

Monthly Performance Report

October 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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Date

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L. Ty Blackford
President and Chief
Executive Officer

Monthly Performance Report

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October 2017
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EXECUTIVE SUMMARY

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

- **Plutonium Finishing Plant (PFP) Closure Project:** The demolition of the largest PFP facility, 234-5Z, continued with significant progress being made and over 600 Environmental Restoration Disposal Facility (ERDF) waste transport cans containing PFP demolition waste shipped to ERDF for disposal. The PFP team is implementing additional safety measures to support the safe continuation of demolition of the Plutonium Reclamation Facility (PRF).
- **618-10 Burial Ground Remediation Project:** Verification sample results have allowed the continuation of backfilling at the 618-10 Burial Ground. Employees are performing radiological surveys for down posting soil contamination areas at the perimeter of the site. While backfilling, the project is demobilizing excess personnel, equipment, and infrastructure.
- **Soil and Groundwater Remediation Project (S&GRP):** Completed repair/replacement of equipment damaged by last summer's range fire at the HX P&T facility on October 2, 2017. All affected wells have been returned to service.
- **Waste and Fuels Management Project (W&FMP):** The project began initial site characterization for the capsule storage area (CSA) and issued the preliminary design (critical decision [CD]-1). Activities are being constrained by the Continuing Resolution, as this project would be a line item "new start."
- **K Basins Operations and Plateau Remediation Project (KBO&PR):** The Sludge Treatment Project (STP) crews successfully pumped radioactive water from the 105KW Basin to the Annex, utilizing the Sludge Removal Process System hardware as part of the K Basin Preoperational Acceptance Testing (KPAT). The team completed the final phase of KPAT, proving sludge removal components are ready for the operations acceptance test.
- **324 Building Disposition Project:** The project completed the mock-up facility construction. Subcontractor support was mobilized to remove facility interferences to support future installation of remote-operated equipment.
- **Plutonium Uranium Extraction Plant (PUREX) Tunnel:** Workers completed placement of engineered grout into the southern and largest portion of Tunnel 1 and are approximately 50 percent complete in the smaller, northern portion.

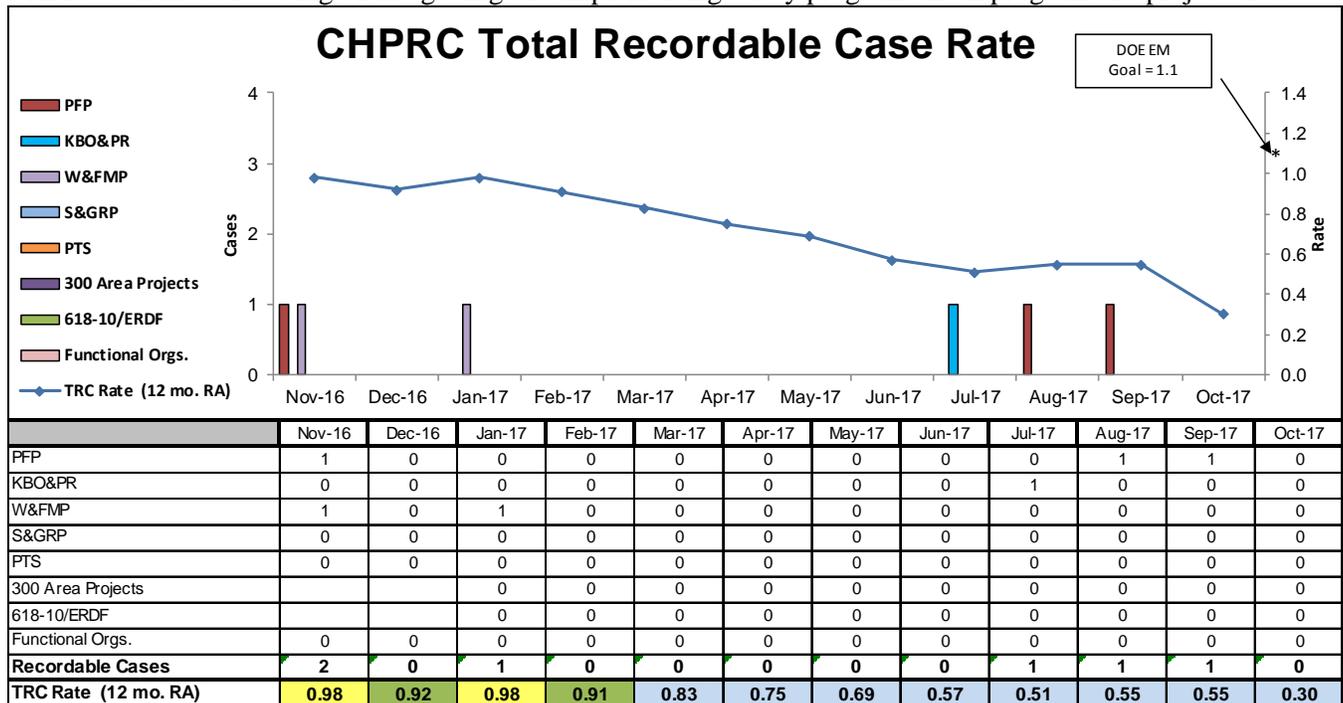


High angle shot of the grouting taking place at the PUREX Tunnel 1.

