

Monthly Performance Report

November 2017

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

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



P.O. Box 1600
Richland, Washington 99352

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L. Ty Blackford
President and Chief
Executive Officer

Monthly Performance Report

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November 2017
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EXECUTIVE SUMMARY

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

- **Plutonium Finishing Plant (PFP) Closure Project:** Crews resumed removal of the Plutonium Reclamation Facility (PRF) gallery gloveboxes and began demolition of the canyon. Work continued on demolition, sizing, and loadout of 234-5Z. Nearly 1,000 of the estimated 1,600 waste cans have been shipped to the Environmental Restoration Disposal Facility (ERDF) for disposal.
- **618-10 Burial Ground Remediation Project:** Workers completed verification sampling for all decision units in 618-10 and 35 percent of the backfill.
- **Soil and Groundwater Remediation Project (S&GRP):** The 200 West Pump and Treat Facility demonstrated its maximum design capacity of 2,500 gallons per minute. Crews successfully changed the filter resin used to remove uranium from groundwater for the first time since placing the resin in the facility in 2015.
- **Waste and Fuels Management Project (W&FMP):** The project team initiated site characterization for the capsule storage area (CSA) and awarded the detailed design subcontract for Waste Encapsulation and Storage Facility (WESF) and CSA modifications.
- **K Basins Operations and Plateau Remediation Project (KBO&PR):** Sludge Treatment Project crews completed K Basin Pre-Operational Acceptance Testing (KPAT) on October 31, 2017. 100K Operations accepted ownership of the Annex and Engineered Container Retrieval and Transfer System (ECRTS) hardware on November 7, 2017. Operational Acceptance Testing also commenced November 7, 2017.
- **324 Building Disposition Project:** Inside the 324 Building, workers removed the last of the large waste items from the airlock and initiated debris removal from C-Cell. Crews also began identifying and removing facility interferences in preparation to add foundation support. The foundation support will ensure the building does not shift when the radioactive soil below B Cell is removed. At the mockup, workers installed the first manipulator arm in the 'B-Cell wall' to support future procedure development and training.
- **Plutonium Uranium Extraction Plant (PUREX) Tunnel 1:** Workers safely completed Tunnel 1 stabilization activities.

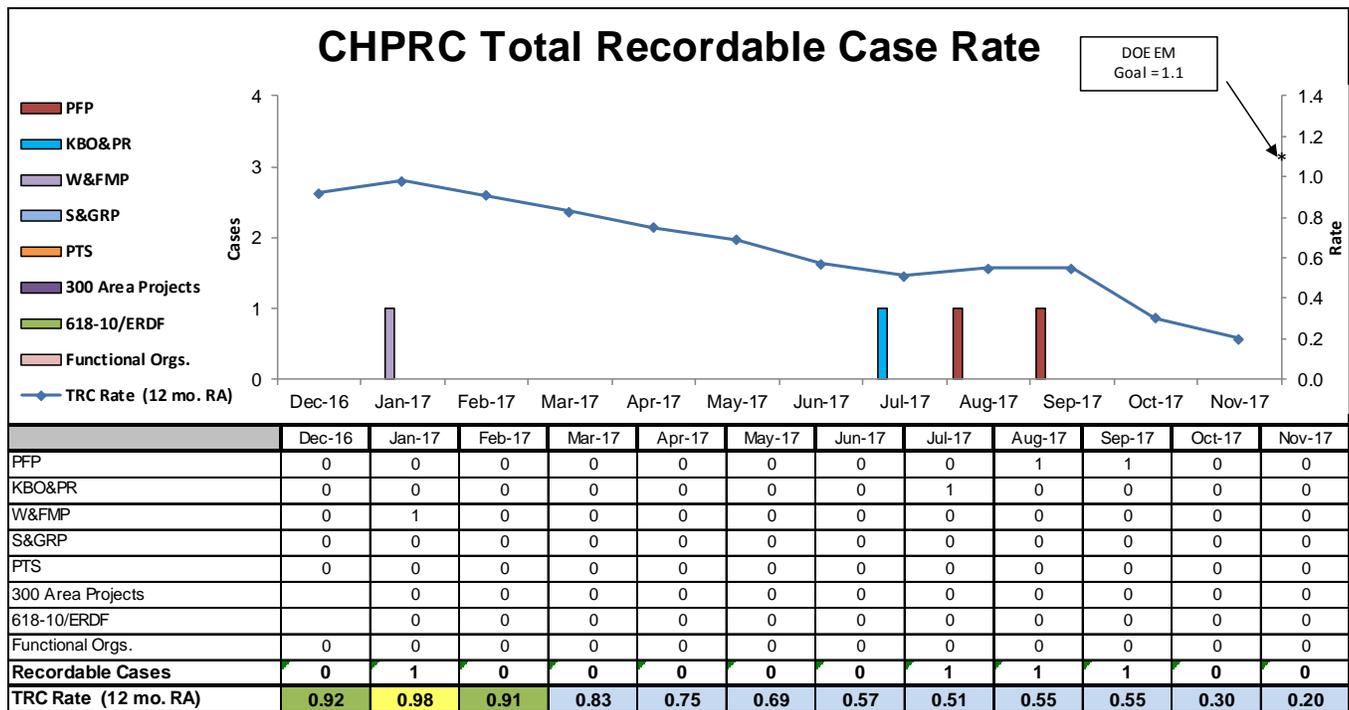


Wide shot of the 618-10 Burial Ground looking north.

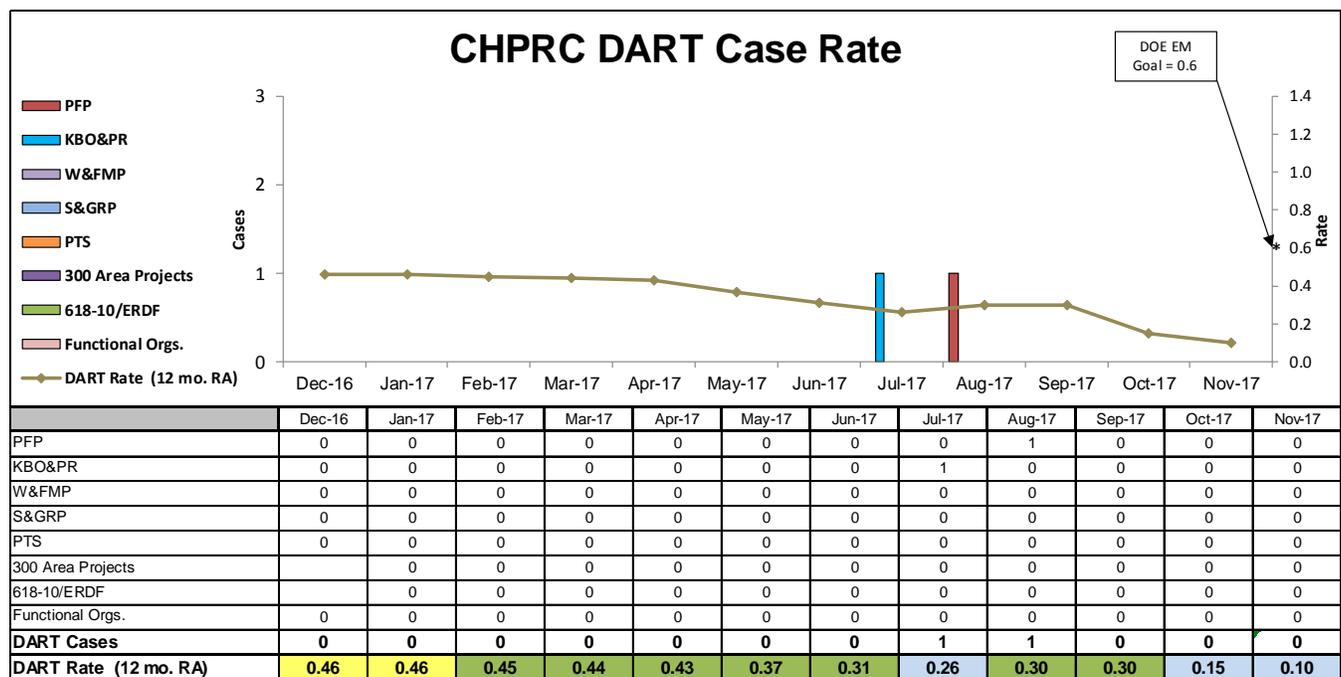
- The President’s Zero Accident Council (PZAC) meeting for November was hosted by Safety, Health, Security and Quality (SHS&Q). The three main ideas were:
 - Warm up to winter travel.
 - Warm up to winter safety.
 - Warm up to recycling.
- Four “*Thinking Target Zero*” (TTZ) bulletins were published to convey important occupational, safety, health, and environmental messages:
 - Winter Emergencies.
 - Voluntary Protection Program (VPP) Coordinator.
 - Environmental Management System (EMS) Objectives and Targets.
 - Avoid Winter Falls.
- *Weekly Safety Tailgate* briefing packages communicated relevant topics and safety information to the workforce:
 - Three Lessons Learned:
 - Idaho National Laboratory (INL) – Hoisting and Rigging operation failure.
 - Questioning attitude: contamination identified on legacy item.
 - Idaho National Laboratory (INL) – Lock-Out/Tag-Out (LO/TO) violation.
 - Injury reports.
 - Weekly ethics moments.
 - Vehicle incidents.
 - Avoiding deer and elk.
 - Approved safety vests.
 - Recycling Awareness Month – Hard Hat Recycling.
 - Product Recall – Kidde recalls fire extinguishers with plastic handles and push button style.
 - 2017 United Way Campaign.
 - Zero Waste Reminder.
 - Windy conditions – Seasonal Safety Reminder.
 - Holiday cooking safety.
 - Integrated Safety Management System (ISMS) Approach to Safety.
 - Hard Hats in cold weather.
 - New! Winter Poster – Be prepared for freezing temperatures!

TARGET ZERO PERFORMANCE

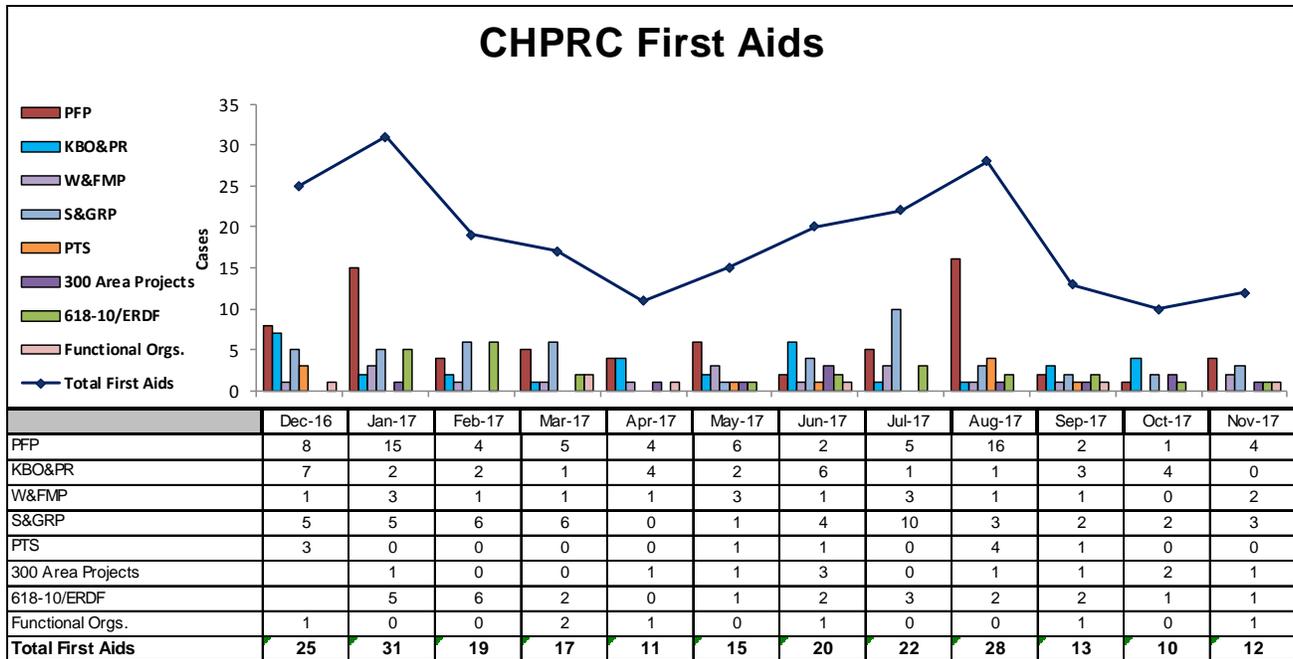
CHPRC continued focusing on integrating and implementing safety programs in all program and project areas.



Total Recordable Injury Case (TRC) Rate: The 12-month rolling average TRC rate of 0.20 is based on a total of four Recordable injuries. November had no Recordable cases.



Days Away, Restricted or Transferred (DART) Workdays Case Rate: The 12-month rolling average DART rate of 0.10 is based upon a total of two Days Away cases. November had no DART cases.



First Aid Case Summary: CHPRC reported 12 First Aid cases in November. The contributors were four sprains/strains/pains, four abrasions/bruises/contusions, two misc. (burns, rashes, repetitive motion, etc.), one cut/laceration/puncture and one foreign bodies/irritation to the eye injury. In addition, four self-treat cases were reported in November.

KEY ACCOMPLISHMENTS

Projects

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

Project Services and Support (PTS)

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

MAJOR ISSUES

Issue:

Significant Contract Change Management is ongoing and must be resolved to retain Plateau Remediation Contract (PRC) alignment for fiscal year (FY) 2017-2018.

- As of November month-end, there was a backlog of 48 undefinitized change proposals (CPs) and responses to requests for proposals (RFPs) – totaling approximately \$446 million in net value with fee.

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 CPs/requests for equitable adjustment (REAs).

Status:

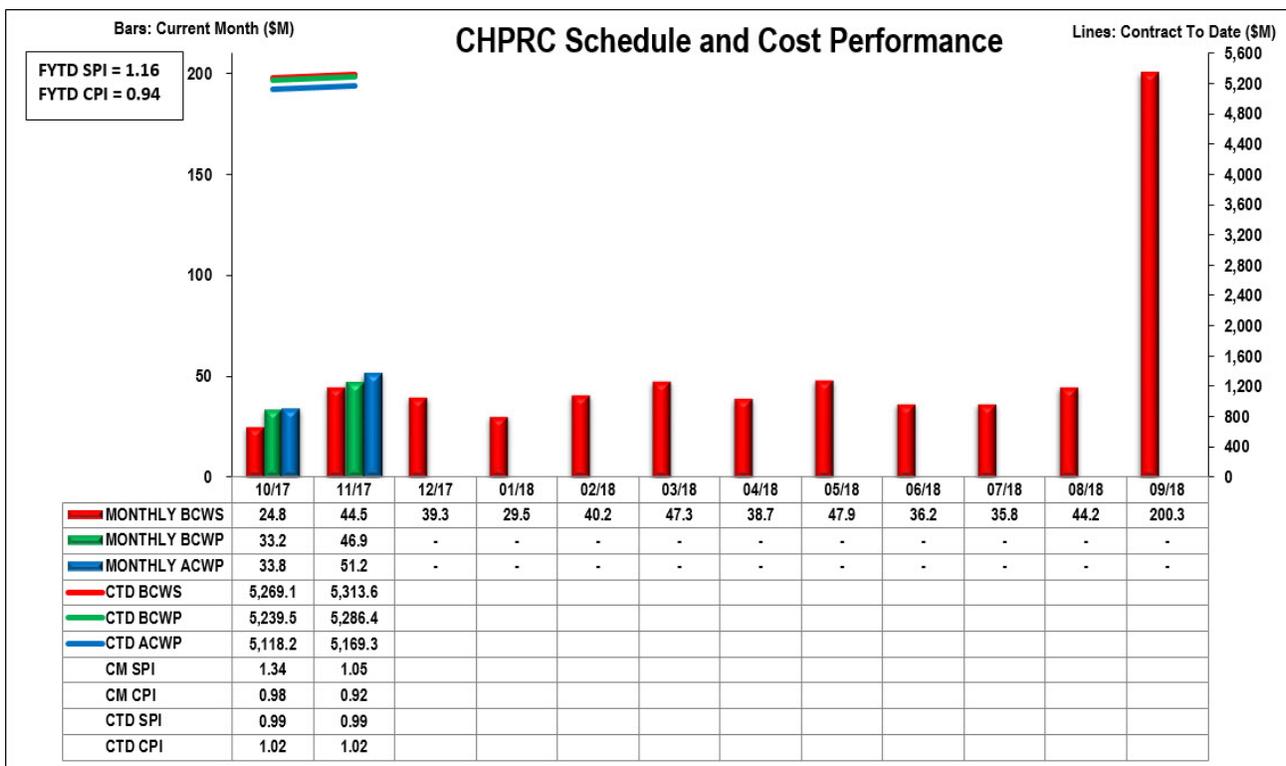
- CHPRC continues to discuss proposed alignment strategy with RL.
 - Negotiate in process changes.
 - Re-align remaining contract cost for scope consistent with Budget Guidance.

- Develop configured contract change management basis for contract change entitlement and contract closeout.

Projects

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

EARNED VALUE MANAGEMENT



*September includes \$137 million of BCWS in planning packages.

	\$M					\$M					\$M		
	Current Period					Contract to Date					Contract Period		
	Budgeted Cost		Actual Cost	Variance		Budgeted Cost		Actual Cost	Variance		BAC	EAC	Variance
	BCWS	BCWP	ACWP	Schedule	Cost	BCWS	BCWP	ACWP	Schedule	Cost			
RL-0011 - Nuclear Materials Stab & Disp PFP	0.0	3.3	8.7	3.3	(5.4)	988.5	970.2	1079.5	(18.3)	(109.2)	988.7	1,101.0	(112.3)
RL-0012 - SNF Stabilization & Disposition	6.1	5.5	5.9	(0.6)	(0.4)	708.6	708.1	674.9	(0.5)	33.2	740.4	705.8	34.5
RL-0013 - Solid Waste Stab & Disposition	10.6	9.2	9.0	(1.4)	0.1	1207.9	1210.2	1132.0	2.3	78.2	1,362.8	1,281.0	81.8
RL-0030 - Soil & Water Rem-Grndwtr/Vadose	10.4	9.9	11.5	(0.5)	(1.6)	1424.6	1407.0	1381.7	(17.6)	25.3	1,568.1	1,540.8	27.3
RL-0040 - Nuc Fac D&D - Remainder	2.6	3.1	4.2	0.6	(1.1)	462.2	460.4	432.5	(1.8)	27.9	503.7	470.9	32.8
RL-0041 - Nuc Fac D&D - RC Closure Project	14.6	15.7	11.6	1.0	4.0	497.1	505.9	448.3	8.7	57.6	683.0	599.0	84.1
RL-0042 - Nuc Fac D&D - FFTF Project	0.2	0.2	0.2	0.0	0.0	24.6	24.6	20.4	0.0	4.2	26.5	22.6	3.9
Total	44.5	46.9	51.2	2.4	(4.2)	5,313.6	5,286.4	5,169.3	(27.1)	117.1	5,873.0	5,721.0	152.0

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

* In regards to RL-0041, CHPRC has implemented the River Corridor Closure Contract (RCCC) transitioned scope into the performance measurement baseline (PMB) for Earned Value Management (EVM) reporting purposes. When the change orders (304, 305 and 306) are definitized, baseline change requests (BCRs) will be processed to align the PMB with the definitized values. Additionally, CHPRC has implemented the additional scope for 300-296 Waste Site Project into the PMB for EVM reporting purposes. When CO 328 is definitized, a BCR will be processed to align the PMB with the definitized value.

Performance Summary

CHPRC continues to track completion of the contract scope within budget and is currently projecting a variance at completion (VAC) of \$152.0 million, with \$49.7 million of management reserve (MR), for a total positive variance of \$201.7 million. For November, the project was 5.5 percent ahead of schedule and 9.1 percent over planned cost. Contract to date (CTD), the project was 0.5 percent behind schedule and 2.2 percent under planned cost.

The current month (CM) positive schedule variance is primarily due to PBS RL-0011 working historical budgeted cost of work scheduled (BCWS) on discrete demolition activities (apportioned). The majority of the scope was originally planned to begin during the third quarter of 2016. However, delays in getting 236-Z ready for demolition negatively impacted the start of demolition. Continuation of demolition activities on 234-5Z, specifically zones 3 and 4, and completion of removal and shipment of the PRF gallery gloveboxes to Perma-Fix Northwest (PFNW) for size reduction is contributing to this positive variance. Demolition of 236-Z and 234-5Z are currently scheduled to complete in December 2017. Because all work is historical, the current schedule variance will be favorable going forward.

Also contributing to the positive schedule variance is PBS RL-0041 backfill activities at the 618-10 Burial Ground being ahead of schedule. The 618-10 Burial Ground project also completed previously-behind excavation activities in the interim storage area, which contributed to the current month schedule variance. In addition, the 300-296 project experienced accelerated performance on interference removal activities in the 324 Building, contributing to the current month favorable schedule variance of \$745.5K.

The positive schedule variance is offset by PBS RL-0013 primarily associated with acceleration of FY2018 work scope into FY2017 for Large Box Repackaging and T Plant modifications due to work being performed ahead of budget. The majority of the T Plant dock 2 removal and re-install work was performed in FY2017, while the budget was planned to start in FY2018.

The CM negative cost variance is primarily due to PBS RL-0011 delay in completion of the PFP project to achieve slab-on-grade. The delay is causing needed extensions of project management hotel load resources, without BCWS, to support the remaining D&D work scope until the facility completes demolition activities. Further, working historical BCWS for demolition activities associated with 234-5Z and 236-Z is also contributing to this variance. Unplanned shipments to PFNW for the size reduction of gloveboxes and E4 in 234-5Z continue to cause additional costs to support demolition activities. Shipping the waste to PFNW helped realize schedule and safety improvements, but has resulted in increased size reduction costs.

Also contributing to the negative cost variance is PBS RL-0030 due to the \$1.6 million in spending incurred in support of Pump and Treat optimization (well drilling, well realignments, documentation), 100-NR-2 RI/FS rewrite, and 200-DV-1 MNA evaluation and shallow soil characterization activities that are not yet planned in the PMB. PBS RL-0040 also contributed to the negative cost variance due to the implementation of PUREX Tunnel 1 interim actions. More than planned labor and subcontract support was required to install the injection point in the south end of the tunnel to complete grouting activities. Also, the amount of resources needed to perform demobilization and meet end state requirements was higher than planned.

The negative cost variance is partially offset by PBS RL-0041 due to 100K Program Management and Minimum Safe operations sharing resources with other projects. Additionally, efficiencies in excavation of the interim storage area at the 618-10 Burial Ground and backfilling has resulted in cost savings.

FUNDING ANALYSIS

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

PBS	Project	FY2018		Variance
		Projected Funding	Spending Forecast	
Estimate at Complete				
RL-0011	Nuclear Materials Stabilization and Disposition	33.2	38.1	(4.9)
RL-0012	Spent Nuclear Fuel Stabilization and Disposition	43.1	32.2	10.9
RL-0012	15-D-401 Sludge Retrieval Project	36.8	14.8	21.9
RL-0013	Waste and Fuels Management Project	160.4	148.5	11.8
RL-0013	Management of Cesium and Strontium Capsules	7.4	2.7	4.7
RL-0030	Soil, Groundwater and Vadose Zone Remediation	128.9	111.9	16.9
RL-0040	Nuclear Facility D&D, Remainder of Hanford	50.4	34.8	15.5
RL-0041	Nuclear Facility D&D, River Corridor	129.4	148.9	(19.5)
RL-0042	Fast Flux Test Facility Closure	3.8	2.6	1.2
Total Estimate at Complete		593.3	534.6	58.7
Incremental Scope Pending Change Management				
RL-0011	Nuclear Materials Stabilization and Disposition	0.0	0.0	0.0
RL-0012	Spent Nuclear Fuel Stabilization and Disposition	0.0	13.1	(13.1)
RL-0012	15-D-401 Sludge Retrieval Project	0.0	0.0	(0.0)
RL-0013	Waste and Fuels Management Project	0.0	(17.5)	17.5
RL-0013	Management of Cesium and Strontium Capsules	0.0	0.0	0.0
RL-0030	Soil, Groundwater and Vadose Zone Remediation	0.0	16.9	(16.9)
RL-0040	Nuclear Facility D&D, Remainder of Hanford	0.0	16.5	(16.5)
RL-0041	Nuclear Facility D&D, River Corridor	0.0	6.7	(6.7)
RL-0042	Fast Flux Test Facility Closure	0.0	0.0	0.0
Total Incremental Work Scope		0.0	35.8	(35.8)
Total Fiscal Year Spend Forecast				
RL-0011	Nuclear Materials Stabilization and Disposition	33.2	38.1	(4.9)
RL-0012	Spent Nuclear Fuel Stabilization and Disposition	43.1	45.4	(2.3)
RL-0012	15-D-401 Sludge Retrieval Project	36.8	14.8	21.9
RL-0013	Waste and Fuels Management Project	160.4	131.0	29.3
RL-0013	Management of Cesium and Strontium Capsules	7.4	2.7	4.7
RL-0030	Soil, Groundwater and Vadose Zone Remediation	128.9	128.8	0.0
RL-0040	Nuclear Facility D&D, Remainder of Hanford	50.4	51.3	(1.0)
RL-0041	Nuclear Facility D&D, River Corridor	129.4	155.5	(26.2)
RL-0042	Fast Flux Test Facility Closure	3.8	2.6	1.2
Total		593.3	570.3	23.0

Funds/Variance Analysis

For November, there was no change to FY2018 projected funding. The spending forecast increased primarily in RL-0011 for continuing demolition work into January and RL-0012 for increased labor resources.

BASELINE CHANGE REQUESTS

In November 2017, CHPRC approved and implemented 17 baseline change requests (BCRs) into the PMB. Eleven of the 17 BCRs impacted the PMB. Each change request is identified in the table below:

Change Request #	Title	PBS	Summary of Change
BCR-000-18-001R0	<i>Implement FY2018 PC&PI Re-structuring into PMB</i>	000s	This BCR revised the baseline to reflect organizational changes within the Prime Contract & Project Integration (PC&PI) Organization. There is no change in the overall PC&PI scope associated with this BCR. This BCR did not change the PMB value.
BCR-011-18-002R0	<i>Definitization of CO #313 Characterization/Sampling Analysis of 236-Z and 242-Z Facilities</i>	RL-0011	This BCR incorporated the scope associated with definitization of Change Order (CO) 313, Initiate Characterization/Sampling Analysis of 236-Z and 242-Z Facilities. This BCR increased the PMB by \$135K.
BCR-013-18-006R0	<i>Incorporate CO #310 NTE Increase, Hazards Mitigation Activities (Upgrading CWC Lighting)</i>	RL-0013	This BCR incorporated scope associated with the additional \$200.0K Not-to-Exceed (NTE) value for Change Order (CO) 310, Solid Waste Operations Complex Hazard Mitigation Activities (Upgrading CWC Lighting). This BCR increased the PMB by \$200K.
BCR-013-18-009R0	<i>Unilateral Determination of CO #314, CP 013 314 1638, OSA Closure Plan Revisions</i>	RL-0013	This BCR incorporated the definitization of CO 314 per contract modification 608, and scope includes the continued incorporation of Ecology comments on the Closure Plan for Outside Storage Area A, B and D-10. This BCR increased the PMB by \$37K.
BCR-030-18-003R0	<i>Definitization of CO #294 100-KR-4 RI/FS Decisional Re-write</i>	RL-0030	This BCR modified the PMB to align with the definitization of Change Order (CO) 294, 100-KR-4 RI/FS Decisional Re-Write. This BCR increased the PMB by \$1,186K.
BCR-030-18-004R0	<i>Remove PM-30-6-17 from PMB</i>	RL-0030	This BCR removed the milestone and coding for PM-30-6-17 – Prepare and submit 100-B/C Proposed Plan Revision 0, due to the RL review and comment on the Proposed Plan not being completed as required. This BCR did not change the PMB value.
BCR-030-18-005R0	<i>Incorporate CO #318, 200-WA-1 and 200-BC-1 OU Characterization NTE Increase</i>	RL-0030	This BCR incorporated the scope associated with the additional Not-to-Exceed (NTE) value for Change Order (CO) 318, 200-WA-1, and 200-BC-1 Operable Units Characterization. This BCR increased the PMB value by \$870K.
BCR-030-18-008R0	<i>Replan 200-EA-1 Project Management</i>	RL-0030	This BCR re-planned the budget from the 200-EA-1 project management planning package (WBS element 030.31.30.11.11) into an FY2018 work package activity (WBS element 030.31.30.11.08). This BCR did not change the PMB value.
BCR-030-18-009R0	<i>Replan RL-0030 Composite Analysis</i>	RL-0030	This BCR re-planned the existing FY2018 scope for WBS 30.01.02.01.05 Composite Analysis to better reflect the plan for completing the FY2018 Composite Analysis scope. This BCR did not change the PMB value.
BCR-030-18-010R0	<i>MR Draw for FY2018 Cumulative Impact Evaluation</i>	RL-0030	This BCR drew Management Reserve (MR) for the in-scope unplanned work associated with the Cumulative Impact Evaluation work scope that is considered within the PRC but was not planned within the PMB, as defined in the CHPRC Project Controls System Description (PCSD) for authorized use of MR. This BCR increased the PMB value by \$750K.
BCR-040-18-003R0	<i>Incorporate CO #311, Activity A and C NTE Increases</i>	RL-0040	This BCR incorporated scope associated with the increased NTE value for CO 311, Emergency Response for Facility/Waste Site ESH&Q or Remediation. This BCR increased the PMB value by \$1,928K.
BCR-041-18-007R0	<i>Incorporate FY2018 ERDF Operations into RL-0041</i>	RL-0041	This BCR implemented the scope, budget, and schedule for the FY2018 ERDF Operations into the RL-0041 PMB. This BCR increased the PMB value by \$29,234K.

Change Request #	Title	PBS	Summary of Change
BCR-041-18-008R0	<i>RL-0041 183.2KE Sedimentation Basin Backfill MR Draw</i>	RL-0041	This BCR drew MR for in-scope unplanned work associated with an increase in the required backfill quantities from the current PMB quantity to the current engineered design backfill quantities. This BCR increased the PMB value by \$1,635K.
BCR-PRC-18-006R0	<i>Revision to RL-0013 MR Profile</i>	RL-0013, RL-0041	This BCR transferred MR from RL-0041 to RL-0013 to remain consistent with BCR-PRC-17-043R0. This BCR did not change the PMB value.
BCR-PRC-18-007R0	<i>RL-0040 FY2018 Min Safe and Nuclear Facility Planning MR Draw</i>	RL-0040	This BCR drew MR for in scope, unplanned work within the currently authorized work scope. This BCR increased the PMB value by \$4,987K.
BCRA-PRC-18-005R0	<i>HPIC Updates November 2018</i>	RL-0012, RL-0013, RL-0030, RL-0040, RL-0041, 000s	This BCR incorporated November FY2018 Hanford Programs Integrated Control Module (HPIC) updates. This BCR did not change the PMB value.

The Allocated (Distributed) Budget increased by \$40,962K.

Undistributed Budget Activity

BCR Number	Title	PBS	Fiscal Year	UB
BCR-PRC-18-004R0	<i>Undistributed Budget Adjustments November 2017</i>	RL-0011, RL-0013, RL-0030, RL-0040, RL-0041	2018	\$3,671K

The Undistributed Budget increased by \$3,671K.

Management Reserve Activity

BCR Number	Title	PBS	Fiscal Year	MR
BCR-011-18-002R0	<i>Definitization of CO #313 Characterization/Sampling Analysis of 236-Z and 242-Z Facilities</i>	RL-0011	2018	\$8K
BCR-013-18-009R0	<i>Unilateral Determination of CO #314, CP 013 314 1638, OSA Closure Plan Revisions</i>	RL-0013	2018	-\$105K
BCR-030-18-003R0	<i>Definitization of CO #294 100-KR-4 RI/FS Decisional Re-Write</i>	RL-0030	2018	\$19K
BCR-030-18-010R0	<i>MR Draw for FY2018 Cumulative Impact Evaluation</i>	RL-0030	2018	-\$750K
BCR-041-18-008R0	<i>RL-0041 183.2KE Sedimentation Basin Backfill MR Draw</i>	RL-0041	2018	-\$1,635K
BCR-PRC-18-006R0	<i>Revision to RL-0013 MR Profile</i>	RL-0013, RL-0041	2018	\$1,397K \$-1,397K
BCR-PRC-18-007R0	<i>RL-0040 FY2018 Min Safe and Nuclear Facility Planning MR Draw</i>	RL-0030 RL-0041	2018	-\$2,493K \$-2,493K

Overall, there was a decrease in Management Reserve (MR) of \$7,450K during November.

Fee Activity

BCR Number	Title	PBS	Fiscal Year	Fee
BCR-011-18-002R0	<i>Definitization of CO #313 Characterization/Sampling Analysis of 236-Z and 242-Z Facilities</i>	RL-0011	2018	\$23K
BCR-013-18-009R0	<i>Unilateral Determination of CO #314, CP 013 314 1638, OSA Closure Plan Revisions</i>	RL-0013	2018	\$3K
BCR-030-18-003R0	<i>Definitization of CO #294 100-KR-4 RI/FS Decisional Re-Write</i>	RL-0030	2018	\$115K

Overall, there was an increase to the Fee of \$140K during November.

