope included PCard transactions between July 1, 2016, and December 31, 2017. For this period, there were 13,120 transactions totaling \$29.9 million. Tests were conducted on cardholder limits versus amounts spent, requests for limit increases, review of potential conflicts as compared to several data points, and a statistical sample of random transactions were evaluated to ensure compliance with PCard requirements. There were no questioned costs identified.

- **Procurement:**

- o In the fourth quarter of FY2018, awarded/amended 618 contracts with a total value of \$63.1 million. Additionally, awarded 582 new material purchase orders (PO) valued at \$1.6 million to support ongoing project objectives.
- o At the end of 120 months of the CHPRC project, procurement volume has been significant: \$2.8 billion in contract activity has been recorded with approximately 56.8 percent, or \$1.6 billion, in awards to small businesses. These awards include 8,312 contract releases, 26,734 POs, and 308,926 PCard transactions.
- o Major contract awards:

Contract/Release	Award Date	Awarded To	Title	Contract Type	Value (\$M)
66769	7/9/2018	INTERMECH Inc.	PUREX Tunnel 2 Structural Stabilization	FFU	\$ 12.1
67529	9/29/2018	Orano Federal Services LLC	K-Basin Operations & Closure Technical Support	CNF	\$ 2.1
36883-85	9/27/2018	Ojeda	Modutank Transfer Line Construction	T&M	\$ 0.4
54133-10	9/4/2018	Hiline Engineering & Fabrication Inc.	324 Grout Container Shielding	FFP	\$ 0.1

- **Facilities & Property Management (F&PM):**

- o The FY2018 Property Inventory was completed on September 27, 2018. All but seven of the 4,068 property items were found for 99.8 percent accountability by volume and 99.9 percent accountability by property value.
- o Completed setup of MO6116 and MO6301 in the 300 Area.
- o Continuing setup of MO6114 in the 200E unsecured corridor for occupancy by the Central Plateau Risk Management Project (30 percent complete).
- o 90 percent complete on duct smoke detector isolation in 2740W. Work package issued to Fire Systems Maintenance to deactivate detector. MSA prioritizing work execution.
- o Completed carpet replacement in MO287.

- **Finance:**

- o Submitted the FY2018 Management Representation Letter.
- o Continuing with the series of RL finance/contracting officer meetings to discuss and align topics identified in the CHPRC Incurred Cost Audit Corrective Action Plan for FY2009-FY2015.
- o Fourth quarter month-ends were completed with no cost suspensions.
- o Provided support for the FY2016 Incurred Cost Report Audit.
- o Provided support for FY2017 Invoice Assessment.
- o Submitted the Lease Costs and Commitment, Foregone Revenue, and Deferred Maintenance reports to RL Finance.
- o Completed fiscal year end closing, with approximately \$133 million in expense and line item carryover.
- o Submitted the FY2018 third quarter international transaction report.
- o Responded to the Field Software Capitalization data call.
- o Submitted the FY2018 third quarter reconciliation of RL's Accounts Payable - Accrued Liabilities Account.
- o Submitted an update to the Risk Assessment for Improper Payments.
- o Submitted the FY2017 Improper Payment Report and related templates.

- o Provided support for the CR1407 Cost Monitoring Assessment.
- **Information Management:**
 - o Processed 161,649 electronic records in into the Integrated Document Management System (IDMS).
 - o Continued progress on desktop equipment refresh in support of site Windows 10 Upgrade project. To date, 589 workstations have been replaced or returned.

Prime Contract and Project Integration (PC&PI)

- **Project Management/Compliance Assessments**
 - o Preparation and the disposition of nine baseline change requests (BCRs) by the Change Control Board (CCB) was facilitated in July, six BCRs in August, and 28 BCRs in September by Project Management/Compliance Assessments as part of their responsibility as CHPRC CCB coordinator.
 - o During July and August, Project Management/Compliance Assessments worked with RL and the PFP Closure Project to finalize preparations for the DOE-HQ PM-030 Independent Cost Estimate/External Independent Review (ICE/EIR) planned for September 11 – 13, 2018, in support of DOE-HQ review of the proposed Critical Decision (CD) 2/3, Approve Performance Baseline/Start of Execution, for the proposed plan to complete the RL-0011.C2 PFP Demolition Capital Asset Project. Project Management/Compliance Assessments also supported the actual DOE-HQ ICE/EIR of the scope, estimated cost, and schedule to complete the RL-0011.C2 project.
 - o During the fourth quarter of FY2018, in their role as the CHPRC Technical Authority for DOE O 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, and Technical Authority for the CHPRC Project Execution Plan, Project Management/Compliance Assessments generated a revision to PRC-MP-MS-19361, *CH2M HILL Plateau Remediation Company Project Execution Plan*, incorporating CHPRC organizational changes. The revision was reviewed, approved, and published in September 2018.
 - o Supported preparation and submittal to RL of the FY2019 Post Contract Baseline (PCB) deliverable.
 - o In accordance with the requirements of PRC Section C.3.1.1, “Project Integration and Control and Earned Value Management,” PRC Section J, Attachment J.2, Contractor Requirements Document Order 413.3B, “Program and Project Management for the Acquisition of Capital Assets,” and DOE-HQ’s certification of the compliance of CHPRC’s Earned Value Management System (EVMS), Project Management/Compliance Assessments led the performance of an annual surveillance which demonstrated the continued compliance of the CHPRC EVMS with the Electronic Industries Alliance (EIA)-748-C Intent Guidelines. The report documented the annual surveillance was formally transmitted to RL on August 14, 2018, for them to forward to the DOE-HQ Office of Project Management (PM). Maintaining compliance of the CHPRC EVMS is a PRC requirement and ensures it remains viable as the preferred project management approach to planning and control of RL projects executed by CHPRC.
 - o Planned and coordinated the presentation of a three-day course, Earned Value Management Certification, by an external subject matter expert (SME) to CHPRC personnel.
- **Prime Contract Compliance (PCC):**
 - o During July through September, PCC received and processed 15 contract modifications (642, 664 - 673, and 675 - 678) from RL.
 - o The Correspondence Review Team received and determined the distribution and assignment for 218 incoming letters/documents. PCC reviewed 137 outgoing correspondence packages.
 - o Submitted CHPRC-1802758 - Contract Number DE-AC06-08RL14788 – Notification of Differing Site Condition – B Plant Filter Loading.

- o Submitted CHPRC-1801178.1 - Contract Number DE-AC06-08RL14788 – Notification of Differing Site Conditions Requiring Additional Unplanned Work Related to the 324 Building Disposition Project.
- o Submitted CHPRC-1803466 – Contract Number DE-AC06-08RL14788 – Performance Measure Completion Request for Contracting Officer Acceptance per PRC Clause B.8(C) – RL-030, Fiscal Year 2018, PM-30-4B-17/18.
- o Submitted CHPRC-1803359 - Contract Number DE-AC06-08RL14788 – Performance Measure Completion Request for Contracting Officer Acceptance per PRC Clause B.8(C) – RL-013, Fiscal Year 2018, PM-13-1-18.
- o Submitted CHPRC-1803053 - Contract Number DE-AC06-08RL14788 – Performance Measure Completion Request for Contracting Officer Acceptance per PRC Clause B.8(C) – RL-012, Fiscal Year 2018, PM-12-2-18.
- o Submitted CHPRC-1804030 – Contract Number DE-AC06-08RL14788 – Performance Measure Completion Request for Contracting Officer Acceptance per PRC Clause B.8(C) – RL-030, Fiscal Year 2018, PM-30-3a-17/18.
- o Submitted CHPRC-1803981 – Contract Number DE-AC06-08RL14788 – Performance Measure Completion Request for Contracting Officer Acceptance per PRC Clause B.8(C) – RL-030, Fiscal Year 2018, PM-30-3c-17/18.
- **Project Integration**
 - o Project Support, Systems Integration & Schedule Integration
 - Developed an Earned Value Management System (EVMS)/tool training program and presented during the three-day Earned Value Professional Certification (EVPC) course given to CHPRC personnel.
 - Teamed with Washington River Protection Solutions (WRPS) to develop a presentation for the Energy Facility Contractor’s Group (EFCOG) on the state of the Integrated Master Schedule (IMS) complex-wide and what is being done to improve and implement scheduling best practices.
 - Provided support to the FY2019 PCB deliverables in July and September with the following: Cobra integrations, assisting the projects with basis of estimate (BOE) and work breakdown structure (WBS) Dictionary file uploads to SharePoint, developing supporting files such as Cost Summary, (Integrated Priority List) (IPL) by WBS, WBS summaries for FY2019, FY2020, and FY2021, and waste forecast volumes.
 - Participated in the P6/Cobra Users Group meeting by leading discussions on P6/Cobra integrations, Project Management Reporting System (PMRS) bookmarks, FY2019 Work Authorization Documents (WADs) and Work Charging Authorizations (WCAs), and migrating Control Account Manager (CAM) Notebooks to SharePoint.
 - Supported on-site visit from KPMG auditor for the follow-on actions required to complete the DOE Financial Statement Audit that initiated in May.
 - o 000 Project EVM Support & Reporting:
 - Supported preparation and submittal of the FY2019 PCB Planning.
 - Supported EVMS self-assessment.
 - Issued three months of CHPRC Monthly Performance Reports to RL.
 - Submitted the June, July, and August Gold Metrics to RL.
 - Submitted third quarter Facility Information Management System (FIMS) Quarterly Maintenance Report.
 - Completed Safety Hour reporting each month.
 - Compiled Integrated Project Team (IPT) and Monthly Project Review packages for June, July, and August.