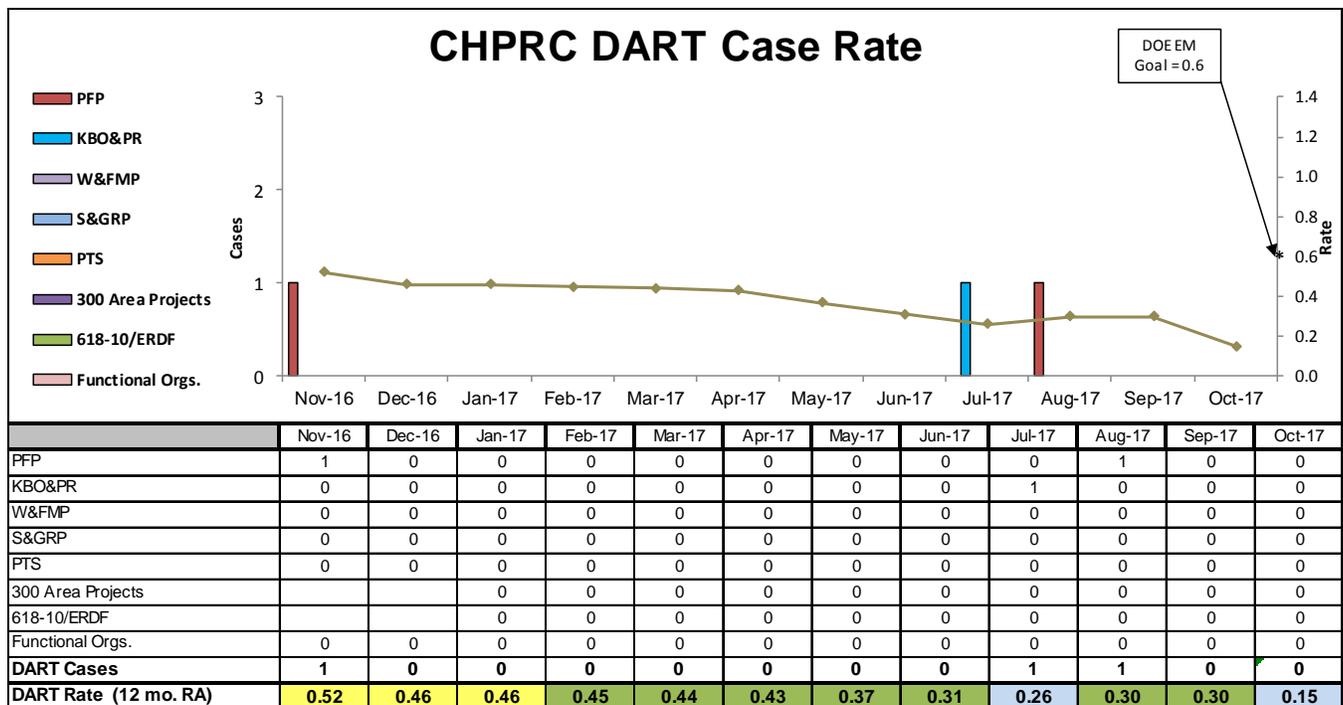
- The President's Zero Accident Council (PZAC) meeting for October was hosted by KBO&PR. The three main ideas were:
 - Fire Safety – Two Ways Out.
 - Winter Roads – Mission Support Alliance, LLC (MSA)'s Site Plan.
 - Vehicle Safety – Practice 360.
- Five “*Thinking Target Zero*” (TTZ) bulletins were published to convey important occupational, safety, health, and environmental messages:
 - Voluntary Protection Program (VPP) Safety Improvement Plans.
 - Preparations for Winter.
 - Universal Waste.
 - Driving Safety: Taking Ownership.
 - Fall Back Safely.
- *Weekly Safety Tailgate* briefing packages communicated relevant topics and safety information to the workforce:
 - Four Lessons Learned:
 - Wooden deck collapse.
 - Paint vapors migrate into offices.
 - Fall on stairs results in broken kneecap.
 - Ballistic release of a JPL pump component.
 - Injury reports.
 - Weekly ethics moments.
 - Vehicle incidents.
 - Conduct of work focus topic.
 - When to call 9-1-1.
 - Driving Safety Campaign – Taking Ownership.
 - Winter Safety Campaign – Be prepared for Winter conditions!
 - Site-Wide Electrical Safety.
 - Peer Checking Success.
 - Pedestrian Safety - Defensive Walking.
 - Dosimeter Reminder.
 - Hanford Worksite Flu Clinics.