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):

November 2017 Summary of Changes

	FY 2009-2013	FY2014	FY2015	FY2016	FY2017	FY2018	FYs 2014-2018	Contract Period Total	Total PMB
October 2017 Estimate									
PMB	3,391,477	391,653	471,323	504,826	485,028	584,080	2,436,909	5,828,386	5,828,386
MR	0	0	0	0	0	57,133	57,133	57,133	57,133
Fee	155,504	14,325	14,501	27,804	10,612	18,720	85,961	241,466	241,466
Total	3,546,981	405,978	485,824	532,630	495,639	659,933	2,580,004	6,126,984	6,126,984
November 2017 Change									
PMB									
Change to PMB	0	0	0	0	0	44,632	44,632	44,632	44,632
MR									
Change to MR	0	0	0	0	0	-7,450	-7,450	-7,450	-7,450
Fee									
Change to Fee	0	0	0	0	0	140	140	140	140
Total Change	0	0	0	0	0	37,322	37,322	37,322	37,322
November 2017 Estimate									
PMB	3,391,477	391,653	471,323	504,826	485,028	628,713	2,481,542	5,873,018	5,873,018
MR	0	0	0	0	0	49,683	49,683	49,683	49,683
Fee	155,504	14,325	14,501	27,804	10,612	18,860	86,101	241,605	241,605
Total	3,546,981	405,978	485,824	532,630	495,639	697,256	2,617,326	6,164,307	6,164,307

Changes to/Utilization of Management Reserve in November 2017

	FY2009-2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2014-2018	Total
October 2017 MR Totals								
RL-0011	0	0	0	0	0	5,980	5,980	5,980
RL-0012	0	0	0	0	0	9,885	9,885	9,885
RL-0013	0	0	0	0	0	1,016	1,016	1,016
RL-0030	0	0	0	0	0	21,689	21,689	21,689
RL-0040	0	0	0	0	0	382	382	382
RL-0041	0	0	0	0	0	17,999	17,999	17,999
RL-0042	0	0	0	0	0	183	183	183
Total	0	0	0	0	0	57,133	57,133	57,133
November 2017 MR Changes/Utilization								
RL-0011	0	0	0	0	0	8	8	8
RL-0012	0	0	0	0	0	0	0	0
RL-0013	0	0	0	0	0	1,292	1,292	1,292
RL-0030	0	0	0	0	0	(3,225)	-3,225	-3,225
RL-0040	0	0	0	0	0	0	0	0
RL-0041	0	0	0	0	0	(5,525)	-5,525	-5,525
RL-0042	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	-7,450	-7,450	-7,450
November 2017 MR Totals								
RL-0011	0	0	0	0	0	5,988	5,988	5,988
RL-0012	0	0	0	0	0	9,885	9,885	9,885
RL-0013	0	0	0	0	0	2,308	2,308	2,308
RL-0030	0	0	0	0	0	18,464	18,464	18,464
RL-0040	0	0	0	0	0	382	382	382
RL-0041	0	0	0	0	0	12,474	12,474	12,474
RL-0042	0	0	0	0	0	183	183	183
Total	0	0	0	0	0	49,683	49,683	49,683

SELF-PERFORMED WORK

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

Contract-to-Date Actual Awards & Mods				Projection to FY2018	
10/1/2008 - 11/30/2017				Planned Subcontracting:	\$2,720,084,369
Reporting Category				Contract-to-date awards:	\$2,647,147,172
				Bal remaining to award:	\$72,937,197
	\$ Value	%	Goal %	Goal award\$	Bal to Goal
SB	\$1,482,040,861	55.99%	49.3%	\$1,341,001,594	-\$141,039,267
SDB	\$281,004,237	10.62%	8.2%	\$223,046,918	-\$57,957,319
SWOB	\$276,902,436	10.46%	7.5%	\$204,006,328	-\$72,896,108
HUB	\$71,732,741	2.71%	2.2%	\$59,841,856	-\$11,890,885
VOSB	\$212,235,919	8.02%	3.5%	\$95,202,953	-\$117,032,966
SDVO	\$127,875,856	4.83%	1.3%	\$35,361,097	-\$92,514,760
NAB	\$65,674,631	2.48%	N/A	PRC clause H.20 small business requirement ≥ 17% of CHPRC Contract Price performed by SB.	
Large	\$667,248,486	25.21%	N/A		
GOVT	\$3,933,006	0.15%	N/A		
GOVT CONT	\$483,186,359	18.25%	N/A		
EDUCATION	\$114,179	0.00%	N/A	CHPRC Contract Value:	\$5,732,255,464
NONPROFIT_	\$3,882,762	0.15%	N/A	17% rqmt:	\$974,483,429
FOREIGN	\$6,741,520	0.25%	N/A	SB actual:	\$1,482,040,861
Total	\$2,647,147,172	100.00%	N/A	Bal to rqmt	-\$507,557,432

Notes:

1. Since the CHPRC contract award in October 2008, CHPRC has subcontracted over \$2.6 billion in goods and services, with more than 55 percent going to small businesses. Nearly all subcontracting goals have been exceeded.
2. Approximately 91 percent of the total dollars arise from service and staffing contracts and contract amendments, with 6 percent of the remaining expenditures arising from PCard purchases and 3 percent from the balance in purchase orders for materials and equipment.
3. Data is summarized by business categories (Women Owned Minority Business Enterprise codes) in accordance with socioeconomic reporting requirements. Small business categories overlap and should not be added together.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

Contract Section	Project	GFS/I	Status
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 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 contract period of performance.

DOE ACTIONS/DECISIONS

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

Section A

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



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

November 2017
CHPRC-2017-11, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

The Plutonium Finishing Plant (PFP) completed pre-demolition activities for 234-5Z facility on September 7, 2017, and demolition was initiated September 13, 2017, and is now 50 percent complete. This marks the end of more than 10 years of preparation for demolition activities to begin on all PFP facilities. All gloveboxes have been removed from E4 ventilation, and all preparations for demolition are complete. Initiation of demolition on the Plutonium Reclamation Facility (PRF) started in early November 2016, is ongoing, and is 74 percent complete.

PFP Closure Project continues to maintain PFP facilities compliant with authorization agreement requirements.

Significant accomplishments in November included:

- Continued demolition of 234-5Z
 - Completed CSZ 3, CSZ 4.1, and Zone 4
- Removed RADTU gloveboxes 100B, 200, and 300B and placed in ERDF cans for disposition
- Completed removal of PRF gallery gloveboxes and placed in TL-1800s for shipment to PermaFix Northwest (PFNW) for size reduction
- Initiated PRF canyon demolition and strongback removal
- Shipped 381 roll-off cans to ERDF for waste disposition
- Shipped 40 cubic meters (m³) transuranic (TRU) waste
- Shipped 1,706 m³ of low-level waste/mixed low-level waste (LLW/MLLW)

Key Metrics

<i>Key Performance Indicators</i>	<i>Current Month</i>	<i>Contract To Date</i>
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	-	1,525 feet
COMPLETE Pencil Tank Units Removed (Shipped)	-	196 pencil tank units
Buildings Ready for Demo	0	64 structures
Buildings Demolished or Removed	0	62 structures
Non-radioactive Waste Shipped	0 m ³	85 m ³
Transuranic/Transuranic Mixed (TRU/TRU-M) Shipped	40 m ³	3,180 m ³
LLW/MLLW Shipped	1,706 m ³	15,465 m ³

EMS Objectives and Target Status (Draft)

Objective #	Objective	Targets	Actions	Due Date	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 and 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.		
			1. October Report	11/07/2017	100%
			2. November Report	12/07/2017	100%
			3. December Report	01/08/2018	0%
			4. January Report	02/07/2018	0%
			5. February Report	03/07/2018	0%

TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	Current Month	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	1	<ul style="list-style-type: none"> N/A
Total Recordable Injuries	0	1	<ul style="list-style-type: none"> N/A
First Aid Cases	4	72	<p>11/08/17 - The employee reported that they were in the process of surveying Powered Air Purifying Respirators (PAPRs) out of the contamination area. At the time of the event, the employee was carrying PAPRs to a survey table. Employee reported that one of the PAPR belts had come loose and fell to the floor, which got caught up in their feet, causing them to stumble. Employee reported having to take a knee (left knee) and catching themselves with their hand (right hand). Employee was taken to HPMC due to symptoms (pain and contusion of knee/ lower leg). (24673)</p> <p>11/14/17 - Employee was using a slag hammer to remove grout around the grease zerks on the shears. The hammer was slipping in the employee's hands while performing this activity. When the hammer slipped, it strained the lower fingers of the employee's right index and middle finger. (24684)</p>

	Current Month	Rolling 12 Month	Comment
			<p>11/15/17-Mechanics had residual chemicals on their anti-contamination clothing when they came to a step-off pad within the MO-032. Radiological Controls Technician (RCT) (affected employee) was performing surveys at the step-off pad and could smell the chemicals. The RCT was immediately affected, reporting shortness of breath, dizziness and a headache. An ambulance was called who evaluated the employee and released them to their supervisor to report to HPMC. Industrial Hygiene (IH)conducted surveys associated with the chemically contaminated Personal Protective Equipment (PPE) and determined the employee was not likely exposed above any occupational exposure limits (OEL). The event is potentially an aggravation of a pre-existing condition of heightened chemical sensitivity. (24670)</p> <p>11/21/17-Employee went to get into the front-end loader carrying a radio. While transitioning from the ladder to the loader door (with his right hand), the employee's left hand slipped off the rail and he was forced to grab the rail with his right hand to prevent a fall. In the process of falling back, the employee twisted his right knee and put strain on his right shoulder. The employee was taken to HPMC. The employee was released to work with no restrictions. (24679)</p>
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

RL-0011 Accomplishments

PFM Waste Operations

- Shipped 40 m³ TRU/TRUM waste.
- Shipped 1,706 m³ LLW/MLLW.
- Shipped 381 roll-off cans to ERDF for waste disposition.

Demolition Activities

- Continued demolition of 234-5Z.
 - Completed CSZ 3, CSZ 4.1, and Zone 4.
- Removed Radioactive Acid Digestion Tst Unit (RADTU) gloveboxes 100B, 200, and 300B and placed in ERDF cans for disposition.
- Completed removal of PRF gallery gloveboxes and placed in TL-1800s for shipment to PFNW for size reduction.
- Initiated PRF canyon demolition and strongback removal.

MAJOR ISSUES

Nothing to report at this time.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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

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

Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
RL-0011/WBS-011.OA										
Explanation of major changes to the project monthly spotlight chart:										
No major changes to the monthly spotlight chart in the month of November.										
Realized Risks (Risks that are currently impacting project cost/schedule)										
No realized risks identified in the month of November.										
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)										
FY2018 Risk Triggers (Risk could be realized in FY2018)										
PFP-DEMO-05: Inclement Weather	Inclement weather, including moderate winds, low or high temperatures, and thunderstorms will impact the demolition of PFP. Risk Handling Strategy: Accept Probability: Medium (26% to 74%) Worst Case Impacts: \$0K, 32 days *Cost increase will result in cost-per-day impacts from crews and hotel load.	●	↔	Risk Trigger: Extreme cold temperature, accumulating snow showers resulting in site delays/closures and high winds. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;">Mitigation action(s)</th> <th style="width: 10%;">FC Date</th> <th style="width: 10%;">%</th> </tr> </thead> <tbody> <tr> <td>Implement overtime (OT) shifts as necessary to mitigate further impacts associated with weather.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> Mitigation Assessment: During November, there were no weather impacts. However, the risk remains critical due to potential high-wind, winter weather delays, and cold temperatures having the ability to impact the planned demolition. The PFP project will continue to adjust the daily work scope to plan for projected weather impacts.	Mitigation action(s)	FC Date	%	Implement overtime (OT) shifts as necessary to mitigate further impacts associated with weather.	Ongoing	N/A
Mitigation action(s)	FC Date	%								
Implement overtime (OT) shifts as necessary to mitigate further impacts associated with weather.	Ongoing	N/A								
PFP-DEMO-16: Contamination Spread Beyond Established Boundaries	Unplanned transport of contamination from posted areas due to dust suppression liquid flow, natural events, or wildlife result in cost impacts and schedule delays. Risk Handling Strategy: Accept Probability: Medium (26% to 74%) Worst Case Impacts: \$3 million, 30 days	●	↑	Risk Trigger: Activation of Continuous Air Monitoring (CAM) outside of established boundary during demo activities. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Mitigation action(s)</th> <th style="width: 15%;">FC Date</th> <th style="width: 15%;">%</th> </tr> </thead> <tbody> <tr> <td> 1. Add caution to work package direction to not apply a focused beam of water to high materials at risk (MAR) components that have been breached. 2. Evaluate the use of the foggers. 3. Revise or incorporate additional controls into the work package as appropriate. 4. Evaluate the boundaries to incorporate available radiological data. 5. Evaluate the fixative concentration. 6. Incorporate case-by-case consideration when handling items of accessible gram values during adverse weather conditions into the work package. 7. Evaluate the method for determining acceptable wind speed. 8. PFP provides real-time data from the event to Dr. Napier (PNNL) for consideration with future models. </td> <td style="text-align: center; vertical-align: middle;">10/15/17</td> <td style="text-align: center; vertical-align: middle;">100%</td> </tr> </tbody> </table> Mitigation Assessment: All recovery actions were completed in October 2017. However, risk remains critical due to high risk demolition activities.	Mitigation action(s)	FC Date	%	1. Add caution to work package direction to not apply a focused beam of water to high materials at risk (MAR) components that have been breached. 2. Evaluate the use of the foggers. 3. Revise or incorporate additional controls into the work package as appropriate. 4. Evaluate the boundaries to incorporate available radiological data. 5. Evaluate the fixative concentration. 6. Incorporate case-by-case consideration when handling items of accessible gram values during adverse weather conditions into the work package. 7. Evaluate the method for determining acceptable wind speed. 8. PFP provides real-time data from the event to Dr. Napier (PNNL) for consideration with future models.	10/15/17	100%
Mitigation action(s)	FC Date	%								
1. Add caution to work package direction to not apply a focused beam of water to high materials at risk (MAR) components that have been breached. 2. Evaluate the use of the foggers. 3. Revise or incorporate additional controls into the work package as appropriate. 4. Evaluate the boundaries to incorporate available radiological data. 5. Evaluate the fixative concentration. 6. Incorporate case-by-case consideration when handling items of accessible gram values during adverse weather conditions into the work package. 7. Evaluate the method for determining acceptable wind speed. 8. PFP provides real-time data from the event to Dr. Napier (PNNL) for consideration with future models.	10/15/17	100%								
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)										

<p>PFP-DEMO-12: PFP/PRF Demolition Contamination Levels</p>	<p>Contamination levels on the canyon walls, floors, ventilation ducts, and the remaining areas of PFP will be higher than expected, thus requiring more stringent controls than expected or larger than expected waste volumes, resulting in cost impacts and schedule delays. Risk Handling Strategy: Accept Probability: Medium (26% to 74%) Worst Case Impacts: \$1.5 million, 22 days</p>			<p>Risk Trigger: During pre-demolition/demolition activities in FY2017. Dates tracked in the field execution schedule (FES).</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 change in the month of November. At the end of January 2017, contamination was discovered outside the HCA/ARA/RA zone established for demolition of the PRF after a CAM alarm sounded just outside the HCA/ARA/RA during relocation of the debris pile. The alarm resulted in the evaluation of employees from the zone and could have resulted in contamination of PFP personnel. As a result of this event, lessons learned have been incorporated in the future demolition work packages to ensure the suppression misting instructions are stated clearly with no subjective verbiage. In addition, in-process monitoring of the pile/bucket has been incorporated during movement of the debris pile.</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											
<p>PFP-DEMO-21: Glovebox/Equipment Removal/Demolition Material</p>	<p>A material handling event (e.g., dropped piece of process equipment) occurs during the PFP demolition, resulting in cost impacts and schedule delays. Risk Handling Strategy: Accept Probability: Low (10% to 25%) Worst Case Impacts: \$150K, 30 days</p>			<p>Risk Trigger: During pre-demolition/demolition activities in fiscal year (FY) 2017.</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 change in November. The mitigation strategies have been put in place; as a result, the risk strategy is to accept with no further mitigation actions identified at this time. PFP will continue to adhere to the CHPRC Integrated Safety Management System (ISMS) program/hoisting and rigging program to include detailed analyses of potential hazards and identification of preventive measures to implement prior to starting the work. At this time, no alternative course of actions needed. This risk will be closed at the end of December, as all gloveboxes will have been removed from the facility at that time.</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											
<p>PFP-DEMO-07: Removal/Extraction of Equipment Takes Longer Than Planned</p>	<p>Controlled demolition of equipment, gloveboxes and portions of the crosscutting process support systems (i.e. ventilation) result in cost impacts and schedule delays. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$3 million, 60 days</p>			<p>Risk Trigger: During pre-demolition/demolition activities in FY2017. Dates tracked in the field execution schedule (FES).</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Identify and pre-rig equipment with lifting slings.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Initiate discussions early in the demo planning of the equipment being left in place for removal during demolish.</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p>Mitigation Assessment: No change in November. Efforts have been completed to create a removal path for several of the gloveboxes to meet Criticality Incredibility. The HC-7C and 227T glovebox was slated for removal during demolition but has been removed during pre-demolition as risk mitigation strategy. At this time, no alternative course of actions are needed. This risk will be closed at the end of December, as all gloveboxes and special handled items will have been removed from the facility at that time.</p>	Mitigation action(s)	FC Date	%	Identify and pre-rig equipment with lifting slings.	Complete	100	Initiate discussions early in the demo planning of the equipment being left in place for removal during demolish.	Complete	100
Mitigation action(s)	FC Date	%											
Identify and pre-rig equipment with lifting slings.	Complete	100											
Initiate discussions early in the demo planning of the equipment being left in place for removal during demolish.	Complete	100											
<p>Unassigned Risks (Pending ownership of identified risks/opportunities)</p>													
<p>No unassigned risks identified in the month of November.</p>													

PROJECT BASELINE PERFORMANCE

Current Month

(\$M)

WBS 011/RL-0011 Nuclear Matl Stab & Disp PFP	Budgeted Cost of Work Scheduled (BCWS)	Budgeted Cost of Work Performed (BCWP)	Actual Cost of Work Performed (ACWP)	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	0.0	3.3	8.7	3.3	46,434.7%	(5.4)	-161.0%

Numbers are rounded to the nearest \$0.1 million.

CM Schedule Variance: (+\$3.3M/+46,434.7%)

The current month positive schedule variance is primarily the result of working historical budgeted cost of work scheduled (BCWS) on discrete demolition activities (apportioned). The majority of the scope was originally planned to begin during the third quarter of 2016. However, delays in getting 236-Z ready for demolition negatively impacted the start of 236-Z demolition. Continuation of demolition activities on 234-5Z, specifically zones 3 and 4, and completion of removal and shipment of the PRF gallery gloveboxes to PFNW for size reduction is contributing to this positive variance. Demolition of 236-Z and 234-5Z are currently scheduled to complete in December 2017. Because all work is historical, the current schedule variance will be favorable going forward.

CM Cost Variance: (-\$5.4M/-161.0%)

The current month negative cost variance is primarily due to the delay in completion of the PFP project to achieve slab-on-grade. The delay is causing needed extensions of project management hotel load resources, without BCWS, to support the remaining D&D work scope until the facility completes demolition activities. Further, working historical BCWS for demolition activities associated with 234-5Z and 236-Z is also contributing to this variance. Unplanned shipments to Perma-Fix Northwest (PFNW) for the size reduction of gloveboxes and E4 in 234-5Z continue to cause additional costs to support demolition activities. Shipping the waste to PFNW helped realize schedule and safety improvements but has resulted in increased size reduction costs.

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	988.5	970.2	1,079.5	(18.3)	-1.8%	(109.2)	-11.2%	988.7	1,101.0	21.5	(112.3)

Numbers are rounded to the nearest \$0.1 million

Contract-to-Date (CTD) Schedule Variance (-\$18.3M/-1.8%)

The CTD schedule variance is within threshold.

CTD Cost Variance (-\$109.2M/-11.2%)

The negative CTD cost variance is primarily a result of prior year unrecoverable costs, as well as impacts to the D&D work scope and extending level-of-effort and support services, consistent with delayed activities, in support of completing Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Milestone M-083-00A. In addition, unplanned costs to support implementation of efficiency initiatives at PFP (i.e., foaming and PremAire Breathing Air), and increased training as a result of assignment of new Health Physics Technicians (HPT), and D&D workers (as the result of Hanford Atomic Metal Trades Council (HAMTC) lamping process) to PFP have also contributed to this variance. Additional resources to recover schedule for asbestos removal activities and to cover the additional asbestos needing to be removed that was recently identified (about 10,000 feet). Additional unplanned shipping materials (waste shipping containers TL-1800s, SLB2s, IP-1 bags, etc.) were also required to support waste loadout activities for TRU waste disposition efforts. Unplanned shipments to PFNW for the size reduction of 236-Z gloveboxes (i.e., galleries and MT-4) and size reduction of special handled items from 234-5Z (i.e., filterboxes, 227S and 227T gloveboxes) and E4 ducting in 234-5Z have caused additional costs to support ready-for-demo activities also contributing to the unfavorable variance. Finally, unplanned work on the High Density Polyethylene (HDPE) water loop is also contributing to this variance. The costs associated with the HDPE water loop will be transferred to the Mission Support Alliance (MSA) contractor in the month of December to align with requirements of the J3 Table. The negative cost variance is partially offset by utilizing 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 have also proved to take less time than anticipated due to the main electrical power being cut outside of the building rather than performing individual isolations within the facility. Hazardous material removal and decontamination/fixative applications demonstrated effective with less effort than originally planned using methods proven more efficient (e.g., using powerful fans to assist with vertical fixative flow up the stack). In addition, implementation of a baseline change request (BCR) that was processed in the month of September 2017 to draw down on RL contingency to recover the cost impacts to the RL-0011 C.2 Project associated with realization of the 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. 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 (-\$112.3M/-11.4%)

The Variance at Completion (VAC) unfavorable variance is reflective of previous inability to achieve 20 percent increased efficiency associated with time on respirator as assumed in the baseline plan. The Collective Bargaining Agreement was accepted, and efficiencies are continuing to be recognized with more time on mask and implementation of the value engineering initiatives associated with high-mass gloveboxes and grouting. Extended hotel loading costs as a result of delays in demolition-ready and demolition activities caused by issues identified in the CTD schedule variance above are also driving the negative VAC. As a result of wall removals and electrical isolations, it was discovered that approximately 10,000 feet of additional asbestos was between the walls that would need to be removed. This is a recognized risk (PFP-092-02) and has been incorporated into the VAC. Of note, CHPRC is working with RL to utilize contingency for the additional 10,000 feet of asbestos identified during walkdowns and inspections, impacts from the criticality alarm, and relief from the 30 days of weather delays experienced from December 2016 through March 2017. Finally, increased utilization of overtime was used to ready the 234-5Z facility for demolition by September 2017. Also, unplanned work on the HDPE water loop is also contributing to this variance. The costs associated with the HDPE water loop will be transferred to the MSA contractor in the month of December to align with requirements of the J3 Table. 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. The variance at completion is reflective of PFP's current projected date to reach slab on grade no later than December 29, 2017.

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	33.2	38.1	(4.9)
Incremental Scope Pending Change Management	0.0	0.0	0.0
RL-0011 - Total	33.2	38.1	(4.9)

Numbers are rounded to the nearest \$0.1 million

Funds/Variance Analysis

FY2018 expected funding for the project breakdown structure (PBS) RL-0011 aligns at \$38.1 million to allow for completion of demolition activities to achieve slab-on-grade, CD-4 closeout activities, and PFP project closeout. The funds in this PBS are not adequate to address the estimate to complete (ETC). RL and CHPRC Management are evaluating options.

Critical Path Schedule

The PFP Critical Path schedule begins with the continuation of front-side demo CSZ 2.5 in 234-5Z. After front-side CSZ 2.5 is complete, front-side CSZ 2.3/2.4 will be worked. RMC Process Line and RMA process line demo will come next, followed by completion of the basement of 234-5Z demolition. The 236-Z canyon and 234-5Z demolition are scheduled to complete on December 29, 2017, meeting the requirements for the Tri-Party Agreement Milestone – M-083-00A – *PFP Facility Transition and Selection Disposition Activities*. Completion of demolition is followed by site stabilization and demobilization, turnover to surveillance and maintenance, and project closeout activities completing May 21, 2018.

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	09/30/17		12/29/17	During November, the project lost seven days as a result of re-focusing efforts on the removal of PRF gallery gloveboxes and initiation of demolition on the PRF canyon. This was an insignificant impact from the prior month. This seven-day loss impacted the forecasted completion date as identified in the November month-end forecast completion date of the Tri-Party Agreement milestone for the PFP Project to reach slab-on-grade.

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 DOE Manual 460.2-1 is complied with. RL arranges for Commercial Motor Vehicle Safety Alliance (CVSA) level VI vehicle inspections and verifies that the government drivers meet the applicable Department of Transportation (DOT) Federal Motor Carrier Safety Regulations (49 CFR 382 and 383). RL also inspects the load securement to ensure compliance with DOT regulations and/or Transportation Safety Document (TSD) requirements.	Ongoing

DOE ACTIONS / DECISIONS

None at this time.

Section B

Spent Nuclear Fuel Stabilization and Disposition (RL-0012)



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

November 2017
CHPRC-2017-11, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

M. A. Wright
Vice President for
Project Technical
Services

PROJECT SUMMARY

K Basin Pre-Operational Acceptance Testing (KPAT) completed on October 31, 2017.

A partial Construction Completion Document (CCD) was signed November 7, 2017 by 100K operations personnel accepting ownership of the Annex and Engineered Container Retrieval and Transfer System (ECRTS) hardware pending completion of construction punch list activities.

Operational Acceptance Testing (OAT) commenced November 8, 2017. OAT activities will validate critical operating procedures and enable on-the-job evaluations (OJE), operations demonstrations, and drills.

CHPRC Transportation Safety personnel are focused on finalizing the One-Time Request for Shipment (OTRS) formal implementation activities.

To demonstrate the current forecast date of the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) M-016-175, *Begin Sludge Removal From 105-KW Fuel Storage Basin*, the milestone has been disconnected from the risk analysis schedule margin. The current non-risk adjusted forecast date to begin sludge removal is March 7, 2018.

The effort to retrieve and containerize the sludge pile in the KW Basin Center Bay discovered during debris mapping continued. Work is forecast to be complete in February 2018 prior to the start of sludge retrieval.

Project breakdown structure (PBS) RL-0012 scope is 95.6 percent complete, with a cumulative Schedule Performance Index (SPI) of 1.00 and a Cost Performance Index (CPI) of 1.05.

EMS OBJECTIVES AND TARGET STATUS

None currently identified.

TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	CM Quantity	Rolling 12 Month	Comment
Dart Injuries	0	1	N/A
Recordable Injuries	0	0	N/A
First Aids	0	17	N/A
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

100K Operations

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

KW Basin Sludge Removal Capital Asset Project

- KPAT
 - KPAT was completed on October 31, 2017.
 - A total of nine Test Deficiency Reports (TDRs) were converted to non-conformance reports (NCRs) to track completion of the identified “non-operational-impacting” corrective actions. The team will now focus on producing the KPAT Test Report.
 - A partial Construction Completion Document (CCD) was signed November 7, 2017, which allowed turnover of the Annex and ECRTS hardware with a defined punch list. Construction forces will continue to work CCD punch list items and perform preventive/corrective maintenance.
- Tabletop drills of ECRTS upset conditions are being conducted weekly with participation by Nuclear Chemical Operator (NCOs), health physics technician (HPTs), engineering, and operations management.
- OAT officially commenced on November 8, 2017.
- Resources continued to focus on finalizing procedures required for completion of the OAT. OAT procedure validations commenced and will continue throughout the OAT operational demonstrations.
- In addition to demonstrations and drills, Sludge Transportation System Cask (STSC) 2 was successfully leak tested to verify its ability to meet rigorous leak tightness criteria and be ready for the Sludge Removal Campaign.
- ECRTS Plan of Action (POA) was approved within CHPRC on November 6, 2017, and transmitted back to RL for formal approval on November 8, 2017. DOE approval is forecast for November 29, 2017.
- An Implementation Plan (IP) has been submitted for comment by the contractor Operational Readiness Review (ORR) Team Lead and will be approved once the POA is officially approved by RL.

- A revised Startup Notification Report (SNR) technical description based on changes to the POA has been approved for the next SNR submittal.
- Sludge Transportation System Casks (STSCs) 414-417: HiLine personnel delivered four STSC assemblies to Warehouse 4732C on November 8, 2017. STSC 422-424: Vessels were delivered to HiLine on October 26, 2017, and are forecast to be assembled and tested in December. Delivery is forecast in early January.

T Plant Preparations

- Responsible managers are working to complete the Readiness Self-Assessments (RSAs) and Readiness Review Board (RRB) interviews to initiate readiness assessment in mid-December.
- Completed Master Documented Safety Analysis (MDSA)/Technical Safety Requirements (TSR) implementation.
- Procedures supporting MDSA revision 12 Safety Evaluation Report (SER) were issued.
- Completed operations dry runs and mock ups.
- Dock 2 transportation path asphalt was laid.
- Performed cover block gap inspections.
- Performed annual mechanical maintenance on the crane.

MAJOR ISSUES

No major issues to report at this time.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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

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

Unmitigated Risk Impacts	Assessment		Comments									
	Month	Trend										
RL-0012/WBS-012												
Explanation of major changes to the project monthly stoplight chart: No major changes identified in the month of November .												
Realized Risks (Risks that are currently impacting project cost/schedule)												
STP-108-K: STP Annex Equipment and KPAT	Required preventive and corrective maintenance on the STP Annex and the ECRTS equipment prior to turn over to operations is higher than planned due to one-of-a-kind system design or sludge characteristics, resulting in cost and schedule impacts. Risk Handling Strategy: Control Probability: Low (10% to 25%) Worst Case Impacts: \$520K, 66 days	● ↔	Risk Event: This risk was realized and BCR-012C-18-002R0 was processed to obtain MR to cover the necessary mitigation actions. 1) The SRP will perform 16 annual preventative maintenance (PM) activities earlier than planned (during KPAT testing) rather than shutting down during the Sludge Removal Campaign to complete these PMs. Subcontracted resources will be utilized to execute these PMs prior to turning the facility over to 100K operations, mitigating the risk of delays to sludge removal activities while performing these PMs. 2) The baseline plan was to use subcontract resources to perform preventative and corrective maintenance (CM) through the planned date for turnover of the facility to operations on September 30, 2017. With the schedule completion for KPAT extended due to risk realization (STP-103), the level of maintenance provided by subcontracts must also be extended. Additional equipment was placed into operational status during KPAT, requiring increased frequency of maintenance and an extended period of performance.									
			<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Risk recovery action(s)</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr> <td>Perform PMs/CMs until hardware is turned over to 100K Operations via Construction Completion Document and associated punch-list.</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100</td> </tr> </tbody> </table>	Risk recovery action(s)	FC Date	%	Perform PMs/CMs until hardware is turned over to 100K Operations via Construction Completion Document and associated punch-list.	Complete	100			
Risk recovery action(s)	FC Date	%										
Perform PMs/CMs until hardware is turned over to 100K Operations via Construction Completion Document and associated punch-list.	Complete	100										
			Recovery Action Assessment: PMs/CMs were performed by construction forces until 100K maintenance personnel accepted that scope November 16, 2017. This risk will be closed next month and removed from the monthly stoplight chart.									
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)												
No critical risks identified in the month of November .												
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)												
FY2018 Risk Triggers (Risk could be realized in FY2018)												
STP-103: K Basin Pre-Operational Acceptance Testing (KPAT) & ECRTS Startup	The ECRTS equipment does not operate as expected, requiring increased engineering, startup, operations, and construction Firm Fixed Price contractor support; as well as equipment replacement, procurement, and retesting. Realization of this risk would also require additional training, procedure revision, and design modifications because of construction testing and/or Lines of Inquiry for Readiness Review resulting in cost impacts and schedule delays. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$4.5 million, 90 days	● ↑	Risk Trigger: 1) The ECRTS equipment does not operate as expected. 2) Unexpected attrition of critical testing personnel.									
			<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>Use overtime to offset schedule impacts.</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100</td> </tr> <tr> <td>Closely monitor employee satisfaction and consider employee incentive to retain key test personnel.</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100</td> </tr> </tbody> </table>	Mitigation action(s)	FC Date	%	Use overtime to offset schedule impacts.	Complete	100	Closely monitor employee satisfaction and consider employee incentive to retain key test personnel.	Complete	100
Mitigation action(s)	FC Date	%										
Use overtime to offset schedule impacts.	Complete	100										
Closely monitor employee satisfaction and consider employee incentive to retain key test personnel.	Complete	100										
			Mitigation Assessment: KPAT testing was completed October 31, 2017. This risk will be closed next in December and removed from the monthly stoplight chart.									

Unmitigated Risk Impacts	Assessment		Comments												
	Month	Trend													
RL-0012/WBS-012															
<p>STP-018-O: STP Operational Upset or Spill - During first STSC</p> <p>An operational upset or spill results in a work shutdown at K Basin, resulting in schedule delays. Risk Handling Strategy: Control</p> <p>Probability: Low (10% to 25 %) Worst Case Impacts: \$2 million, 48 days</p>	●	↔	<p>Risk Triggers: 1) An operational upset or spill results in work shutdown at K Basin. This risk will commence in fiscal year (FY) 2018 and continue throughout the project lifecycle until the sludge is removed from 105KW Basin.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Conduct rigorous startup testing following system installation at the 105KW Basin and Annex.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Conduct testing and training at Maintenance and Storage Facility (MASF) and develop procedures that use the information and knowledge gained during the activity for use at the KW Basin.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Installation of camera systems to allow operations and radiation protection management to monitor operation dry runs to ensure appropriate discipline, and personal protective equipment (PPE) are utilized to complete STSC connect/disconnect evolutions is in process.</td> <td>12/21/17</td> <td>90</td> </tr> </tbody> </table> <p>Mitigation Assessment: No major changes in the month of November. Training and procedure development are nearing completion. RSA affidavits will be completed in December 2017 and are expected to be approved in late December 2017.</p>	Mitigation action(s)	FC Date	%	Conduct rigorous startup testing following system installation at the 105KW Basin and Annex.	Complete	100	Conduct testing and training at Maintenance and Storage Facility (MASF) and develop procedures that use the information and knowledge gained during the activity for use at the KW Basin.	Complete	100	Installation of camera systems to allow operations and radiation protection management to monitor operation dry runs to ensure appropriate discipline, and personal protective equipment (PPE) are utilized to complete STSC connect/disconnect evolutions is in process.	12/21/17	90
Mitigation action(s)	FC Date	%													
Conduct rigorous startup testing following system installation at the 105KW Basin and Annex.	Complete	100													
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Installation of camera systems to allow operations and radiation protection management to monitor operation dry runs to ensure appropriate discipline, and personal protective equipment (PPE) are utilized to complete STSC connect/disconnect evolutions is in process.	12/21/17	90													
<p>STP-073-C: Processing Efficiency - Retrieval & Shipping</p> <p>The realized processing efficiency associated with sludge retrieval and shipping operations does not match the baseline plan. Risk Handling Strategy: Accept</p> <p>Probability: Low (10% to 25%) Worst Case Impacts: \$0K, 48 days</p>	●	↔	<p>Risk Triggers: Actual processing efficiency associated with sludge retrieval and shipping operations does not match baseline assumptions. This risk will commence in FY2018, beginning with operations campaign.</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 major changes in the month of November. Operations personnel were given training on the process system equipment and will continue to participate in training activities through readiness preparations. No foreseeable impacts in the future and no alternative course of actions are needed at this time.</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													
Unassigned Risks (Pending ownership of identified threats/opportunities)															
<p>CHPRC proposed five risks that are outside of CHPRC's ability to manage and, as such, should be re-assigned to RL (STP-011D, STP-018, STP-073, STP-073-A, and STP-073-B). The proposal was not accepted by RL, stating, "the opportunities and threats appear to be under the control of CHPRC to manage." CHPRC submitted letter CHPRC-1602146 R1 on August 30, 2016, in response to RL's rejection letter. On March 14, 2017, CHPRC received Correspondence No. 1701045 providing direction to accelerate the capital portion of the SRP. The risks listed, however, are for the non-capital scope. If contract direction is given to accommodate the acceleration opportunities to the SRP non-capital scope and the transfer of all sludge to T Plant is incorporated into FY2018, then CHPRC would re-assume ownership of these risks once change is definitized. As part of the FY18 annual update, risks were re-evaluated and used as the basis for the risk analysis.</p>															

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	6.1	5.5	5.9	(0.6)	-9.7%	(0.4)	-7.1%

Numbers are rounded to the nearest \$0.1 million

CM Schedule Performance (-\$0.6M/-9.7%)

The negative variance is due to challenges during KPAT testing including – operation of the bridge crane, operation of the annex heating, ventilation, and air conditioning (HVAC) system, and setups of the auxiliary ventilation system – which delayed completion of the testing and the follow-on test report. In addition, the project has encountered issues with completion of the OAT as finalization of the procedures has proven to be more difficult than planned.