- **Project Support Services**

- o Risk Management:
 - Supported the preparation, development, and review for the DOE-HQ PM-30 Independent Cost Estimate/External Independent Review (ICE/EIR) in support of the PFP Demolition Project (RL-0011.C2).
 - Completed fourth quarter risk register reviews to support the FY2019 Annual Performance Measurement Baseline (PMB) submittal to RL on September 12, 2018.
 - Supported the Cesium and Strontium Capsules (W-135 project) FY2018 Performance Measures (PM-13-3a-18, and PM-13-3b-18) by conducting risk elicitations, quantifying risks, and developing risk analysis report.
 - Supported the PUREX Tunnel 2 Stabilization Project by conducting risk elicitation, quantifying risks, developing risk analysis report, and briefing RL on the risk results.
 - Published best practice report on the Management of Schedule Reserve within the Integrated Master Schedule as part of the Energy Facility Contractors Group (EFCOG) FY2018 work plan.
 - Conducted monthly assessments of the status of key project risks, and risk impacts associated with BCRs.
- o Estimating & Program Support
 - Submitted two change proposals (CPs)/request for equitable adjustments (REAs):
 - CP 040 PRC 1688 - PUREX Tunnel 2 Stabilization, submitted August 30, 2018.
 - CP ALL PRC 1710 - Plateau Remediation Contract Extension, Period October 1, 2018, Through September 30, 2019, submitted September 13, 2018.
 - Completed one Truthful Cost or Pricing Data (TCoPD):
 - CP 041 307 1621 - 100-K Additional Tons FY2016 and FY2017.
 - Provided five request for information (RFI) responses to RL in support of contract alignment:
 - CP 012/013 327 1646 - Sludge Retrieval Project Acceleration of 105KW and T Plant.
 - CP 013 322 1639 - Integrated Disposal Facility Revised Operational Requirements.
 - CP 041 305 1616 - 300-296 Waste Site Design Change, Initiate Procurements, Initiate Testing, and Initiate Removal of Debris.
 - CP 041 328 1656 - 300-296 Waste Site Additional Scope (2 RFI responses).
 - Miscellaneous estimating support:
 - Provided CHPRC Prime Contracts updated estimates at completion (EAC) to include breakout by cost element as requested by RL for CPs/REAs to support the anticipated contract alignment for 32 open cost proposals.
 - Completed narrative updates for all open Change Proposals in support of BCRs and contract alignment.
 - Provided estimating support for the (PCB) Planning effort for FY2019 and beyond for all CHPRC project breakdown structures (PBS).
 - Supported independent cost estimate/external independent review (ICE/EIR) preparation and review for PFP.
 - Completed six Inter-Entity Work Orders (IEWOs) to support other contractors:
 - o 300-296 sewer system for delivery from RL-41 to Pacific Northwest National Laboratory (PNNL).
 - o PNNL Radiological Technology Laboratory (RTL) complex, IEWO 5 Update.
 - o ERDF verification services, waste disposal, and road closure support to PNNL.
 - o PNNL NNSA/NA-243 Nuclear Compliance Verification (NCV) Program.
 - o Waste shipments to PNNL.
 - o Subcontracting support to Oakridge for RL.

- Prepared draft estimate for PNNL in support of anticipated IEWO 6 for Backfill at the RTL site.

Resource Management and Strategic Integration

- **Human Resources (HR):**

- o Participated in and supported the Business Management System (BMS) Upgrades Team and Hanford Resources Information System (HRIS) Team.
- o Completed the calendar year 2018 Salary Planning Process.
- o Met DOE deliverables with the “Contractor Report of Annual Earnings of \$100,000 and Above” and Key Personnel salaries as listed in CHPRC’s DOE Contract.

- **Staffing and Development:**

- o Initiated new Succession Planning documents for leadership and critical positions. Implementation of this plan and the supporting electronic application tool will begin in November. Completion of the identification of successors and development tasks targeted to be completed by December 31, 2018.

- **Labor Relations (LR):**

- o Continued to support projects to address staffing needs/challenges.
- o The following is the current status of grievances in the arbitration process:
 - Resolved during reporting period:
 - PRC-016-044, 049, and 050 – termination. Status: Arbitrator’s ruling was received this reporting period and upheld the company’s position.
 - PRC-017-035 & PRC-017-050 (Jurisdictional – building of supports). Status: Union withdrew grievances.
 - PRC-017-039 – union claiming filling out of Electronic Bill of Material. Status: Union withdrew grievance.
 - PRC-018-006 & 007 – qualification suspension. Status: Union withdrew grievances.
 - PRC-018-008 – discipline. Status: Parties reached settlement agreement and union withdrew grievance.
 - PRC-018-014 – discipline. Status: Union withdrew grievance.
 - Scheduled:
 - PRC-017-010 – union claiming employee should have been paid between time when ready to return to work and when started with MSA. Status: Arbitration scheduled March 21, 2019.
 - PRC-017-040 – union claiming exempt performed excessing of material. Status: Arbitration scheduled February 21, 2019.
 - PRC-017-042 – union grieving company’s closure of the Plastic Shop at PFP. Status: Arbitration scheduled January 22, 2019.
 - PRC-017-045 – union grieving company’s late Plant Force Work Review (PFWR). Status: Arbitration scheduled April 2, 2019; however, parties in settlement discussion.
 - PRC-017-052 – union claiming termination not just. Status: Arbitration scheduled for May 8 and 9, 2019.
 - PRC-018-001 – union claiming jurisdiction of demobilization activities on Davis Bacon work site. Status: Arbitration scheduled June 6, 2019; company has requested that union put similar grievances (PRC-018-024 & PRC-018-039) in abeyance pending outcome of this arbitration
- o The following grievances have been requested by Hanford Atomic Metal Trades Council (HAMTC) to move to arbitration but pending arbitration dates:
 - PRC-018-010, PRC-018-013 (Discipline)
 - PRC-018-011 & PRC-018-026 (Tumbleweed Removal)
 - PRC-018-021 & PRC-018-041 (Fixative Application)

- PRC-018-025 (Tunnel Surveillance)
- PRC-018-037 (Supervisory Work Group Assignments)
- PRC-018-044 (Job Abandonment)
- **Interface Management:**
 - o Published revision to CHPRC/WRPS, MOA-WRPS-CHPRC-2009, Revision 7, to include Prime Contract extensions and contract closeout effective periods.
 - o Approved update of the Nuclear Safety Protocol, MSC-PLN-WP-41930, Rev 3-1.
 - o Concluded review/concurrence of the J.13/J.14 table updates which addressed RLs request to recommend disposition of legacy WCH waste sites/structures.
 - o Provided the preliminary and final FY2019 MSA Usage Based Service (UBS) forecast to MSA.
 - o Incorporated the Hanford Transportation Safety Document scope into the J.3 tables. Contract Modification 668 received in July 2018.
- **Strategic Management:**
 - o In the last quarter of FY2018, Strategic Management supported scope planning for FY2019, to determine priorities and updates to the joint RL-CHPRC IPL. As part of this effort, presentations and support documents were produced and provided to RL to support funding requests. In addition, support was provided for final budget requests to support the Senate/House committee final recommendations.
 - o Supported the PCB Planning effort, including establishing funding targets, preparing briefings for senior management review, reviews of FY2019 WBS dictionaries, and FY2020-FY2021 WBS Dictionaries and BOEs.
 - o Supported the assessment and documentation of risks at the Central Plateau and River Corridor projects. At RL's request, provided an update to the Project Evaluation Matrix updates to support Hanford Advisory Board (HAB) briefings, as well as producing briefings for RL to support. RL shared the Project Evaluation Matrix to the HAB in the September meeting.
 - o Continue to plan long-term cleanup initiatives, partnering with the Environmental Program & Strategic Planning group and Communications organizations. Focused on producing material to support a long-term 10-year cleanup plan. New overview material was produced to outline a timeline of Hanford risk reduction, and profiling cleanup work yet to be performed. Took the lead to plan upcoming internal and external workshops on the cleanup strategy. Provided updates to graphics on cleanup strategies, including FY2019-FY2021 funding profiles for projects.
 - o Compiled and provided updates to RL on the FY2018 IPL progress, based on actuals through June with a new FY2018 EAC calculation based on the June forecasts. Change forms for the IPL were submitted to RL for approval.
 - o Sitewide productivity metrics were produced during the quarter, based on project input, which document work performed against expected work packages.

Project Technical Services (PTS)

- **Engineering Services**
 - o Prepared cold and dark training package and provided training to personnel.
 - o Supported 10 CFR 851 implementation document for National Fire Protection Association (NFPA) 70E 2018.
- **Training and Procedures**
 - o Worked with CHPRC Lock Out/Tag Out (LO/TO) program SME to develop gap training and update the controlling organization administrator qualification card. The training was updated to include evaluated energy isolation simulation scenarios, with the goal of ensuring consistency in task performance.
 - o Teamed with the respiratory program SME to develop a training tutorial for use of the Respirator Protection Equipment Tracking System. Training will be formally tracked in the computer-based training system. The content will also be made available at the respiratory issuance stations for just-in-time familiarization with the system.