TARGET ZERO PERFORMANCE

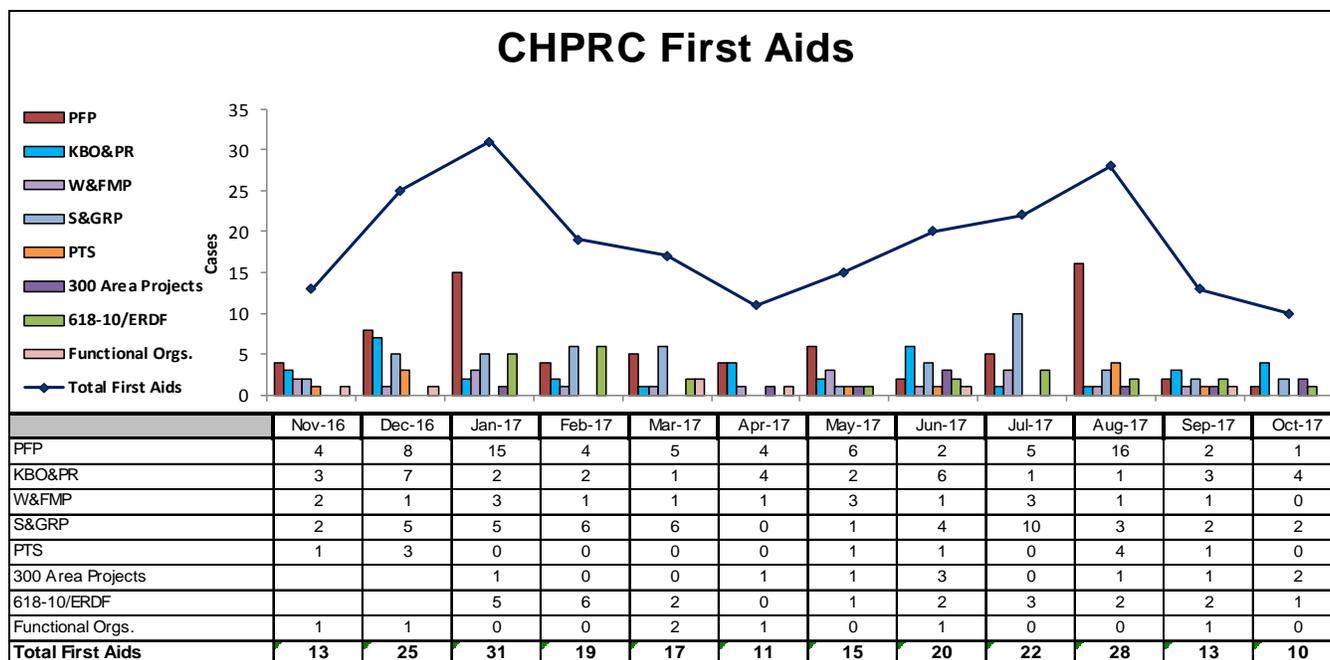
CHPRC continued focusing on integrating and implementing safety programs in all program and project areas.



Total Recordable Injury Case (TRC) Rate: The 12-month rolling average TRC rate of 0.30 is based on a total of 6 Recordable injuries. October had no Recordable cases.



Days Away, Restricted or Transferred (DART) Workdays Case Rate: The 12-month rolling average DART rate of 0.15 is based upon a total of three Days Away cases. October had no DART cases.



First Aid Case Summary: CHPRC reported 10 First Aid cases in October. The contributors were seven sprains/strains/pains, one abrasions/bruises/contusions, one cut/laceration/puncture and one insect bite injury. In addition, two self-treat cases were reported in October.

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 October month-end, there was a backlog of 48 undefinitized change proposals (CPs) and responses to requests for proposals (RFPs) – totaling approximately \$431 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).