CM Cost Performance (-0.4M/-7.1%)

The variance is within reporting thresholds.

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	708.6	708.1	674.9	(0.5)	-0.1%	33.2	4.7%	740.4	705.8	30.9	34.5

Numbers are rounded to the nearest \$0.1 million

CTD Schedule Performance (-\$0.5M/-0.1%)

The variance is within reporting thresholds.

CTD Cost Performance (+\$33.2M/+4.7%)

The variance is within reporting thresholds.

Variance at Completion (+\$34.5M/+4.7%)

The variance is within reporting thresholds.

Contract Performance Report Formats are provided in Appendix A.

FUNDS vs. SPEND FORECAST (\$M)

RL-0012 Spent Nuclear Fuel Stabilization and Disposition	FY2018		Variance
	Projected Funding	Spending Forecast	
Expense - Spending Forecast	43.1	32.2	10.9
Incremental Scope Pending Change Management	0.0	13.1	(13.1)
Expense - Subtotal	43.1	45.3	(2.2)
Line Item (LI)	36.8	14.8	21.9
Incremental Scope Pending Change Management	0.0	0.0	(0.0)
LI -Subtotal	36.8	14.8	21.9
RL-0012 – Total	79.9	60.1	19.7

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis

FY2018 funding for PBS RL-0012 is \$79.9 million. Negative variance of \$2.2 million in expense funding is the result of unplanned overtime to date, hiring of additional personnel to support retrieval operations, and duplication of resources (NCOs and HPTs) in the forecast during retrieval operations. Forecast will be adjusted in December. Positive variance in LI is the result of efficiencies gained due to acceleration of the project and risk mitigation efforts reducing the need for contingency and management reserve.

Critical Path Schedule

The critical path runs through completion of procedure validations, operations demonstrations, and drills. The balance of readiness preparation activities, including technical documentation updates, development/delivery of remaining staff training, and completion of readiness affidavits are just off project critical path. Following successful contractor and RL ORRs, the project schedule reflects RL providing authorization to commence retrieval operations following the review and approval of the SRP critical decision (CD)-4 submittal. Completing retrieval operations, including the filling of STSCs with sludge and transporting them to T Plant, to complete Tri-Party Agreement Milestone M-016-176, *Complete Sludge Removal from 105-KW Fuels Storage Basin*, is required by (September 2019). However, the Sludge Treatment Project (STP) team has modified the field execution schedule (FES) to implement acceleration opportunities, which could facilitate the transfer of all sludge to T Plant by September 30, 2018.

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 baseline change request (BCRs) define CHPRC planning with respect to Tri-Party Agreement milestones. The following table is the Tri-Party Agreement milestones within the CHPRC contract period (September 30, 2018).

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-016-175	Begin Sludge Removal from 105KW Fuel Storage Basin.	9/30/2018		3/07/2018	The forecast date does not include schedule margin from the project's risk analysis and assumes CD-4 is not required to begin sludge removal. The forecast date is 2 to 3 weeks later than last month due to challenges during KPAT testing including – operation of the bridge crane, operation of the annex HVAC system, and setups of the auxiliary ventilation system – which delayed completion of the testing and the follow-on test report.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
RL Final Approval of POA - K Basins	9/13/17(A)	11/29/17
RL POA Issued and Distributed	12/19/17	01/02/18
RL IP Issued	01/03/18	1/12/18
RL Perform ORR - Team Lead	01/25/18	02/07/18
RL Issue Findings / Discrepancy List	02/08/18	02/14/18

Section C

Solid Waste Stabilization and Disposition (RL-0013)



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

November 2017
CHPRC-2017-11, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

M. A. Wright
Vice President for
Project Technical
Services

PROJECT SUMMARY

During the November reporting period, October 23 – November 26, 2017, 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.

This month:

- Management of Cesium and Strontium Capsule (MCSC) Project (W-135), the Waste Encapsulation and Storage Facility (WESF) modifications, and Capsule Storage Area (CSA) conceptual design documents were approved and a preliminary design contract was awarded to Ares Corporation. The CSA permit application and permit revision for the WESF modifications were transmitted to RL. The Cask Storage System (CSS) design is on-going. Preliminary drawings for key components are scheduled to be completed in December.
- Waste Receiving and Processing (WRAP) power was restored in the facility and adjacent mobile offices after installation of refurbished breakers.
- The project completed full implementation of the Solid Waste Operating Complex (SWOC) Master Documented Safety Analysis (MDSA).
- T Plant completed installation of dock two in support of sludge receipt.

EMS Objectives and Target Status (Draft)

Objective #	Objective	Target	Due Date	Status
18-EMS-WFMP-OB1-T1	Reuse equipment from West Valley DOE site/conservate resources/minimize waste.	Reuse West Valley equipment for Cesium (Cs) and Strontium (Sr) capsule storage. Receive, manage, and utilize equipment as received.	9/30/18	0%
18-EMS-WFMP-OB2-T1	Chemical Management compliance.	Evaluate the process for chemical management at canister storage building (CSB) and T Plant. Perform an assessment on chemical inventory locations.	9/30/18	0%
18-EMS-WFMP-OB3-T1	Improve compliance.	Identify implementing mechanisms and gaps for LLBG compliance matrix requirements at the project level.	9/30/18	0%
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.	9/30/18	50%

TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	CM Qua ntity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	0	
Total Recordable Injuries	0	1	
First Aid Cases	2	*20	<p>*11/1/17: Employee was walking and tripped on a bolt protruding from the floor. Employee did not fall to the floor but did feel a slight pull on the right knee. (24659)</p> <p>11/15/17: Employee struck right knee against a piece of metal while working in a crowded area. (24672)</p> <p>*Two First Aid cases; PTS in support of RL-0013.</p>
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

13.01 Project Management

- o Performed/Completed:
 - Current Consent Agreement and Final Order (CAFO) document development status: Ecology is requiring that a Data Quality Objectives section be added to each closure plan and sent an outline detailing all the information required to be in each section. CHPRC will develop a response.

13.02 Capsule Storage & Disposition

- o Surveillances/Preventive Maintenance (PM):
 - 41 PM packages.

13.03 Canister Storage Building (CSB)

- o Surveillances/PMs:
 - 33 PM packages.

13.06 Transuranic (TRU) Repackaging

- o Performed/Completed:
- o M-091 Tri-Party Agreement Milestones:
 - Completed incorporation of CHPRC management comments on the draft revisions to the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) M-091-52 summary schedule and cost profile tables and provided a draft submittal letter to RL.

- o Repackaging:
 - One return shipment of M-091 legacy suspect transuranic mixed (TRUM) waste was received from Perma-Fix Northwest (PFNW) into Central Waste Complex (CWC) contributing 64.3 cubic meters (m³) toward the next objective.
- 13.07 Waste Receiving and Processing**
 - o Performed/Completed:
 - Restoration of power to WRAP facility and adjacent mobile offices.
 - SWOC MDSA/Technical Safety Requirement (TSR) Revision 12 implementation.
 - o Surveillances/PMs:
 - 200 surveillances.
 - 19 PM packages.
- 13.08 T Plant**
 - o Surveillances/PMs:
 - 420 surveillances.
 - 30 PM packages.
- Sludge Receipt**
 - o Performed/Completed:
 - Dock 2 installation.
 - SWOC MSDA Revision 12 implementation.
- 13.09 Central Waste Complex (CWC) and Low-level Burial Ground (LLBG)**
 - o Performed/Completed:
 - Standard waste box containers moved to establish additional aisle spacing in 2404WA.
 - SWOC MDSA/TSR Revision 12 implementation.
 - o Surveillances/PMs:
 - 359 surveillances.
 - 14 PM packages.
 - o Shipments received:
 - Six Standard Large Box 2 (SLB2) and 10 SWBs from PFWN into CWC in six shipments.
 - o Shipments complete:
 - One 1800 Top Load (TL) Box from CWC Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) North Outside Storage Area (NOSA) to PFWN.
- 13.12 Integrated Disposal Facility (IDF)**
 - o Performed/Completed:
 - Monthly inspections.
- 13.15 TRU Disposition**
 - TRU program procedures and waste management procedures impacted by Waste Isolation Pilot Plant (WIPP) Waste Acceptance Criteria (WAC), Revision 8, are approved and awaiting RL approval of the waste acceptance criteria.
 - Continue evaluation of the first TRU waste stream for WIPP WAC, Revision 8 requirements.
- 13.16 Offsite Spent Nuclear Fuel Disposition**
 - o Maintained coordination for offsite Spent Nuclear Fuel Disposition.
- 13.21 Mixed Waste Disposal Trenches (MWT)**
 - o Surveillances/PMs:
 - 162 surveillances.
 - o Shipments received:
 - Eleven drums and 10 boxes from PFWN into MWT31 in one shipment.
- 13.24 Management of Cesium and Strontium Capsules Project**
 - o Performed/Completed:

- Contract award to Ares Corporation for preliminary/final design of the CSA and WESF modifications.
- MCSC Permitting: The CSA permit application and permit revision for the WESF modifications transmitted to RL.

13.25 Capsules Interim Storage Operations

- o Performed/Completed:
 - CSS design:
 - The CSS design is on-going. Preliminary drawings for key components are scheduled to be completed in December.
 - The project team completed a site visit to NAC International for face-to-face meetings on preliminary design status.

Project Technical Services (PTS) Support

Project Delivery

CSB Door Refurbishment

- o Performed/Completed:
 - Door and track refurbishment at CSB north and south outer rolling doors.
 - Initiated contract bidding for modifications to CSB Air Handling unit 004.

MAJOR ISSUES

Issue:

The Washington Department of Ecology has requested that RL prepare an Environmental Assessment (EA) to address State Environmental Policy Act of 1971 (SEPA) requirements for W-135 (WESF facility modifications, construction of the capsule interim storage facility, and transfer of the capsules). RL believes the SEPA requirements can be addressed through a record of decision (ROD) amendment.

Corrective Action:

Coordinate with RL, DOE Office of River Protection (ORP) and Ecology to agree on the required document changes and schedule to provide needed SEPA coverage.

Status:

RL provided a justification to Ecology for why an EA is not needed on July 10, 2017. RL is preparing and issuing a ROD amendment.

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 previously agreed in the permitting plan).

Status:

RL met with Ecology on June 22, 2017, and requested additional information regarding the need for the more detailed design. The permit application was formally submitted to Ecology on November 21, 2017, with the 30 percent design information. The project await comments on the permit application.

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 has included this approach in their current rule-making process. 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 WIPP. The configuration would also mitigate/eliminate the risk and additional cost for long-term management of these containers.

Status:

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

Issue:

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

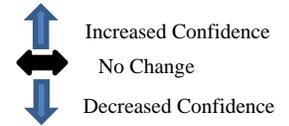
Status:

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 transmitted on July 6, 2016 (CHPRC-1602928). A meeting was held with RL on January 12, 2017, to discuss the contractual direction necessary to proceed. The project continues to await RL direction for sanitary water system facility modifications.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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



Risk Title	Unmitigated Risk Impacts	Assessment		Comments																	
		Month	Trend																		
RL-0013/WBS-013																					
Explanation of major changes to the project monthly spotlight chart: No major changes identified in November .																					
Realized Risks (Risks that are currently impacting project cost/schedule)																					
WSD-125: Multi-Year Pause in Waste Processing Results in Unexpected Container Integrity Issues	A pause in waste processing results in an unexpected container degradation within SWOC (excluding TRU retrieval activities) and requires additional resources to respond. Risk Handling Strategy: Accept Probability: Likely (75% to 90%) Worst Case Impacts: \$5 million, 0 day	●	↑	<p>Risk Event: In November 2011, degraded containers were discovered in CWC.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="width: 70%;">Risk recovery action(s)</th> <th style="width: 10%;">Risk Date</th> <th style="width: 10%;">FC Date</th> <th style="width: 10%;">%</th> </tr> </thead> <tbody> <tr> <td>Perform daily/weekly waste container surveillances to identify container abnormalities.</td> <td rowspan="4" style="text-align: center; vertical-align: middle;">11/01/11</td> <td style="text-align: center;">Ongoing</td> <td style="text-align: center;">N/A</td> </tr> <tr> <td>Manage a "watch list" of waste containers that have shown signs of degradation or are associated with degraded containers.</td> <td style="text-align: center;">Ongoing</td> <td style="text-align: center;">N/A</td> </tr> <tr> <td>Process waste packages at a rate funded by RL.</td> <td style="text-align: center;">Ongoing</td> <td style="text-align: center;">N/A</td> </tr> <tr> <td>Procuring stainless steel 85 gallon overpacks for alternative storage of containers showing signs of degradation.</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100</td> </tr> </tbody> </table> <p>Recovery Action Assessment: No significant changes in November. The project continued to perform container surveillances in November to identify container and container cover abnormalities. Twenty-four containers in 2404WC had signs of exterior corrosion that were placed on the watch-list and were scheduled for overpack. The delivery of the stainless steel overpacks is complete, and the overpack of the 24 was complete on October 18, 2017. The project completed overpack and plans to move storage box 75DMA16F3 into 2403WD when work priorities allow. The remaining containers will continue to require surveillance and continued enhanced monitoring.</p>	Risk recovery action(s)	Risk Date	FC Date	%	Perform daily/weekly waste container surveillances to identify container abnormalities.	11/01/11	Ongoing	N/A	Manage a "watch list" of waste containers that have shown signs of degradation or are associated with degraded containers.	Ongoing	N/A	Process waste packages at a rate funded by RL.	Ongoing	N/A	Procuring stainless steel 85 gallon overpacks for alternative storage of containers showing signs of degradation.	Complete	100
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Risk Title	Unmitigated Risk Impacts	Assessment		Comments																	
		Month	Trend																		
RL-0013/WBS-013																					
WSD-143: Safety Classification of SSCs - MDSA Rev. 12	<p>RL approval of the MDSA Revision 12 takes longer than the negotiated assumption planned in the baseline and/or the safety classification of Systems, Structures, and Components (SSCs) is more conservative than the safety analysis dictates, resulting in cost impacts and schedule delays.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Very Likely (>90%)</p> <p>Worst Case Impacts: \$600K, 120 days</p>			<p>Risk Event: On November 28, 2016, CHPRC submitted letter CHPRC-1604566A R1 -MDSA, Revision 12, the Technical Safety Requirements (TSR) Revision 12, the <i>T PLANT FHA</i>, and the SWOC FHA, Revision 6. While the baseline plan assumed that RL would review and approve this submittal within 120 calendar days (or by March 3, 2017), RL senior management had informally agreed to accelerate review/approval of this submittal within 60 days to facilitate moving all 100K sludge from the 105KW basin to T Plant by September 8, 2018. RL transmitted letter 17-NSD-0018_RL to CHPRC on March 30, 2017, providing a 35-page review comment record (RCR), with comments that must be resolved prior to resubmitting the updated MDSA and TSR. The updated MDSA/TSR was submitted to RL on May 18, 2017.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Risk recovery action(s)</th> <th style="width: 10%;">Risk Date</th> <th style="width: 10%;">FC Date</th> <th style="width: 10%;">%</th> </tr> </thead> <tbody> <tr> <td>Obtain written comments from RL Nuclear Safety Division personnel against the submittal described above.</td> <td rowspan="4" style="text-align: center; vertical-align: middle;">2/19/17</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100</td> </tr> <tr> <td>Conduct interface meetings between RL and CHPRC senior management to ensure MDSA approval challenges are discussed and resolved, if possible, prior to any action that delays approval of the MDSA.</td> <td style="text-align: center;">As Needed</td> <td style="text-align: center;">N/A</td> </tr> <tr> <td>Resolve RL NSD comments (17-NSD-0018_RL) and solicit RL NSD concurrence.</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100</td> </tr> <tr> <td>Prepare analysis on installing seismic cutoff switches in each of the SWOC facilities/buildings, and restricting drum storage to two tiers. Develop strategic plan for vehicle barrier replacement to protect high-MAR containers from vehicle impacts.</td> <td style="text-align: center;">1/27/2018</td> <td style="text-align: center;">90</td> </tr> </tbody> </table> <p>Recovery Action Assessment: No significant changes in November. CHPRC received the Safety Evaluation Report (SER) 17-NSD-0041_from RL on July 31, 2017, and began implementing MDSA Revision 12. Preparation of Revision 13 requires addressing all outstanding comments from Revision 12 SER. Accident analysis may have to be revised to include additional controls or SSCs to reduce the unmitigated risk of the accident scenario. The seismic event with fire was added to Revision 12, and as a result, imposed restrictions that prohibits retrieval activities. Further analysis is in the process and will be submitted to RL to address directed action items from the Revision 12 SER as a result of the added seismic event with fire.</p>	Risk recovery action(s)	Risk Date	FC Date	%	Obtain written comments from RL Nuclear Safety Division personnel against the submittal described above.	2/19/17	Complete	100	Conduct interface meetings between RL and CHPRC senior management to ensure MDSA approval challenges are discussed and resolved, if possible, prior to any action that delays approval of the MDSA.	As Needed	N/A	Resolve RL NSD comments (17-NSD-0018_RL) and solicit RL NSD concurrence.	Complete	100	Prepare analysis on installing seismic cutoff switches in each of the SWOC facilities/buildings, and restricting drum storage to two tiers. Develop strategic plan for vehicle barrier replacement to protect high-MAR containers from vehicle impacts.	1/27/2018	90
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WSD-086: W&FM Industrial Accident or Contamination	<p>An industrial accident or contamination event requires corrective actions, resulting in cost impacts.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Medium (26% to 74%)</p> <p>Worst Case Impacts: \$3 million, 0 days</p>			<p>Risk Event: This risk was realized and processed for management reserve (MR) in BCR-013-18-005R0. Due to the spread of contaminated tumbleweeds at W&F laydown areas and burial grounds, additional personnel are needed to monitor and mitigate the spread of contamination.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Risk recovery action(s)</th> <th style="width: 10%;">FC Date</th> <th style="width: 10%;">%</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 style="text-align: center;">Ongoing</td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table> <p>Recovery Action Assessment: 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.</p>	Risk recovery 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											
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Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
RL-0013/WBS-013										
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 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: Accept Probability: Medium (26% to 74%) Worst Case Impacts: \$3 million, 0 days	●	↔	<p>Risk Event: This risk was realized and processed for MR in BCR-013-18-005R0. WESF operations have continued longer than assumed due to delays in the implementation of the Cs/Sr capsule dry storage project, which has resulted 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 has required increased maintenance work.</p> <table border="1"> <thead> <tr> <th>Risk recovery 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, perform WRAP floor repair and HERTR Linear Accelerator (LINSNC) maintenance.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Recovery Action Assessment: The project is working on the design of the WESF pool cell instrumentation system replacement. It is expected that the WRAP floor repair will commence in the spring. Additional maintenance work will be performed based on facility work priority.</p>	Risk recovery action(s)	FC Date	%	Replace WESF pool cell instrumentation systems, add 21 PM/S WRAP electrical system activities, perform WRAP floor repair and HERTR Linear Accelerator (LINSNC) maintenance.	Ongoing	N/A
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Replace WESF pool cell instrumentation systems, add 21 PM/S WRAP electrical system activities, perform WRAP floor repair and HERTR Linear Accelerator (LINSNC) maintenance.	Ongoing	N/A								
WSD-136: CWC Components Fail	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. Risk Handling Strategy: Accept Probability: Likely (75% to 90%) Worst Case Impacts: \$2 million, 0 days	●	↔	<p>Risk Event: This risk was realized and processed for MR in BCR-013-18-005R0. Maintenance activities at CWC have increased due to aging facilities.</p> <table border="1"> <thead> <tr> <th>Risk recovery action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Floor repairs and MDSA container stacking requirements, replacement of exhaust fans</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Recovery Action Assessment: Floor repairs will be performed, weather permitting. The MDSA container stacking requirements are complete. Maintenance work at CWC will be scheduled based on facility work priorities.</p>	Risk recovery action(s)	FC Date	%	Floor repairs and MDSA container stacking requirements, replacement of exhaust fans	Ongoing	N/A
Risk recovery action(s)	FC Date	%								
Floor repairs and MDSA container stacking requirements, replacement of exhaust fans	Ongoing	N/A								
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)										
WSD-097: Major Equipment Failure - T-Plant	T Plant suffers a major equipment failure (crane, primary power supply, etc.), resulting in cost impacts and schedule delays. Risk Handling Strategy: Accept Probability: Medium (26% to 74%) Worst Case Impacts: \$3 million, 96 days	●	↓	<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, 2018) 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 spare parts for T Plant crane.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in November. The project has put into place mitigating strategies (i.e., aggressive S&M activities) to help reduce this risk. The crane is currently operational, however, an adequate spare parts inventory is needed. The project has identified spare parts for the T Plant crane with input from the manufacturer and is in the process of procuring critical spares. The project has received mechanical brake and spare parts. The long lead motor parts are scheduled to be delivered in June 2018. Engineering addressed Quality Assurance clause for the National Electrical Manufacturers Association (NEMA) MG1 standards to complete the mechanical motor parts order. An electrical parts order is in process. Repair of the motor drive shaft and coupling was required as a result of the 2017 annual crane preventive maintenance work performed in November.</p>	Mitigation action(s)	FC Date	%	Identify and procure spare parts for T Plant crane.	Ongoing	N/A
Mitigation action(s)	FC Date	%								
Identify and procure spare parts for T Plant crane.	Ongoing	N/A								

Risk Title	Unmitigated Risk Impacts	Assessment		Comments															
		Month	Trend																
RL-0013/WBS-013																			
WSD-019: MLLW & TRU Treatment Impacts	Mixed Low-Level Waste (MLLW) and TRU treatment capacity/capability does not meet Hanford needs or treatment does not occur as scheduled, resulting in cost impacts. Risk Handling Strategy: Accept Probability: Likely (75% to 90%) Worst Case Impacts: \$2.5 million, 0 day			Risk Trigger Metric: Will continue throughout contract (September 30, 2018).															
				<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, with terms extending to the end of the current CHPRC contract with RL (i.e. September 30, 2018).</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>	Mitigation action(s)	FC Date	%	Establish multiple treatment contracts, or obtain additional capability, for the processing of MLLW and TRU, with terms extending to the end of the current CHPRC contract with RL (i.e. September 30, 2018).	Ongoing	N/A	Continue to work with RL to fund the processing of TRU/M waste at 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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Mitigation Assessment: No significant changes in November . 1) MLLW: Two contracts are in place for offsite commercial waste treatment, which provided sufficient capability/capacity to meet current MLLW treatment needs through the end of the CHPRC contract term. However, one of the contracts was recently restricted due to the closure of 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. 295 m ³ of legacy M -91 TRUM waste was authorized by DOE during FY2017, of which all (295m ³) has been shipped to date. Along with the oversized TRUM waste item shipments from PFP during FY2017, enough waste has been shipped to PFNW to meet their minimum optimal processing volumes. Additional authorizations has been received by DOE for FY2018, which will maintain PFNW's minimum optimization processing volumes.																			
WSD-140: As-Found-Unknown Conditions - T Plant	Unknowns, as-found, or emergent conditions impact the operability of the T Plant facility. Risk Handling Strategy: Accept Probability: Very Likely (>90%) Worst Case Impacts: \$990K, 0 days The subcontractor is scheduled to mobilize mid-October to complete installation of fabricated stairs to dock 2.			Risk Trigger Metric: This risk has been triggered due to the current condition of 221-T Dock number 2.															
				<table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Repairs to 221-T Dock number 2 in support of sludge receipt</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Submittal of a BCR to break out the planning package planned for May.</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table>	Mitigation action(s)	FC Date	%	Repairs to 221-T Dock number 2 in support of sludge receipt	Complete	100	Submittal of a BCR to break out the planning package planned for May.	Complete	100						
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Repairs to 221-T Dock number 2 in support of sludge receipt	Complete	100																	
Submittal of a BCR to break out the planning package planned for May.	Complete	100																	
Mitigation Assessment: No significant changes in November . Deterioration of the steel decking and steel support structure for 221-T dock 2 has required that the dock be taken out of service. A new loading dock is necessary, as one of the Life Safety Code required emergency egress points and to support the receipt of sludge. This dock also provides storage areas for various gas bottles. T Plant completed removal of dock 2 and poured associated concrete pads. An onsite inspection of the bottle rack and stair fabrication was performed by the project in August. Dock 2 installation was completed in November . Additional asphalt work was identified in the vicinity of dock 2 as well as repair to T Plant roads. Asphalt work was also completed in November .																			
FY2018 Risk Triggers (Risk could be realized in FY2018)																			

Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
RL-0013/WBS-013										
WSD-W135-15: Utilization of 2003 Pre-Conceptual Design	A pre-conceptual design for the dry storage of the capsules was completed in July 2003. If this design cannot be utilized, it will be necessary to initiate and complete a new conceptual design, including a new analysis of alternatives. Risk Handling Strategy: Accept Probability: Very Likely (>90%) Worst Case Impacts: \$5,100K, 0 days	●	↔	<p>Risk Trigger Metric: The 2003 pre-conceptual design for the dry storage of capsules cannot be utilized.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No changes in November. The 2003 pre-conceptual design is based on design criteria that is over 13 years old. Design criteria that impacts the ability to utilize the 2003 pre-conceptual design include: location of the Dry Storage Facility, duration of the storage period, Safety Basis Requirements and environmental permitting. Continuing to have discussions with RL can clarify impacts of the Safety Basis Requirements and environmental permitting. The risk is being captured for visibility and will remain as part of the key risks until this issue is resolved.</p>	Mitigation action(s)	FC Date	%	None identified at this time.	N/A	N/A
Mitigation action(s)	FC Date	%								
None identified at this time.	N/A	N/A								
WSD-W135-16: Content and Approval of Critical Decision Packages	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. Risk Handling Strategy: Accept Probability: Very Likely (>90%) Worst Case Impacts: \$2,000K, 0 days	●	↑	<p>Risk Trigger Metric: The content and review/approval process for the CD packages is impacted by DOE O 413.3B.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Prepare joint tailoring strategy with RL on how to meet the DOE O 413.3B requirements</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p>Mitigation Assessment: No changes in November. 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. We are working closely with RL on the tailoring strategy to meet the DOE O 413.3B requirements. RL is currently evaluating the applicability of 413.3B due to new guidance from HQ. The risk is being captured for visibility and will remain as part of the key risks until this issue is resolved. No further mitigation actions are necessary at this time.</p>	Mitigation action(s)	FC Date	%	Prepare joint tailoring strategy with RL on how to meet the DOE O 413.3B requirements	Complete	100
Mitigation action(s)	FC Date	%								
Prepare joint tailoring strategy with RL on how to meet the DOE O 413.3B requirements	Complete	100								
WSD-W135-17: Modifications to WESF	The transfer of the capsules to dry storage will require modifications to WESF. Risk Handling Strategy: Accept Probability: Very Likely (>90%) Worst Case Impacts: \$7,300K, 0 days	●	↔	<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 November. The approach incorporated into the pre-conceptual design for the transfer of the capsules required minimal modifications to WESF. New or updated requirements will require more extensive modifications to WESF. The CD-1 submitted in August provides the preliminary modifications to WESF. The risk is being captured for visibility and will remain as part of the key risks until this issue is resolved.</p>	Mitigation action(s)	FC Date	%	None identified at this time.	N/A	N/A
Mitigation action(s)	FC Date	%								
None identified at this time.	N/A	N/A								
WSD-W135-28: RCRA Permit Requires 90% Design Information for the Capsule Storage Area (CSA)	Ecology may require the 90-percent design package for the CSA to be completed prior to issuing the permit for public comment. Risk Handling Strategy: Accept Probability: Medium (20% to 74%) Worst Case Impacts: \$1,775K, 360 days	●	↔	<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"> <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 November. CHPRC continues to have regular interfaces with Ecology to discuss the issue and are evaluating options should the 90-percent be required.</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								
Unassigned Risks (Pending ownership of identified risks/opportunities)										
No unassigned risks identified in November .										

PROJECT BASELINE PERFORMANCE

Current Month

(\$M)

WBS 013/RL-0013 Waste and Fuels Management Project	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	10.6	9.2	9.0	(1.4)	-13.4%	0.1	1.5%

Numbers are rounded to the nearest \$0.1 million

CM Schedule Performance (-\$1.4M/-13.4 %)

The CM schedule variance is primarily associated with planned FY2018 work scope completed in FY2017 for Large Box Repackaging, T-Plant due to planned readiness activities performed in a prior period. The majority of the dock 2 removal and re-install work was performed in FY2017, while the budget was planned in FY2018.

CM Cost Performance (+0.1M/+1.5 %)

The CM Cost Performance variance is within threshold.

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	1,207.9	1,210.2	1,132.0	2.3	0.2%	78.2	6.5%	1,362.8	1,281.0	149.0	81.8

Numbers are rounded to the nearest \$0.1 million

CTD Schedule Performance (\$+2.3M/+0.2%)

The CTD schedule variance is within threshold.

CTD Cost Performance (+\$78.2M/+6.5%)

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&FM; 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 Corrective Action System (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&FM; and eliminating the separate waste forecast system by integrating forecasting as part of the baseline process and the Solid Waste Inventory Tracking System (SWITS).

Variance at Completion (+\$81.8M/+6.0%)

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&FM; 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&FM; and eliminating the separate waste forecast system by integrating forecasting as part of the baseline process and SWITS.

Contract Performance Report Formats are provided in Appendix A

FUNDS vs. SPEND FORECAST (\$M)

WBS 013/RL-0013 Waste and Fuels Management Project	FY2018		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	167.7	151.2	16.5
Incremental Scope Pending Change Management	0.0	(17.5)	17.5
RL-0013 – Total	167.7	133.7	34.0

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis

The FY2018 projected funding for Project Breakdown Structure (PBS) RL-0013 of \$167.7 million is based on RL funding guidance. The total fiscal year spend forecast (FYSF) of \$133.7 million with a \$34.0 million variance primarily due to expected transfer from RL-0041 into RL-0013 for Environmental Restoration Disposal Facility (ERDF) operations once an appropriations is in place, as ERDF is currently being costed and forecasted in RL-041 due to Continuing Resolution (CR). In addition, Line Item (LI) funding was allocated, but not available due to the CR, resulting in the deferral of a portion of preliminary design activities for WESF modifications. Finally, due to continued development of M-091-52/53 milestone requirements, some planned work has been deferred to FY2019.

Critical Path Schedule

Critical Path Analysis can be provided upon request.

MILESTONE STATUS

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

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-091-47D	Certify or Treat 280 Cubic Meters of TRUM/MLLW Waste	9/30/18	8/8/17 (A)	8/8/17	Complete
M-091-53	Submit Milestone Change Request to Replace Target Dates for Capabilities to Process TRUM Waste.	9/30/18		9/27/18	On schedule
M-091-52	Submit change request with target dates for new/modified capabilities to process TRUM waste.	12/29/17		12/28/17	On schedule (RL requested a 90-day extension to this milestone)
M-091-03L	Submit Revision of TRUM Waste and MLLW PMP to Ecology.	6/30/18		6/30/18	On schedule
M-092-00	Acquire Facilities for Cs/Sr, Na & SCW	9/30/18		9/28/18	In Program Planning
C-026-07L	Tritium Treatment Technology Developments to Ecology and EPA.	3/31/18		2/5/18	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 TSD requirements.	Ongoing
J.12/C.2.3.6	PBS-RL-0013, Transuranic Waste Certification	WIPP provides shipping resources and manages the schedule for transportation of these containers to WIPP. The schedule is variable, and the number of shipments is controlled by DOE-HQ on a complex-wide priority. Cost for shipment of TRU waste offsite is borne by the CBFO.	No WIPP shipments are planned within the contract period of performance.

DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
RL Review and Approve Critical Decision 1 (CD-1) Package for Management of the Cesium and Strontium Capsules (MCSC) Project (W-135)	08/25/17 (A)	01/02/18

Section D

Soil and Groundwater Remediation Project (RL-0030)



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

M. A. Wright
Vice President for
Project Technical
Services

November 2017
CHPRC-2017-11, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

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

PROJECT SUMMARY

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

Treatment Facility	Million Gallons Treated		Chrome (kg)		Carbon Tet (kg)		Tech-99 (pCi)		Uranium (kg)	
	CM	FYTD	CM	FYTD	CM	FYTD	CM	FYTD	CM	FYTD
DX P&T	29.5	61.1	2.1	4.5						
HX P&T	25.9	55.7	2.0	4.7						
KR-4 P&T	9.8	19.3	0.1	0.3						
KW P&T	13.9	28.5	1.4	3.21						
KX P&T	31.8	47.4	2.0	2.9						
200 West P&T	97.7	195.0	8.4	16.1	191.0	376.0	.23x10 ¹²	.30x10 ¹²	14.8	23.0
Combined	208.6	407.0	16.0	31.7	191.0	376.0	.23x10¹²	.30x10¹²	14.8	23.0
FY2018 KPG	--	2,200.0	--	160.0	--	1,800.0	--	N/A	--	45.0

Well Drilling by Area	FY2018 Planned	Current Month	FY2018 Cumulative
100-KR-4	4	0	0
100-HR-3	15	1	1
200-UP-1	8	2	2
200-ZP-1	4	2	2
M-24 Milestone	5	0	0
200-DV-1	0	0	0
Total Wells	36	5	5
Site Wide Boreholes	31	0	1

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.	7/31/18	0%
<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.	9/30/18	0%

TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	0	NA
Total Recordable Injuries	0	0	NA
First Aid Cases	3	*48	<ul style="list-style-type: none"> 11/2/17 – Employee suffered an open wound after bumping his head against a unistrut. Site medical provided wound/skin care and a tetanus shot. The individual returned to work with no restrictions. (24661) 11/16/17 – While exiting an all-terrain vehicle, the individual's right foot caught under the brake pedal causing pain that subsided after 10 minutes. The injury was not reported at that time. The pain returned over the weekend and the individual reported to site medical with ankle strain/pain Monday morning. After treatment with an icepack and over-the-counter medication, the employee returned to work with no restrictions. (24676) 11/29/17 – After exiting the vanpool, an employee tripped and fell at the transition from the gravel parking lot to the sidewalk. The individual reported to site medical with abrasions to the right knee and hand, as well as pain in the hip, lower back, and neck. After being treated with a cold pack for pain and a compression bandage for the hand abrasion, the employee returned to work with no restrictions. (24681) <p>*1 First Aid case, PTS in support of RL-0030.</p>
Near-Misses	0	0	NA

KEY ACCOMPLISHMENTS

RL-0030 Accomplishments

RL-0030.01 RL 30 Operations

River Corridor

100-BC-5 Operable Unit (OU)

- Provided Draft Revision 0 Remedial Investigation/Feasibility Study (RI/FS) Chapters 1 – 4 to RL for review on October 23, 2017. Initiated comment resolution on November 17, 2017.
- Provided Draft Revision 0 RI/FS Chapters 5, 6, 8, 9, and 10 to RL for review on November 6, 2017.