- o Worked with EVMS program owner to streamline the EMVS qualification process. This change aligned the qualification card with the training program description and consolidated four individual qualification cards.
- o Prepared individual training equivalency requests to support roll-out of the new Nuclear Safety Engineer (NSE) qualification cards for each facility. Incumbent NSEs were previously qualified to perform duties at multiple facilities, and will be given credit for previous training prior to the new courses being activated.
- o Supported new Learning Management System Success Factors configuration with vendor. Configuration for the test product commenced in September. The Hanford users group will begin User Acceptance Testing and requesting adjustments in preparation for transition from Enterprise Learning Management in March 2019.
- o Completed Sentinel User qualification checklist, course 622692. This On-the-Job Training (OJT), On-the-Job Evaluation (OJE) checklist will be added to the training plan for all project RWI&II qualified workers and must be completed prior to using Sentinel independently to access radiological controlled areas.
- o As a result of discussions with SMEs and with concurrence of the Facility Managers Forum, modified the PRC Procedure System to automatically assign a Record Specialist as a reviewer for all new or revised procedures.
- o Initiated the scheduling of several electrical safety courses required by a technical amendment to 10 CFR 851 that is being flowed down by means of site procedure DOE-0359. The site is on track to meet the implementation due date of January 7, 2019.
- o Coordinated with project personnel and HAMMER training to support emergent block training needs for PUREX subcontract truck drivers.
- o Worked with project subject matter experts to develop and issue new OJT/ OJE for Radiological Control personnel on *Operation of Telescoping Dose Rate Instruments*.
- o Worked with subject matter experts representing all CHPRC facilities to complete the CHPRC core Field Work Supervisors (FWS) qualification difficulty, importance, and frequency (DIF) survey. This activity is necessary to support initial and requalification training decisions on the new qualification card.
- **Operations Program**
 - o ConOps/Work Control/Conduct of Work
 - Supported pilot class on Instrumentation and Control as part of the System Isolation training series and supported development of the Design Media class (Hazardous Energy Control [HEC] Corrective Action Plan [CAP] action).
 - Coordinated the development and issuance of Hazardous Energy Control standard, PRC-STD-OP-54266 (HEC CAP Action).
 - Updated CHPRC Cold and Dark Process procedure PRC-PRO-WKM-53080 to delineate Cold and Dark Manager (HEC CAP action).
 - Revised Controlling Organization Administrator (COA) qualification card to include isolation scenarios (HEC CAP action).
 - Coordinated workshop to identify methods to reduce Field Work Supervisor (FWS) administrative burden (HEC CAP Action).
 - Supported update of PRC-PRO-WKM-079 to update skill-based determination and to improve criteria for the determination.
 - Completed update of references in PRC-PRO-MN-40443, *Nuclear Maintenance Management Plan*.
 - Coordinated the collection of comments and the subsequent comment resolutions from DOE-0336 draft procedure changes.
 - Cancelled hazardous energy management directives, MD-52415, 52371, based on the issuance of PRC-STD-OP-54266.
 - Supported Joint Evaluation Team (JET) meeting for 324 Soil Excavation.

- Attended meeting with Radiation Protection group for use of Management Observation Program for the achieving excellence initiative.
- Issued revised Hazard Review Board Charter.
- Provided pilot “Work Isolation” practical exercise at Maintenance and Storage Facility (MASF) for PTS field work.
- Coordinated and provided round two of comment resolution for DOE-0336.
- Issued revision to Job Hazard Analysis (JHA) checklist and PRO-PRO-WKM-079 to address skill-based criteria.
- o Emergency Preparedness (EP)
 - Updated and published PRO-STD-TQ-40393, *Emergency Preparedness and Response Organization Training Program Description* and supporting Forms (FERO Improvement initiative from Facility Managers Forum).

Communications:

- Communications supported RL in proactive and reactive media stories:
 - o Tri-City Herald (July 8, 2018) - Hanford’s problem child burial ground is close to natural conclusion.
 - o Nuclear Wire (July 17, 2018) - Hanford crews prepare to remove radioactive soil under 324 Building.
 - o Lewiston Tribune (July 28, 2018) - Demolition of Hanford plant to resume in September.
 - o Tri-City Herald (August 14, 2018) - 435 tons of toxic Hanford waste kept out of Columbia River.
 - o Tri-City Herald (September 13, 2018) - Hanford work to restart 9 months after spread of radioactive contamination.
 - o NBC Right Now (September 26, 2018) - Hanford workers testing remote tool to remove waste from 324 Building.
 - o KEPR (September 26, 2018) - Workers at Hanford use Mockup Facility to train to remove highly contaminated soil.
- Communications supported RL in the development of social media posts featuring:
 - o 618-10 Burial Ground.
 - o 324 Building Progress.
 - o T Plant.
 - o 222-B Building Demolition.
 - o PUREX Tunnel 2 preparations.
 - o PFP Dry-runs.
 - o ERDF receiving 85 truckloads a day.
 - o Removed 90 tons of contaminants from groundwater.

MAJOR ISSUES

In accordance with performance measure PM-00-1-18, CHPRC reports the below issues potentially affecting the completion of individual outcomes and the overall success of the contract, as well as actions taken or recommended to resolve those issues.

Issue	Recommendation
No business system issues currently identified. Please see the Overview for contract alignment issue status.	N/A

PROJECT BASELINE PERFORMANCE

Current Month

(\$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 (%)
Office of the President	0.2	0.2	0.2	0.0	0.0%	(0.0)	-17.0%
Internal Audit	0.2	0.2	0.3	0.0	0.0%	(0.1)	-65.3%
General Counsel	0.2	0.2	0.1	0.0	0.0%	0.0	10.5%
Communications	0.1	0.1	0.1	0.0	0.0%	0.0	23.9%
Safety, Health, Security, and Quality	1.3	1.3	1.5	0.0	0.1%	(0.2)	-13.5%
Environmental Program and Strategic Planning	0.5	0.5	0.5	0.0	0.0%	0.1	10.8%
Business Services	3.3	3.3	2.5	0.0	0.0%	0.7	22.7%
Prime Contract and Project Integration	0.8	0.8	0.8	0.0	0.0%	0.0	5.5%
Resource Management and Strategic Integration	0.5	0.5	0.6	0.0	0.0%	(0.1)	-28.4%
Project Technical Services	0.8	0.8	0.8	0.0	-0.2%	0.0	3.8%
Indirect WBS 000 Total	7.9	7.9	7.4	(0.0)	-0.0%	0.5	5.8%

Numbers are rounded to the nearest \$0.1 million.

Indirect WBS 000

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

The variance is within reporting thresholds.

CM Cost Performance: (+\$0.5M/+5.8%)

The positive cost variance is attributable to lower subcontractor cost due to desktop computing equipment purchases made in the prior year that were originally planned for this year, as well as less user based services support required than planned. Organizations have been operating at leaner staffing levels due to open vacancies, workforce restructuring impacts, and unplanned absences due to personal injury. Also, the indirect accounts experienced prior year cost credits related to the settlement of incurred cost audit findings.

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	2.0	2.0	1.9	0.0	0.0%	0.1	3.9%	2.0
Internal Audit	1.9	1.9	1.0	0.0	0.0%	0.8	44.6%	1.9
General Counsel	1.6	1.6	1.3	0.0	0.0%	0.3	19.3%	1.6
Communications	1.3	1.3	1.2	0.0	0.0%	0.1	8.4%	1.3
Safety, Health, Security and Quality	13.6	13.6	13.8	0.0	0.1%	(0.2)	-1.2%	13.6
Environmental Program and Strategic Planning	5.5	5.5	4.5	0.0	0.0%	1.0	18.1%	5.5
Business Services	34.3	34.3	31.7	0.0	0.0%	2.6	7.5%	34.3
Prime Contract and Project Integration	8.7	8.7	8.1	0.0	0.0%	0.6	6.4%	8.7
Resource Management and Strategic Integration	5.0	5.0	4.3	0.0	0.0%	0.7	14.6%	5.0
Project Technical Services	8.4	8.4	7.9	(0.0)	-0.2%	0.5	5.7%	8.4
Indirect WBS 000 Total	82.3	82.3	75.7	(0.0)	-0.0%	6.5	7.9%	82.3

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: (+\$6.5M/+7.9%)

The positive cost variance is attributable to less labor cost than budgeted due to workforce restructuring impacts, open vacancies, project needs, as well as unplanned absences higher than planned. Also contributing to the positive variance is lower subcontractor cost realized than planned in Internal Audit due to response lag from audited subcontractors impacting audit completion in FY2018. Additionally, lower subcontractor cost is due to desktop computing equipment purchases made in the prior year that were originally planned for this FY as well as reduced subcontractor support for planned EVMS assessment activities. The positive cost variance is partially offset by unplanned dosimetry due to bioassay costs associated with the December contamination issue at PFP.

Appendix C

Capital Asset Projects

CH2MHILL
Plateau Remediation Company



September 2018
CHPRC-2018-09, Rev. 1
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)

CH2MHILL
Plateau Remediation Company



K. A. Wooley
Vice President for
Plutonium Finishing Plant
Closure Project

September 2018
CHPRC-2018-09, Rev. 1
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

Progress has been temporarily put on hold on work associated with critical decision (CD)-4 closure to remove the final glovebox from the 234-5Z Facility during demolition. The remaining glovebox (HA-46) has been staged until the area of the 234-5Z Facility is demolished. The total gloveboxes removed to date is 173 and is 99 percent complete.

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

<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	-	0	174	173
COMPLETE KPP Rooms/Areas Ready for Demo	-	0	72	72 rooms/areas

KEY ACCOMPLISHMENTS

RL-0011_C1 Accomplishments

- None

Stabilization and implementation of new demolition requirements are complete and lower-risk demolition on 234-5Z has resumed. After completing lower-risk demolition outside of Remote Mechanical A (RMA), glovebox HA-46 will be removed during higher-risk demolition.

MAJOR ISSUES

On December 15, 2017, contamination was found outside of the established Plutonium Finishing Plant (PFP) radiological boundaries. On December 18, 2017, follow-up radiological surveys found additional contamination present in the administrative office area. CHPRC has identified resumption requirements based on a finalized root cause analysis (RCA). This will allow for the removal of the final glovebox remaining in 234-5Z after a higher risk management assessment is performed.

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	
RL-0011/WBS-011.05.01.01.06 (CAP.1)				
Explanation of major changes to the project monthly spotlight chart:				
No major changes to the spotlight chart in September .				
Realized Risks (Risks that are currently impacting project cost/schedule)				
No realized risks identified for RL-0011/WBS-011.05.01.01.06 (CAP.1) in September .				
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)				
No critical risks identified for RL-0011/WBS-011.05.01.01.06 (CAP.1) in September .				
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)				
No critical risks identified for RL-0011/WBS-011.05.01.01.06 (CAP.1) in September .				
Unassigned Risks (Pending ownership of identified risks/opportunities)				
No unassigned risks identified for RL-0011/WBS-011.05.01.01.06 (CAP.1) in September .				

CRITICAL PATH SCHEDULE

The PFP Critical Path schedule begins with the resumption of debris disposition of the 234-5Z rubble piles starting with the frontside waste. Once the waste debris is loaded out, demolition will resume on the remaining sections of zones 2 and 7, with the exception of the drain line. Remote Mechanical C (RMC) process line and RMA process line demolition will begin after a second MA is completed and concurrence granted by DOE to resume higher-risk demolition activities. Working in parallel with RMA and RMC will be the completion of the basement of 234-5Z demolition and removal of HA-46. This leads to CD-4 declaration and confirmation of the completion worksheet. The CD-4 closeout completion milestone is scheduled for June 16, 2019.

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	11/30/2017	6/16/2019	Progress has been temporarily put on hold on work associated with CD-4 closure to remove the final glovebox from the 234-5Z Facility during demolition. On December 15, 2017, swing shift RadCon personnel performing routine surveys following the day shift demolition activities discovered low-level contamination on a cookie sheet. This led to a wider search, and a "speck" of contamination was smeared from a government vehicle. A CHPRC management stop work order on demolition activities was declared and a critique was held to discuss the contamination spread, possible causes, and a path forward. An RCA has been conducted and resumption actions with expected completion dates have been identified. There has been a 14-day loss since August as a result of additional corrective actions that were known at September month-end that have been incorporated into the resumption schedule to resume demolition activities. The total gloveboxes removed to date remains at 99 percent complete. Completion of CD-4 closure by November 30, 2017, was not achieved.

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

**Forecast 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 RL on CD-4 closure actions. CD-4 closure date of November 30, 2017, was not met.

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

CH2MHILL
Plateau Remediation Company



September 2018
CHPRC-2018-09, Rev. 1
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

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD	
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) 2018 / 08 / 27	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2018 / 09 / 30	
		c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> X YES <input checked="" type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18	

5. CONTRACT DATA								
a. QUANTITY 1	b. NEGOTIATED COST 330,987	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 0	d. TARGET PROFIT/FEE 9,878	e. TARGET PRICE 340,865	f. ESTIMATED PRICE 344,864	g. CONTRACT CEILING 340,865	h. ESTIMATED CONTRACT CEILING 344,864	i. DATE OF OTB/OTS (YYYYMMDD)

6. ESTIMATED COST AT COMPLETION			7. AUTHORIZED CONTRACTOR REPRESENTATIVE		
	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	332,593			c. SIGNATURE	
b. WORST CASE	334,991			d. DATE SIGNED (YYYYMMDD)	
c. MOST LIKELY	334,986	330,987	-3,999		

CAPN.PBS Control Account.PARS 2 WBS (2) 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																
RL_0011_C1.02 Maintain Safe & Compliant PFP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RL_0011_C1.05 Disposition PFP Facility	0	0	0	0	0	235,514	235,495	259,792	-19	-24,296	0	0	235,514	259,806	-24,291	
RL_0011_C1.06 Project Management & Support	0	0	0	0	0	11,990	11,990	12,477	0	-487	0	0	11,990	12,477	-487	
RL_0011_C1.90 Usage Based Services Distributions -PBS RL-11	0	0	0	0	0	7,221	7,221	7,731	0	-510	0	0	7,221	7,731	-510	
RL_0011_C1.98 Ramp-up and transition	0	0	0	0	0	19,399	19,399	19,253	0	147	0	0	19,399	19,253	147	
RL_0011_C1.99 PBS RL-11 UBS, G-n-A, Direct Distrib	0	0	0	0	0	41,028	41,028	33,328	0	7,700	0	0	41,028	33,328	7,700	
b. COST OF MONEY	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	
d. UNDISTRIBUTED BUDGET	0															
e. SUBTOTAL	0	0	0	0	0	315,152	315,133	332,579	-19	-17,446	0	0	315,152	332,593	-17,441	
f. MANAGEMENT RESERVE	2,393															
g. TOTAL	0	0	0	0	0	315,152	315,133	332,579	-19	-17,446	0	0	317,545	332,593	-15,048	
9. RECONCILIATION TO CONTRACT BUDGET BASELINE																
a. VARIANCE ADJUSTMENT	0															
b. TOTAL CONTRACT VARIANCE	-19															

*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 \$

FORM APPROVED
OMB No. 0704-0188

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD	
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) 2018 / 08 / 27	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2018 / 09 / 30	
		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 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)						
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	0	0	0	0	254,725	254,706	279,999	-19	-25,293	0	0	0	254,725	280,013	-25,288
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	0	0	0	0	315,152	315,133	332,579	-19	-17,446	0	0	0	315,152	332,593	-17,441
f. MANAGEMENT RESERVE														2,393		
g. TOTAL	0	0	0	0	0	315,152	315,133	332,579	-19	-17,446	0	0	0	317,545		

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 RL_0011_C1 - PFP D&D (ARRA/Base)				a. FROM (YYYYMMDD) 2018 / 08 / 27		b. TO (YYYYMMDD) 2018 / 09 / 30			
b. LOCATION (Address and ZIP Code) Richland, WA			b. NUMBER RL14788		b. PHASE		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 OCT 2018 (4)	+2 NOV 2018 (5)	+3 DEC 2018 (6)	+4 JAN 2019 (7)	+5 FEB 2019 (8)	+6 MAR 2019 (9)	APR 2019 (10)	MAY 2019 (11)	FY19 END (12)	FY19-LC (13)	ATCOMPLETE (14)			
35 - Business Services	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	17
3B - PFP Closure Project	0	15441	0	0	0	0	0	0	0	0	0	0	0	0	0	15442
g. TOTAL DIRECT	0	15458	0	0	0	0	0	0	0	0	1	0	0	0	0	15459

CLASSIFICATION (When Filled In)									
CONTRACT PERFORMANCE REPORT FORMAT 5 - Explanations and Problem Analysis									FORM APPROVED OMB No. 0704-0188
1. CONTRACTOR		2. CONTRACT		3. PROGRAM				4. REPORT PERIOD	
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) 2018/08/27	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE				b. TO (YYYYMMDD) 2018/09/30	
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	0	0	0		0			0.00
Cumulative:	315,152	315,133	332,579	-19	0.0%	-17,446	-5.5%	1.00	0.95
	BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:	315,152	332,593	-17,441	-5.5%		1.37			
Explanation of Variance/Description of Problem:									
Current Period:									
Schedule Variance: The schedule variance is within threshold.									
Cost Variance: The current month cost variance is within threshold.									
Cumulative To Date:									
Schedule Variance: Within Threshold									
Cost Variance: Within Threshold									
Impact:									
Impact: The RL-011.C1 project baseline completion date is November 19, 2016. The current schedule now reflects a completion date of June 16, 2019. There was an 14-day loss since August as a result of corrective actions that were known at September month-end that have been incorporated into the current resumption schedule to resume demolition activities.									
The current RL-11 performance schedule indicates that the PFP project will achieve slab-on-grade by June 12, 2019. On Friday, December 15, 2017 swing shift RadCon personnel performing routine surveys following the day shift demolition activities discovered low level contamination on a cookie sheet. This led to a wider search, and a "speck" of contamination was smeared from a government vehicle. A CHPRC management stop work on demolition activities was declared and a critique held to discuss the contamination spread, possible causes, and path forward. A root cause analysis has been conducted and recovery actions and expected completion dates have been identified. Efficiencies have previously been identified in readying the 234-5Z facility for demolition where NDA and characterization data supported leaving more piping and ducting in place for demolition. In addition, efficiencies were recognized in 236-Z (PRF) where work was performed on filter boxes in parallel with the gallery gloveboxes. This allowed for acceleration of the start of 236-Z demolition. This 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 regulators were notified in advance that the PFP Project would not meet the re-negotiated TPA milestone M-083-00A due date of 9/30/17 for achieving slab-on-grade. In addition, the December 30, 2017 CD-4 date was not achieved.									
Cost Impact: The historical negative cost variance of ~\$17.5M and 5.5%, 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 and removal of the three RADTU and HA-46 gloveboxes by demolishing them with the 234-5Z facility.									
Cost variance is not considered recoverable as there is only a small amount of scope remaining to complete the KPP.									
Corrective Action:									
None at this time									
No Corrective Actions Required									
1. Schedule Margin Analysis: There is no schedule margin associated with the RL-011.C1 capital asset account.									
2. IMS Data dictionary Changes: None in the month of September.									
3. Forecast Schedule with No Baseline: None in the month of September.									
4. UB Balance: None in the month of September.									
5. Negative ACWP: None in the month of September									
6. EAC Analysis: Best Case = \$332,593; Most Likely = \$334,986; Worst Case = \$334,991. 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.									
7. 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.									
8. MR Transactions: None in the month of September.									
9. Freeze Period Changes: None in the month of September.									
10. Retroactive Changes: None in the month of September.									
11. EVT Changes: None in the month of September.									
Prepared by: Cory McCoy		10/17/2018			Approved by:			Date:	