100-HR-3 OU

- Completed drilling/construction of the six new extraction wells. Well development is currently underway.
- Issued the final report with the results of the Ringold Upper Mud aquifer testing that was performed in 2016.

100-KR-4 OU

- Resolved RL comments on the Decisional Draft KW Soil Flushing/Infiltration Treatability Test Plan. Initiated preparation of the Draft A version of the test plan.

100-NR-2 OU

- Prepared a white paper on November 6, 2017, that evaluates a Technical Impracticability (TI) Waiver versus Monitored Natural Attenuation approach for Strontium-90 contaminated groundwater, which recommends that a TI Waiver be pursued in the RI/FS.
- Completed the low-river respirometry testing for the in-situ bioremediation system installed at the petroleum remediation site.

Central Plateau**200-UP-1 OU**

- Submitted a draft Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) change notice to the Waste Management Plan for the 200-UP-1 Groundwater OU to RL for review. This Tri-Party Agreement change notice adds four wells that are planned to be installed in fiscal year (FY) 2018.

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

- Prepared general responses to Ecology comments on the Draft A 200-BP-5 RI and 200-PO-1 RI Addendum, which was provided to Ecology for review on November 13, 2017.
- Provided several presentations to RL and the regulators regarding the path forward for an Interim Record of Decision (IROD) strategy. The general consensus was to prepare a focused FS to support the IROD.
- Resolved and incorporated Ecology comments into the 200-BP-5 Removal Action Work Plan. Provided a final draft of the plan to RL for review on November 15, 2017.
- Held an initial data quality objectives session with RL and the regulators on November 21, 2017, for the 200-BP-5 Removal Action drilling sampling analysis plan. Provided RL with a draft Tri-Party Agreement change notice on November 14, 2017, for the Waste Management Plan for the 200-UP-1 Groundwater OU, Revision 0 for review that adds four wells planned to be installed in FY2018.
- Provided RL a revised draft Tri-Party Agreement change notice on November 7, 2017, for EPA review for the 200-UP-1 performance monitoring plan that's adds 14 monitoring wells and their respective sampling requirements.

200-EA-1 OU

- RL reinstated FY2018 funding for continued preparation of the 200-EA-1 RI/FS work plan on October 30, 2017.
- Conducted re-start kick-off meeting with CHPRC project team on November 2, 2017, and with RL and Ecology on November 8, 2017, and with Environmental Protection Agency (EPA) on November 15, 2017. Received Tri-Party Agency concurrence on revised delivery schedule that meets the Tri-Party Agreement milestone and achieves Revision 0 signatures within FY2018.
- Completed the C9617 borehole opportunistic sampling (at 216-A-29) data validation report and provided the results to RL on November 9, 2017.

200-DV-1 OU

- Continued field preparation for the Uranium Reactive Gas Sequestration test, with ammonia injection anticipated to begin in January 2018.
- Awarded the contract for drilling 28 shallow risk assessment boreholes on November 15, 2017. Anticipate drilling activities to begin early January 2018.

200-ZP-1 OU

- Held a meeting on November 20, 2017, to walk RL through revisions made to the Remedial Design/Remedial Action Work Plan (RD/RAWP).
- On November 17, 2017, delivered Decisional Draft, Revision 6, 200 West Pump and Treat Operations and Maintenance Plan to RL for review.

Central Plateau Closure Plans

- Initiated review of the draft Option 2 template (integration of the Resource Conservation and Recovery Act of 1976 (RCRA) closure plans with the Comprehensive Environmental Response,

Compensation and Liability Act of 1980 (CERCLA) documents) that was provided by Ecology on November 8, 2017. The final template will be provided by Ecology after concurrence from the Attorney General's office.

RCRA Groundwater Monitoring

- Prepared internal draft of SST WMA S-SX Engineering Evaluation Report for concurrent RL and CHRPC review. Delivered to RL on November 14, 2017.

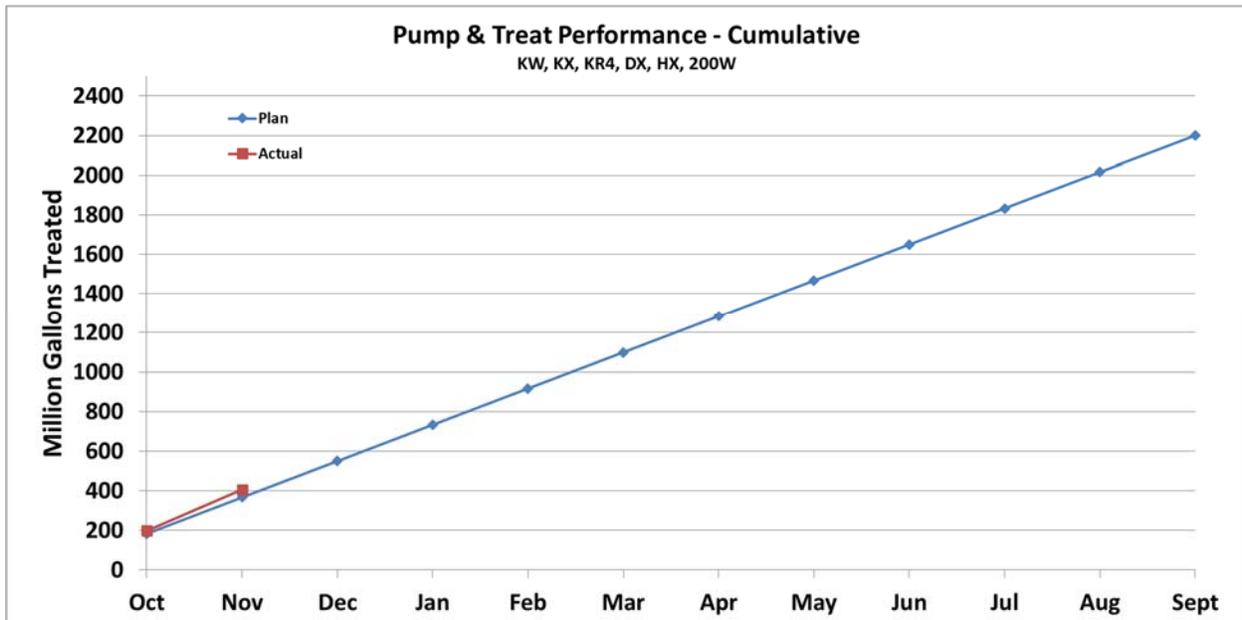
Groundwater P&T Facilities**200 West P&T**

- Operated the 200 West P&T at an average of 2,178 gallons per minute (gpm). Completed repairs on the redundant cross site transfer line.

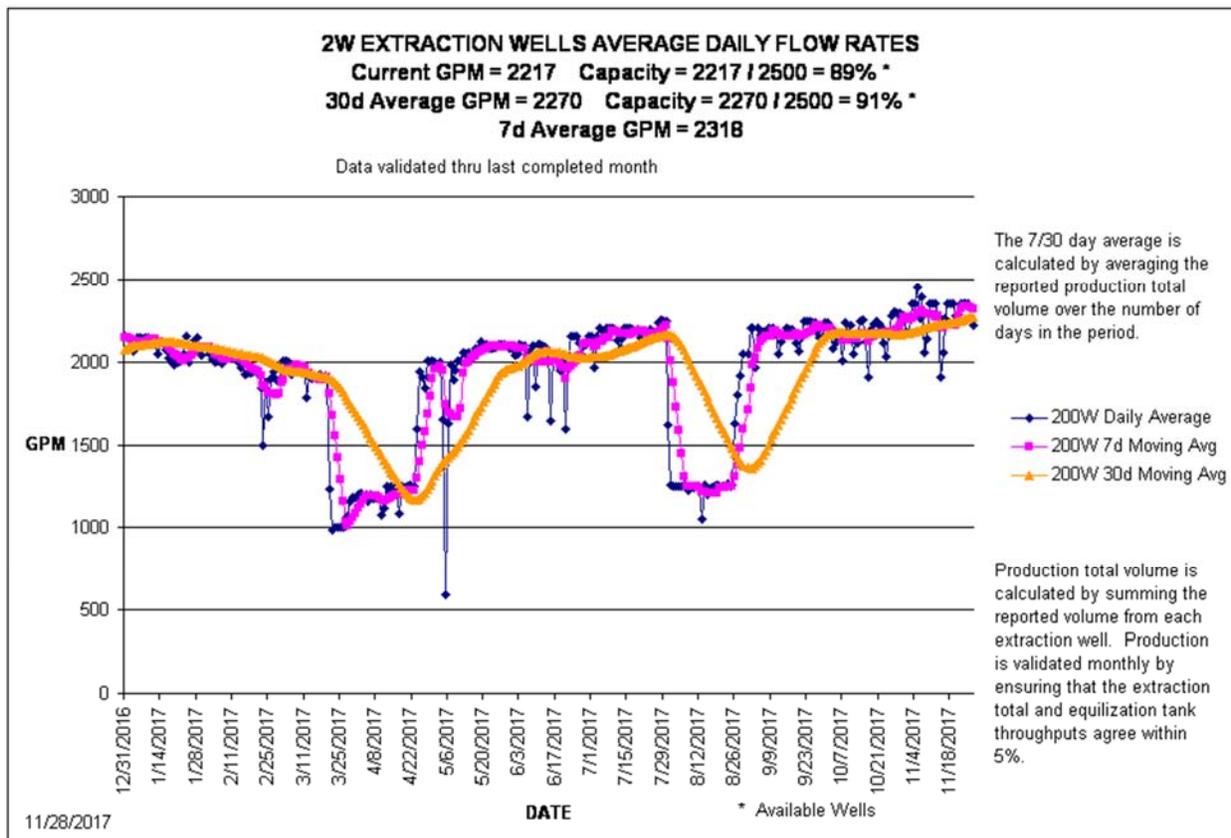
100 Area P&Ts

- Operated the DX P&T at 708 gpm, below the facility capacity of 775 gpm.
- Operated the KR-4 P&T at 213 gpm, below the facility capacity of 330 gpm.
- Operated the KW P&T at 327 gpm, near facility capacity of 330 gpm.
- Operated the KX P&T at 349 gpm, below the facility capacity of 900 gpm.
- Operated the HX P&T at 667 gpm, below the facility capacity of 900 gpm.

FY2017 P&T Operations



200 West P&T



Project Technical Services (PTS) Accomplishments

- Engineering Services
 - o Supported project engineering on final aspects of Uranium Reactive Gas Sequestration (URGS) project operation/design.
- Training and Procedures
 - o Reviewed the mobile self-contained emergency safety shower and eye/face wash process for URGS project to identify potential training and procedures impacts.

MAJOR ISSUES

Issue:

Experiencing regulatory agency delays in the approval of the 100-DR-1, 100-DR-2, 100-HR-1, 100-HR-2, and 100-HR-3 OUs Record of Decision (ROD).

Corrective Action:

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

Status:

The final ROD is currently anticipated for April 2018, following consultation with the Yakama Nation. Supported RL in the preparation for a Yakama Nation briefing, which is currently scheduled for December 13, 2017.

Issue:

KX, KR-4, and DX ion exchange vessels require diffuser repair. Approximately 14 of 36 vessels are in need of repair at KX and KR-4. Extent of condition is under evaluation at DX.

Corrective Action:

Repair all vessels with a damaged diffuser.

Status:

Completed replacement of vessel diffusers at the KX facility on all those with confirmed damage (seven vessels). Work on the KR-4 IX vessels is expected to commence in December (eight vessels). Resin was found in the DX P&T effluent filters in November, indicating the probability of damaged IX vessel diffusers. Evaluation is in progress.

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-0030/WBS-030												
Explanation of major changes to the project monthly spotlight chart: Risk SGW-166, Uranium Expansion Remedy Well Design, was added as a Realized Risk to the spotlight chart in November.												
Realized Risks (Risks that are currently impacting project cost/schedule)												
SGW-135: Major Equipment Failure at a Pump & Treat Facility	A major equipment failure is experienced at one of the P&T locations during operations of the facility or at the injection and extraction well network. This includes but is not limited to failure of: rotary drum thickeners, centrifuges, lime addition conveyor, plastic pipe joint saddles, fluidized bed reactors, membrane bio-reactors, tanks, air stripper, computer system control center, extraction/injection wells, and other related equipment supporting P&T, resulting in cost impacts and schedule delays. Risk Handling Strategy: Accept Probability: Likely (75% to 90%) Worst Case Impacts: \$2,000K, 86 days			Risk Event: Approximately 14 of 36 KX and KR-4 P&T facility ion exchange vessels require diffuser repairs. <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>Repair all vessels with damaged diffusers</td> <td>3/15/17</td> <td>1/31/18</td> <td>38</td> </tr> </tbody> </table> Recovery Action Assessment: Five vessels have been repaired. Seven of the remaining nine vessels in need of repair are available for use with temporary screens in place. All bottom-access vessel repair is complete, and the top-access vessel repair approach has been finalized and parts have been received. The project performed the first top-access vessel repair in September and the remainder of repairs will be completed prior to January 31, 2018.	Risk recovery action(s)	Risk Date	FC Date	%	Repair all vessels with damaged diffusers	3/15/17	1/31/18	38
Risk recovery action(s)	Risk Date	FC Date	%									
Repair all vessels with damaged diffusers	3/15/17	1/31/18	38									
SGW-166: Uranium Expansion Remedy Well Design	Design changes, including an increase in the diameter or depth of the well casings and screen lengths proposed for remedy wells (including 200-UP-1, ZP, M24, PO1, and BP5 wells) or any other design changes, increases the risk of experiencing problems with the casing during drilling or back pulling. Design changes result in in-scope unplanned work and cause schedule impacts to the project. Risk Handling Strategy: Accept Probability: Likely (75% to 90%) Worst Case Impacts: \$0K, 192 days			Risk Event: Currently the realized risk applies only to the remedy wells at 200-UP-1. (This risk has not yet been realized at ZP, M24, PO1, or BP5 wells). The UP-1 drilling project is required to look at long-term drilling requirements, not just short-term drilling needs. This action includes the potential to convert monitoring wells to injection or extraction wells depending upon the plume movement, which could create individual hot spots of contamination. This approach will likely result in more costly wells today, but will save future costs on potential drilling injection and extraction wells. The larger casing of the multi-purpose wells allows for the wells to be monitoring, injection- or extraction-based upon the conveyance piping, well pump sizing and well-head configuration. The 8-inch casing will accommodate a pump sufficient to raise water to the surface and provide the flow rate and pressure requirements for the pump and treat. Originally, well depths used for the performance measurement baseline (PMB) submittal were wells drilled in FY2011, these wells were planned for an average of 312 ft. In recent 200-UP-1 drilling campaigns. It was determined that wells should be drilled to the Ringgold lower mud (RLM), which was anticipated to be encountered at depths ranging from 400-foot-bgs to 450-foot-bgs. This added an additional 100 feet to the estimated planned depth. The depth of the RLM in the areas of these wells was not well established. Determining the depth of the RLM, which is a confining layer in the aquifer, will assist in contaminant plume modeling, containment (P&T), and future well drilling planning. <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>Use of management reserve has not been authorized.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> Recovery Action Assessment: In development.	Risk recovery action(s)	Risk Date	FC Date	%	Use of management reserve has not been authorized.			
Risk recovery action(s)	Risk Date	FC Date	%									
Use of management reserve has not been authorized.												

Risk Title	Unmitigated Risk Impacts	Assessment		Comments
		Month	Trend	
RL-0030/WBS-030				
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)				
No critical risks identified in November .				
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)				
No high risks identified in November .				
Unassigned Risks (Pending ownership of identified risks/opportunities)				
No unassigned risks identified in November .				

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	10.4	9.9	11.5	(0.5)	-4.6	(1.6)	-16.1

Numbers are rounded to the nearest \$0.1 million.

CM Schedule Performance (\$0.5M/-4.6%)

The variance is within reporting thresholds.

CM Cost Performance (-\$1.6M/-16.1%)

The current month cost variance was due to the \$1.6 million in spending incurred in support of P&T optimization (well drilling, well realignments, documentation), 100-NR-2 RI/FS rewrite, and 200-DV-1 MNA evaluation and shallow soil characterization activities that are not yet planned in the PMB.

Contract-to-Date (\$M)

RL-0030 Soil and Groundwater Remediation	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Estimate to Complete (ETC)	Variance at Completion (VAC)
Total	1,424.6	1,407.0	1,381.7	(17.6)	-1.2%	25.3	1.8%	1,568.1	1,540.8	159.1	27.3

Numbers are rounded to the nearest \$0.1 million.

CTD Schedule Performance (-\$17.6M/-1.2%)

The variance is within reporting thresholds.

CTD Cost Performance (+\$2.3M/+1.8%)

The variance is within reporting thresholds.

Variance at Completion (+\$27.3M/+1.7%)

The variance is within reporting thresholds.

Contract Performance Report Formats are provided in Appendix A.

FUNDS vs. SPEND FORECAST (\$M)

RL-0030 Soil and Groundwater Remediation	FY2018		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	128.9	111.9	16.9
Incremental Scope Pending Change Management	0.0	16.9	(16.9)
RL-0030 –Total	128.9	128.8	0.0

Numbers are rounded to the nearest \$0.1 million

Funds/Variance Analysis

The FY2018 revised budget guidance received from RL reflects expected funding of \$128.9 million for project breakdown structure (PBS) RL-0030. The FY spending forecast of \$128.9 million includes actions anticipated to achieve funding targets.

Critical Path Schedule

Critical path analysis can 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-024-58K	Initiate Discussions of Well Commitments	6/1/18		6/1/18	On schedule.
M-015-21A	Submit 200-BP-5 & 200-PO-1 OU FS Report and PP(s) to Ecology	6/30/18		10/12/18	At risk, impacted by delay in Ecology's comments on the RI report.
M-015-92A	Submit RFI/CMS & RI/FS Work Plan for 200-EA-1 OU to Ecology	7/31/18		4/19/18	Ahead of schedule. RL and Ecology have agreed to combined Decisional Draft and Draft A review.
M-024-69-T01	Conclude discussions of well commitments initiated under M-024-58	8/1/18		8/1/18	On schedule.
M-015-93C	Initiate Characterization Field Work for 200-SW-2 Operable Unit Landfills	9/30/18		TBD	At risk; project is not funded in FY2018.
M-016-193	Investigate SE Chromium Plume, Install Wells, Evaluate GW Monitoring Data & Install Monitoring Wells	9/30/18		9/30/18	On schedule.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
RL Review of Decisional Draft 100-HR-3 RD/RAWP	9/21/17 (A)	1/22/18
RL Review of Decisional Draft Biomobilization/Biointrusion SAP	9/27/17 (A)	12/1/17
RL Review Decisional Draft 200 Area P&T Performance Monitoring Plan	11/28/17	12/28/17
RL Submit Draft SST WMA TX-TY Engineering Evaluation Report to Ecology for Review	11/30/17	12/1/17
Concurrent RL and CHRPC Review of Internal Draft LLBG WMA-3 Engineering Evaluation Report	12/1/17	12/7/17
Concurrent RL and CHRPC Review of Internal Draft 216-S-10 Pond and Ditch Engineering Evaluation Report	12/13/17	12/28/17
Concurrent RL and CHRPC Review of Internal Draft LLBG WMA-4 Engineering Evaluation Report	12/12/17	12/18/17
RL Submit Draft SST WMA S-SX Engineering Evaluation Report to Ecology for Review	12/22/17	12/28/17

Description	CHPRC Delivery Date	Expected RL Due Date
RL Transmit Draft Rev 0 200-BP-5 RAWP for Regulator Final Check Review	12/28/17	1/27/18
RL Submit Draft LLBG WMA-3 Engineering Evaluation Report to Ecology for Review	1/8/18	1/9/18
RL Review of Draft Rev 0 100-BC-5 Proposed Plan	1/8/18	1/19/18
RL Submit Draft LLBG WMA-3 Engineering Evaluation Report to Ecology for Review	1/8/18	1/9/18
RL submit Draft KW Soil Flushing/Infiltration Treatability Test Plan to EPA for Review	1/8/18	1/11/18
Concurrent RL and CHRPC Review of Internal Draft LLBG WMA-2 Trench 94 Engineering Evaluation Report	1/16/18	1/22/18
RL Transmit Draft A U Plant Tri-Party Agreement Change Notice to EPA	1/19/18	1/22/18
RL Transmit Draft A Biomobilization/Biointrusion SAP to Regulators for Review		2/25/18
RL Submit Draft LLBG WMA-4 Engineering Evaluation Report to Ecology for Review	1/26/18	1/29/18
RL Submit Draft 216-S-10 Pond and Ditch Engineering Evaluation Report to Ecology for Review	1/29/18	1/30/18
RL Review Draft Central Plateau Tracer Test SAP	1/31/18	3/4/18
Concurrent RL and CHRPC Review of Internal Draft SST WMA C Engineering Evaluation Report	2/2/18	2/8/18
RL Transmit Rev 0 SST WMA U Engineering Evaluation Report to Ecology	2/13/18	3/6/18
Concurrent RL and CHRPC Review of Internal Draft SST WMA A-AX Engineering Evaluation Report	2/13/18	2/20/18
RL Submit Draft LLBG WMA-2 Trench 94 Engineering Evaluation Report to Ecology for Review	2/26/18	2/27/18

Section E

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



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

November 2017
CHPRC-2017-11, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

The Plutonium Uranium Extraction Plant (PUREX) Tunnel 1 grouting activities completed November 12, 2017, with approximately 4,290 cubic yards placed. Demobilization is underway and final closeout is anticipated in January 2018. Additionally, the final pre-filters and high-efficiency particulate air (HEPA) were installed in the B Plant ACT-02 filter bank.

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	16	N/A
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

RL-0040 Accomplishments

Central Plateau Surveillance and Maintenance (CPS&M) Facilities and Waste Sites

- Performed National Emissions Standards for Hazardous Air Pollutants (NESHAPS) inspections at B Plant.
- Completed Roof Inspections for 221B, 212B, and 271B.
- Completed walk down to build a bird barrier for reduction and oxidation (REDOX) west dock.
- Completed walk down for repair of fixed contamination areas (FCAs) at REDOX, 221-U, and 221-B.
- Completed breaker repair/replacement in the 400 Area.
- Completed Motor Mount Replacement on B Plant fan.

PUREX Tunnels

- Relocated cameras in the north and south sections to support verification of completion of engineered grout injection in both portions of the tunnel.
- Fabricated new adaptors for Riser 1 and 6 and transported to PUREX for installation.
- Modified Riser 1 and converted it to a new HEPA vent to support the completion of the north portion of the tunnel.
- Finished modification on Riser 6 to convert it to a new injection point and support the completion of the south portion of the tunnel.
- As of November 9, 2017, approximately 4,290 cubic yards of grout has been placed in the tunnel.



PUREX Stack Sampling System Replacement

- Construction contractor continued issuing pre-start submittals.
- Reviewed and approved construction contractor pre-start submittals.
- Arranged for and started completion of bioassays for the construction personnel.
- Finalized and received approval of the CPS&M probe removal and acceptance testing work package (WP).
- Continued development of the construction work package for demolition and installation of the replacement stack sampling system.

B Plant Pre-filter and HEPA Filter Change-out

- Installed flame retardant tarp over the ACT-002 containment tent to prevent water entry.
- Vacuumed dust from the ACT-002 primary HEPA filter bank.
- Installed the last six primary HEPA filters into the ACT-002 filter bank and removed all nine secondary HEPA filters from the ACT-002 filter bank.
- Installed the final nine secondary HEPA filters into the ACT-002 filter bank, which were the last set of HEPA filters to install.
- Performed preparatory activities to restart the ventilation fans, including startup/evaluation of the fan motors, removal of the in-line Portable Temporary Radioactive Emissions unit (PTREAU) and re-installation of the flange, removal of the magnahelic gauge, opened the dampers leading to the ACT-001 and ACT-002 filter banks, and tested the Surveillance and Monitoring Control System (SAMCONS) alarm.
- Performed ultrasonic testing of the HEPA filters and the filter housings to ensure there are no air leaks. Instituted the environmental sampling system for the B Plant ventilation stack. Performed vent and balance on the ventilation system.
- Shut down ventilation system fans one day after restart after elevated dose readings were identified on the pre-filter section of the ACT-002 filter bank.

REDOX Risk Mitigation

- Performed walk down with craft to develop more permanent enclosure for the REDOX dock.
- Commenced planning and engineering for installation of temporary ventilation REDOX North Sample Gallery.
- Identified existing equipment in use at Plutonium Finishing Plant (PFP) for eventual redeployment to REDOX.
- Commenced first ultrasonic testing of processing lines to verify presence or absence of liquids in REDOX.
- Supported CPS&M for REDOX sampling and surveillance campaigns.
- Completed job hazard analysis for sampling package and routed package for approval.

MAJOR ISSUES

Issue:

As a result of the PUREX Tunnel 1 collapse, CHPRC received a notification on May 9, 2017, from the Department of Ecology (DOE) of an administrative order with which CHPRC must comply. The administrative order requires the following corrective actions (CA).

Corrective Action:

- Identify and implement recovery actions associated with the collapsed PUREX Tunnel 1 – proposal schedule and estimate completed August 2017.
- By July 3, 2017, submit to Ecology the Nuclear Waste Program a structural integrity evaluation for both PUREX Storage Tunnels 1 and 2. (CA 1) – completed June 29, 2017.

- By August 1, 2017, submit a draft report detailing the corrective actions to ensure the safe storage of the waste in the PUREX Storage Tunnels 1 and 2 to RL the Nuclear Waste Program for comment and approval. (CA 2) – completed July 11, 2017.
- By October 2, 2017, submit a draft permit modification to the Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion Revision 8C to modify the permit. (CA 3) – Revised to include Preparedness & Prevention Addendum by December 7, 2017.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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

- Increased Confidence
- No Change
- Decreased Confidence

Risk Title	Unmitigated Risk Impacts	Assessment		Comments																						
		Month	Trend																							
RL-0040/WBS-040																										
Explanation of major changes to the project monthly spotlight chart: No major changes in November.																										
Realized Risks (Risks that are currently impacting project cost/schedule)																										
D4-042: Unexpected Site Conditions - D4	Unexpected site conditions are encountered during deactivation, decommission, decontamination, and demolition (D4) activities, resulting in schedule delays. Risk Handling Strategy: Accept Probability: Likely (75% to 90%) Worst Case Impacts: \$0K, 300 day			<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.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="width: 70%;">Risk recovery action(s)</th> <th style="width: 10%;">Risk Date</th> <th style="width: 10%;">FC Date</th> <th style="width: 10%;">%</th> </tr> </thead> <tbody> <tr> <td>(WP) work 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="3" style="text-align: center;">Aug 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 ACT002 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></td> <td style="text-align: center;">11/25/2017</td> <td style="text-align: center;">100%</td> </tr> <tr> <td style="color: red;">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;">12/21/2017</td> <td style="text-align: center;">0%</td> </tr> </tbody> </table> <p>Recovery Action Assessment:</p> <ul style="list-style-type: none"> Condensate buildup was identified as the most likely source of water, per engineering evaluation. HEPA filters could not be replaced until the new filters were manufactured, tested at the off-site filter testing facility, and shipped to Hanford. Manufacturer experienced delays due to material shortages, test equipment maintenance, and shipping logistics due to size. Both sets of HEPA filters have been received as of early October. NCRs were issued on the first and second set due to missing procurement specifications on the boxes and filter labels. One NCR was closed out in late September (first set) and the second NCR was closed in early October (second set) after receiving supplementary labels from the manufacturer. <li style="color: red;">Pre-filters and HEPA filters were changed and fans were restarted. <p style="color: red;">The pre-filters and HEPA filters were replaced in both ACT filter banks and the ventilation system was restarted. Site cleanup activities were initiated. Within a day of fan operations, dose rates on the pre-filters became elevated and needed to be monitored on an hourly basis. The dose rates have since stabilized; however, the current dose rates require the pre-filters be replaced with new ones. This scenario was previously identified in this risk assessment and only appears to have impacted the pre-filters. Pre-filters are low-cost, and sufficient filters are available to proceed with the change-out; however, both containment tents had to be cut open in the back to support the filter installations. Repairs to the tents will be performed in early December and replacement of both sets of pre-filters will be performed in mid-December,</p>	Risk recovery action(s)	Risk Date	FC Date	%	(WP) work 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.	Aug 2016	Complete	100%	Recovery actions were performed in April and May 2017 to fix contamination associated with ACT002 in and around the containment tent.	Complete	100%	Requests to expedite the HEPA filter order have been rejected by the manufacturer due to issues with their equipment at the production facility.	Complete	100%	Execute pre-filter and HEPA filter change out.		11/25/2017	100%	Repair tents and perform second pre-filter change out in ACT-001 and ACT-002 filter banks.	November 2017	12/21/2017	0%
Risk recovery action(s)	Risk Date	FC Date	%																							
(WP) work 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.	Aug 2016	Complete	100%																							
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Execute pre-filter and HEPA filter change out.		11/25/2017	100%																							
Repair tents and perform second pre-filter change out in ACT-001 and ACT-002 filter banks.	November 2017	12/21/2017	0%																							

Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
RL-0040/WBS-040										
				followed by restart of the ventilation system fans and removal of the containment tents.						
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)										
No critical risks identified in November .										
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)										
D4-064: Aging Building Systems/Components	Problems with aging building systems/components (e.g., roofing/structures, etc.) result in inoperability or requires unscheduled maintenance/outages, resulting in cost impacts. Risk Handling Strategy: Accept Probability: Likely (75% to 90%) Worst Case Impacts: \$2 million, 0 Day			<p>Risk Event: During routine surveillance activities, unforeseen events cause systems to be compromised. This risk is a lifecycle risk and will continue through the CHPRC contract period (September 30, 2018). This risk was realized in March due to increased future maintenance costs; however, a BCR was implemented to utilize MR, and the risk has since been recovered from.</p> <table border="1"> <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>Recovery Assessment: No major changes in November. A pre-conceptual design was provided to RL with an estimate for a similar replacement of the entire PUREX stack sample system. CHPRC was provided a not-to-exceed (NTE) to complete a detailed design package for the system and to start demolition and installation activities; however, it is expected that the NTE amount will be expended early on during construction. The detailed design package for the replacement system was accepted in May 2017, and stamped/signed copies of the package were received in early June. Construction contract development and procurement of the system parts was started in July and continued through the remainder of FY2017. Ordered parts/materials were received through the end of October with the exception of a few additional parts that had to be reordered and will be delivered in December. Construction bids were received on September 28, 2017, and the contract award and notice to proceed were issued in mid-October. A kickoff meeting with the construction contractor was held on October 19, 2017. Training/submittals/bioassays and development of the construction work package continued until the end of November up to mobilization on November 28, 2017. Construction of the sample cabinet and vacuum pump cabinets was started in late November and is scheduled for Factory Acceptance Testing (FAT) in mid-December. Demolition of the existing system will start on November 29, 2017.</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								
Unassigned Risks (Pending ownership of identified risks/opportunities)										
No unassigned risks identified in November .										

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	2.6	3.1	4.2	0.6	22.0%	(1.1)	-35.2%

Numbers are rounded to the nearest \$0.1 million

CM Schedule Performance: (\$0.6M/+22.0%)

The current month schedule variance is mostly due to REDOX Silo and North Sample Gallery Cleanout preparations. Schedule efficiencies were gained by changing the strategy for planning walk downs, waste removal, and life safety work packages for the REDOX Silo. Instead of completing the work on a floor-by-floor basis as originally planned, floors were able to be combined and attacked using a single package. Additionally, the amount of changes required to support life safety were very minimal once Fire Protection was able to enter and inspect the facility. Further improvements to the schedule performance were incurred as a result of exceptional craft field performance in legacy waste removal from the REDOX Silo, as well as the removal of equipment without the need for size reduction, as originally planned. Lastly, the projects were able to claim performance for work that was authorized but had not yet implemented into the baseline; this variance aligns performance with actual fieldwork progress for REDOX Silo and North Sample Gallery Cleanout.

CM Cost Performance: (-\$1.1M/-35.2%)

The unfavorable current month cost variance is mostly due to the PUREX Tunnel 1 interim actions. Additional labor and subcontract was required to install the injection point in the south end of the tunnel to complete grouting activities. Additional resources were needed to perform unanticipated demobilization and meet end state requirements such as removing the ecology blocks, backfill disposition to ERDF, and modify the trailer (assumed only temporary power).

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	462.2	460.5	432.5	(1.8)	-0.4%	27.9	6.1%	503.7	470.9	38.4	32.8

Numbers are rounded to the nearest \$0.1 million

Cost to date (CTD) Schedule Performance: (-\$1.8M/-0.4%)

The contract to date schedule variance is mostly attributed to delaying the start of the electrical breaker preventive maintenance work. The work planning effort fell behind schedule due to competing priorities for work planners as well and the ability to hire electricians (-\$1.3 million).

The variance is also due to changed assumptions for the B Plant pre-filter change out. The pre-filters were originally planned to be replaced annually, but have been changed on an as needed basis. Therefore, the FY2016-17 scope has not been performed and is under negotiation for a scope deduction. The current

pre-filter change (identified as FY2015 scope) has incurred delays due to water intrusion and the need to replace HEPA filters in addition to the pre-filters. (-\$0.3million)

The PUREX Tunnel 1 Interim Actions is behind schedule due to delays in finalizing the design, which impacted the mock-ups and ultimately delayed the start of grouting activities (-\$0.3 million).

CTD Cost Performance: (+\$27.9M/+6.1%)

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

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

Variance at Completion (+\$32.8M/+6.5%)

The Estimate at Completion (EAC) of \$470.9 million does not include the balance of Change Order (CO) 311, CO 324, aging structures planning and stabilization, or PUREX Tunnel 2 investigation.

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	
Spending Forecast	50.4	34.8	15.5
Incremental Scope Pending Change Management	0.0	16.5	(16.5)
RL-0040 – Total	50.4	51.3	(1.0)

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis

FY2018 projected funding for PBS RL-0040 is \$50.4 million. The remainder of COs 311 and 324 reside in the incremental scope. The EACs will be reviewed to determine areas to cut back for December reporting.

Critical Path Schedule

Critical path analysis can be provided upon request.

MILESTONE STATUS

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

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-016-250C	Submit to Ecology a 3-Year Rolling Prioritized Schedule to Implement Waste Site Removal Actions	3/31/2018		3/29/2018	On schedule
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	Lack of funding

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
RL Review of 202S Demo Prep / D&D / Annex Action Memo (2016-52)	11/21/16 (A)	11/7/17 (A)
RL Review of 202A Demo Prep / Annex / Vent Mods Action Memo	11/29/17	01/02/18
RL Review of 221B Demo Prep & Stabilization of Legacy Vent System Action Memo	03/18/18	05/01/18

Section F

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



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

November 2017
CHPRC-2017-11, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

T. L. Hobbes
Vice President for 618-10 Burial Ground
and Environmental Restoration
Disposal Facility

L. M. Douglas
(Acting) Vice President
for 324 Building
Disposition Project

M. A. Wright
Vice President for
Project Technical
Services

PROJECT SUMMARY

The project continued progress on: 100K Closure Project performed waste site remediation and K East Sedimentation Basin backfill; Garnet Filter Media Removal System equipment fabrication; advancement of the Sand Filter Media Removal System conceptual design; and K West Basin below-water debris characterization. The 300-296 Remote Soil Excavation Project mobilized the subcontractor for the equipment installation at the mockup, began interference removal within the 324 Building, and continued to make significant progress with airlock cleanout activities. Backfill of the 618-10 Burial Ground Complex continued.

EMS Objectives and Target Status (Draft)

Objective #	Objective	Target	Due Date	Status
18-ERDF-OB1-T1	Conserve resources/waste minimization	Procure and use metal liner substitutes for the macroencapsulation treatment of waste, instead of using functional roll-on/roll-off (RO/RO) waste containers as sacrificial containers.	9/30/18	0%
18-ERDF-OB2-T1	Improve compliance/pollution prevention	Monitor and evaluate universal waste (UW) and recycling accumulation areas for compliance with CHPRC procedures.	9/30/18	20%
18-EMS-KBOPR-OB1-T1*	Improve compliance/pollution and spill prevention	Monitor and evaluate UW and recycling accumulation areas for compliance with CHPRC procedures. Survey spill prevention measures.	9/30/18	16%
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.	9/30/18	0%
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.	9/30/18	25%

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	
First Aid Cases	2	37	<ul style="list-style-type: none"> 11/1/2017 – An employee’s hand was pinched between a cutter bar and a motor grader while trying to bolt the cutter bar in position. The employee was taken to medical and released to work without restrictions. (24658) 11/7/2017 – Employee was walking through the swinging doors with their hands full of a loaded tote full of PAPRs. The employee pushed both doors open to step through the opening and the door swung back before they could clear the doorway, striking the back of their left hand and left shoulder, bruising both areas. Employee did not think the injury was significant enough to warrant a follow-up until the next day when the bruising was visible on the back of the left hand and the soreness of the shoulder and hand were noticeable. (24663)
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

RL-0041 Accomplishments

- 100K Closure Project:
 - o 100K Soil Remediation
 - Continued backfill of 183.2 KE Sedimentation Basin (45 percent complete).
 - Soil and Groundwater Remediation Project (S&GRP) installed casing extension on wells 199-K-220 and 199-K-225 in support of backfilling around the wells.
 - Completed excavation and final in-process soil samples of Waste Site 100-K-99.
 - Decommissioned ground water well 199-K-23 and started remediation of Waste Site 116-KE-2. Average production rate for the week was 20 ERDF cans per day. Contamination has been found at 57 feet below ground surface (bgs) and will require excavation to a depth of 60 feet bgs (approximately 98,000 tons of material will be removed from the site).
 - CHPRC submitted the change proposal for Change Order 330, FY2018 100K soil remediation as well as provided request for information (RFI) responses to RL.
 - Environmental Protection Agency (EPA) approved the verification sampling work instruction for Waste Site 1607-K1.
 - Entered the remaining sites verification package and waste site reclassification form into the Administrative Record for closure of Waste Sites 100-K-103 and 100-K-79:9.
 - RL and EPA approved Verification Sampling Instruction for Waste Sites 100-K-107 and 100-K-108.
 - o K West Basin Deactivation:
 - Garnet Filter Media Removal System (GFMRS)
 - Columbia Energy and Environmental Services continued fabrication of GFMRS process equipment.
 - Fabrication of process equipment assemblies is approximately 90 percent complete.
 - American Boiler Works continued fabrication of Sludge Transport & Storage Container (STSC) units 425, 426, 427, and 428.
 - Fabrication of STSC units is approximately 15 percent complete.
 - Performed Garnet Filter 3 Sluice Outlet Valve V-305 Risk Mitigation.
 - Apollo Construction has completed training on all valve actuator removal tools, including installing the new mechanical operator on the valve V-305 mock up at Maintenance and Storage Facility (MASF). A concrete and steel test shield wall has been set up at the Apollo facility, which Apollo will use to determine the best core drilling methods and to select the preferred drill string. The effort should begin next week.
 - Sand Filter Media Removal System (SFMRS)
 - The SFMRS work package and test procedure are complete. Set up of the test loop (full-scale system mockup) is complete.
 - KW Basin Below-water Debris Characterization
 - Completed West Bay debris field model set-up and survey plan.
 - Fabrication of the gamma camera underwater enclosure at MASF is nearing completion, and Radiological Site Services (RSS) completed calibration of the Gamma Camera to a CS-137 source.
 - MASF has successfully completed testing the basin floor core sample tool.
 - Developed draft risk register for the K West Basin characterization effort. Risk scenarios recognize Central Waste Complex (CWC) requirements for packaging remote-handled transuranic waste (RH TRU) material remaining in the basin.
 - o Currently, CWC requires RH TRU material to be packaged in a manner that affords shipment to Waste Isolation Pilot Program (WIPP) in Carlsbad, New Mexico, in shielded containers that are limited to a 534-pound payload (affords only 200 pounds of debris when grouted for as low as reasonably achievable [ALARA])

- considerations). RH TRU packaging (worst-case risk scenario, low probability) may require up to 65 shielded containers. The characterization team is working with risk management to identify viable risk mitigation activities for fiscal year FY2018.
- K East Reactor Interim Safe Storage (ISS):
 - Completed on-boarding ISS Subject Matter Expert (SME) subcontractor to assist with ISS planning activities and reviewed project needs/objectives with the SME.
 - Continued gathering, reviewing, and organizing previously developed ISS project documentation (ongoing activity).
 - Held preliminary discussions with the D&D director, work planning and CPS&M to perform an entry into 105 K East Reactor to support planning effort.
 - Ancillary Facility Deactivation & Demolition (D&D)
 - Prepared a map of 100K Ancillary Facilities for long-range D&D planning and provided it to RL.
 - Continued glove bag installation in 165 K East Power Control Building for removal of asbestos thermal piping system insulation
 - Remaining Closure Operations
 - o Updated the 300 Area and 400 Area Interim Stabilization design sketches to address preliminary RL comments and resubmitted to complete the RL and EPA reviews.
 - o Completed internal review of the civil sketches for the installation of impermeable barriers at the 400-37, 400-38, 300-5, 331-LSLT1, and 331-LSLT2 interim sites and incorporated changes.
 - o Mission Support Alliance, LLC (MSA) is developing the ecological/cultural assessment for the 300 Area Interim Stabilization sites.
 - o MSA determined that there is no current path for gaining RL approval of the ecological/cultural assessment for the 400 Area interim stabilization sites through a previously used exemption process. MSA recommended that a traditional full ECO/cultural assessment be performed (approximately 120 days) to ensure that approval be received prior to the spring construction activities.
 - o Collecting shrub seeds from various locations around the Hanford Site to support FY2019 revegetation efforts (includes 618-10).
 - o EPA approved Waste Site Reclassification Form and closure of Waste Sites 600-403 and 600-393. The sites are ready to be revegetated.
 - 618-10 Burial Ground:
 - o Continued backfill of the 618-10 Burial Ground.
 - o Continued to work on environmental closeout documentation.
 - o Continued equipment decontamination and infrastructure demobilization activities.
 - 324 Building Minimum Safe:
 - o Steam Isolated and coil repairs made. Steam returned to full service.
 - o Removed failed brake assembly from 30-ton CHA Crane. Replacement parts ordered.
 - o Performed decontamination of CHA Crane and surrounding area for Beryllium.
 - o Retrieved manometer oil from out-of-service manometer for use in functioning manometers.
 - o Removed Airlock filters and replaced with screens to keep debris from drawing into duct.
 - o Supported A-05 Procedure updates to include access to C Cell.
 - o Performed 10 monthly, quarterly, or annual preventative maintenance packages.
 - o PTS Support:
 - Drafted procedures for removal/replacement of 324 Facility manipulators.
 - 300-296 Soil Remediation Project:
 - o Released the task order and mobilization began for the mockup equipment installation contractor.

- o Installed the first of four manipulators at the mockup.
 - o Completed activities to prepare the mockup B-Cell walls for lights and camera installation.
 - o Initiated the installation of concrete aprons under the roll-up door at the mockup.
 - o Awarded the contract for the grouting system for mockup.
 - o Awarded the contract for A-, C-, D-Cell Dams.
 - o Released Task 5 (Option) to fabricate the Remote Excavator Arm (REA) system for the 324 Building.
 - o Received best and final offers for the Rad Assay and Crane Mounted Radiation Detectors and completed the technical evaluations.
 - o Started Interference Removal in 324 Building.
 - o Received the control trailer at the 324 Building.
 - o Issued the A-05 Airlock procedure (Revision 1) and the Retrieve Televator/Duct Reel Work Plan.
 - o Completed size reduction, waste removal (including removal of the televator and hose reel), and cleanout of remaining debris from the airlock.
 - o Removed a lance from the roughing filter in A-Cell to allow the future removal of the roughing filter to install a snorkel for future grouting of the cell.
 - o Completed a waste load out campaign for the electrical and mechanical interferences from Rooms 18, 131, and 132 within the 324 Building.
 - o Reconfiguration of the step-off pad was initiated to support the larger crews entering the facility for future equipment installation and structural modifications.
- Environmental Restoration Disposal Facility (ERDF):
 - o Received 16,440 tons for the fiscal month of November.
 - o Receipt of 27,715 tons fiscal year to date (FYTD).
 - o Receipt of one long-length item (LLI) for treatment.
 - o Off-loaded one LLI with the non-standard crane.
 - o Worked three Fridays and one Sunday of overtime supporting PFP waste.

MAJOR ISSUES

No major issues to report at this time.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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

-  Increased Confidence
-  No Change
-  Decreased Confidence

Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
RL-0041/WBS-041										
Explanation of major changes to the project monthly stoplight chart: Risks RCC-300-296-02: 300-296 Loss of ventilation in the 324 hot cells or Zone II, RCC-300-296-08: 300-296 Failure of a cell shield door, RCC-300-296-13: 300-296 Constructability issues arise for the structural modification to the 324 Building, and RCC-300-296-21: 300-296 Unable to Remove the Floor Plug Between D-Cell and C-Cell were added to the stoplight chart as Critical Risks. Risk RCC-300-296-03: Mockup testing and qualification of remote equipment / process identifies major modification requirements was removed from the Critical Risk section and is now being reported on as a High Risk Threat Value. Risk RCC-300-296-07: 300-296 Failure of a REC Cranes (B-Cell, A-Cell, A-D & Airlock, or CHA cranes) was added to the stoplight as a High Risk Threat Value. The transfer risks pending formal acceptance from RL (RCC-300-296-04DOE: 300-296 Seismic Event (Force Majeure), RCC-300-296-23DOE: 300-296 Large Brush Fire (Force Majeure), and RCC-300-296-27: 300-296 Requirement Changes Result in Additional Work/Entry Prerequisite Training) were added as unassigned risks.										
Realized Risks (Risks that are currently impacting project cost/schedule)										
No realized risks identified in November.										
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)										
RCC-300-296-02: 300-296 Loss of ventilation in the 324 hot cells or Zone II	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 cost and schedule impacts. Risk Handling Strategy: Control Probability: Likely (75% to 90%) Worst Case Impacts: \$0K, 48 days			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 for the 300-296 Remote Soil Excavation Project (RSEP). <table border="1" style="width: 100%;"> <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 PMs (R03095)</td> <td>9/30/2018</td> <td>15.1</td> </tr> </tbody> </table> Mitigation Assessment: Ventilation preventive maintenance is being routinely performed. Spare fan parts are available for minor failures if occurrence is realized.	Mitigation action(s)	FC Date	%	324 Min. Safe Spare Parts and Routine PMs (R03095)	9/30/2018	15.1
Mitigation action(s)	FC Date	%								
324 Min. Safe Spare Parts and Routine PMs (R03095)	9/30/2018	15.1								
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 Trigger Metric: Risk is accepted with no further mitigation actions identified at this time. The risk will continue to be monitored until it no longer poses a threat to the project. <table border="1" style="width: 100%;"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> Mitigation Assessment: An assessment of shield door(s) or crane shield door(s) was performed (PRC-SRP-00043). As a result, additional PM has been implemented and spare parts are available for minor failures if occurrence is realized. The risk will continue to be monitored until it no longer poses a threat to the project.	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								

<p>RCC-300-296-13: 300-296 Constructability issues arise for the structural modification to the 324 Building</p>	<p>Demolition of existing structures and installation of structural modifications to the 324 Building are necessary to provide structural support to B-Cell during excavation of the radiologically contaminated soil. There is limited access and work space in the 324 Building, which could lead to design review issues impacting the installation of the structural modifications. The impacts may result in in-scope unplanned work causing cost and schedule impacts to the project.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Low (10% to 25%) Worst Case Impacts: \$640K, 160 days</p>			<p>Risk Trigger Metric: Access restrictions in the 324 Building could lead to constructability issues impacting the installation of essential structural modifications.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Contractor Prepare and Submit Structural Modification Design (Final) (VE2810A)</td> <td>3/8/2018</td> <td>-</td> </tr> <tr> <td>Approve Facility Modification Package for Structural Mods (Final Structural Design) (VE2800)</td> <td>3/19/2018</td> <td>-</td> </tr> <tr> <td>DOE Independent Structural Modification Review (SVT) (VE2820)</td> <td>4/7/2018</td> <td>-</td> </tr> </tbody> </table> <p>Mitigation Assessment: Structural Modifications Contractor has been acquired. Structural Modification Designs have commenced. Constructability will continually be evaluated based on the design process. In addition, RL is planning an independent Structural Design Review following submittal of the CHPRC Structural Modification Design (VE2820).</p>	Mitigation action(s)	FC Date	%	Contractor Prepare and Submit Structural Modification Design (Final) (VE2810A)	3/8/2018	-	Approve Facility Modification Package for Structural Mods (Final Structural Design) (VE2800)	3/19/2018	-	DOE Independent Structural Modification Review (SVT) (VE2820)	4/7/2018	-
Mitigation action(s)	FC Date	%														
Contractor Prepare and Submit Structural Modification Design (Final) (VE2810A)	3/8/2018	-														
Approve Facility Modification Package for Structural Mods (Final Structural Design) (VE2800)	3/19/2018	-														
DOE Independent Structural Modification Review (SVT) (VE2820)	4/7/2018	-														
<p>RCC-300-296-21: 300-296 Unable to Remove the Floor Plug Between D-Cell and C-Cell</p>	<p>Personnel are unable to lift the D-Cell floor plug with the seal breaker/lifting device and remote operated impact device. The impact of this risk will result in an increased number of soil bins needed to be loaded into waste boxes for disposal at ERDF.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Medium (26% to 74%) Worst Case Impacts: \$462K, 56 days</p>			<p>Risk Trigger Metric: Personnel are unable to lift the D-Cell floor plug with the seal breaker/lifting device and remote operated impact device.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Fab/Install/Concept Test ROID SB/LD at MASF (VE1010)</td> <td>10/26/17</td> <td>100</td> </tr> <tr> <td>Utilize Seal Breaker / Lifting Device Assembly in 324 to Free Plug (VE1465)</td> <td>9/10/18</td> <td>-</td> </tr> </tbody> </table> <p>Mitigation Assessment: This work scope is being mitigated by installing guide pins onto the four hex nuts in the floor plug. This will verify alignment of the seal breaker/lifting device with the floor plug.</p>	Mitigation action(s)	FC Date	%	Fab/Install/Concept Test ROID SB/LD at MASF (VE1010)	10/26/17	100	Utilize Seal Breaker / Lifting Device Assembly in 324 to Free Plug (VE1465)	9/10/18	-			
Mitigation action(s)	FC Date	%														
Fab/Install/Concept Test ROID SB/LD at MASF (VE1010)	10/26/17	100														
Utilize Seal Breaker / Lifting Device Assembly in 324 to Free Plug (VE1465)	9/10/18	-														
<p>High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone) Lifecycle Risk Triggers (Risk could be realized at any point of the project)</p>																
<p>RCC-300-296-03: Mockup testing and qualification of remote equipment / process identifies major modification requirements.</p>	<p>Issues such as equipment interferences, equipment reliability, etc., arise during mockup testing, leading to major re-design of equipment and resulting in cost and schedule delays.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Low (10% to 25%) Worst Case Impacts: \$86K, 80 days</p>			<p>Risk Trigger Metric: Risk could be triggered through the conduct of component testing or testing/training performed at the mockup that produced inadequate or unexpected test results.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Conduct Concrete Floor Saw Test (cut rate, embedment cutting), and determine P.O.P.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Perform Construction Acceptance Test (CAT) at mockup facility – including REA system with HPUs, cameras, and lighting and transfer mechanisms (VE0640)</td> <td>4/25/18</td> <td>0</td> </tr> </tbody> </table> <p>Mitigation Assessment: <i>No changes in November.</i> The mockup will be used to validate equipment performance and to support establishing proficiency for personnel for installation, relocation, and operation of remote soil remediation equipment in the 324 Building. Remotely operated equipment (Remote Excavation Arm, transfer mechanism, cameras and lighting, and floor saw) could experience higher failure rates and/or performance issues from the lack of personnel proficiency. Vendor contracts have been awarded for the REA, transfer mechanism, cameras and lighting systems, and equipment deliveries to the mockup are scheduled for January/February 2018. A single proposal was received in response to the Mockup Saw RFP to design and was above the expected price. The solicitation was canceled and a revised RFP is being prepared with modifications intended to deliver multiple proposals and a competitive price.</p>	Mitigation action(s)	FC Date	%	Conduct Concrete Floor Saw Test (cut rate, embedment cutting), and determine P.O.P.	Complete	100	Perform Construction Acceptance Test (CAT) at mockup facility – including REA system with HPUs, cameras, and lighting and transfer mechanisms (VE0640)	4/25/18	0			
Mitigation action(s)	FC Date	%														
Conduct Concrete Floor Saw Test (cut rate, embedment cutting), and determine P.O.P.	Complete	100														
Perform Construction Acceptance Test (CAT) at mockup facility – including REA system with HPUs, cameras, and lighting and transfer mechanisms (VE0640)	4/25/18	0														
<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: Accept</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>Prepare/Issue White Paper – REC Cranes (VE1135)</td> <td>12/14/17</td> <td>50</td> </tr> <tr> <td>Prepare Replacement Parts List – REC Cranes (VE1120)</td> <td>1/17/18</td> <td>-</td> </tr> <tr> <td>Procure Spare Parts – REC Cranes (VE1235)</td> <td>3/1/18</td> <td>-</td> </tr> </tbody> </table> <p>Mitigation Assessment: The project experienced loss of the CHA Crane in November 2017. The crane is currently being repaired. However, impacts are being assessed, along with white paper development to identify and ultimately procure spare parts. These mitigation efforts are expected to reduce the potential for impacts.</p>	Mitigation action(s)	FC Date	%	Prepare/Issue White Paper – REC Cranes (VE1135)	12/14/17	50	Prepare Replacement Parts List – REC Cranes (VE1120)	1/17/18	-	Procure Spare Parts – REC Cranes (VE1235)	3/1/18	-
Mitigation action(s)	FC Date	%														
Prepare/Issue White Paper – REC Cranes (VE1135)	12/14/17	50														
Prepare Replacement Parts List – REC Cranes (VE1120)	1/17/18	-														
Procure Spare Parts – REC Cranes (VE1235)	3/1/18	-														

<p>RCC-618-10-07: Contamination Event at 618-10 Waste Site</p>	<p>During fieldwork activities, a contamination event occurs or a change in cleanup requirements occurs that requires corrective actions, resulting in schedule and cost impacts.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Low (10% to 25%) Worst Case Impacts: \$1,288K, 64 days</p>			<p>Risk Trigger Metric: The risk could be triggered by high winds or operational upsets (i.e. spills or airborne release).</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Enhanced radiological controls implemented on project.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No changes in November. Much of the 618-10 work is performed in hazardous and radioactive environments. By its nature, the work can be dangerous. Although CHPRC procedures, safety programs, and training programs are designed to minimize the potential loss of control of hazardous/radioactive substances, such an occurrence could be deemed significant enough to warrant corrective actions outside the baseline (i.e., a prolonged work shutdown).</p>	Mitigation action(s)	FC Date	%	Enhanced radiological controls implemented on project.	Ongoing	N/A
Mitigation action(s)	FC Date	%								
Enhanced radiological controls implemented on project.	Ongoing	N/A								
<p>RCC-618-10-09: Discovery of Unexpected Waste/Contamination</p>	<p>Discovery of unexpected waste/contamination, waste/contamination quantities above what is assumed, waste/contamination that is above and beyond COCs or waste profile, or waste/contamination is found in the assumed clean area of the design. Resulting in greater than planned RAD controls resulting in cost and schedule impacts.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Very Low (<10%) Worst Case Impacts: \$1,280K, 64 days</p>			<p>Risk Trigger Metric: Baseline assumed contamination is limited to design. This risk has the potential to occur again during mass excavation if additional waste/contamination is discovered.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Closely managing waste inventories and discoveries, and making adjustments as required.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No changes in November. The estimate for the remediation of the 618-10 Waste Site included an assumed amount of additional drums still to be remediated. The project identified unexpected additional drums that were not planned or estimated. The project will continue to closely monitor and manage waste inventories and any new discoveries.</p>	Mitigation action(s)	FC Date	%	Closely managing waste inventories and discoveries, and making adjustments as required.	Ongoing	N/A
Mitigation action(s)	FC Date	%								
Closely managing waste inventories and discoveries, and making adjustments as required.	Ongoing	N/A								
<p>Unassigned Risks (Pending ownership of identified risks/opportunities)</p>										
<p>RCC-300-296-04DOE: 300-296 Seismic Event (Force Majeure)</p>	<p>A Force Majeure incident, such as 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. Once this risk has been formally accepted, it will be removed from the stoplight chart.</p>									
<p>RCC-300-296-11: Current REC cell seismic analysis is inadequate</p>	<p>The original design of the 324 Building was based on the 1961 Uniform Building Code (UBC). Facility structural modifications have been analyzed using the UBC 1961 methodology (Section 7.8, KUR-1782F-CALC-C001, 324 BUILDING REC STRUCTURAL STABILITY EVALUATION). Regulatory agencies do not accept the use of the 1961 UBC methodology, and a different seismic analysis is required. The new requirements result in significant changes to the design for structural modifications. CHPRC Comment: This risk is beyond CHPRC’s ability to effectively manage. During the implementation of structure modifications, if any oversight, regulatory agency, or DOE objects to the use of the older seismic design criteria for the 324 Building and a different standard is imposed; significant changes to the structural modification design and planned approach will be required. The decision to impose a change to the design criteria as the project matures is out of CHPRC’s control. Therefore, CHPRC proposes to transfer this risk to RL. DOE has “informally” accepted this risk as a transfer risk. Once this risk has been formally accepted, 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 is ignited on the Hanford Site near the proximity of the 300-296 Waste Site, resulting in cost and schedule delays. CHPRC Comment: This risk is identified as “Force Majeure” and is beyond the capabilities of CHPRC to manage. Therefore, this risk is proposed to be transferred to DOE. DOE has “informally” accepted this risk as a transfer risk. Once this risk has been formally accepted, 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 is proposed to be transferred to DOE. DOE has “informally” accepted this risk as a transfer risk. Once this risk has been formally accepted, 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	14.6	15.7	11.6	1.0	6.9%	4.0	25.9%

Numbers are rounded to the nearest \$0.1 million

CM Schedule Performance (+\$1.0M/+6.9%)

The current month favorable schedule variance is partially due to backfill activities at the 618-10 Burial Ground being ahead of schedule. The 618-10 Burial Ground project also completed previously-behind excavation activities in the interim storage area, which contributed to the current month schedule variance. In addition, the 300-296 project experienced accelerated performance on interference removal activities in the 324 Building contributing to the current month favorable schedule variance of \$745.5K.

CM Cost Performance (+\$4.0M/+25.9%)

The current month favorable cost variance is partially due to 100K Program Management and Minimum Safe operations sharing resources with other Projects. Additionally, efficiencies in excavation of the interim storage area at the 618-10 Burial Ground and backfilling has resulted in cost savings.

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	497.1	505.9	448.3	8.7	1.8%	57.6	11.4%	683.0	599.0	150.7	84.1

Numbers are rounded to the nearest \$0.1 million

CTD Schedule Performance (+\$8.7M/+1.8%)

The schedule variance is within reporting thresholds.

CTD Cost Performance (+\$57.6M/+11.4%)

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. 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, excavation and backfill efficiencies at the 316-4 Waste Site, and the 618-10 Burial Ground. These favorable variances are offset by a negative CTD variance in the 300-296 project primarily due to difficulties in execution of airlock cleanout and higher than planned engineering costs resulting from design changes associated with the mockup.

Variance at Completion (+\$84.1M/+12.3%)

The Variance at Completion (VAC) increased due to scope deferred based on FY2018 funding priorities and schedule logic. That work scope is not expected to be performed in the CHPRC contract period.

CHPRC is currently discussing with RL the disposition of that scope. The remaining VAC is primarily due to the implementation of planned efficiencies as well as staffing ramp downs at the 618-10 Burial Ground. Offsetting the positive variance, the 300-296 project experienced increased costs associated with airlock cleanout and equipment procurement activities of approximately \$653.3K.

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
	Projected Funding	Spending Forecast	
Spending Forecast	129.4	148.9	(19.5)
Incremental Scope Pending Change Management	0.0	6.7	(6.7)
RL-0041 - Total	129.4	155.5	(26.2)

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis:

FY2018 projected funding for PBS RL-0041 is \$129.4 million. CHPRC was directed by the FY2018 Annual Performance Measure Baseline (PMB) Update to plan ERDF operations in the PMB under PBS RL-0013. Subsequently, CHPRC was directed that ERDF Operations could not be transferred from RL-0041 to RL-0013 until after the FY2018 appropriations were approved by Congress. As a result, ERDF is forecasted and costed under PBS RL-0041, while the funding for ERDF is in RL-0013, which causes the majority of the delta between the spending forecast and funding levels. The delta between the spending forecast and projected funding levels for FY2018 is partially offset due to work scope completing ahead of schedule, attrition and staffing ramp-downs, resource sharing among projects, and less material procurements at the 618-10 Burial Ground Complex. Incorporating trends for cost underruns in Small Waste Site Surveillance and Maintenance, Interim Stabilization, KW Basin Characterization, as well as Sand and Garnet Filter Media Removal activities also contributed to the decrease in the spending forecast.

Critical Path Schedule:

Critical Path Analysis can be provided upon request.

MILESTONE STATUS

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

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-016-00B	Complete all 300 Area remedial actions in accordance with ROD requirements.	9/30/2018		1/22/2019	Revegetation for the 618-10 Complex falls outside of the planting window, which results in it falling outside of the Tri-Party Agreement milestone due date.
M-094-00	Complete disposition of all 300 Area Surplus Facilities, excluding 324 Building.	9/30/2018	7/10/2017 (A)		Issued letter-notifying RL of the completion on October 19, 2017.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #4	10/24/17 (A)	10/26/17 (A)
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #5	10/25/17 (A)	10/26/17 (A)
RL/EPA Review of Closure Documentation for 600-393 Waste Site	10/23/17 (A)	11/1/17 (A)
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #3	10/25/17 (A)	11/2/17 (A)
RL and Regulator Second Review of CVP and Waste Site Reclassification Form for 316-4 Waste Site	10/10/17 (A)	11/13/17 (A)
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #11	11/17/17 (A)	11/20/17 (A)
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #9	12/22/17	12/28/17
RL SBRT Review DSA/TSR revision	11/22/17	01/20/18
DOE Independent Structural Modification Review	01/09/18	02/07/18
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #10	3/7/18	3/13/18
RL Prepare, Review & Approve DSA/TSR SER Revision	02/14/18	03/28/18
RL Issue SER for 324 DSA/TSR	03/29/18	04/04/18
RL and Regulator Review of CVP and Waste Site Reclassification Form for 618-10 Burial Ground	3/28/18	5/11/18

Section G

Fast Flux Test Facility Closure (RL-0042)



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

November 2017
CHPRC-2017-11, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

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

EMS OBJECTIVES AND TARGET STATUS

None currently identified.

TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

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

KEY ACCOMPLISHMENTS

RL-0042 Accomplishments

- Conducted second walk-down in preparation of installing the FFTF 480V contactor.
- Continue planning work package to re-lamp the Sodium Storage Facility (SSF).
- Started fabrication of pipe spools that will replace sections of the corroded fire suppression system riser in the 481 Building.
- Ordered additional piping to support replacement of sections of the corroded fire suppression system riser.
- Started Lockout/Tagout (LOTO) activities to support electrical hookup of the T-58 and T-87 water heaters. This activity was stopped after shock received by worker from undocumented power source. An investigation into the event was initiated.
- Continued development of an Engineering Change Request (ECR) for installation of the P16 pump variable frequency drive. Currently awaiting delivery of the variable frequency drive and additional electrical components to support the installation that were ordered in September and October.

MAJOR ISSUES

None currently identified.

RISK MANAGEMENT STATUS

No key risks currently identified.

PROJECT BASELINE PERFORMANCE Current Month (\$M)

RL-0042 FFTF Closure	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	0.2	0.2	0.2	0.0	13.6%	0.0	4.8%

Numbers are rounded to the nearest \$0.1M

CM Schedule Performance: (\$+0.0M/+13.6%)

The schedule variance is within reporting thresholds.

CM Cost Performance: (+\$0.0M/+4.8%)

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	24.6	24.6	20.4	0.0	0.1%	4.2	17.1%	26.5	22.6	2.2	3.9

Numbers are rounded to the nearest \$0.1 million

CTD Schedule Performance (+\$0.0M/+0.1%)

The schedule variance is within reporting thresholds.

CTD Cost Performance (+\$4.2M/+17.1%)

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

Variance at Completion (+\$3.9M/+14.6%)

The Variance at Completion is within reporting thresholds.

Contract Performance Report Formats are provided in Appendix A.

FUNDS VS. SPEND FORECAST (\$M)

RL-0042 FFTF Closure	FY2018		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	3.8	2.6	1.2
Incremental Scope Pending Change Management	0.0	0.0	0.0
RL-0042 – Total	3.8	2.6	1.2

Numbers are rounded to the nearest \$0.1 million

Funds Analysis

Fiscal year (FY) 2018 projected funding for project breakdown structure (PBS) RL-0042 is \$3.8 million. The spending forecast of \$2.6 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 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



November 2017
CHPRC-2017-11, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

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

FORM APPROVED
OMB No. 0704-0188

DOLLARS IN Thousands of \$

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) 2017 / 10 / 23	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017 / 11 / 26	
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 328,403	d. TARGET PROFIT/FEE 241,605	e. TARGET PRICE 5,830,563	f. ESTIMATED PRICE 6,959,400	g. CONTRACT CEILING 5,830,563	h. ESTIMATED CONTRACT CEILING 6,959,400	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 6,668,111						c. SIGNATURE		d. DATE SIGNED (YYYYMMDD)	
b. WORST CASE 6,834,372									
c. MOST LIKELY 6,717,795		5,917,360		-800,434					

8. PERFORMANCE DATA																		
CAPN.PBS		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-0011 Nuclear Mat Stab & Disp PFP	7	3,324	8,676	3,317	-5,352	988,534	970,205	1,079,454	-18,329	-109,248	0	0	0	988,662	1,100,998	-112,336		
RL-0012 SNF Stabilization & Disp	6,133	5,540	5,936	-592	-395	708,573	708,096	674,917	-477	33,178	0	0	0	740,205	705,681	34,525		
RL-0013 Solid Waste Stab & Disp	10,567	9,151	9,015	-1,416	137	1,207,950	1,210,221	1,132,017	2,271	78,204	0	0	0	1,358,839	1,277,004	81,835		
RL-0030 Soil & Water Rem-Grndwtr/Vadose	10,351	9,871	11,464	-480	-1,594	1,424,556	1,406,984	1,381,700	-17,572	25,284	0	0	0	1,567,915	1,540,618	27,297		
RL-0040 Nuc Fac D&D - Remainder Hanfrd	2,566	3,132	4,235	566	-1,103	462,212	460,450	432,548	-1,762	27,902	0	0	0	500,895	468,096	32,799		
RL-0041 Nuc Fac D&D - RC Closure Proj	14,643	15,658	11,609	1,014	4,049	497,148	505,855	448,284	8,707	57,571	0	0	0	674,404	590,346	84,058		
RL-0042 Nuc Fac D&D - FTF Proj	204	232	220	28	11	24,579	24,606	20,405	27	4,201	0	0	0	26,487	22,632	3,856		
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														15,611	15,611	0		
e. SUBTOTAL	44,471	46,908	51,155	2,437	-4,247	5,313,551	5,286,416	5,169,324	-27,135	117,092	0	0	0	5,873,018	5,720,986	152,033		
f. MANAGEMENT RESERVE														49,683				
g. TOTAL	44,471	46,908	51,155	2,437	-4,247	5,313,551	5,286,416	5,169,324	-27,135	117,092	0	0	0	5,922,702				
9. RECONCILIATION TO CONTRACT BUDGET BASELINE																		
a. VARIANCE ADJUSTMENT																		
b. TOTAL CONTRACT VARIANCE																		
										-27,135		117,092		5,922,702		5,720,986		201,716

* In regards to RL-0041, CHPRC has implemented the River Corridor Closure Contract (RCCC) transitioned scope into the Performance Measurement Baseline (PMB) for Earned Value Management (EVM) reporting purposes. When the change orders (CO #304, #305, #306) are definitized, BCRs will be processed to align the PMB with the definitized values. Additionally, CHPRC has implemented the Additional Scope for 300-296 Waste Site Project into the PMB for EVM reporting purposes. When change order (CO #328) is definitized, a BCR will be processed to align the PMB with the definitized value.

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

*Additionally, CPR Format 1 Undistributed Budget (UB), will have a 3k delta compared to the CPR Format 3 due to an incorrect UB BCR for November. This fix will be accounted for in December BCR-PRC-18-008R0 for UB.