Appendix C.2

Capital Asset Project

RL-0011.C2 - Demolition of PFP Facilities



K. A. Wooley
Vice President for
Plutonium Finishing Plant
Closure Project

September 2018
CHPRC-2018-09, Rev. 1
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

All corrective actions and resumption pre-start items identified in the management assessment (MA) related to the December 2017 contamination event have been completed and RL has provided concurrence for the resumption of lower risk work. The stop work issued by CHPRC management on demo activities has been lifted and resumption of low-risk debris disposition has been initiated. The DOE Headquarters has also completed the Independent Cost Estimate (ICE)/External Independent Review (EIR) for the Capital Asset Project RL-0011.C2 project and items resulting from that review are currently being addressed.

<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	1
COMPLETE Cold and Dark/Demo Ready activities for 236-Z	-	-	1	1
COMPLETE Cold and Dark/Demo Ready activities for 242-Z	-	-	1	1
COMPLETE Cold and Dark/Demo Ready activities for 291-Z	-	-	1	1
Complete Cold and Dark/Demo Ready activities for PFP Ancillary Facilities	-	-	15	14
Complete Demolition of 234-5Z	-	-	1	-
Complete Demolition of 236-Z	-	-	1	-
COMPLETE Demolition of 242-Z	-	-	1	1
COMPLETE Demolition of 291-Z	-	-	1	1
Complete Demolition of PFP Ancillary Facilities	-	-	15	14
Turnover Facility to Long Term Surveillance & Maintenance	-	-	-	-

KEY ACCOMPLISHMENTS

RL-0011_C2 Accomplishments

- Accomplishments to achieve stabilization following the December 2017 contamination event include:
 - Continued maintenance applications of fixative.
 - Routine radiological surveys.
 - Extra radiological surveys when sustained winds are 30 miles per hour or greater.
- Continued implementation of new demolition requirements associated with the December 2017 contamination event. Efforts include:
 - Completed corrective actions and resumption pre-start items identified in the management assessment.
 - Received RL concurrence for the resumption of lower-risk work.
 - Lifted the stop work called by CHPRC management on demo activities.
 - Initiated 234-5Z debris loadout.
 - Shipped nineteen previously loaded Environmental Restoration Disposal Facility (ERDF) containers.
 - Completed ICE/EIR Headquarters Review.

MAJOR ISSUES

Issue:

On December 15, 2017, contamination was found outside of the established PFP radiological boundaries. On December 18, 2017, follow-up radiological surveys found additional contamination present in the administrative office area. CHPRC has identified resumption requirements based on a finalized RCA and are working with RL and regulators to implement plan to enable demolition activities to resume.

Corrective Action:

Work was stopped after the second event, pending completion of pre-start resumption activities. Pre-start resumption activities include material relocation, waste shipments, and infrastructure modifications to support enhanced radiological postings. Demolition activities will resume after pre-start items are complete and the project is approved to initiate low-level debris loadout and demolition.

Status:

All corrective actions and resumption pre-start items identified in the management assessment have been completed, and RL has provided concurrence for the resumption of lower risk work. The stop work issued by CHPRC management on demo activities has been lifted and resumption of low-risk debris disposition has been initiated. This issue has been closed.

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	Unmitigated Risk Impacts	Assessment		Comments															
		Month	Trend																
RL-0011/WBS-011.OA																			
Explanation of major changes to the project monthly stoplight chart: No major changes to the stoplight chart in September .																			
Realized Risks (Risks that are currently impacting project cost/schedule)																			
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)																			
FY2018 Risk Triggers (Risk could be realized in FY2018)																			
PFP-P-004: Stop Work From Concerned Workers	Concerned workers results in a stop work to address an off-normal or safety issues. The work cannot be restarted until the implementation of corrective actions is completed, resulting in schedule impacts to the project. Risk Handling Strategy: Accept Probability: Very Likely (>90%) Worst Case Impacts: \$0, 52 days	●	↔	Risk Event: During resumption of PFP demolition activities, an increase in stop works could result in delays. <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="text-align: left;">Risk recovery action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Update communications as positions change.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Provide new maps, with entry/exit instructions when boundaries are revised.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Encourage additional worker involvement.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Increase frequency of post-job reviews.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> Mitigation Assessment: No major changes in September . Increased communication and worker involvement to avoid confusion and concern in an effort to minimize stop works.	Risk recovery action(s)	FC Date	%	Update communications as positions change.	Ongoing	N/A	Provide new maps, with entry/exit instructions when boundaries are revised.	Ongoing	N/A	Encourage additional worker involvement.	Ongoing	N/A	Increase frequency of post-job reviews.	Ongoing	N/A
Risk recovery action(s)	FC Date	%																	
Update communications as positions change.	Ongoing	N/A																	
Provide new maps, with entry/exit instructions when boundaries are revised.	Ongoing	N/A																	
Encourage additional worker involvement.	Ongoing	N/A																	
Increase frequency of post-job reviews.	Ongoing	N/A																	
PFP-P-005: Unexpected Contamination Event within Established Boundaries	During operational activities (i.e. execution of characterization, monitoring, disposition of chemicals, and shipment) a loss of contamination control within the newly established boundary is experienced. Risk Handling Strategy: Control Probability: Low (10% to 25%) Worst Case Impacts: \$0, 64 days	●	↔	Risk Event: On May 19, 2018, low-level contamination was discovered during routine surveys. RCTs detected the contamination a few feet outside of the RBA south of 19 th Street and Camden Avenue, but within the work control boundary. Since being detected, the sample decayed to 279 disintegrations per minute (dpm)/100 cm ² . The area is now controlled as a contamination area (CA), and additional surveys are planned. No workers were contaminated. <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="text-align: left;">Risk recovery action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Conduct air modeling.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Conduct large particle modeling.</td> <td>Complete</td> <td>N/A</td> </tr> <tr> <td>Analyze data and use it to establish new boundaries for PFP demolition zone.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Establish and maintain new radiological boundaries</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> Risk Action Assessment: No major changes in September . The area was posted as a contamination area (CA) pending further investigation. With the contamination being discovered within the work control boundary, no workers were contaminated in this event. Applicable surveys were performed and work was not impacted.	Risk recovery action(s)	FC Date	%	Conduct air modeling.	Ongoing	N/A	Conduct large particle modeling.	Complete	N/A	Analyze data and use it to establish new boundaries for PFP demolition zone.	Ongoing	N/A	Establish and maintain new radiological boundaries	Ongoing	N/A
Risk recovery action(s)	FC Date	%																	
Conduct air modeling.	Ongoing	N/A																	
Conduct large particle modeling.	Complete	N/A																	
Analyze data and use it to establish new boundaries for PFP demolition zone.	Ongoing	N/A																	
Establish and maintain new radiological boundaries	Ongoing	N/A																	

PFP-P1-003: Weather Impacts During Stabilization, Waste Disposition, & Support	Inclement weather, including moderate winds, low or high temperatures, and thunderstorms will result in in-scope unplanned work and result in schedule impacts to the project. Risk Handling Strategy: Control Probability: Low (10% to 25%) Worst Case Impacts: \$0, 24 days			<p>Risk Trigger: When sustained wind speeds are greater than 30 mph or gusts are above 40 mph, work will be stopped pending radiological surveys to confirm no contamination has spread beyond established boundaries.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Plan for 80% T.O.E.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No major changes in September. Wind has continued to impact progress on resumption activities at the expected rate. Surveys are being conducted more efficiently and are resulting in less time to recover from wind events, allowing work to resume sooner following an event.</p>	Mitigation action(s)	FC Date	%	Plan for 80% T.O.E.	Ongoing	N/A
Mitigation action(s)	FC Date	%								
Plan for 80% T.O.E.	Ongoing	N/A								
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)										
No high threat risks identified in September.										
Unassigned Risks (Pending ownership of identified risks/opportunities)										
No unassigned risks identified in September.										