CLASSIFICATION (When Filled In)

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

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

FORM APPROVED

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) 2017 / 10 / 23	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017 / 11 / 26	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18			

WBS.Resp Org Group ITEM (1)	CURRENT PERIOD						CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (9)	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)	
	WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)							
34 - Env Program & Strategic Plng	809	874	885	65	-11	76,368	76,282	70,744	-86	5,539	0	0	0	85,652	80,098	5,554	
35 - Business Services	0	0	0	0	0	477,296	477,296	453,513	0	23,783	0	0	0	477,296	457,013	20,283	
36 - Prime Contract & Proj Integr	175	175	109	0	66	7,166	7,166	4,339	0	2,827	0	0	0	8,807	5,972	2,835	
3B - PFP Closure Project	7	3,324	8,676	3,317	-5,352	899,752	881,423	998,409	-18,329	-116,985	0	0	0	899,880	1,016,453	-116,573	
3C - Waste & Fuels Management Project	10,547	9,131	9,000	-1,416	131	1,098,173	1,100,443	1,022,357	2,271	78,087	0	0	0	1,248,868	1,166,991	81,876	
3D - Soil & Groundwater Remediation	9,489	8,944	10,548	-545	-1,604	1,247,096	1,229,610	1,203,727	-17,486	25,883	0	0	0	1,380,678	1,352,897	27,780	
3G - K Basin Oper & Plateau Remediation Project	12,525	11,660	11,590	-865	71	1,369,874	1,372,887	1,291,965	3,014	80,922	0	0	0	1,502,628	1,390,426	112,202	
3H - 618-10 and ERDF	6,156	7,291	4,879	1,135	2,412	87,374	92,403	74,060	5,029	18,343	0	0	0	126,809	106,994	19,815	
3J - Building 324 Disposition Project	4,763	5,509	5,468	746	40	50,453	48,905	50,211	-1,548	-1,307	0	0	0	126,790	128,530	-1,740	
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														15,611	15,611	0	
e. SUBTOTAL (Performance Measurement Baseline)	44,471	46,908	51,155	2,437	-4,247	5,313,551	5,286,416	5,169,324	-27,135	117,092	0	0	0	5,873,018	5,720,986	152,033	
f. MANAGEMENT RESERVE														49,683			
g. TOTAL	44,471	46,908	51,155	2,437	-4,247	5,313,551	5,286,416	5,169,324	-27,135	117,092	0	0	0	5,922,702			

* In regards to RL-0041, CHPRC has implemented the River Corridor Closure Contract (RCCC) transitioned scope into the Performance Measurement Baseline (PMB) for Earned Value Management (EVM) reporting purposes. When the change orders (CO #304, #305, #306) are definitized, BCRs will be processed to align the PMB with the definitized values. Additionally, CHPRC has implemented the Additional Scope for 300-296 Waste Site Project into the PMB for EVM reporting purposes. When change order (CO #328) is definitized, a BCR will be processed to align the PMB with the definitized value.

CONTRACT PERFORMANCE REPORT															Form Approved OMB No. 0704-0188	
FORMAT 3 - BASELINE															DOLLARS IN THOUSANDS	
1. CONTRACTOR CH2M HILL Plateau Remediation Company b. LOCATION: Richland, WA				2. CONTRACT a. NAME: Plateau Remediation Contract b. NUMBER: RL14788 c. TYPE: CPAF d. SHARE RATIO:				3. PROGRAM a. NAME: Plateau Remediation Contract b. PHASE c. EVMS ACCEPTANCE NO YES X 9/18/2009				4. REPORT PERIOD a. FROM: 2017/10/23 b. TO: 2017/11/26				
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 \$328,403		e. CONTRACT BUDGET BASE (C + D) \$5,917,360		f. TOTAL ALLOCATED BUDGET \$5,922,702		g. DIFFERENCE (E - F) (\$5,341)		
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 Dec-17 (4)	+2 Jan-18 (5)	+3 Feb-18 (6)	+4 Mar-18 (7)	+5 Apr-18 (8)	+6 May-18 (9)	FY09-13 (10)	FY14 (11)	FY15 (12)	FY16 (13)	FY17 (14)	FY18 (15)		
a. PM BASELINE																
b. BASELINE CHANGES AUTH DURING REPORT PERIOD																
BCR-011-18-002R0, Definitization of CO #313 CharacSamp1 236-Z and 242-Z																
BCR-013-18-006R0, Incorporate CO #310 NTE Increase, CWC Lighting																
BCR-013-18-009R0 Unilateral Determination of CO314 OSA Closure Plan Revision -rev0																
BCR-030-18-003R0, Definitization of CO #294 100-Kr-4 RIFS Rewrite																
BCR-030-18-004R0, Remove PM-30-6-17 from PMB																
BCR-030-18-005R0, Incorporate CO #318, 200-WA-1 and 200-BC-1 OU Characterization NTE Increase																
BCR-030-18-008R0, Replan 200-EA-1 Project Management																
BCR-030-18-009R0, Re-plan RL-0030 Composite Analysis																
BCR-030-18-010R0, MR Draw for FY2018 Cumulative Impact Evaluation																
BCR-040-18-003R0, Incorporate CO #311 Activity A and C NTE Increases																
BCR-041-18-007R0, Incorporate FY2018 ERDF Operations into RL-0041																
BCR-041-18-008R0, RL-0041 183.2 Sedimentation Basin Backfill MR Draw																
BCR-PRC-18-006R0, Revision to RL-0013 MR Profile																
BCR-PRC-18-007R0, RL-0040 FY2018 Min Safe Nuc Fac Planning MR Draw																
BCRA-PRC-18-005R0, HPIC Updates November 2017																
BCR-PRC-18-004R0, Undistributed Budget Adjustments November 2017																
c. PM BASELINE (END OF PERIOD)																
7. MANAGEMENT RESERVE																
8. TOTAL																
	5,269,080	39,200	35,493	26,510	36,304	42,446	35,436	43,849	3,391,477	391,653	471,323	504,826	485,027	572,137	11,944	5,828,386
														135		135
														200		200
														37		37
														1,186		1,186
														0		0
														870		870
														0		0
														0		0
														750		750
														1,928		1,928
														29,234		29,234
														1,635		1,635
														0		0
														4,987		4,987
														0		0
														0	3,671	3,671
	5,313,551	44,471	39,293	29,536	40,160	47,310	38,732	47,924	3,391,477	391,653	471,323	504,826	485,027	613,098	15,614	5,873,018
																49,683
																5,922,702

* CHPRC has implemented the River Corridor Closure Contract (RCCC) transitioned scope into the Performance Measurement Baseline (PMB) for Earned Value Management (EVM) reporting purposes. When the change orders (CO #304, #305, #306) are definitized, BCRs will be processed to align the PMB with the definitized values. Additionally, CHPRC has implemented the Additional Scope for 300-296 Waste Site Project into the PMB for EVM reporting purposes. When change order (CO #328) is definitized, a BCR will be processed to align the PMB with the definitized value.

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) 2017 / 10 / 23	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017 / 11 / 26	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18			

5. PERFORMANCE DATA		FORECAST (Non-Cumulative)														AT COMPLETION (15)	
WBS.Resp Org Group ORGANIZATIONAL CATEGORY (1)	ACTUAL CURRENT PERIOD (2)	ACTUAL END OF CURRENT PERIOD (Cumulative) (3)	SIX MONTH FORECAST BY MONTH (Enter names of months)						ENTER SPECIFIED PERIODS								
			+1	+2	+3	+4	+5	+6	3rd Qtr FY18	FY18	FY19	FY19-LC	ATCOMPLETE				
			DEC 2017 (4)	JAN 2018 (5)	FEB 2018 (6)	MAR 2018 (7)	APR 2018 (8)	MAY 2018 (9)	(10)	(11)	(12)	(13)	(14)				
300 - Office of the President	7	738	6	6	6	6	6	6	6	6	6	19	0	0	0	0	803
303 - Internal Audit	5	484	5	5	5	5	5	5	5	5	5	14	0	0	0	0	530
304 - General Counsel	5	452	5	5	5	5	5	5	5	5	5	15	0	0	0	0	501
31 - Communications	8	1036	9	9	9	9	9	9	9	9	9	28	0	0	0	0	1129
32 - Safety Health Security & Quality	50	7246	51	54	54	54	54	54	54	54	54	162	0	0	0	0	7782
34 - Env Program & Strategic Plng	39	4894	45	47	45	43	43	44	44	44	44	130	3	0	0	0	5339
35 - Business Services	65	7816	63	63	63	63	63	63	63	63	63	188	0	0	0	0	8443
36 - Prime Contract & Proj Integr	64	5158	65	66	67	67	67	67	67	67	67	202	0	0	0	0	5826
38 - Project Technical Services	30	5632	33	35	34	34	34	34	34	34	34	103	0	0	0	0	5974
3B - PFP Closure Project	167	49588	152	118	88	22	18	8	0	0	0	0	0	0	0	0	49994
3C - Waste & Fuels Management Project	358	50391	335	333	336	336	335	331	342	342	342	987	10	366	0	0	54101
3D - Soil & Groundwater Remediation	297	36729	258	257	256	263	268	265	270	270	270	806	303	1120	0	0	40796
3G - K Basin Oper & Plateau Remediation Project	376	48019	428	387	354	347	309	296	283	283	283	832	8	0	0	0	51263
3H - 618-10 and ERDF	106	2047	108	102	102	97	92	92	90	90	90	214	0	0	0	0	2943
3J - Building 324 Disposition Project	136	1844	136	136	137	144	151	156	151	151	151	402	9	0	0	0	3267
g. TOTAL DIRECT	1714	222073	1701	1623	1561	1495	1460	1435	1424	1424	1424	4102	332	1486	0	0	238692

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) 2017/10/23			
b. LOCATION (Address and ZIP Code) Richland, WA 99354		b. NUMBER DE-AC06-08RL14788		b. PHASE Base		b. TO (YYYY/MM/DD) 2017/11/26			
		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:	44,471	46,908	51,155	2,437	5.5%	(4,247)	-9.1%	1.05	0.92
Cumulative:	5,313,551	5,286,416	5,169,324	(27,135)	-0.5%	117,092	2.2%	0.99	1.02
	BAC	EAC	VAC in \$	VAC in %	TCPI				
At Complete:	5,873,018	5,720,986	152,033	2.6%	1.06				
Explanation of Variance/Description of Problem:									
<p>Current Period Schedule Variance: The current month (CM) positive schedule variance is primarily due to PBS RL-0011 working historical budgeted cost of work scheduled (BCWS) on discrete demolition activities (apportioned). The majority of the scope was originally planned to begin during the third quarter of 2016. However, delays in getting 236-Z ready for demolition negatively impacted the start of demolition. Continuation of demolition activities on 234-5Z, specifically zones 3 and 4, and completion of removal and shipment of the PRF gallery gloveboxes to Perma-Fix Northwest (PFNW) for size reduction is contributing to this positive variance. Demolition of 236-Z and 234-5Z are currently scheduled to complete in December 2017. Because all work is historical, the current schedule variance will be favorable going forward.</p> <p>Also contributing to the positive schedule variance is PBS RL-0041 backfill activities at the 618-10 Burial Ground being ahead of schedule. The 618-10 Burial Ground project also completed previously-behind excavation activities in the interim storage area, which contributed to the current month schedule variance. In addition, the 300-296 project experienced accelerated performance on interference removal activities in the 324 Building, contributing to the current month favorable schedule variance of \$745.5K.</p> <p>The positive schedule variance is offset by PBS RL-0013 primarily associated with acceleration of FY2018 work scope into FY2017 for Large Box Repackaging, T Plant due to work being performed ahead of budget. The majority of the dock 2 removal and re-install work was performed in FY2017, while the budget was planned to start in FY2018.</p> <p>Current Period Cost Variance: The CM negative cost variance is primarily due to PBS RL-0011 delay in completion of the PFP project to achieve slab-on-grade. The delay is causing needed extensions of project management hotel load resources, without BCWS, to support the remaining D&D work scope until the facility completes demolition activities. Further, working historical BCWS for demolition activities associated with 234-5Z and 236-Z is also contributing to this variance. Unplanned shipments to PFNW for the size reduction of gloveboxes and E4 in 234-5Z continue to cause additional costs to support demolition activities. Shipping the waste to PFNW helped realize schedule and safety improvements, but has resulted in increased size reduction costs.</p> <p>Also contributing to the negative cost variance is PBS RL-0030 due to the \$1.6 million in spending incurred in support of P&T optimization (well drilling, well realignments, documentation), 100-NR-2 RI/FS rewrite, and 200-DV-1 MNA evaluation and shallow soil characterization activities that are not yet planned in the PMB. PBS RL-0040 also contributed to the negative cost variance due to the PUREX Tunnel 1 interim actions. Additional labor and subcontract support was required to install the injection point in the south end of the tunnel to complete grouting activities. Also, the amount of resources needed to perform demobilization and meet end state requirements was much higher than originally anticipated.</p> <p>The negative cost variance is partially offset by PBS RL-0041 due to 100K Program Management and Minimum Safe operations sharing resources with other projects. Additionally, efficiencies in excavation of the interim storage area at the 618-10 Burial Ground and self-performing backfill has resulted in cost savings.</p> <p>Cumulative Schedule Variance: The variance is within reporting thresholds.</p> <p>Cumulative Cost Variance: The variance is within reporting thresholds.</p>									
Impact:									
Current Period Schedule: The current month schedule variance is not expected to impact the overall contract schedule.									
Current Period Cost: The variance is within reporting thresholds.									
Cumulative Schedule: N/A									
Cumulative Cost: N/A									

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

Corrective Action:

Current Period Schedule: No corrective actions have been identified.

Current Period Cost: Costs associated with the HDPE water loop will be transferred to the Mission Support Alliance Contractor in the month of December to align with requirements of the J3 Table.

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 VAC of \$152.0 million, with \$49.7 million of management reserve (MR), for a total positive variance of \$201.7 million. For November, the project was 5.5 percent ahead of schedule and 9.1 percent over planned cost. Contract to date (CTD), the project was 0.5 percent behind schedule and 2.2 percent under planned cost.

There were 11 of the 17 BCRs in the period that impacted the PMB:

- BCR-011-18-002R0, Definitization of CO #313 Characterization/Sampling Analysis of 236-Z and 242-Z Facilities
- BCR-013-18-006R0, Incorporate CO #310 NTE Increase, Hazards Mitigation Activities (Upgrading CWC Lighting)
- BCR-013-18-009R0, Unilateral Determination of CO #314, CP 013 314 1638, OSA Closure Plan Revisions
- BCR-030-18-003R0, Definitization of CO #294 100-KR-4 RI/FS Decisional Re-write
- BCR-030-18-005R0, Incorporate CO #318, 200-WA-1 and 200-BC-1 OU Characterization NTE Increase
- BCR-030-18-010R0, MR Draw for FY2018 Cumulative Impact Evaluation
- BCR-040-18-003R0, Incorporate CO #311, Activity A and C NTE Increases
- BCR-041-18-007R0, Incorporate FY2018 ERDF Operations into RL-0041
- BCR-041-18-008R0, RL-0041 183.2KE Sedimentation Basin Backfill MR Draw
- BCR-PRC-18-007R0, RL-0040 FY2018 Min Safe and Nuclear Facility Planning MR Draw
- BCR-PRC-18-004R0, Undistributed Budget Adjustments November 2017

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

Variance in Performance BAC and EAC: The variance at complete (VAC) between the BAC and EAC this month is a + \$152.0 million, +2.6% and is within reporting thresholds.

Format 1 and 3 Contract Data:

Contract Price Adjustments

CPs - In Process		
	Total Authorized Unpriced Work	\$289,265
Approved Adjustments to Contract Price (not reflected in B.4-1 Table)		
	Total Negotiated Cost Changes	-
	Grand Total Adjustments	\$289,265

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

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

Undistributed Budget Activity

BCR Number	Title	PBS	Fiscal Year	UB
BCR-PRC-18-004R0	<i>Undistributed Budget Adjustments November 2017</i>	RL-0011, RL-0013, RL-0030, RL-0040, RL-0041	2018	\$3,671K

The Undistributed Budget increased by \$3,671K.

Management Reserve Activity

BCR Number	Title	PBS	Fiscal Year	MR
BCR-011-18-002R0	<i>Definitization of CO #313 Characterization/Sampling Analysis of 236-Z and 242-Z Facilities</i>	RL-0011	2018	\$8K
BCR-013-18-009R0	<i>Unilateral Determination of CO #314, CP 013 314 1638, OSA Closure Plan Revisions</i>	RL-0013	2018	-\$105K
BCR-030-18-003R0	<i>Definitization of CO #294 100-KR-4 RI/FS Decisional Re-Write</i>	RL-0030	2018	\$19K
BCR-030-18-010R0	<i>MR Draw for FY2018 Cumulative Impact Evaluation</i>	RL-0030	2018	-\$750K
BCR-041-18-008R0	<i>RL-0041 183.2KE Sedimentation Basin Backfill MR Draw</i>	RL-0041	2018	-\$1,635K
BCR-PRC-18-006R0	<i>Revision to RL-0013 MR Profile</i>	RL-0013, RL-0041	2018	\$1,397K -\$1,397K
BCR-PRC-18-007R0	<i>RL-0040 FY2018 Min Safe and Nuclear Facility Planning MR Draw</i>	RL-0030 RL-0041	2018	\$2,493K -\$2,493K

Overall, there was a decrease in Management Reserve (MR) of \$7,450K during November.

Fee Activity

BCR Number	Title	PBS	Fiscal Year	Fee
BCR-011-18-002R0	<i>Definitization of CO #313 Characterization/Sampling Analysis of 236-Z and 242-Z Facilities</i>	RL-0011	2018	\$23K
BCR-013-18-009R0	<i>Unilateral Determination of CO #314, CP 013 314 1638, OSA Closure Plan Revisions</i>	RL-0013	2018	\$3K
BCR-030-18-003R0	<i>Definitization of CO #294 100-KR-4 RI/FS Decisional Re-Write</i>	RL-0030	2018	\$115K

Overall, there was an increase to the fee of \$140K during November.

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.

Prepared by: Project Control Staff	Date: 12/13/2017	Approved by:	Date:
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* In regards to RL-0041, CHPRC has implemented the River Corridor Closure Contract (RCCC) transitioned scope into the Performance Measurement Baseline (PMB) for Earned Value Management (EVM) reporting purposes. When the change orders (CO #304, #305, #306) are definitized, BCRs will be processed to align the PMB with the definitized values. Additionally, CHPRC has implemented the Additional Scope for 300-296 Waste Site Project into the PMB for EVM reporting purposes. When change order (CO #328) is definitized, a BCR will be processed to align the PMB with the definitized value.

Appendix B

Project Services and Support (WBS 000)



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

M. A. Wright
Vice President for
Project Technical
Services

November 2017
CHPRC-2017-11, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

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

S. E. Johnson
Director of
Communications

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

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

PROGRAM SUMMARY

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

EMS Objectives and Target Status (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.	9/30/18	0%
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.	9/30/18	16%
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.	9/30/18	20%

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	1	13	11/15/17 – Employee was working in office near asbestos clean-up in a hallway causing irritation to employee's eyes. (24683)
Near-Misses	0	0	N/A

KEY ACCOMPLISHMENTS

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

- There was one First Aid injury during November in the functional groups.
 - o Occupational Safety and Industrial Hygiene (OS&IH) accomplishments:
 - Provided Industrial Hygiene support to the 300-296 project to assist with work package development.
 - Completed annual assessment of the Hanford Site Respiratory Protection Program implementation at CHPRC.
 - Performed technical reviews of Project Drill Packages.
 - Provided training to new staff on the Site Wide Industrial Hygiene Database (SWIHD).
 - Supported development of an Industrial Hygiene Technician Fundamentals training program to be provided by HAMMER.
 - o Radiological Control accomplishments:
 - Initiated Work Site Assessment (WSA) on clearance of radiological materials.
 - Conducted Quarterly Radiological Control Leadership Meeting.
 - Supported National Institute for Occupational Safety and Health (NIOSH) site visit conducted November 6-17, 2017.
 - Supported Sentinel (new sitewide access control system) implementation planning.
 - Supported T Plant and Engineered Container Retrieval and Transfer System Readiness Activities.
 - Implemented program efficiencies in procedure revisions for:
 - Area Dosimetry Program.
 - Tracking and Trending Radiological Data.
 - Control of High and Very High Radiation Areas.
 - Contaminated Wildlife or Vegetation.
 - Dosimetry Operations.
 - Completed reviews and approved Technical Evaluations (TE) for:
 - Sludge Treatment Project (STP)/100K Area Dosimetry Program.
 - STP and 100-K Closure Project Radiological Characterization Supporting Radiological Controls, Clearance, Work Place Air Monitoring, and Dosimetry.

- Central Radiological Counting Facility TE.
- o Nuclear Operations Support & Compliance accomplishments:
 - Correspondence transmitted to Department Of Energy Richland Operations Office (RL):
 - Letter, CHPRC-1705160, dated November 2, 2017, *Transmittal of the 2017 Annual Update of the Documented Safety Analysis for the 216-Z-9 Waste Storage Crib Facility, HNF-58818, Revision 1, the Technical Safety Requirements for the 216-Z-9 Waste Storage Crib Facility, HNF-59125, Revision 1, and the Unreviewed Safety Question Determinations Summary.*
 - Letter, CHPRC-1705247, dated November 6, 2017, *Request for Approval of the One-Time Request for Shipment for Sludge Transport from K West Basin to T Plant, CHPRC-03111, Revision 2.*
 - Letter, CHPRC-1705628, dated November 29, 2017, *Submittal of the Annual Update of the 200 Area Interim Storage Area Safety Basis and the Unreviewed Safety Question Determinations Summary.*
- o Other
 - Completion of SHS&Q-2018-MA-16488, *Management Assessment for Transportation Engineering Analysis and Document Practices.*
- o Contractor Assurance Regulatory Reporting (CARR) accomplishments:
 - 216 Condition Reports (CRs) were screened:
 - One significant issue identified.
 - Three adverse issues identified.
 - 69 Track Until Fixed issues identified.
 - 69 Trend Only items identified.
 - 70 Opportunity for Improvement (OFI) items identified.
 - Four Screened Out.
 - 236 CRs administratively closed.
 - 276 CRs actions administratively closed.
 - Provided full-time support to Plutonium Finishing Plant (PFP) Issues Management and Occurrence Reporting activities.
 - Completed Apparent Cause Evaluation for and transmitted Final Occurrence Reporting and Processing System (ORPS) report EM-RL--CPRC-PFP-2017-0015, *Transuranic Waste Staging Area Did Not Have The Required Physical Barrier.*
 - Transmitted Notification ORPS reports: EM-RL--CPRC-PFP-2017-0016, *Six Roll-On /Roll-Off Containers Did Not Meet Certificate of Conformance Requirements*, and EM-RL--CPRC-PFP-2017-0017, *Reportable Contamination Discovered in Radioactive Material Area (RMA).*
 - Provided support for the Bi-Monthly Defense Nuclear Facility Safety Board (DNFSB) Resident Inspector Meeting.
 - Fifteen documents were provided in response to DNFSB requests for information.
 - Provided support to the DNFSB Hanford Site representatives.
 - Provided support for the upcoming DNFSB conference call to close out their review of PUREX Tunnel 1.
 - One external Lessons Learned was submitted in OPEXShare: 2017-RL-HNF-0026, *Assess Damaged Equipment for Hazards from a Safety Perspective and Apply Conservative Controls.* Two internal Lessons Learned were submitted in OPEXShare: 2017-RL-HNF-0024, *Unexpected Conditions While Excavating Fire Risers without Required Mechanical Constraint Resulted in Flood*, and 2017-RL-HNF-0025, *Include Appropriate Radiological Control Requirements in Applicable Work Control Documents.*
- o Performance Oversight, Assessment, and Quality Assurance accomplishments:
 - Provided assessment mentoring and feedback to assessors and responsible managers at K Basins Operations and Plateau Remediation Project (KBO&PR), Prime Contract & Project

- Integration (PC&PI), Project Technical Services (PTS), and Soil and Groundwater Remediation Project (S&GRP) to help improve the quality, including clarity and readability of future reports.
- Conducted Project Assessment Coordinator meeting that included closing out CR-2017-1779 (attention to detail when completing assessments).
 - Completed SHS&Q-2018-WSA-20059, *CHPRC Managers Performing Management Assessments*, which closed out CR-2017-1780.
 - Closed out CR-2017-1846 (no formal risk assessment performed as a function of fiscal year [FY] assessment planning).
 - Closed out CR-2017-1792 (notify organizations responsible for HASQARD assessments)
 - Provided technical support for the revision of PRC-1204-PIR-0103, *10 CFR 835 Triennial Assessment Protocols*.
 - Improvements to Electronic NCR complete and released to production.
 - Minor change to PRC-PRO-QA-298, *Nonconforming Items*, out for formal review.
 - Began fieldwork for surveillance, SHS&Q-2018-SURV-16457, QA-599 Section 5.0 Work Processes “Process Monitoring or Data Collection Instruments.”
- o Fire Protection (FP) accomplishments:
 - Produced 38 Hanford Fire Marshal Permits (HFMP)/CHPRC Hot Work Permits.
 - Provided input to HFMP system update.
 - The FP procedure roll-out is in progress and Project Reviews of the procedures are being addressed through PRC Procedure System (PPS).
 - The following Technical Safety Requirements (TSR) activities were completed:
 - Solid Waste Operations Complex (SWOC):
 - o Central Waste Complex (CWC), Low-Level Burial Ground (LLBG), and Waste Receiving and Processing (WRAP) in accordance with PRC-PRO-OP-54193, *SWOC Transient Combustibles*.
 - 324 Building:
 - o Quarterly Combustible Surveillance.
 - PFP:
 - o Transuranic (TRU) Waste Staging Areas reviewed to verify compliance with permits.
 - Facility Hazards Analysis (FHA):
 - o SWOC FHA is undergoing a minor revision based upon comments by RL.
 - o T Plant FHA revision was completed with implementation plan undergoing revision.
 - o The 324 Building FHA is undergoing final comment resolution.
 - o Interim Storage Area (ISA) and 402 Building FHAs are in comment resolution stage.
 - There were two Facility Fire Protection Assessments completed in November.
- SHS&Q Focus Areas:
 - o **Issue:** Beryllium program assessment findings from Department of Energy (DOE-HQ), Office of Safety, Health and Security Independent Oversight Inspection report.
 - **Status:** Revision 4 continues to be developed by the Hanford Beryllium Committee and Revision 3 has been pulled back by RL. Revision 2 remains in effect.
 - **Action:** Beryllium facility assessments have been completed. The remaining are 61 facilities, structures, and conex boxes that have yet to be characterized and are scheduled for completion in FY2018.
 - o **Issue:** Accident & Injury Reduction.
 - **Status:** Continue investigating recordable, days away, restricted, or transferred (DART), and First Aid injuries to determine cause, prevention and reduction, to prevent recurrence. Project safety campaigns are being effective.
 - **Action:** Injury trends continue to improve across the PRC. No recordable or DART injuries occurred in November.

- o **Issue:** PFP support.
 - **Status:** Supporting PFP and other projects with dedicated OS&IH personnel and Radiological Control personnel, from the SHS&Q Central group for Senior Supervisory Watch of high-risk work activities and other project work activities.
 - **Action:** Continuing senior supervisory watch for PFP demolition activities based upon specific hazard activities in coordination with PFP management.
- o **Issue:** Fire Protection program improvements.
 - **Status:** CHPRC Fire Protection personnel are being managed under the nuclear safety organization.
 - **Action:** Weekly fire protection program status and initiatives presented each week to the SHS&Q Vice President continue to show improvement. A subcontractor Fire Protection engineer candidate has been selected for one open personnel requisition and is expected to be filled in January.

Environmental Program and Strategic Planning (EP&SP)

- **Environmental Compliance and Quality Assurance**
 - o Assessment Status
 - Management Assessment, *Conformance to Universal Waste and Non-Dangerous Waste Recycling Requirements*, was completed on October 31, 2017, and resulted in eight findings and two opportunities for improvement.
 - Surveillance, *Permitted Waste Water Discharges*, was completed on November 21, 2017, and resulted in no Findings or 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.
 - Maintained the permit schedule.
 - Provided a detailed monthly schedule report and analysis for progress on the permit to Ecology, DOE; 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**
 - EP&SP Publication Services was established to provide a systematic process for performing technical editing and formatting of environmental documents. High quality and readability are outcomes for documents that are processed through Publication Services. In November 2017, 28 environmental documents supporting various CHPRC projects were completed through Publication Services.
- **Environmental Protection**
 - o Compliance Status
 - Received Ecology letter regarding recordkeeping violations on Certification of Waste Minimization Plan. The letter documents the corrective action taken (Inside Office Memo [IOM] to Operating Record) and requires no additional actions.
 - Compiled and provided to Mission Support Alliance, LLC (MSA), CHPRC comments to Ecology's pre-proposal to revise the Dangerous Waste Regulations.

Business Services**• Supply Chain:**

- Met with CHPRC Quality Assurance (QA) to develop appropriate actions based on a Product/Recall Notification from Kobe Steel. Kobe Steel had notified industry representatives that certifications provided over the past 10 years may have been incorrect. As part of the actions developed, Supply Chain took the assignment to contact subcontractors for the purposes of determining the extent of condition from the product/recall notification.
- Supported the work that re-purposed a Bauer Pileco BG-30 drilling rig for the United States Geological Survey (USGS). The equipment is no longer needed at Hanford and will be sent to USGS in Nevada for use on their projects.
- Assisted PTS with the development of a statement of work (SOW) for geological survey and scanning services, including evaluation criteria, pricing format, and qualification standards.
- Acquired a Rough Order Magnitude (ROM) estimate for the potential relocation of a metal-sided building from the 618-10 project site to a location north of the Wye barricade for vehicle storage.
- Attended the DOE EM Contract & Project Management Workshop to support a briefing on strategic sourcing activities at DOE EM prime contractor sites.
- Outreach with a local small business technical service provider to discuss upcoming subcontracting opportunities and current/on-going contract performance.
- Researched and provided potential vendors to address operation issues surrounding installed compressors at the Waste Encapsulation & Storage Facility (WESF) and the Canister Storage Building (CSB).

• Facilities & Property Management (F&PM):

- Kicked off stage 2 of the value engineering study to reconcile Real Property records in Sunflower with the information in the Facilities Information Management System (FIMS).
- Move planning/execution for RL and CHPRC between the Federal Building and 2420 Stevens Center Place is nearing completion. All CHPRC moves to the Federal Building were completed in July 2017. CHPRC finance personnel remain in temporary offices. Approximately 15 to 20 CHPRC finance and S&GRP project support members will move to final permanent offices commencing December 13, 2017. Federal Building configuration is anticipated to be complete in late December or early January 2018.
- Initiated process to relocate triple-wide office trailer MO-6117 from 618-10 to setup in new location in unsecured corridor for PTS.
- Continued planning/purchasing requirements to setup two double-wide job trailers and one shower/restroom/change trailer that will support demolition of Research Technology Laboratory (RTL) labs.
- Ninety percent completed on removal and installation of unsafe trailer entrance landings at 100-K MO1502, MO1118, MO1306, MO1307, MO1304, MO1305, MO1117, and MO1503.

• Finance:

- Continuing with the series of RL finance/contracting officer meetings to discuss and align topics identified in CHPRC Incurred Cost Audit Corrective Action Plan.
- November month-end completed with no cost suspensions.
- Continued support of the Bi-Annual Pricing Review. A preliminary exit meeting has been scheduled for December 13, 2017, with RL.
- Responded to the FY2018 labor rates data calls.
- Continuing to gather support and create responses for the FY2016 Invoice Assessment. The costs associated with the educational reimbursement and the extended temporary duty issues are being worked through the partnering sessions with RL.

• Human Resources (HR):

- Several Human Resource (HR) members attended a Washington State Department of Labor and Industries hearing and overview of the Paid Sick Leave Law (Initiative 1433), taking effect on January 1, 2018. Employers will be required to provide paid sick leave to eligible employees at

the rate of one hour of sick leave for every 40 hours worked. Initiative 1433 was written into the existing Minimum Wage Act, and all employees who are eligible for the state minimum wage requirements will be eligible for paid sick leave (CHPRC Salaried Nonexempt, Hourly, and Bargaining Unit employees). CHPRC HR, Labor Relations, Finance, Procurement, and Communications are working with MSA and Washington River Protection Services (WRPS) to ensure our compliance to this new law and its administrative, reporting, and communication requirements.