CRITICAL PATH SCHEDULE

The PFP Critical Path schedule begins with the resumption of debris disposition of the 234-5Z rubble piles starting with the frontside waste. Once the waste debris is loaded out, demolition will resume on the remaining sections of zones 2 and 7, with the exception of the drain line. Remote Mechanical C process line demolition, Remote Mechanical A process line demolition, and loadout of glovebox HA-46, in parallel with completion of the basement of 234-5Z demolition, will begin after a second MA and concurrence is obtained to resume high-risk demo from DOE. The 234-5Z demolition is projected to complete April 11, 2019. The 236-Z canyon demolition will then resume with completion scheduled for June 12, 2019, 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. Completion of demolition is followed by site stabilization and demobilization, turnover to surveillance and maintenance, and project closeout activities completing in September 2019.

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 of Demolition of all PFP Facilities.	8/31/2018	8/2620/19	Progress has been temporarily put on hold on PFP demolition activities. On December 15, 2017, during the swing shift, RadCon personnel performing routine surveys following the day-shift demolition activities discovered low-level contamination on a cookie sheet. This led to a wider search, and a “speck” of contamination was smeared from a government vehicle. A CHPRC management stop work on demolition activities was declared and a critique held to discuss the contamination spread, possible causes, and a path forward. An RCA has been conducted and resumption actions with expected completion dates were identified. There was a 14-day loss of schedule since August. This was a result of incorporation of further revisions to the revised demo approach responding to the contamination event that occurred in December 2017. A management assessment was completed in August to review the project’s readiness to reinitiate lower risk demolition work. Pre-start corrective actions are completed, RL has provided approval to resume lower risk demolition and the project has begun debris loadout.

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

**Forecast 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 RL 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

CH2MHILL
Plateau Remediation Company



September 2018
CHPRC-2018-09, Rev. 1
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

1. CONTRACTOR		2. CONTRACT				3. PROGRAM				4. REPORT PERIOD									
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) 2018 / 08 / 27									
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		c. EVMS ACCEPTANCE			b. TO (YYYYMMDD) 2018 / 09 / 30										
		c. TYPE CPAF		d. SHARE RATIO		NO <input type="checkbox"/> X <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18													
5. CONTRACT DATA																			
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 152,591	g. CONTRACT CEILING 56,683	h. ESTIMATED CONTRACT CEILING 152,591	i. DATE OF OTB/OTS (YYYYMMDD)											
6. ESTIMATED COST AT COMPLETION						7. AUTHORIZED CONTRACTOR REPRESENTATIVE													
		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		144,156			c. SIGNATURE			d. DATE SIGNED (YYYYMMDD)											
b. WORST CASE		147,591																	
c. MOST LIKELY		147,591	51,683	-95,907															
8. PERFORMANCE DATA																			
CAPN.PBS Control Account.PARS 2 WBS (2)		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		BUDGETED ESTIMATED VARIANCE (14) (15) (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)					
RL-0011 Nuclear Mat Stab & Disp PFP																			
RL_0011_C2.05 Disposition PFP Facility		0	51	5,949	51	-5,899	55,307	42,378	95,023	-12,929	-52,645	0	0	0	55,307	144,156	-88,849		
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	51	5,949	51	-5,899	55,307	42,378	95,023	-12,929	-52,645	0	0	0	55,307	144,156	-88,849		
f. MANAGEMENT RESERVE															3,434				
g. TOTAL		0	51	5,949	51	-5,899	55,307	42,378	95,023	-12,929	-52,645	0	0	0	58,741				
9. RECONCILIATION TO CONTRACT BUDGET BASELINE																			
a. VARIANCE ADJUSTMENT																			
b. TOTAL CONTRACT VARIANCE																	58,741	144,156	-85,415

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

DOLLARS IN Thousands of \$

FORM APPROVED
OMB No. 0704-0188

1. CONTRACTOR		2. CONTRACT		3. PROGRAM			4. REPORT PERIOD		
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) 2018 / 08 / 27		
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE			b. TO (YYYYMMDD) 2018 / 09 / 30		
		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 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)								
3B - PFP Closure Project	0	51	5,949	51	-5,899	55,307	42,378	95,023	-12,929	-52,645	0	0	0	55,307	144,156	-88,849		
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 (Performance Measurement Baseline)	0	51	5,949	51	-5,899	55,307	42,378	95,023	-12,929	-52,645	0	0	0	55,307	144,156	-88,849		
f. MANAGEMENT RESERVE														3,434				
g. TOTAL	0	51	5,949	51	-5,899	55,307	42,378	95,023	-12,929	-52,645	0	0	0	58,741				

CLASSIFICATION (When Filled In)

**CONTRACT PERFORMANCE REPORT
FORMAT 4 - STAFFING**

Dollars in: FTE

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

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD	
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) 2018 / 08 / 27	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2018 / 09 / 30	
		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 OCT 2018 (4)	+2 NOV 2018 (5)	+3 DEC 2018 (6)	+4 JAN 2019 (7)	+5 FEB 2019 (8)	+6 MAR 2019 (9)	APR 2019 (10)	MAY 2019 (11)	FY19 END (12)	FY19-LC (13)	ATCOMPLETE (14)		
3B - PFP Closure Project	134	2225	147	146	146	146	146	146	144	135	143	303	0	0	3679
g. TOTAL DIRECT	134	2225	147	146	146	146	146	146	144	135	143	303	0	0	3679

CLASSIFICATION (When Filled In)										
CONTRACT PERFORMANCE REPORT FORMAT 5 - Explanations and Problem Analysis								FORM APPROVED OMB No. 0704-0188		
1. CONTRACTOR		2. CONTRACT		3. PROGRAM			4. REPORT PERIOD			
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) 2018/08/27			
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE			b. TO (YYYYMMDD) 2018/09/30			
		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:		0.0	50.9	5,949.5	50.9	-	-5,898.6	-11589.7%	-	0.01
Cumulative:		55,306.9	42,378.1	95,023.0	-12,928.8	-23.4%	-52,644.9	-124.2%	0.77	0.45
		BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:		55,306.9	144,156.1	-88,849.2	-160.6%	-	0.26			
Explanation of Variance/Description of Problem:										
Current Month:										
Schedule Variance: The schedule variance for the current month is within threshold.										
Cost Variance: The current month unfavorable variance are associated with impacts and resumption efforts from the contamination event that occurred on December 15, 2017. A root cause analysis has been finalized and corrective actions are being implemented prior to resumption of demolition activities. Costs include labor to perform mock-up activities, infrastructure modifications, equipment purchases, and sub-contracted support.										
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. Further, impacts associated with the Stop Work that was initiated by the Hanford Atomic Metals Trade Council (HAMTC) union leadership on November 11, 2017 "associated with concerns over events both inside and outside of the facility." The main issue involved employee proximity to radiological boundary areas during demolition. Radiological boundaries were reconfigured and impacted employees were relocated. As a result of delays in the ready for demolition activities, completion of the C2 CD-4 has been delayed. TPA milestone M-083-00A due 9/30/2017 was not met. A BCR was processed in the month of September to draw down on DOE contingency to recover the direct cost impacts to the RL-0011 C.2 Project associated with realization of the DOE-RL risks. Areas that were impacted were associated with Weather Delays, Stop Works, PRF Contamination Events, and MSA Resources retained to prevent Bump and Roll impacts. A contamination event occurred on Friday, December 15, 2017 swing shift when RadCon personnel performing routine surveys following the day shift demolition activities discovered low level contamination on a cookie sheet. This led to a wider search and a "speck" of contamination was smeared from a government vehicle. A CHPRC management stop work on demolition activities was declared and a critique held to discuss the contamination spread, possible causes, and path forward. A root cause analysis has been conducted and recovery actions and expected completion dates are identified. This is partially offset with the removal of the 18 sections of the PRF gallery gloveboxes, progress on demolition of 236-Z, demolition of the 2727-Z and 2729-Z facilities, the 242-ZA and 242-Z facilities, the 291-Z facility, 291-Z stack, 234-5ZA, 252-Z1, 2503-Z, 2735Z, 2734ZA, ZB, ZC, ZD, and ZL facilities.										
Cost Variance: The cumulative negative cost variance is associated with MSA resources arriving to support PFP demolition that were planned as P/Q shift support with a baseline start date of February 2016. 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. 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. 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 a contributing factor. Unplanned Management Assessment efforts for the 234-5Z and 291-Z facilities took longer than originally assumed. Impacts associated with the Stop Work that was initiated by the Hanford Atomic Metals Trade Council (HAMTC) union leadership on November 11, 2017 "associated with concerns over events both inside and outside of the facility." The main issue involved employee proximity to radiological boundary areas during demolition. Radiological boundaries were reconfigured and impacted employees were relocated. 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. An adjustment to the G&A Rate for FY2017 resulted in a reduction to the PMB of \$463K. Finally, impacts from a contamination event that occurred on Friday, December 15, 2017 swing shift where RadCon personnel performing routine surveys following the day shift demolition activities discovered low level contamination on a cookie sheet. This led to a wider search, and a "speck" of contamination was smeared from a government vehicle. A CHPRC management stop work on demolition activities was declared and a critique held to discuss the contamination spread, possible causes, and path forward. A root cause analysis has been conducted and resumption actions and expected completion dates are identified. This is partially offset by recognized efficiencies associated with the removal of the 18 sections of the PRF gallery gloveboxes, progress on demolition of 236-Z, demolition of the 2727-Z and 2729-Z facilities, the 242-ZA and 242-Z facilities, the 291-Z facility, 291-Z stack, 234-5ZA, 252-Z1, 2503-Z, 2735Z, 2734ZA, ZB, ZC, ZD, and ZL facilities.										

Impact:

Schedule Impact: 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. Demolition on the 291-Z facility commenced on June 30, 2017, and the 291-Z stack was demolished on July 15, 2017. The 234-5ZA facility was demolished in the month of August 2017 with loadout of waste completed in the month of September. Demolition of 234-5Z was initiated on September 13, 2017. Completion of all demolition activities are scheduled to occur in June 2019. The June date is reflective of the known actions and resumption efforts associated with a contamination event that occurred in December, 2017. The baseline completion date is not considered recoverable. The TPA Milestone TPA-083-00A, complete PFP facility transition and selected disposition activities of November 30, 2017 was not met.

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 demolition of the PFP facilities. 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, June, and December, 2017, and delays with the 242-Z demolition has contributed to the cost impacts on this project. A Baseline Change Request (BCR) was processed in the month of September to draw down on DOE contingency to recover the direct cost impacts to the RL-0011 C.2 Project associated with realization of the DOE-RL risks. Areas that were impacted were associated with Weather Delays, Stop Works, PRF Contamination Events, and MSA Resources retained to prevent Bump and Roll impacts. This is partially offset by recognized efficiencies during the 291-Z demolition and 291-Z stack implosion as well as the 234-5ZA, 252-Z1, 2503-Z, and 2735Z, 2734ZA, ZB, ZC, ZD, and ZL facilities.

A negative VAC is reflective of impacts associated with recovery efforts from a contamination event that occurred on December 15, 2017. Partially offset by working one shift during demolition of 236-Z, 242-Z and 291-Z building and stack rather than two as planned in the PMB. Durations for the remainder of the 234-5Z and PRF demolitions activities have been adjusted to incorporate increased durations as a result of expected recovery actions from the contamination event that occurred in December. Upon completion of the recovery efforts associated with the December, 2017 contamination event, it is expected that DOE-RL will authorize CHPRC to re-start demolition activities to safely get the project to slab on grade.

Corrective Action:

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

All corrective actions and resumption pre-start items identified in the management assessment are have been completed, and the DOE has provided concurrence for the resumption of lower risk work. The Stop Work issued by CHPRC management on demo activities has been lifted and resumption of low risk debris distosition has been initiated.

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 February 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 September
3. Forecast Schedule with No Baseline: No change in the month of September
4. UB Balance: No change in the month of September
5. Negative ACWP: No change in the month of September
6. EAC Analysis: Best Case = \$144,156; Most Likely = \$147,591; Worst Case = \$147,591. 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.
7. Negative CV > VAC: No change in the month of September
8. MR Transactions: No change in the month of September
9. Freeze Period Changes: No change in the month of September
10. Retroactive Changes: No change in the month of September
11. EVT Changes: No change in the month of September

Prepared by: Cory McCoy

Date: 10/17/18

Approved by:

Date:

Appendix C.3
Capital Asset Project
RL-0012_C1_1 - Sludge Retrieval Project
15-D-401

CH2MHILL
Plateau Remediation Company



R. M. Geimer
Vice President for
K Basin Operations

September 2018
CHPRC-2018-09, Rev. 1
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

The DOE Operational Readiness Review (ORR) was completed on April 17, 2018. After successful closeout of pre-start findings and corrective actions, request for DOE approval of critical decision (CD)-4 for the C.1-1, Sludge Retrieval Project Line Item 15-D-401 was submitted to DOE on May 10, 2018. CD-4 Approve Start of Operations was approved on June 4, 2018.

KEY ACCOMPLISHMENTS

Sludge Retrieval Project 15-D-401

- CD-4 Approve Start of Operations was approved on June 4, 2018. Sludge Removal Project 15-D-401 is complete.

MAJOR ISSUES

No major issues to report at this time.

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	
RL-0012/WBS-012 (CAP)				
Explanation of major changes to the project monthly stoplight chart: No major changes in September .				
Realized Risks (Risks that are currently impacting project cost/schedule)				
No realized risks identified in September .				
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)				
No critical risks identified in September .				
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)				
FY2017 Risk Triggers (Risk could be realized in FY2017)				
No high risk threat value risks identified in September .				
Unassigned Risks (Pending ownership of identified threats/opportunities)				
No unassigned risks identified in September .				

CRITICAL PATH SCHEDULE

No critical path to report at this time.

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	5/22/2018 (A)	The forecast date includes a schedule margin from the project's risk analysis.

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

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

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS / DECISIONS

None currently identified.

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

CH2MHILL
Plateau Remediation Company



September 2018
CHPRC-2018-09, Rev. 1
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

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD	
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) 2018 / 08 / 27	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2018 / 09 / 30	
		c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> X YES (YYYYMMDD) 2009 / 09 / 18	

5. CONTRACT DATA								
a. QUANTITY 1	b. NEGOTIATED COST 295,873	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 0	d. TARGET PROFIT/FEE 7,950	e. TARGET PRICE 303,823	f. ESTIMATED PRICE 296,661	g. CONTRACT CEILING 303,823	h. ESTIMATED CONTRACT CEILING 296,661	i. DATE OF OTB/OTS (YYYYMMDD)

6. ESTIMATED COST AT COMPLETION				7. AUTHORIZED CONTRACTOR REPRESENTATIVE			
	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	283,290			c. SIGNATURE			d. DATE SIGNED (YYYYMMDD)
b. WORST CASE	288,711						
c. MOST LIKELY	288,711	295,873	7,162				

8. PERFORMANCE DATA																
CAPN.PBS Control Account.PARS 2 WBS (2)		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-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	0	0	-29	0	29	133,421	133,421	126,504	0	6,917	0	0	0	133,421	126,504	6,917
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	0	-29	0	29	290,282	290,282	283,290	0	6,992	0	0	0	290,282	283,290	6,992
f. MANAGEMENT RESERVE														5,421		
g. TOTAL	0	0	-29	0	29	290,282	290,282	283,290	0	6,992	0	0	0	295,703		
9. RECONCILIATION TO CONTRACT BUDGET BASELINE																
a. VARIANCE ADJUSTMENT																
b. TOTAL CONTRACT VARIANCE																

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
1. CONTRACTOR			2. CONTRACT			3. PROGRAM			4. REPORT PERIOD				
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) 2018 / 08 / 27				
b. LOCATION (Address and ZIP Code) Richland, WA			b. NUMBER RL14788			b. PHASE			b. TO (YYYYMMDD) 2018 / 09 / 30				
			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 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	0	0	-29	0	29	290,282	290,282	283,290	0	6,992	0	0	0	290,282	283,290	6,992	
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 (Performance Measurement Baseline)	0	0	-29	0	29	290,282	290,282	283,290	0	6,992	0	0	0	290,282	283,290	6,992	
f. MANAGEMENT RESERVE														5,421			
g. TOTAL	0	0	-29	0	29	290,282	290,282	283,290	0	6,992	0	0	0	295,703			

CLASSIFICATION (When Filled In)

CONTRACT PERFORMANCE REPORT FORMAT 4 - STAFFING													FORM APPROVED OMB No. 0704-0188		
													Dollars in: FTE		
1. CONTRACTOR			2. CONTRACT				3. PROGRAM				4. REPORT PERIOD				
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) 2018 / 08 / 27				
b. LOCATION (Address and ZIP Code) Richland, WA			b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2018 / 09 / 30								
			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 OCT 2018 (4)	+2 NOV 2018 (5)	+3 DEC 2018 (6)	+4 JAN 2019 (7)	+5 FEB 2019 (8)	+6 MAR 2019 (9)	APR 2019 (10)	MAY 2019 (11)	FY19 END (12)	FY19-LC (13)	ATCOMPLETE (14)		
3G - K Basin Oper & Plateau Remediation Project	0	7630	0	0	0	0	0	0	0	0	0	0	0	0	7630
g. TOTAL DIRECT	0	7630	0	0	0	0	0	0	0	0	0	0	0	0	7630

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

CH2MHILL
Plateau Remediation Company



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

September 2018
CHPRC-2018-09, Rev. 1
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

Infrastructure demobilization of the 618-10 Burial Ground was completed in September, marking completion of the 618-10 Burial Ground Complex project.

KEY ACCOMPLISHMENTS

618-10 Burial Ground Infrastructure Demobilization

- Mission Support Alliance (MSA) completed removal of the power poles out to the 400 Area, completing infrastructure demobilization activities and all work scope associated with the 618-10 Burial Ground Complex project.

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 Capital 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	
RL-0041/WBS-041			
Explanation of major changes to the project monthly stoplight chart: No major changes in September .			
Realized Risks (Risks that are currently impacting project cost/schedule)			
No realized risks identified in September .			
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)			
No critical risks identified in September .			
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)			
Lifecycle Risk Triggers (Risk could be realized at any point of the project)			
Unassigned Risks (Pending ownership of identified threats/opportunities)			
No unassigned risks identified in September .			

CONTRACT-TO-DATE

WBS 041/ RL-0041 Capital Asset 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	68.9	68.9	46.5	0.0	0.0%	22.4	32.5%	68.9	46.5	0.0	22.4

Numbers are rounded to the nearest \$0.1 million

Reference Appendix C.4 Format 5 for narrative on Contract-to-Date performance analysis.

CRITICAL PATH SCHEDULE

There is no critical path, because the project is complete.