- o HR is working with our procurement organization to streamline the process of hiring subcontract and corporate resources to decrease process time.
- o CHPRC received the Hire-A-Vet Award from the Employment Security Department of Washington State for our support in increasing employment opportunities for local veterans.
- o HR presented information in a first-line managers meeting to help them in their day-to-day employee relations activities.
- o The Phase 4 self-select window opened for D&D workers on October 23, 2017, and closed November 2, 2017. An information session was offered on October 30, 2017. One D&D worker applied and was approved for the self-select program. There were 10 additional D&D workers affected by the CHPRC excess and will be part of the Involuntary Reduction of Force (IROF) on November 30, 2017.
- o HR met individually with the 11 D&D workers that were affected by the IROF to cover displaced worker benefits and the exit process.
- **Labor Relations (LR):**
 - o The following is the current status of grievances in the arbitration process:
 - PRC-015-011 – union claiming misassignment of work in regard to respirator maintenance. Status: Arbitration scheduled for October 11, 2016, was postponed by mutual agreement as parties work to reach a settlement in the matter. CHPRC continues to await a response from the union on the company’s settlement proposal.
 - PRC-016-044, 049, and 050 – termination. Status: Arbitration scheduled for April 25 and 26, 2018.
 - 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 for February 28 and March 1, 2018.
 - PRC-017-017 – union claiming only Nuclear Chemical Operator (NCOs) can issue respiratory equipment. Company recognizes D&D workers as well. Status: Panel selection underway; no date yet scheduled for arbitration.
 - PRC-017-018 – union claiming company not calculating hours worked correctly when coupled with “R” time. Status: Panel selection underway; no date yet scheduled for arbitration.
 - Hanford Atomic Metal Trades Council (HAMTC) requested one grievance to move to arbitration:
 - PRC-017-022 (Inadequate Facilities to accommodate employees)
 - o Labor Relations continues to support workforce restructuring activities for affected bargaining unit employees, working with all of the CHPRC projects and the other Hanford contractors to coordinate staffing needs and skills mix issues, and provide opportunities for affected employees.
- **Procurement:**
 - o Awarded/amended 140 contracts with a total value of \$8.2 million. Additionally, awarded 247 new material purchase orders (PO) valued at \$883,243 to support ongoing project objectives.
 - o At the end of the first 110 months of the CHPRC project, procurement volume has been significant; \$2.64 billion in contract activity has been recorded with approximately 55.9 percent, or \$1.48 billion, in awards to small businesses. These awards include 7,941 contract releases, 24,494 POs, and 288,473 PCard transactions.

o Major contract awards:

Contract/Release	Award Date	Awarded To	Title	Contract Type	Value
58163-9	11/6/17	Babcock Services Inc	Canyon Complex Main Facilities Env Doc Support	T&M	\$ 250,000.00
54177-77	11/6/17	INTERA Incorporated	Intera - 200 West P&T Optimization/Fate of COCS/White Paper	T&M	\$ 278,019.00
62779-3	11/8/17	HukariAscendent Inc	Interim Safe Storage Technical Support	T&M	\$ 145,451.60
55747-12	11/20/17	Apollo Sheet Metal Inc dba Apollo Mechanical Contractors	Garnet Filter Shield Enclosure Mod For Valve FRW-V-305	FFP	\$ 171,151.01
64901	11/21/17	Atkins Energy Federal Epc Inc	A/C/D Cell Dams	T&M	\$ 1,192,951.54

FFP – Firm Fixed Price T&M – Time & Materials

Prime Contract and Project Integration (PC&PI)

- **Project Management/Compliance Assessments**
 - o Ownership of the Alternative Dispute Resolution Process (ADPR), and Technical Authority/Functional Manager responsibilities for PRC-PRO-EC-53823, *Alternative Dispute Resolution Process*, were transferred from the PC&PI organization to the CHPRC Chief of Staff during November.
 - o The annual Earned Value Management System (EVMS) surveillance to demonstrate the continued compliance of CHPRC’s EVMS certification in accordance with the requirements of PRC Section C.3.1.1, “Project Integration and Control and Earned Value Management;” is being finalized. The surveillance package includes audits, assessments, and automated data testing results of Capital Asset Projects (CAPs) cost and schedule data.
 - o Preparation and the disposition of seventeen Baseline Change Requests (BCR) by the Change Control Board (CCB) was facilitated in November by project management/compliance assessments as part of their responsibility as CHPRC CCB coordinator.
- **Prime Contract Compliance (PCC):**
 - o In November, PCC received and processed two contract modifications (636, 638) from RL.
 - o The Correspondence Review Team received and determined the distribution for 40 incoming letters/documents. The PCC manager reviewed 37 outgoing correspondence packages.
- **Information Management:**
 - o Processed 32,867 electronic records into the Integrated Document Management System (IDMS).
 - o Continued desktop computing equipment upgrade project in support of HLAN Windows 10 implementation to be completed in FY2018. Sixty computers have been refreshed to date.
- **Project Integration**
 - o Project Support, Systems Integration, & Schedule Integration

- Provided RL input to the CHPRC FY2017 Year End Budget Execution Review to HQ. The briefing included variances to the spend plan, drivers for uncosted balances, categorization of uncosted balances, and the project’s key successes.
- o Estimating & Program Support
 - Continued development of three and finalized one change proposals (CPs)/request for equitable adjustments (REAs):
 - REA 013 PRC 1682 - Implementation of Final Solid Waste Operations Complex Permitting Plan, Part B.
 - REA 030 PRC 1679 - 200-UP-1 Well Drilling Weather Impacts.
 - REA 030 PRC 1686 - REA Adjustment Due to Range Fire at 100-HR-3 Operable Unit.
 - CP 041 PRC 1681 - Deduct Proposal for Removal of the 622S Lysimeter Test Facility from the PRC Scope.
 - Performed 44 cost evaluations for CPs/REAs to support the anticipated global settlement.
 - Supported RL request for information (RFIs) for one CP:
 - CP 041 330 1662 – 100-K FY2018 Waste Site Remediation Activities, submitted November 9, 2017.
 - Miscellaneous estimating support:
 - Completed audit support to Cohn Resnick for CO 304, CO 305, and CO 306 associated with the River Corridor Contract (RCC) Scope Activities transitioned into the PRC.
- o 000 Project EVM Support & Reporting:
 - Prepared and processed BCR-000-18-001R0, Implement FY2018 PC&PI Re-structuring into PMB.
 - Prepared and submitted October Indirect Project Review (IPR).
 - Issued the CHPRC October Monthly Performance Report to RL.
 - Submitted the October Gold Metrics to RL.
 - Submitted Annual Maintenance Report to MSA to meet FIMS reporting requirement.
- **Program Integration**
 - o **Interface Management:**
 - Continued involvement on several activities related to contractor activities in the 300 Area. These items include the update of the Utility Agreement (approved and ready to issue), the RL/PNSO Operational Agreement (in review), and the transfer of water/sewer services from MSA to Pacific Northwest National Laboratory (PNNL) (new cost allocation process and J.3 revision update ongoing), effective October 1, 2017.
 - Completed reviews and concurrence on seven MSA Service Delivery Documents.
 - Facilitating efforts to transfer ownership of the 2902HV80 Water Tank and 2902HV83 Fire Pump from the PRC to MSA, so that future 200 East Area water distribution services are aligned according to the respective prime contractor scopes of work.
 - Completed Work Site Assessment PC&PI-2018-WAS-19223, “*Verify compliance with the interface management requirements of PRC Section C.3.5, Interface Management*”. The assessment concluded CHPRC continued to comply with the Interface Management requirements of the PRC.

- o **Risk Management:**
 - Finalized and submitted the FY2018 Annual Risk Analysis Report to RL on November 8, 2017, (CHPRC-1702282A R3, *CHPRC Fiscal Year 2018 Annual Risk Analysis Results*).
 - Completed 300-296 Remote Soil Excavation Project lifecycle risk analysis in support of a request from RL. In addition, CHPRC identified three unassigned risks associated with force majeure and changes in requirements. CHPRC conducted informal meetings with RL to ensure appropriate ownership was agreed. Formal correspondence expected to be submitted to RL mid-December.
 - Supported preparation of CP 040 190 1684, *Lysimeter Deduct Proposal*. No risk actions associated with the proposal were identified.
 - Conducted monthly assessments of the status of key project risks.
- o **Strategic Management:**
 - Strategic Management continued their support of a DOE-HQ Integrated Project Team (IPT) visit on the aging structures and follow-up actions/commitments. Work in November included drafting and internal review of a desktop instruction on the Risk Evaluation Matrix, and providing to RL for comment. In December, a final draft desktop instruction and updated Project Evaluation Matrix will be sent to DOE for sharing at other cleanup sites to enhance evaluation/strategy for aging structures.
 - In the month, strategic management compiled and met with RL on updates to the DOE Integrated Priority List (IPL) that outlines FY2018 priorities, and will support FY2019 and beyond priorities, and identifies disconnects of assumed funded projects. Updates to the internal IPL were done based on actuals from October, with a new FY2018 estimate to complete calculated based on the October forecasts.
 - In November, Strategic Management created and CHPRC senior management approved the final FY2018 Execution Year Priority List. The Execution Year Priority List focuses on critical resource need priorities between various projects.
 - Strategic Management continued to implement tracking to the long range plan (LRP) scope to document LRP changes and ensure accurate accounting as FY2018 begins. As part of the analysis, the group is supporting project resolutions and providing recommendations. A desktop instruction has been drafted to document the process.
 - Completed draft updates to the Productivity Tracking Log to ensure the process provides key data and decision-making information and can streamline and use existing metrics. An update to the standard has been sent for internal review.
 - Strategic Management is supporting the Business Services organization in various strategies, including establishing key metrics; support will continue in the next few months.

PTS

- Training and Procedures
 - o Implemented a new cadmium exposure awareness computer-based training to meet 29 Code of Federal Regulations (CFR) 1910.1027 and 29 CFR 1926.1127, which require employees exposed to cadmium be trained on the hazards of cadmium exposure as well as the regulatory requirements. These requirements are now applicable to CHPRC personnel due to the 324 Facility's documented cadmium contamination.
 - o Implemented a new Required Reading Coordinator training course. This course was developed as a result of user requests for training beyond the system briefing provided by MSA.
 - o Updated procedure Technical Authority and Functional Manager assignments to reflect the high volume of changes due to reduction of force.
 - o Updated a high volume of training learning groups, inactivated training plans, and cancelled training enrollments to reflect reduction of force.

- Operations Program
 - o ConOps/Work Control/Conduct of Work
 - Supported Startup Readiness Review Boards at T Plant and STP.
 - o Emergency Preparedness (EP)
 - Conducted nine facility drills this month.

Communications:

- Communications supported RL in six media stories:
- Communications supported RL in the development of social media posts featuring:
 - o 2017 Year-End Review.
 - o ERDF driving 502,000 miles safely in FY2017.
 - o PFP progress updates.
 - o PUREX Grouting.
 - o 324 Building removing all large items from airlock.
 - o 324 Building mock-up progress.
 - o REDOX roof repairs.
- Communications supported RL in the development of presentations presented to the Hanford Advisory Board (HAB) on November 8 and 9, 2017, in Richland. Topics included agency updates, DOE Office of Environmental Management 45-day review of decisions at cleanup sites and approval of the FY2018 HAB calendar and work plan.

MAJOR ISSUES

In accordance with performance measure PM-00-1-18, CHPRC reports the below issues potentially affecting the completing 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	0.1	0.0	0.0%	0.0	19.7%
Internal Audit	0.2	0.2	0.1	0.0	0.0%	0.1	56.5%
General Counsel	0.1	0.1	0.1	0.0	0.0%	0.0	25.1%
Communications	0.1	0.1	0.1	0.0	0.0%	0.0	-3.2%
Safety, Health, Security, and Quality	1.2	1.2	1.2	0.0	0.0%	0.0	3.2%
Environmental Program and Strategic Planning	0.5	0.5	0.4	0.0	0.0%	0.1	26.7%
Business Services	2.2	2.2	2.3	0.0	0.0%	(0.1)	-3.9%
Prime Contract and Project Integration	2.2	2.2	2.0	0.0	0.0%	0.2	8.4%
Project Technical Services	0.8	0.8	0.9	0.0	-0.2%	(0.1)	-15.4%
Indirect WBS 000 Total	7.4	7.4	7.1	0.0	-0.0%	0.3	4.2%

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: (+\$0.3M/+4.2%)

The variance is within reporting thresholds.

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

WBS 000 Project Services and Support	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)
Office of the President	0.3	0.3	0.3	0.0	0.0%	0.0	13.8%	2.0
Internal Audit	0.3	0.3	0.1	0.0	0.0%	0.2	55.1%	1.9
General Counsel	0.2	0.2	0.2	0.0	0.0%	0.1	28.3%	1.6
Communications	0.2	0.2	0.2	0.0	0.0%	0.0	0.5%	1.3
Safety, Health, Security and Quality	2.1	2.1	1.9	0.0	0.0%	0.1	6.1%	13.6
Environmental Program and Strategic Planning	0.8	0.8	0.7	0.0	0.0%	0.1	13.8%	5.1
Business Services	3.6	3.6	3.8	0.0	0.0%	(0.1)	-3.9%	24.1
Prime Contract and Project Integration	3.6	3.6	3.4	0.0	0.0%	0.3	7.0%	23.9
Project Technical Services	1.3	1.3	1.3	0.0	-0.2%	(0.1)	-4.7%	8.4
Indirect WBS 000 Total	12.4	12.4	11.9	0.0	-0.0%	0.6	4.5%	81.9

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: (+\$0.6M/+4.5%)

The variance is within reporting thresholds.

FY2018 G&A Analysis (\$M)

WBS 000 Project Services and Support	FY 2018					
	FYTD	FYTD	FYTD	FY2018	FY2018	FY2018
	BCWS	Actual	Variance (O)/U	BCWS	Fore cast	Variance (O)/U
General & Administrative (G&A)	12.4	11.9	0.6	81.9	80.7	1.1
Office of the President	0.3	0.3	0.0	2.0	2.0	0.0
Internal Audit	0.3	0.1	0.2	1.9	1.8	0.1
General Counsel	0.2	0.2	0.1	1.6	1.6	0.1
Communications	0.2	0.2	0.0	1.3	1.3	0.0
Safety, Health, Security and Quality	2.1	1.9	0.1	13.6	13.5	0.1
Env. Program & Strategic Planning	0.8	0.7	0.1	5.1	4.8	0.3
Business Services	3.6	3.8	(0.1)	24.1	24.1	0.0
Prime Contract and Project Integration	3.6	3.4	0.3	23.9	23.6	0.3
Project Technical Services	1.3	1.3	(0.1)	8.4	8.2	0.2

FY2018		
G&A Distribution	(14.0)	(90.3)
G&A Liquidation (Over)/Under	(2.1)	(9.6)

Liquidation Analysis

For November, application of the G&A rate has over-liquidated total to date G&A cost by \$2.1 million. The FY2018 year-end projected over-liquidation of \$9.6 million reflected in the FY spend forecast reflects a projected decrease in G&A costs as well as an increase to the G&A base.

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

Appendix C

Capital Asset Projects



November 2017
CHPRC-2017-11, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

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



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

November 2017
CHPRC-2017-11, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

Progress continued toward critical decision (CD)-4 closure as teams completed preparation of the glovebox/hoods for extraction during demolition. Remaining gloveboxes (five each) have been staged until the area of the 234-5Z facility is demolished where they currently reside. The total number of gloveboxes removed to date is 172 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	-	3	174	172
COMPLETE KPP Rooms/Areas Ready for Demo	-	0	72	72 rooms/areas

KEY ACCOMPLISHMENTS

RL-0011_C1 Accomplishments

- Removed RADTU gloveboxes 100B, 200, and 300B and placed in ERDF cans for disposition.

MAJOR ISSUES

None currently identified.

CORRECTIVE ACTION LOG

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

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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

-  Increased Confidence
-  No Change
-  Decreased Confidence

Risk Title Risk Owner	Unmitigated Risk Impacts	Assessment		Comments		
		Month	Trend			
RL-0011/WBS-011.05.01.01.06 (CAP.1)						
Explanation of major changes to the project monthly stoplight chart: No major changes to the monthly stoplight chart in November.						
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 November.						
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 November.						
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)						
PFP-DEMO-21: Glovebox/Equipment Removal/Demolition Material Handling Event	A material handling event (e.g., dropped piece of process equipment) occurs during the Plutonium Finishing Plant (PFP) demolition, resulting in cost impacts and schedule delays. Risk Handling Strategy: Accept Probability: Low (10% to 25%) Worst Case Impacts: \$150K, 30 days			Risk Trigger: During pre-demolition/demolition activities in fiscal year (FY) 2017.		
				Mitigation action(s)	FC Date	%
				None identified at this time.	N/A	N/A
Mitigation Assessment: No change in November. The mitigation strategies have been put in place; as a result, the risk strategy is to accept with no further mitigation actions identified at this time. PFP will continue to adhere to the CHPRC Integrated Safety Management System (ISMS) program/hoisting and rigging program to include detailed analyses of potential hazards and identification of preventive measures to implement prior to starting the work. At this time, no alternative course of actions are needed. This risk will be closed the end of December as all gloveboxes will have been removed from the facility at that time.						
Unassigned Risks (Pending ownership of identified risks/opportunities)						
No unassigned risks identified for RL-0011/WBS-011.05.01.01.06 (CAP.1) in November.						

CRITICAL PATH SCHEDULE

The PFP Critical Path schedule begins with the continuation front-side demo CSZ 2.5 in 234-5Z. After front-side CSZ 2.5 is complete, front-side CSZ 2.3/2.4 will be worked. RMC Process Line and RMA process line demo will come next. The final glovebox will be removed during RMC zone 6 demolition. This will allow the project to complete CD-4 closeout on the RL-0011.C1 project with CD-4 finishing March 10, 2018.

SCHEDULE MARGIN/MANAGEMENT RESERVE

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

CRITICAL DECISION MILESTONE STATUS

Number	Title	* Due Date	**Forecast Date	Status/ Comment
CAP.1	Removal of 174 gloveboxes from 234-5Z	11/30/17	3/10/2018	Progress continued to work toward CD-4 closure as teams continued to prep glovebox/hoods for extraction during demolition. Final preparations for the removal have been completed. Remaining gloveboxes have been staged until demolition of 234-5Z commences and completion of CAP.1 discrete scope will be completed. There was a 31-day loss since October month-end as a result of change in approach of how the 234-5Z facility would be demolished. The total gloveboxes removed to date is at 99 percent complete. Completion of CD-4 closure by November 30, 2017, will not be achieved.

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

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

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

Nothing to report at this time.

DOE ACTIONS / DECISIONS

Working with RL on CD-4 closure actions. CD-4 closure date of November 30, 2017, will not be 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



November 2017
CHPRC-2017-11, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

**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) 2017 / 10 / 23								
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788			b. PHASE			b. TO (YYYYMMDD) 2017 / 11 / 26								
		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 330,987	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 0	d. TARGET PROFIT/FEE 9,878	e. TARGET PRICE 340,865	f. ESTIMATED PRICE 344,858	g. CONTRACT CEILING 340,865	h. ESTIMATED CONTRACT CEILING 344,858	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 332,587							c. SIGNATURE		d. DATE SIGNED (YYYYMMDD)							
b. WORST CASE 334,990																
c. MOST LIKELY 334,980			330,987	-3,993												
8. PERFORMANCE DATA																
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	
RL_0011_C1.05 Disposition PFP Facility	0	232	10	232	222	235,514	235,476	259,771	-39	-24,295	0	0	235,514	259,800	-24,285	
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																
e. SUBTOTAL	0	232	10	232	222	315,152	315,113	332,558	-39	-17,445	0	0	315,152	332,587	-17,435	
f. MANAGEMENT RESERVE															2,393	
g. TOTAL	0	232	10	232	222	315,152	315,113	332,558	-39	-17,445	0	0	317,545			
9. RECONCILIATION TO CONTRACT BUDGET BASELINE																
a. VARIANCE ADJUSTMENT																
b. TOTAL CONTRACT VARIANCE																
											-39	-17,445		317,545	332,587	-15,042

*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) 2017 / 10 / 23	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017 / 11 / 26	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> X <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18			

WBS.Resp Org Group ITEM (1)	CURRENT PERIOD						CUMULATIVE TO DATE						REPROGRAMMING			AT COMPLETION		
	BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (9)	VARIANCE		ADJUSTMENTS			BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)		
	WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)	COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)					
35 - Business Services	0	0	0	0	0	60,427	60,427	52,580	0	7,847	0	0	0	60,427	52,580	7,847		
3B - PFP Closure Project	0	232	10	232	222	254,725	254,686	279,978	-39	-25,291	0	0	0	254,725	280,007	-25,282		
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	232	10	232	222	315,152	315,113	332,558	-39	-17,445	0	0	0	315,152	332,587	-17,435		
f. MANAGEMENT RESERVE														2,393				
g. TOTAL	0	232	10	232	222	315,152	315,113	332,558	-39	-17,445	0	0	0	317,545				

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_C1 - PFP D&D (ARRA/Base)		a. FROM (YYYYMMDD) 2017 / 10 / 23	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017 / 11 / 26	
		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 DEC 2017 (4)	+2 JAN 2018 (5)	+3 FEB 2018 (6)	+4 MAR 2018 (7)	+5 APR 2018 (8)	+6 MAY 2018 (9)	3rd Qtr FY18 (10)	FY18 (11)	FY19 (12)	FY19-LC (13)	ATCOMPLETE (14)		
35 - Business Services	0	17	0	0	0	0	0	0	0	0	0	0	0	0	17
3B - PFP Closure Project	0	15441	2	0	0	0	0	0	0	0	0	0	0	0	15443
g. TOTAL DIRECT	0	15458	2	0	0	0	0	0	0	0	0	0	0	0	15460

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) 2017/10/23			
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017/11/26			
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	232	10	232	-	222	95.8%	-	23.94
Cumulative:	315,152	315,113	332,558	-39	0.0%	-17,445	-5.5%	1.00	0.95
	BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:	315,152	332,587	-17,435	-5.5%	-	1.33			

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 16, 2016. The current schedule now reflects a completion date of March 10, 2018. There was a 31 day loss since October month-end as a result of change in approach of how the 234-5Z facility would be demolished.

The current RL-11 performance schedule indicates that the PFP project will achieve slab-on-grade by December 29, 2017. During the month of November, there was a 31 day loss as a result of as a result of change in approach of how the 234-5Z facility would be demolished. Efficiencies have previously been identified in readying the 234-5Z facility for demolition wherein NDA and characterization data supports leaving more piping and ducting in place for demolition. In addition, efficiencies were recognized in 236-Z (PRF) wherein work was performed on filter boxes in parallel with the gallery gloveboxes which allowed for acceleration of the start of 236-Z demolition. This is turn accelerated when additional field team resources were reallocated from 236-Z to 234-5Z to get the facility ready for demolition. This is partially offset by delay in readying the 234-5Z facility for demolition as a result of lack of RCT resources. 234-5Z contains the gloveboxes requiring removal to meet the end state of the KPP and TPA milestone. The project expects to increase progress in the 234-5Z facility as all resources have been reassigned to complete the demo preparations in this facility. The regulators have been notified that the PFP Project will not meet to meet the re-negotiated TPA milestone M-083-00A due date of 9/30/17 for achieving slab-on-grade. In addition, the November 30, 2017 CD-4 date will not be achieved.

Cost Impact: The historical negative cost variance of ~\$17.4M 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 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. As efficiencies continue to be recognized, the EAC will be adjusted.

Corrective Action:

None at this time

No Corrective Actions Required

- Schedule Margin Analysis: There is no schedule margin associated with the RL-011.C1 capital asset account.
- IMS Data dictionary Changes: None in the month of November.
- Forecast Schedule with No Baseline: None in the month of November.
- UB Balance: None in the month of November.
- Negative ACWP: None in the month of November.
- EAC Analysis: Best Case = \$332,587; Most Likely = \$334,980; Worst Case = \$334,990
- Negative CV > VAC: Scope to perform size reduction efforts on the high gram glovebox removal efforts was estimated to be completed in a much shorter time frame with much fewer resources than originally planned causing the large Cost Variance. The EAC is reflective of the current approach to perform the remaining work scope.
- MR Transactions: None in the month of November.
- Freeze Period Changes: None in the month of November.
- Retroactive Changes: None in the month of November.
- EVT Changes: None in the month of November.

Prepared by: _____ Date: _____ Approved by: _____ Date: _____

Appendix C.2

Capital Asset Project

RL-0011.C2 - Demolition of PFP Facilities



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

November 2017
CHPRC-2017-11, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

Progress continued to work toward critical decision (CD)-4 closure as teams continued to ready the Plutonium Finishing Plant (PFP) facilities for demolition. Demolition on the Plutonium Reclamation Facility (PRF) that began on November 8, 2016, is ongoing and is 74 percent complete. Demolition of 291-Z commenced on June 30, 2017. The 291-Z stack was demolished on July 15, 2017, and loadout has been completed. Completed demolition of the 234-5ZA facility. Completed demolition of 2735Z. Completed demolition of 2734ZA, ZB, ZC, ZD, and ZL facilities. Initiated demolition of 234-5Z on September 13, 2017, and is now 50 percent complete. Completion of all demolition activities are scheduled to occur in late December 2017.

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>
COMPLETE 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	13
Complete Demolition of 234-5Z	-	-	1	-
Complete Demolition of 236-Z	-	-	1	-
COMPLETE Demolition of 242-Z	-	-	1	1
COMPLETE Complete Demolition of 291-Z	-	-	1	1
Complete Demolition of PFP Ancillary Facilities	-	-	15	13
Turnover Facility to Long Term Surveillance & Maintenance	-	-	-	-

KEY ACCOMPLISHMENTS

RL-0011_C2 Accomplishments

- Continued demolition of 234-5Z
 - Completed CSZ 3, CSZ 4.1, and Zone 4

MAJOR ISSUES

Nothing to report at this time.

CORRECTIVE ACTION LOG

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

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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

- Increased Confidence
- No Change
- Decreased Confidence

Risk Title Risk Owner	Unmitigated Risk Impacts	Assessment		Comments
		Month	Trend	
RL-0011/WBS-011.05.C3 (CAP.2)				
Explanation of major changes to the project monthly stoplight chart:				
No major changes to the monthly stoplight chart in November				
Realized Risks (Risks that are currently impacting project cost/schedule)				
No realized risks identified in November.				

Risk Title Risk Owner	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
RL-0011/WBS-011.05.C3 (CAP.2)										
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)										
FY2018 Risk Triggers (Risk could be realized in FY2018)										
PFP-DEMO-05: Inclement Weather	Inclement weather, including moderate winds, low or high temperatures, and thunderstorms will impact the demolition of PFP. Risk Handling Strategy: Accept Probability: Medium (26% to 74%) Worst Case Impacts: \$0K, 32 days *Cost increase will result in cost-per-day impacts from crews and hotel load.	●	↓	<p>Risk Trigger: This risk was realized during May due to high winds and lightning, limiting demolition activities.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Implement "tropical" shift and overtime (OT) shifts as necessary to mitigate further impacts associated with weather.</td> <td>Ongoing</td> <td>100%</td> </tr> </tbody> </table> <p>Mitigation Assessment: During November, no impacts have occurred as a result of weather. However, the risk remains critical due to potential high wind, winter weather delays, and cold temperatures, which have the ability to impact the planned demolition. The PFP project will continue to adjust the daily work scope to plan for projected weather impacts.</p>	Mitigation action(s)	FC Date	%	Implement "tropical" shift and overtime (OT) shifts as necessary to mitigate further impacts associated with weather.	Ongoing	100%
Mitigation action(s)	FC Date	%								
Implement "tropical" shift and overtime (OT) shifts as necessary to mitigate further impacts associated with weather.	Ongoing	100%								
PFP-DEMO-16: Contamination Spread Beyond Established Boundaries	Unplanned transport of contamination from posted areas due to dust suppression liquid flow, natural events, or wildlife result in cost impacts and schedule delays. Risk Handling Strategy: Accept Probability: Medium (26% to 74%) Worst Case Impacts: \$3 million, 30 days	●	↑	<p>Risk Trigger: A Continuous Air Monitoring (CAM) alarm sounded while crews were removing and packaging the third section of GB3 at the PRF on Thursday, June 8, 2017. Demolition activities were stopped, and radiological control technician (RCTs) began surveys in preparation to egress personnel.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>1. Add caution to work package direction to not apply a focused beam of water to high materials at risk (MAR) components that have been breached. 2. Evaluate the use of the foggers. 3. Revise or incorporate additional controls into the work package as appropriate. 4. Evaluate the boundaries to incorporate available radiological data. 5. Evaluate the fixative concentration. 6. Incorporate case-by-case consideration when handling items of accessible gram values during adverse weather conditions into the work package. 7. Evaluate the method for determining acceptable wind speed. 8. PFP provides real-time data from the event to Dr. Napier (PNNL) for consideration with future models.</td> <td>10/15/17</td> <td>100%</td> </tr> </tbody> </table> <p>Mitigation Assessment: All recovery actions were completed in the month of October 2017. However, risk remains critical due to high risk demolition activities.</p>	Mitigation action(s)	FC Date	%	1. Add caution to work package direction to not apply a focused beam of water to high materials at risk (MAR) components that have been breached. 2. Evaluate the use of the foggers. 3. Revise or incorporate additional controls into the work package as appropriate. 4. Evaluate the boundaries to incorporate available radiological data. 5. Evaluate the fixative concentration. 6. Incorporate case-by-case consideration when handling items of accessible gram values during adverse weather conditions into the work package. 7. Evaluate the method for determining acceptable wind speed. 8. PFP provides real-time data from the event to Dr. Napier (PNNL) for consideration with future models.	10/15/17	100%
Mitigation action(s)	FC Date	%								
1. Add caution to work package direction to not apply a focused beam of water to high materials at risk (MAR) components that have been breached. 2. Evaluate the use of the foggers. 3. Revise or incorporate additional controls into the work package as appropriate. 4. Evaluate the boundaries to incorporate available radiological data. 5. Evaluate the fixative concentration. 6. Incorporate case-by-case consideration when handling items of accessible gram values during adverse weather conditions into the work package. 7. Evaluate the method for determining acceptable wind speed. 8. PFP provides real-time data from the event to Dr. Napier (PNNL) for consideration with future models.	10/15/17	100%								
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)										
PFP-DEMO-12: PFP/PRF Demolition Contamination Levels	Contamination levels on the canyon walls, floors, ventilation ducts, and the remaining areas of PFP will be higher than expected, thus requiring more stringent controls than expected or larger than expected waste volumes, resulting in cost impacts and schedule delays. Risk Handling Strategy: Accept Probability: Medium (26% to 74%) Worst Case Impacts: \$1.5 million, 22 days	●	↔	<p>Risk Trigger: During pre-demolition/demolition activities in fiscal year (FY) 2017. Dates tracked in the field execution schedule (FES).</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 major changes in the month of November. At the end of January 2017, contamination was discovered outside the HCA/ARA/RA zone established for demolition of the PRF after a CAM alarm sounded just outside the HCA/ARA/RA during relocation of the debris pile. The alarm resulted in the evaluation of employees from the zone and could have resulted in contamination of PFP personnel. As a result of this event, lessons learned have been incorporated in the future demolition work packages to ensure the suppression of misting instructions are stated clearly with no subjective verbiage. In addition, in-process monitoring of the pile/bucket has been incorporated during movement of the debris pile.</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 Risk Owner	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
RL-0011/WBS-011.05.C3 (CAP.2)													
PFP-DEMO-21: Glovebox/Equipment Removal/Demolition Material Handling Event	A material handling event (e.g., dropped piece of process equipment) occurs during the PFP demolition, resulting in cost impacts and schedule delays. Risk Handling Strategy: Accept Probability: Low (10% to 25%) Worst Case Impacts: \$150K, 30 days	●	↑	<p>Risk Trigger: During pre-demolition/demolition activities in FY2017.</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 change in November. The mitigation strategies have been put in place; as a result, the risk strategy is to accept with no further mitigation actions identified at this time. PFP will continue to adhere to the CHPRC Integrated Safety Management System (ISMS) program/hoisting and rigging program to include detailed analyses of potential hazards and identification of preventive measures to implement prior to starting the work. At this time, no alternative course of actions are needed. This risk will be closed the end of December as all gloveboxes will have been removed from the facility at that time.</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											
PFP-DEMO-07: Removal/Extraction of Equipment Takes Longer Than Planned	Controlled demolition of equipment, gloveboxes, and portions of the crosscutting process support systems (i.e. ventilation) result in cost impacts and schedule delays. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$3 million, 60 days	●	↔	<p>Risk Trigger: During pre-demolition/demolition activities in FY2017. Dates tracked in the field execution schedule (FES).</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Identify and pre-rig equipment with lifting slings.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Initiate discussions early in the demo planning of the equipment being left in place for removal during demolition.</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p>Mitigation Assessment: No change in November. Efforts have been completed to create a removal path for several of the gloveboxes to meet Criticality Incredibility. The HC-7C and 227T glovebox was slated for removal during demolition but has been removed during pre-demolition as risk mitigation strategy. At this time, no alternative course of actions are needed. This risk will be closed the end of December as all gloveboxes and special handled items will have been removed from the facility at that time.</p>	Mitigation action(s)	FC Date	%	Identify and pre-rig equipment with lifting slings.	Complete	100	Initiate discussions early in the demo planning of the equipment being left in place for removal during demolition.	Complete	100
Mitigation action(s)	FC Date	%											
Identify and pre-rig equipment with lifting slings.	Complete	100											
Initiate discussions early in the demo planning of the equipment being left in place for removal during demolition.	Complete	100											
Unassigned Risks (Pending ownership of identified risks/opportunities)													
No unassigned risks identified in November.													

CRITICAL PATH SCHEDULE

The PFP Critical Path schedule begins with the continuation front-side demo CSZ 2.5 in 234-5Z. After front-side CSZ 2.5 is complete, front-side CSZ 2.3/2.4 will be worked. Remote Mechanical C (RMC) Process Line and Remote Mechanical A (RMA) process line demo will come next, followed by completion of the basement of 234-5Z demolition. The 236-Z canyon and 234-5Z demolition complete on December 29, 2017, 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 CD-4 RL-0011.C2 project closeout activities scheduled to complete May 1, 2018

SCHEDULE MARGIN/MANAGEMENT RESERVE

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

CRITICAL DECISION MILESTONE STATUS

Number	Title	* Due Date	**Forecast Date	Status/ Comment
RL-011.C2	Completion Demolition of all PFP Facilities.	8/31/18	5/1/18	Progress continued to work toward CD-4 closure as teams continued to ready the PFP facilities for demolition. There was four days of schedule loss for November primarily as a result of re-focusing efforts on the removal of PRF gallery gloveboxes and initiation of demolition on the PRF canyon.

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

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

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None to report at this time.

DOE ACTIONS / DECISIONS

Working with 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



November 2017
CHPRC-2017-11, Rev. 0
Contract DE-AC07-08RL14788
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

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

DOLLARS IN Thousands of \$

FORM APPROVED
OMB No. 0704-0188

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) 2017 / 10 / 23													
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017 / 11 / 26													
		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 51,683	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 0	d. TARGET PROFIT/FEE 5,000	e. TARGET PRICE 56,683	f. ESTIMATED PRICE 62,285	g. CONTRACT CEILING 56,683	h. ESTIMATED CONTRACT CEILING 62,285												
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		53,850			c. SIGNATURE		d. DATE SIGNED (YYYYMMDD)												
b. WORST CASE		64,312																	
c. MOST LIKELY		57,285	51,683	-5,602															
8. PERFORMANCE DATA																			
CAPN.PB5 Control Account.PARS 2 WBS (2)		CURRENT PERIOD				CUMULATIVE TO DATE				REPROGRAMMING ADJUSTMENTS			AT COMPLETION						
ITEM (1)		BUDGETED COST		ACTUAL		BUDGETED COST		ACTUAL		BUDGETED COST		ACTUAL		BUDGETED	ESTIMATED	VARIANCE			
		WORK SCHEDULED (2)	WORK PERFORMED (3)	COST WORK PERFORMED (4)	SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	COST WORK PERFORMED (9)	SCHEDULE (10)	COST (11)	COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	(14)	(15)	(16)		
RL-0011 Nuclear Mat Stab & Disp PFP																			
RL_0011_C2.05 Disposition PFP Facility		0	2,919	5,183	2,919	-2,264	55,307	39,422	44,137	-15,884	-4,714	0	0	0	55,307	53,850	1,457		
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	2,919	5,183	2,919	-2,264	55,307	39,422	44,137	-15,884	-4,714	0	0	0	55,307	53,850	1,457		
f. MANAGEMENT RESERVE															3,434				
g. TOTAL		0	2,919	5,183	2,919	-2,264	55,307	39,422	44,137	-15,884	-4,714	0	0	0	58,741				
9. RECONCILIATION TO CONTRACT BUDGET BASELINE																			
a. VARIANCE ADJUSTMENT																			
b. TOTAL CONTRACT VARIANCE										-15,884		-4,714		58,741		53,850		4,891	

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

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

FORM APPROVED

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) 2017 / 10 / 23	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017 / 11 / 26	
		c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18	

WBS.Resp Org Group	CURRENT PERIOD						CUMULATIVE TO DATE					REPROGRAMMING			AT COMPLETION		
	BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (9)	VARIANCE		ADJUSTMENTS			BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)	
	WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)	COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)				
ITEM (1)																	
3B - PFP Closure Project	0	2,919	5,183	2,919	-2,264	55,307	39,422	44,137	-15,884	-4,714	0	0	0	55,307	53,850	1,457	
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	2,919	5,183	2,919	-2,264	55,307	39,422	44,137	-15,884	-4,714	0	0	0	55,307	53,850	1,457	
f. MANAGEMENT RESERVE														3,434			
g. TOTAL	0	2,919	5,183	2,919	-2,264	55,307	39,422	44,137	-15,884	-4,714	0	0	0	58,741			

CLASSIFICATION (When Filled In)

CLASSIFICATION (When Filled In)									
CONTRACT PERFORMANCE REPORT									
FORMAT 5 - Explanations and Problem Analysis									
FORM APPROVED									OMB No. 0704-0188
1. CONTRACTOR									2. REPORT PERIOD
a. NAME		a. NAME		a. NAME		a. FROM (YYYYMMDD)			
b. LOCATION (Address and ZIP Code)		b. NUMBER		b. PHASE		2017/10/23			
c. TYPE		d. SHARE RATIO		c. EVMS ACCEPTANCE		2017/11/26			
CPAF				No X Yes (YYYYMMDD) 2009 / 09 / 18					
Direct Projects									
5. Evaluation									
Budget		Earned		Actuals		SV in \$		SV in %	
Current:		0.0		2,918.8		5,183.1		2,918.8	
Cumulative:		55,306.9		39,422.4		44,136.9		-15,884.5	
								-28.7%	
BAC		EAC		VAC in \$		VAC in %		TCPI to BAC	
At Complete:		55,306.9		53,850.2		1,456.7		2.6%	
								1.42	
								1.64	
Explanation of Variance/Description of Problem:									
Current Month:									
Schedule Variance: The schedule variance for the current month is due to working historical BCWS on discrete demolition activities (apportioned). Continuation of demolition of the 234-5Z, and demolition of PRF (removing gallery gloveboxes and initiating work on the PRF Canyon) is also contributing to this positive variance. Demolition of 234-5Z and 236-Z is currently scheduled to complete in December 2017. The TPC for the capital asset project remains unchanged.									
Cost Variance: The current month unfavorable variance are associated with the unplanned purchase of replacement parts for heavy equipment, additional clean fill dirt and lumber used to support waste packaging for TL-1800's and SLB-2 waste containers. While additional unplanned materials were purchased, less than favorable performance was claimed on the apportioned control accounts as a result of lagging demolition load out activities.									
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;" primarily, the main issue involved employee proximity to demolition radiological boundary areas in place at that time are also contributing to this variance. Radiological boundary areas are being reconfigured, and any impacted employees are being relocated. As a result of delays in the ready for demolition activities, the C2 CD-4 has been delayed but not in jeopardy of being met. However, the TPA milestone M-083-00A was re-negotiated to a due date of 9/30/2017 and will not be met. In addition, a BCR was processed in the month of November 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. Finally, an adjustment to the G&A Rate for FY2017 resulted in a reduction to the PMB of \$463K. This is partially offset by the completion of demolition of the 2729-Z, and 2727-Z facilities, removal of gloveboxes, the completion of demolition activities for the 2nd, 3rd, 4th, 5th, and 6th floors, South Canyon Airlock of 236-Z, removal of all 18 sections of gallery gloveboxes from 236-Z, demolition of 242-ZA, completion of demolition activities in the 242-Z facility, completion of demolition and waste loadout on the 291-Z demolition, completion of demolition and waste loadout activities associated with the 291-Z stack, demolition of the 234-5ZA, 252-Z1, 2503-Z and 2735Z, 2734ZA, ZB, ZC, ZD, and ZL facilities.									
Cost Variance: The cumulative negative cost variance is associated with MSA subcontracted resources arriving to support PFP demolition that were planned as P/Q shift support with a baseline start date of February 2016. Because the project is behind schedule in initiating demolition activities, and because the decision was made not to execute demolition activities for the 236-Z/242-Z facilities on P/Q shift, these resources currently have limited work to support which contributes to inability to take performance until the ready for demolition work scope is completed. To ensure that the project is able to continue demolition activities as identified in the current schedule, these costs will continue to be realized resulting in a potential unrecoverable cost variance. Additionally, Readiness Assessment activities lagged due to a delay in the start of 236-Z Demolition and increased requirements to show readiness resulting in increased costs due to additional time and effort required from subcontracted and direct labor resources. In addition, the apportioned project management activities (i.e. project oversight and planning) and support activities are ongoing, while a delay in the discrete field work is resulting in minimal apportioned BCWP. Further, demolition mobilization activities took longer than originally assumed because of recommendations made during the readiness assessment and purchasing unplanned PBS fixative to support 236-Z demolition. In addition, significant winter weather impacts (i.e., snow, wind, freezing rain, etc.) have been recognized on the Hanford Site. Site closures, freezing temperatures and significant snowfall that required clearing of the demolition zone rather than performing physical demolition on the facilities while a constant staff provides demolition support services is the contributing factor, as a result of the weather impacts and an unexpected contamination events in the PRF demolition zone. In addition unplanned Management Assessment efforts for the 234-5Z and 291-Z facilities took longer than originally assumed. Finally, 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;" primarily, the main issue involved employee proximity to demolition radiological boundary areas in place at that time are also contributing to this variance. Radiological boundary areas are being reconfigured, and any impacted employees are being 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. This is partially offset by recognized efficiencies associated with the removal of the 18 sections									
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, and completion of demolition activities will occur in December 2017. 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 with loadout of waste completed in the month of September. There was three days of schedule loss for the month of November primarily as a result of impacts from inability to reinitiate demolition activities on the PRF (236-Z) facility. As the PFP Project continues to make progress on the behind schedule critical path work scope being performed, it is expected that continued efficiencies will be recognized, evaluated, and implemented as schedule delays occur. The baseline completion date is not considered recoverable. The TPA Milestone TPA-083-00A, complete PFP facility transition and selected disposition activities of November 30, 2017 will not be 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 the field work to ready 234-5Z, 236-Z, 242-Z, and 291-Z for demolition. In addition, readiness activities took longer than originally assumed as a result of increased requirements required by the Readiness Assessment team to demonstrate readiness for demolition of the PRF facility and efforts to mobilize took longer than originally assumed as a result of implemented recommendations from the readiness assessment team. An unplanned Management Assessment for the 234-5Z and 291-Z facilities to incorporate lessons learned from the demolition of the 236-Z and 242-Z facilities are also contributing to the cost impacts. Finally, in the early stages of this project subcontracted MSA resources specializing in facility demolition charged the project until the ready for demo status was achieved. Unexpected contamination events that occurred during demolition of the PRF facility in January and June 2017, and delays with the 242-Z demolition has contributed to the cost impacts on this project. A Baseline Change Request (BCR) was processed in the month of November 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.									
The positive VAC is reflective of working one shift during demolition of 236-Z, 242-Z and 291-Z building and stack rather than two as planned in the PMB. In addition, the duration for demolition of 234-5Z has been adjusted as it has been determined that due to the time of year demolition will occur, the number of days to demolish the facility will be less than originally planned. This reduces the amount of demolition and supervision labor resources needed, resulting in the reduction of EAC to BCWS values.									

Corrective Action:

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

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

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

1. Schedule Margin Analysis: In the EAC there is currently no remaining schedule margin in this capital asset account. Schedule margin was lost in November 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 November
3. Forecast Schedule with No Baseline: No change in the month of November
4. UB Balance: No change in the month of November
5. Negative ACWP: No change in the month of November
6. EAC Analysis: Best Case = \$53,850; Most Likely = \$57,285; Worst Case = \$64,312
7. Negative CV > VAC: No change in the month of November
8. MR Transactions: No change in the month of November
9. Freeze Period Changes: No change in the month of November
10. Retroactive Changes: No change in the month of November
11. EVT Changes: No change in the month of November

Prepared by:

Date:

Approved by:

Date:

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



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

November 2017
CHPRC-2017-11, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

M. A. Wright
Vice President for
Project Technical
Services

PROJECT SUMMARY

K Basin Pre-Operational Acceptance Testing (KPAT) was completed on October 31, 2017.

A partial Construction Completion Document (CCD) was signed 11/07/17 by 100K Operations personnel accepting ownership of the Annex and Engineered Container Retrieval and Transfer System (ECRTS) hardware pending completion of construction punch list activities.

Operational Acceptance Testing (OAT) commenced 11/08/17. OAT activities will validate critical operating procedures, enable on-the-job evaluations (OJE), operations demonstrations, and drills.

CHPRC Transportation Safety personnel are focused on finalizing the One-Time Request for Shipment (OTRS) formal implementation activities.

To demonstrate the current forecast date of the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) M-016-175, *Begin Sludge Removal From 105-KW Fuel Storage Basin*, the milestone has been disconnected from the risk analysis schedule margin. The current non-risk adjusted forecast date to begin sludge removal is March 07, 2018.

The effort to retrieve and containerize the sludge pile in the KW Basin Center Bay discovered during debris mapping continued. Work is forecast to be complete in February 2018, prior to the start of sludge retrieval.

Project breakdown structure (PBS) RL-0012 scope is 95.6 percent complete, with a cumulative Schedule Performance Index (SPI) of 1.00 and a Cost Performance Index (CPI) of 1.05.

KEY ACCOMPLISHMENTS

RL-0012 C1 1 Accomplishments

KW Basin Sludge Removal Capital Asset Project

- KPAT
 - KPAT was completed on October 31, 2017.
 - A total of nine Test Deficiency Reports (TDRs) were converted to non-conformance reports (NCRs) to track completion of the identified “non-operational-impacting” corrective actions. The team will now focus on producing the KPAT Test Report.
 - A partial CCD was signed 11/07/17, which allowed turnover of the Annex and ECRTS hardware with a defined punch list. Construction forces will continue to work CCD punch list items and perform preventive/corrective maintenance.
- Tabletop drills of ECRTS upset conditions are being conducted weekly with participation by NCOs, health physics technician (HPTs), engineering, and operations management.
- OAT officially commenced on November 8, 2017.
- Resources continued to focus on finalizing procedures required for completion of the OAT. OAT procedure validations commenced and will continue throughout the OAT operational demonstrations.
- In addition to demonstrations and drills, Sludge Transportation System Cask (STSC) #2 was successfully leak tested to verify its ability to meet rigorous leak tightness criteria and be ready for the Sludge Removal Campaign.

- ECRTS Plan of Action (POA) was approved within CHPRC on November 6, 2017, and transmitted back to RL for formal approval on November 8, 2017. DOE HQ approval is forecast for November 29, 2017.
- An Implementation Plan (IP) has been submitted for comment by the Contractor Operational Readiness Review (ORR) Team Lead and will be approved once the POA is officially approved by RL.
- A revised Startup Notification Report (SNR) technical description based on changes to the POA has been approved for the next SNR submittal.
- Sludge Transportation System Casks (STSCs) 414-417: HiLine personnel delivered four STSC assemblies to Warehouse 4732C on November 8, 2017. STSC 422-424: Vessels were delivered to HiLine on October 26, 2017, and are forecast to be assembled and tested in December. Delivery is forecast in early January.

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 spotlight chart: No major changes in the month of November.													
Realized Risks (Risks that are currently impacting project cost/schedule)													
No realized risks identified in the month of November													
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)													
No critical risks identified in the month of November.													
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)													
FY2017 Risk Triggers (Risk could be realized in FY2017)													
STP-103: K Basin Pre-Operational Acceptance Testing (KPAT) & ECRS Startup	The ECRS equipment does not operate as expected, requiring increased engineering, startup, operations, and construction. Firm Fixed Price (FFP) contractor support; as well as equipment replacement, procurement, and retesting. Realization of this risk would also require additional training, procedure revision, and design modifications because of construction testing and/or lines of inquiry (LOI) for Readiness Review resulting in cost impacts and schedule delays. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$4.5 million, 90 days			Risk Trigger: 1) The ECRS equipment does not operate as expected. 2) Unexpected attrition of critical testing personnel. <table border="1" style="width: 100%; margin-top: 10px;"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Utilize overtime to offset schedule impacts.</td> <td>As Needed</td> <td>N/A</td> </tr> <tr> <td>Closely monitor employee satisfaction and consider employee incentive to retain key test personnel.</td> <td>As Needed</td> <td>N/A</td> </tr> </tbody> </table> Mitigation Assessment: KPAT testing was completed on October 31, 2017. Once KPAT is completed, this risk will no longer pose a threat to the project and will be closed.	Mitigation action(s)	FC Date	%	Utilize overtime to offset schedule impacts.	As Needed	N/A	Closely monitor employee satisfaction and consider employee incentive to retain key test personnel.	As Needed	N/A
Mitigation action(s)	FC Date	%											
Utilize overtime to offset schedule impacts.	As Needed	N/A											
Closely monitor employee satisfaction and consider employee incentive to retain key test personnel.	As Needed	N/A											
Unassigned Risks (Pending ownership of identified threats/opportunities)													
No unassigned risks identified in the month of November.													

CRITICAL PATH SCHEDULE

The critical path runs through completion of procedure validations, operations demonstrations, and drills. The balance of readiness preparation activities, including technical documentation updates, development/delivery of remaining staff training, and completion of readiness affidavits are just off project critical path. Following successful contractor and RL ORR, the project schedule reflects RL providing authorization to commence retrieval operations following the review and approval of the Sludge Removal Project critical decision (CD)-4 submittal. Completing retrieval operations, including the filling of STSCs with sludge and transporting them to T Plant, to complete Tri-Party Agreement Milestone M-016-176, *Complete Sludge Removal from 105-KW Fuels Storage Basin* is required by (September 2019). However, the STP team has modified the field execution schedule (FES) to implement acceleration opportunities, which could facilitate the transfer of all sludge to T Plant by September 30, 2018.

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	5/21/2018	The forecast date includes schedule margin from the project's risk analysis. Project schedule margin is 123 days. The forecast date is a month later than last month due to challenges during KPAT testing which delayed completion of the testing and the follow-on test report.

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

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

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
RL Final Approval of POA - K Basins	9/13/17(A)	11/29/17
RL POA Issued and Distributed	12/19/17	01/02/18
RL IP Issued	01/03/18	1/12/18
RL Perform ORR - Team Lead	01/25/18	02/07/18
RL Issue Findings / Discrepancy List	02/08/18	02/14/18

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



November 2017
CHPRC-2017-11, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

CONTRACT PERFORMANCE REPORT FORMAT 1 - WORK BREAKDOWN STRUCTURE													FORM APPROVED OMB No. 0704-0188						
1. CONTRACTOR				2. CONTRACT				3. PROGRAM			DOLLARS IN Thousands of \$		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) 2017 / 10 / 23						
b. LOCATION (Address and ZIP Code) Richland, WA				b. NUMBER RL14788				b. PHASE					b. TO (YYYYMMDD) 2017 / 11 / 26						
				c. TYPE CPAF				d. SHARE RATIO					c. EVMS ACCEPTANCE <input type="checkbox"/> NO <input checked="" type="checkbox"/> 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 292,668		g. CONTRACT CEILING 303,823	h. ESTIMATED CONTRACT CEILING 292,668		i. DATE OF OTB/OTS (YYYYMMDD)								
6. ESTIMATED COST AT COMPLETION																			
				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					
				279,297		295,873		11,155			c. SIGNATURE			d. DATE SIGNED (YYYYMMDD)					
a. BEST CASE				286,512															
b. WORST CASE				284,718															
c. MOST LIKELY																			
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		VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED		VARIANCE							
		WORK SCHEDULED (2)	WORK PERFORMED (3)	WORK PERFORMED (4)	SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	WORK PERFORMED (9)	SCHEDULE (10)	COST (11)	COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)		
RL-0012 SNF Stabilization & Disp																			
RL_0012_C1_1.16 Sludge Treatment Project		0	0	0	0	0	156,861	156,861	156,786	0	75	0	0	0	156,861	156,786	75		
RL_0012_C1_1.17 D-401 KW Basin Sludge Removal Project		3,240	2,653	2,962	-587	-309	129,315	128,849	117,602	-467	11,246	0	0	0	133,421	122,511	10,910		
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		3,240	2,653	2,962	-587	-309	286,176	285,709	274,388	-467	11,321	0	0	0	290,282	279,297	10,985		
f. MANAGEMENT RESERVE															5,421				
g. TOTAL		3,240	2,653	2,962	-587	-309	286,176	285,709	274,388	-467	11,321	0	0	0	295,703				
9. RECONCILIATION TO CONTRACT BUDGET BASELINE																			
a. VARIANCE ADJUSTMENT																			
b. TOTAL CONTRACT VARIANCE													-467	11,321			295,703	279,297	16,406

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) 2017 / 10 / 23	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017 / 11 / 26	
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	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)								
3G - K Basin Oper & Plateau Remediation Project	3,240	2,653	2,962	-587	-309	286,176	285,709	274,388	-467	11,321	0	0	0	290,282	279,297	10,985		
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)	3,240	2,653	2,962	-587	-309	286,176	285,709	274,388	-467	11,321	0	0	0	290,282	279,297	10,985		
f. MANAGEMENT RESERVE														5,421				
g. TOTAL	3,240	2,653	2,962	-587	-309	286,176	285,709	274,388	-467	11,321	0	0	0	295,703				

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 15_D_401 KW Basin Sludge Removal Project		a. FROM (YYYYMMDD) 2017 / 10 / 23	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017 / 11 / 26	
		c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> X 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 DEC 2017 (4)	+2 JAN 2018 (5)	+3 FEB 2018 (6)	+4 MAR 2018 (7)	+5 APR 2018 (8)	+6 MAY 2018 (9)	3rd Qtr FY18 (10)	FY18 (11)	FY19 (12)	FY19-LC (13)	ATCOMPLETE (14)		
3G - K Basin Oper & Plateau Remediation Project	75	7256	67	76	43	18	1	0	0	0	0	0	0	0	7460
g. TOTAL DIRECT	75	7256	67	76	43	18	1	0	0	0	0	0	0	0	7460

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 012- RL-12 SNF Stabilization and Disposition			a. FROM (YYYYMMDD) 2017/10/23		
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE			b. TO (YYYYMMDD)		
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE No X Yes			(YYYYMMDD) 2009 / 09 / 18 2017/11/26		

5. Evaluation

Direct Projects

	Budget	Earned	Actuals	SV in \$	SV in %	CV in \$	CV in %	SPI	CPI
Current:	3,240.2	2,653.2	2,962.5	-587.0	-18.1%	-309.3	-11.7%	0.82	0.90
Cumulative:	286,176.1	285,709.4	274,383.9	-466.6	-0.2%	11,325.6	4.0%	1.00	1.04
	BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:	290,281.7	279,292.5	10,989.1	3.8%	0.29	0.93			

Explanation of Variance/Description of Problem:

Current Period:

Schedule Variance: The negative variance is due to challenges during KPAT testing including – operation of the bridge crane, operation of the annex HVAC system, and setups of the auxiliary ventilation system – which delayed completion of the testing and the follow-on test report. In addition, the project has encountered issues with completion of the OAT as finalization of the procedures has proven to be more difficult than planned.

Cost Variance: Within Threshold.

Cumulative To Date:

Schedule Variance: Within Threshold.

Cost Variance: Within Threshold.

Impact:

Schedule Impact: The project is implementing recovery actions in response to Operational Acceptance Testing and Procedure Validation taking longer than anticipated.

The current non-risk adjusted forecast date to begin sludge removal is March 14, 2018. The Project implemented recovery methods to initiate sludge removal in March, 2018. The project completed TPA milestones M-016-177 "Complete 105-KW Sludge Transfer Equipment Installation" on 4/19/17 and is on schedule to complete M-016-175 "Begin Sludge Removal from 105-KW Fuel Storage Basin" by 9/30/2018.

KPAT was initiated in April, 2017 and completed in October 31, 2017

Cost Impact: Within Threshold

The current ETC reflects the expected overall costs and further ETC adjustments will be considered as needed.

Corrective Action:

Schedule: N/A

Cost: N/A

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

- Schedule Margin Analysis: There were no baseline changes in the month of September which affected the schedule margin. Project schedule margin is 123 days. As a result of schedule acceleration efforts to enable the retrieval of all sludge by 9/30/18, the Project has accepted all project risk and schedule margin is assumed to be zero. Project continues to evaluate schedule for efficiencies.
- IMS Data dictionary Changes: None in the month of November.
- Forecast Schedule with No Baseline: None in the month of November.
- UB Balance: None in the month of November.
- Negative ACWP: Control Accounts 012.17.01.09 and 12.18.01.04 have negative costs due to a cost transfer to correct charges that were made to the wrong accounts. 012.16.02.22 has negative ACWP due to a time card correction.
- EAC Analysis: Best Case = \$279.3M; Most likely = \$284.7M; Worst Case = \$286.5M.
- Negative CV > VAC:
- MR Transactions: None in the month of November.
- Freeze Period Changes: None in the month of November.
- Retroactive Changes: None in the month of November.
- EVT Changes: None in the month of November.

Prepared by: M. Thompson

Date: 12/14/17

Approved by:

Date:

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



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

November 2017
CHPRC-2017-11, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

Workers at the 618-10 Burial Ground Complex continued backfill of the 618-10 Burial Ground in November and continued to demobilize the site.

KEY ACCOMPLISHMENTS

618-10 Burial Ground Backfill (35 percent complete)

- The site was divided into decision units for verification sampling. Each decision unit receives a backfill concurrence if the sampling results meet the record of decision (ROD) requirements.
- Backfill concurrence was received for decision units three, four, five, and eleven. All of the 618-10 Burial Ground trench has been approved for backfill.
- Crews continued backfill activities, bringing in soil from borrow pit 9, and using the soils from existing stockpiles.

618-10 Burial Ground Complex Demobilization

- Equipment decontamination activities completed, allowing for the removal of the decontamination pad.
- Drum Punch 1 and one calcium tank were sheared up and sent to the Environmental Restoration Disposal Facility (ERDF) for disposal.
- Three trailers, six conex boxes, and a telehandler were shipped to the 300 Area in support of the 324 Building project.
- A front-end loader was shipped to the Research Technology Laboratory (RTL) in support of demobilization activities.
- The high tanks were shipped to the 100K Area for later use on a Hanford project.

MAJOR ISSUES

No major issues to report at this time.

CORRECTIVE ACTION LOG

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

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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

-  Increased Confidence
-  No Change
-  Decreased Confidence

Unmitigated Risk Impacts	Assessment		Comments						
	Month	Trend							
RL-0041/WBS-041									
Explanation of major changes to the project monthly stoplight chart: No major changes in November .									
Realized Risks (Risks that are currently impacting project cost/schedule)									
No realized risks identified in November .									
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)									
No critical risks identified in November .									
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)									
Lifecycle Risk Triggers (Risk could be realized at any point of the project)									
RCC-618-10-07: Contamination Event at 618-10 Waste Site	During fieldwork activities, a contamination event occurs that requires corrective actions, resulting in schedule and cost impacts. Risk Handling Strategy: Accept Probability: Low (10% to 25%) Worst Case Impacts: \$1,288K, 64 days	 	Risk Trigger Metric: The risk could be triggered by high winds or operational upsets (i.e. spills or airborne release). <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>Enhanced radiological controls implemented on project.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> Mitigation Assessment: No changes in November . Much of the 618-10 work is performed in hazardous and radioactive environments. By its nature, the work can be dangerous. Although CHPRC procedures, safety programs, and training programs are designed to minimize the potential loss of control of hazardous/radioactive substances, such an occurrence could be deemed to be significant enough to warrant corrective actions outside of the baseline (e.g. a prolonged work shutdown).	Mitigation action(s)	FC Date	%	Enhanced radiological controls implemented on project.	Ongoing	N/A
Mitigation action(s)	FC Date	%							
Enhanced radiological controls implemented on project.	Ongoing	N/A							
RCC-618-10-09: Discovery of Unexpected Waste/Contamination	Discovery of unexpected waste/contamination, waste/contamination quantities above what is assumed, waste/contamination that is above and beyond COCs or waste profile, or waste/contamination is found in the assumed clean area of the design, resulting in greater-than-planned RAD controls that result in cost and schedule impacts. Risk Handling Strategy: Accept Probability: Very Low (<10%) Worst Case Impacts: \$1,280K, 64 days	 	Risk Trigger Metric: Baseline assumed contamination is limited to design. This risk has the potential to occur again during mass excavation if additional waste/contamination is discovered. <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>Closely managing waste inventories and discoveries, and making adjustments as required.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> Mitigation Assessment: No changes in November . The estimate for the remediation of the 618-10 Waste Site included an assumed amount of additional drums still to be remediated. The project identified unexpected additional drums that were not planned or estimated. The project will continue to closely monitor and manage waste inventories and any new discoveries.	Mitigation action(s)	FC Date	%	Closely managing waste inventories and discoveries, and making adjustments as required.	Ongoing	N/A
Mitigation action(s)	FC Date	%							
Closely managing waste inventories and discoveries, and making adjustments as required.	Ongoing	N/A							
Unassigned Risks (Pending ownership of identified threats/opportunities)									
No unassigned risks identified in November .									

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	54.3	59.4	40.7	5.1	9.4%	18.7	31.5%	68.9	49.2	8.5	19.7

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

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

SCHEDULE MARGIN/MANAGEMENT RESERVE

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

CRITICAL DECISION (CD) MILESTONE STATUS

Number	Title	Due Date	Forecast Date	Status/ Comment
KPP #1	Complete the 618-10 Burial Ground Remediation	1/31/2020	6/11/2018	Completion Criteria: Complete remediation, closeout sampling, and backfill of the 618-10 Burial Ground.
KPP #2	Complete the Remediation of the 316-4 and 600-63 Waste Sites	1/31/2020	12/12/2017	Completion Criteria: Complete remediation, closeout sampling, and backfill of the 316-4 Waste Site and 600-63 Lysimeter Waste Site.
	CD-4 Closeout	1/31/2020	TBD	CD-4 closeout pending contract definitization.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None to report at this time.

DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #4	10/24/17 (A)	10/26/17 (A)
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #5	10/25/17 (A)	10/26/17 (A)
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #3	10/25/17 (A)	11/2/17 (A)
RL and Regulator Second Review of CVP and Waste Site Reclassification Form for 316-4 Waste Site	10/10/17 (A)	11/13/17 (A)
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #11	11/17/17 (A)	11/20/17 (A)
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #9	12/22/17	12/28/17
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #10	3/7/18	3/13/18
RL and Regulator Review of CVP and Waste Site Reclassification Form for 618-10 Burial Ground	3/28/18	5/11/18

Appendix C.4

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

Contract Performance Reports

Format 1 - Work Breakdown Structure

Format 2 - Organizational Categories

Format 3 - Baseline

Format 4 - Staffing

Format 5 - Explanation and Problem Analysis



November 2017
CHPRC-2017-11, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

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

DOLLARS IN

Thousands of \$

FORM APPROVED

OMB No. 0704-0188

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 Fac D&D River Corr				a. FROM (YYYYMMDD) 2017 / 10 / 23																								
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		c. EVMS ACCEPTANCE NO <input type="checkbox"/> X YES <input checked="" type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18				b. TO (YYYYMMDD) 2017 / 11 / 26																								
c. TYPE CPAF		d. SHARE RATIO																																
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 49,235	g. CONTRACT CEILING 0	h. ESTIMATED CONTRACT CEILING 49,235	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 49,235						c. SIGNATURE			d. DATE SIGNED (YYYYMMDD)																									
b. WORST CASE 50,423																																		
c. MOST LIKELY 49,235		68,921		19,686																														
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		VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED		VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)															
		WORK SCHEDULED (2)	WORK PERFORMED (3)	WORK PERFORMED (4)	SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	COST WORK PERFORMED (9)	SCHEDULE (10)	COST (11)																							
RL-0041 Nuc Fac D&D - RC Closure Proj																																		
RL_0041_C1.05.02 618-10 Burial Ground		760	2,713	1,610	1,953	1,103	44,488	47,207	36,029	2,719	11,177	0	0	0	56,127	44,514	11,612																	
RL_0041_C1.05.03 316-4 Waste Site		815	94	9	-721	85	8,799	10,908	4,251	2,109	6,656	0	0	0	11,183	4,275	6,908																	
RL_0041_C1.05.04 600-63 Waste Site		163	66	-7	-97	73	1,017	1,301	445	284	856	0	0	0	1,611	446	1,166																	
b. COST OF MONEY		0	0	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	0	0															
d. UNDISTRIBUTED BUDGET																																		
e. SUBTOTAL		1,738	2,873	1,612	1,135	1,261	54,303	59,415	40,725	5,112	18,690	0	0	0	68,921	49,235	19,686																	
f. MANAGEMENT RESERVE																																		
g. TOTAL		1,738	2,873	1,612	1,135	1,261	54,303	59,415	40,725	5,112	18,690	0	0	0	68,921	49,235	19,686																	
9. RECONCILIATION TO CONTRACT BUDGET BASELINE																																		
a. VARIANCE ADJUSTMENT																																		
b. TOTAL CONTRACT VARIANCE										5,112					18,690					68,921					49,235					19,686				

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) 2017 / 10 / 23	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017 / 11 / 26	
		c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE NO <input type="checkbox"/> X <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18			

WBS FOC Control Account.PARS 2 WBS (3) ITEM (1)	CURRENT PERIOD					CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL 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	760	2,713	1,610	1,953	1,103	44,488	47,207	36,029	2,719	11,177	0	0	0	56,127	44,514	11,612
RL_0041_C1.05.03 316-4 Waste Site	815	94	9	-721	85	8,799	10,908	4,251	2,109	6,656	0	0	0	11,183	4,275	6,908
RL_0041_C1.05.04 600-63 Waste Site	163	66	-7	-97	73	1,017	1,301	445	284	856	0	0	0	1,611	446	1,166
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)	1,738	2,873	1,612	1,135	1,261	54,303	59,415	40,725	5,112	18,690	0	0	0	68,921	49,235	19,686
f. MANAGEMENT RESERVE														0		
g. TOTAL	1,738	2,873	1,612	1,135	1,261	54,303	59,415	40,725	5,112	18,690	0	0	0	68,921		

CONTRACT PERFORMANCE REPORT															Form Approved	
FORMAT 3 - BASELINE															OMB No. 0704-0188	
DOLLARS IN THOUSANDS																
1. CONTRACTOR CH2M HILL Plateau Remediation Company			2. CONTRACT a. NAME: Plateau Remediation Contract b. NUMBER: RL14788 c. TYPE: CPAF d. SHARE RATIO:			3. PROGRAM a. NAME: Plateau Remediation Contract b. PHASE c. EVMS ACCEPTANCE NO			PARS II - RL-0041.C1 Base Funded Nuc Fact D&D River Corr			4. REPORT PERIOD a. FROM: 2017/10/23 b. TO: 2017/11/26				
5. CONTRACT DATA																
a. ORIGINAL NEGOTIATED COST 0			b. NEGOTIATED CONTRACT CHANGE \$0		c. CURRENT NEGOTIATED COST (A + B) \$0		d. ESTIMATED COST AUTH UNPRICED WORK 68,921		e. CONTRACT BUDGET BASE (C + D) \$68,921		f. TOTAL ALLOCATED BUDGET \$68,921		g. DIFFERENCE (E - F) \$0			
h. CONTRACT START DATE 6/19/2008			i. DEFINITIZATION DATE 6/19/2008		j. PLANNED COMPL DATE 9/30/2018		k. CONT COMPLETION DATE 9/30/2018			l. EST COMPLETION DATE 9/30/2018						
6. PERFORMANCE DATA																
ITEM (1)	BCWS CUM TO DATE (2)	BCWS FOR REPORT PERIOD (3)	SIX MONTH FORECAST						BUDGETED COST FOR WORK SCHEDULED (NON - CUMULATIVE)						UNDISTRIB BUDGET (16)	TOTAL BUDGET (17)
			+1 Dec-17 (4)	+2 Jan-18 (5)	+3 Feb-18 (6)	+4 Mar-18 (7)	+5 Apr-18 (8)	+6 May-18 (9)	FY09-13 (10)	FY14 (11)	FY15 (12)	FY16 (13)	FY17 (14)	FY18 (15)		
a. PM BASELINE (BEGIN OF PERIOD)	52,565	1,738	1,738	1,410	1,864	1,708	953	1,238	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)																
	54,303	1,738	1,738	1,410	1,864	1,708	953	1,238	0	0	0	3,497	47,591	17,833	0	68,921

**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 PARS II - RL-0041.C1 Base Funded Nuc Fac D&D River Corr		a. NAME PARS II - RL-0041.C1 Base Funded Nuc Fact D&D River Corr		a. FROM (YYYYMMDD) 2017 / 10 / 23	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017 / 11 / 26	
		c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18			

5. PERFORMANCE DATA															
WBS.FOC Control Account.PARS 2 WBS (3) ORGANIZATIONAL CATEGORY (1)	ACTUAL CURRENT PERIOD (2)	ACTUAL END OF CURRENT PERIOD (Cumulative) (3)	FORECAST (Non-Cumulative)												AT COMPLETION (15)
			SIX MONTH FORECAST BY MONTH (Enter names of months)						ENTER SPECIFIED PERIODS						
			+1 DEC 2017 (4)	+2 JAN 2018 (5)	+3 FEB 2018 (6)	+4 MAR 2018 (7)	+5 APR 2018 (8)	+6 MAY 2018 (9)	3rd Qtr FY18 (10)	FY18 (11)	FY19 (12)	FY19-LC (13)	ATCOMPLETE (14)		
041.6 - 618 10 Projects															
RL_0041_C1.05.02 618-10 Burial Ground	44	1090	41	36	36	31	25	25	24	15	0	0	0	1323	
RL_0041_C1.05.03 316-4 Waste Site	0	69	1	0	0	0	0	0	0	0	0	0	0	70	
RL_0041_C1.05.04 600-63 Waste Site	0	13	0	0	0	0	0	0	0	0	0	0	0	14	
g. TOTAL DIRECT	44	1172	42	36	36	31	25	25	24	15	0	0	0	1406	

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) 2017 / 10 / 01	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017 / 10 / 22	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE No X Yes (YYYYMMDI 2009 / 09 / 18			

5. Evaluation

Direct Projects

	Budget	Earned	Actuals	SV in \$	SV in %	CV in \$	CV in %	SPI	CPI
Current:	1,738.0	2,873.0	1,612.5	1,135.1	65.3%	1,260.5	43.9%	1.65	1.78
Cumulative:	54,302.9	59,415.1	40,725.5	5,112.3	9.4%	18,689.7	31.5%	1.09	1.46
	BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:	68,920.9	49,234.8	19,686.2	28.6%	0.34	1.12			

Explanation of Variance/Description of Problem:

CURRENT MONTH

The current month favorable schedule variance is due to 618-10 Burial Ground backfill being performed ahead of schedule. Additionally, the project completed the excavation of the interim storage area (ISA), which was previously behind schedule.

The current month favorable cost variance is primarily due to the ability to use existing crews and self-perform backfill at the 618-10 Burial Ground. Additionally, less soil was removed from the ISA than what was planned, requiring fewer labor hours.

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 on time with the resources left. Additionally, excavation efficiencies at the 316-4 Waste Site reduced the total volume of soil to be removed, and the availability of crews to self-perform backfill scope instead of hiring a separate subcontractor resulted in cost savings.

VARIANCE AT COMPLETION

The favorable variance at completion reflects the efficient use of shared resources and materials amongst the 618-10 Complex projects. Attrition has also led to a reduction in staffing and in cost with work still being completed on time with the resources left. Excavation efficiencies and self-performing backfill instead of hiring a separate subcontractor at the 316-4 Waste Site reduced the total cost to complete the project, and the optimization of resources and equipment at the 618-10 Burial Ground Complex reduced the total cost to complete excavation at the 600-63 Waste Site.

IMPACTS

There are no current impacts to the project schedule or cost.

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 November.
- Forecast Schedule with No Baseline: None in the month of November.
- UB Balance: N/A
- Negative ACWP: There was negative ACWP in some accounts due to accrual reversals and timecard corrections.
- EAC Analysis: Best Case: \$49,235; Most Likely: \$49,235; Worst Case: \$50,423
- Negative CV > VAC: N/A
- MR Transactions: None in the month of November.
- Freeze Period Changes: None in the month of November.
- Retroactive Changes: None in the month of November.
- EVT Changes: None in the month of November.