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 (CD) MILESTONE STATUS

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
KPP 1	Complete the 618-10 Burial Ground Remediation	1/31/2020	8/2/2018 (A)		The 618-10 Burial Ground Closeout Verification Package (CVP) was issued on August 2, 2018, completing requirements of KPP 1.
KPP 2	Complete the Remediation of the 316-4 and 600-63 Waste Sites	1/31/2020	1/25/2018 (A)		The 316-4 Waste Site CVP was issued on January 25, 2018, completing requirements of KPP 2.
	CD-4 Closeout	1/31/2020		12/13/2018	CHPRC activities for Critical Decision (CD)-4 closeout will be complete with the transmittal of the project closeout report, which cannot be transmitted until all costs have been finalized.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None to report at this time.

DOE ACTIONS / DECISIONS

None to report at this time.

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

CH2MHILL
Plateau Remediation Company



September 2018
CHPRC-2018-09, Rev. 1
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

1. CONTRACTOR		2. CONTRACT		3. PROGRAM			4. REPORT PERIOD		
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) 2018 / 08 / 27		
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE			b. TO (YYYYMMDD) 2018 / 09 / 30		
		c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE NO <input type="checkbox"/> X <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18					

5. CONTRACT DATA									
a. QUANTITY 1	b. NEGOTIATED COST 0	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 68,921	d. TARGET PROFIT/FEE 0	e. TARGET PRICE 0	f. ESTIMATED PRICE 46,533	g. CONTRACT CEILING 0	h. ESTIMATED CONTRACT CEILING 46,533	i. DATE OF OTB/OTS (YYYYMMDD)	

6. ESTIMATED COST AT COMPLETION				7. AUTHORIZED CONTRACTOR REPRESENTATIVE						
	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	46,533									
b. WORST CASE	46,533									
c. MOST LIKELY	46,533	0	-46,533							

8. PERFORMANCE DATA																
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	769	338	40	-431	298	56,014	56,014	41,817	0	14,197	0	0	0	56,014	41,817	14,197
RL_0041_C1.05.03 316-4 Waste Site	0	0	0	0	0	11,183	11,183	4,259	0	6,924	0	0	0	11,183	4,259	6,924
RL_0041_C1.05.04 600-63 Waste Site	0	0	0	0	0	1,611	1,611	445	0	1,167	0	0	0	1,611	445	1,167
RL_0041_C1.05.06 RCC CD 4 Closeout and Doc	15	15	-1	0	17	112	112	12	0	100	0	0	0	112	12	100
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	785	353	39	-431	315	68,921	68,921	46,533	0	22,388	0	0	0	68,921	46,533	22,388
f. MANAGEMENT RESERVE														0		
g. TOTAL	785	353	39	-431	315	68,921	68,921	46,533	0	22,388	0	0	0	68,921		

9. RECONCILIATION TO CONTRACT BUDGET BASELINE																	
a. VARIANCE ADJUSTMENT																	
b. TOTAL CONTRACT VARIANCE																	
										0	22,388				68,921	46,533	22,388

CLASSIFICATION (When Filled In)

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

DOLLARS IN Thousands of \$

FORM APPROVED
OMB No. 0704-0188

1. CONTRACTOR		2. CONTRACT		3. PROGRAM			4. REPORT PERIOD		
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) 2018 / 08 / 27		
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE			b. TO (YYYYMMDD) 2018 / 09 / 30		
		c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE <input type="checkbox"/> NO <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 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)						
041.6 - 618 10 Projects																
RL_0041_C1.05.02 618-10 Burial Ground	769	338	40	-431	298	56,014	56,014	41,817	0	14,197	0	0	0	56,014	41,817	14,197
RL_0041_C1.05.03 316-4 Waste Site	0	0	0	0	0	11,183	11,183	4,259	0	6,924	0	0	0	11,183	4,259	6,924
RL_0041_C1.05.04 600-63 Waste Site	0	0	0	0	0	1,611	1,611	445	0	1,167	0	0	0	1,611	445	1,167
RL_0041_C1.05.06 RCC CD 4 Closeout and Documenta	15	15	-1	0	17	112	112	12	0	100	0	0	0	112	12	100
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)	785	353	39	-431	315	68,921	68,921	46,533	0	22,388	0	0	0	68,921	46,533	22,388
f. MANAGEMENT RESERVE														0		

CONTRACT PERFORMANCE REPORT FORMAT 3 - BASELINE													Form Approved OMB No. 0704-0188					
1. CONTRACTOR			2. CONTRACT			3. PROGRAM			DOLLARS IN THOUSANDS				4. REPORT PERIOD					
CH2M HILL Plateau Remediation Company			a. NAME: Plateau Remediation Contract			a. NAME: Plateau Remediation Contract			PARS II - RL-0041.C1 Base Funded Nuc Fact D&D River Corr				a. FROM: 2018/08/27					
b. LOCATION: Richland, WA			b. NUMBER: RL14788			b. PHASE							b. TO: 2018/09/30					
			c. TYPE: CPAF			c. EVMS ACCEPTANCE												
			d. SHARE RATIO:			NO			YES X 9/18/2009									
5. CONTRACT DATA																		
a. ORIGINAL NEGOTIATED COST				b. NEGOTIATED CONTRACT CHANGE		c. CURRENT NEGOTIATED COST (A + B)		d. ESTIMATED COST AUTH UNPRICED WORK		e. CONTRACT BUDGET BASE (C + D)			f. TOTAL ALLOCATED BUDGET		g. DIFFERENCE (E - F)			
0				\$0		\$0		\$68,921		\$68,921			\$68,921		\$0			
h. CONTRACT START DATE				i. DEFINITIZATION DATE			j. PLANNED COMPL DATE			k. CONT COMPLETION DATE				l. EST COMPLETION DATE				
6/19/2008				6/19/2008			9/30/2018			9/30/2018				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 Oct-18 (4)	+2 Nov-18 (5)	+3 Dec-18 (6)	+4 Jan-19 (7)	+5 Feb-19 (8)	+6 Mar-19 (9)	FY09-13 (10)	FY14 (11)	FY15 (12)	FY16 (13)	FY17 (14)	FY18 (15)				
a. PM BASELINE (BEGIN OF PERIOD)	68,136	785	0	0	0	0	0	0	0	0	0	0	3,497	47,591	17,833	0	68,921	
b. BASELINE CHANGES AUTH DURING REPORT PERIOD																		
RL_0041_C1.05.02 618-10 Burial Ground																		
None at this time																		
RL_0041_C1.05.03 316-4 Waste Site																		
None at this time																		
RL_0041_C1.05.04 600-63 Waste Site																		
None at this time																		
c. PM BASELINE (END OF PERIOD)	68,921	785	0	0	0	0	0	0	0	0	0	0	3,497	47,591	17,833	0	68,921	

CLASSIFICATION (When Filled In)

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

FORM APPROVED
OMB No. 0704-0188

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME 041.6 - 618 10 Projects		a. FROM (YYYYMMDD) 2018 / 08 / 27	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2018 / 09 / 30	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE No X Yes		(YYYYMMDD) 2009 / 09 / 18	

5. Evaluation

Direct Projects

	Budget	Earned	Actuals	SV in \$	SV in %	CV in \$	CV in %	SPI	CPI
Current:	784.5	353.4	38.7	-431.1	-55.0%	314.8	89.1%	0.45	9.14
Cumulative:	68,920.9	68,920.9	46,532.9	0.0	0.0%	22,388.1	32.5%	1.00	1.48
	BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:	68,920.9	46,532.9	22,388.1	32.5%	0.00	-			

Explanation of Variance/Description of Problem:

CURRENT MONTH
The current month schedule variance is due to the 618-10 Burial Ground backfill completing ahead of schedule when it was planned to be performed in the current period.
The current month cost variance is due to resource sharing and staff attrition that resulted in a reduction in staffing. Additionally, year-end variance distributions contributed to the current month cost variance.

CONTRACT TO DATE
The cumulative schedule variance is within reporting thresholds.
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 as planned with the resources left. In addition, excavation efficiencies at the 316-4 Waste Site reduced the total volume of soil to be removed, and the availability of existing crews to perform backfill scope at both the 316-4 Waste Site and the 618-10 Burial Ground instead of hiring a separate subcontractor resulted in cost savings.

VARIANCE AT COMPLETION
The favorable variance at completion reflects the efficient use of shared resources and materials amongst the 618-10 Burial Ground Complex projects. Attrition has also led to a reduction in staffing and in cost with work still being completed as planned with the resources left. Excavation efficiencies and the ability to use existing crews to perform backfill instead of hiring a separate subcontractor at the 618-10 Burial Ground and 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.

Corrective Action:
Corrective Action:
None.

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

- Schedule Margin Analysis: N/A, pending definitization of the scope.
- IMS Data dictionary Changes: None in the month of September.
- Forecast Schedule with No Baseline: None in the month of September.
- UB Balance: N/A
- Negative ACWP: Current month negative actuals in multiple accounts is due to variance distributions for overhead allocations and waste pool rate adjustments.
- EAC Analysis: Best Case: \$46.5M; Most Likely: \$46.5M; Worst Case: \$46.5M. 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.
- Negative CV > VAC: N/A
- MR Transactions: None in the month of September.
- Freeze Period Changes: None in the month of September.
- Retroactive Changes: None in the month of September.
- EVT Changes: None in the month of September.