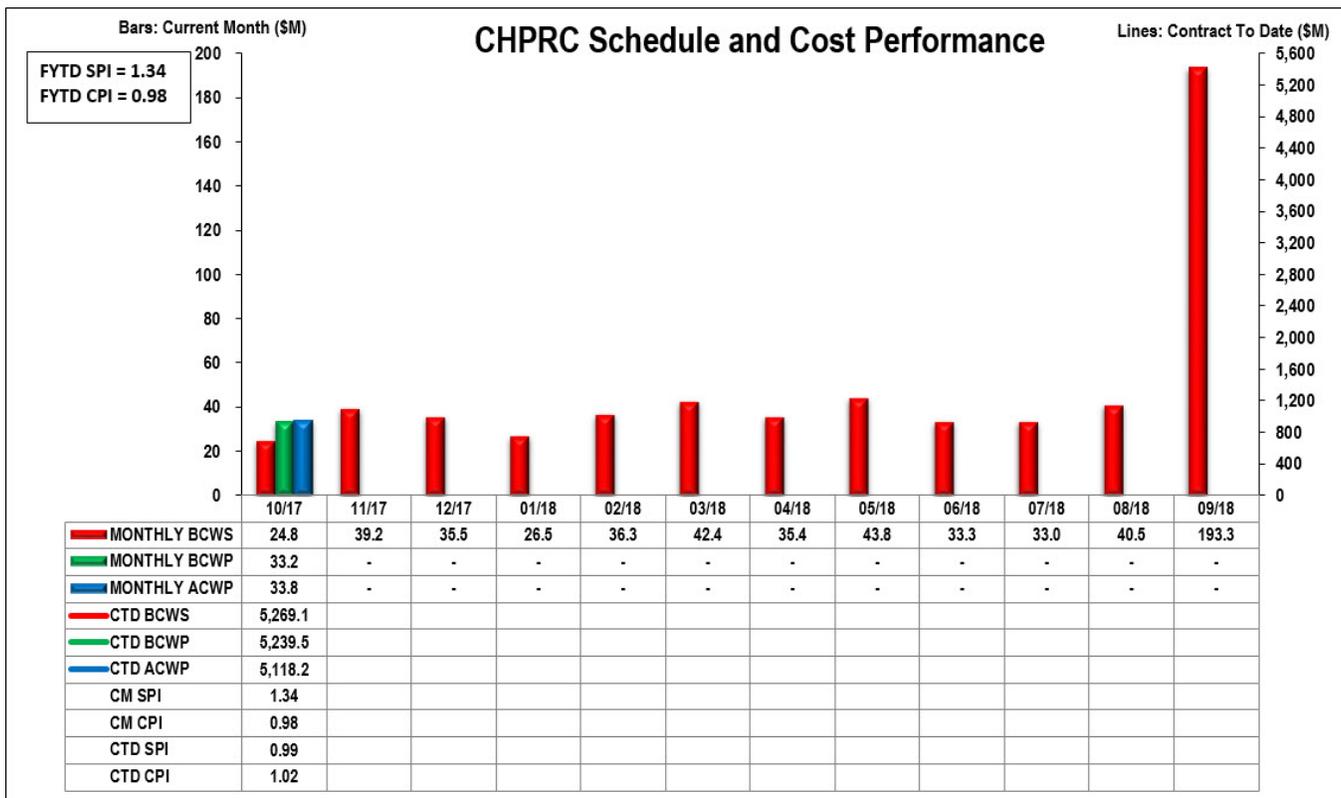
Status:

- CHPRC continues to discuss proposed alignment strategy with RL.

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 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	BAC	EAC	Variance
RL-0011 - Nuclear Materials Stab & Disp PFP	0.6	3.3	4.6	2.6	(1.3)	988.5	966.9	1070.8	(21.6)	(103.9)	988.7	1,096.3	(107.7)
RL-0012 - SNF Stabilization & Disposition	4.5	4.8	4.8	0.3	0.0	702.4	702.6	669.0	0.1	33.6	740.4	702.3	38.1
RL-0013 - Solid Waste Stab & Disposition	6.7	6.7	6.4	0.0	0.3	1197.4	1201.1	1123.0	3.7	78.1	1,362.4	1,279.9	82.5
RL-0030 - Soil & Water Rem-Grndwtr/Vadose	6.4	6.9	7.3	0.5	(0.4)	1414.2	1397.1	1370.2	(17.1)	26.9	1,566.7	1,537.1	29.6
RL-0040 - Nuc Fac D&D - Remainder	1.5	4.9	4.0	3.5	0.9	459.6	457.3	428.3	(2.3)	29.0	496.9	468.2	28.7
RL-0041 - Nuc Fac D&D - RC Closure Project	5.0	6.5	6.8	1.5	(0.2)	482.5	490.2	436.7	7.7	53.5	646.9	565.3	81.6
RL-0042 - Nuc Fac D&D - FFTF Project	0.1	0.1	0.1	(0.0)	0.1	24.4	24.4	20.2	(0.0)	4.2	26.5	22.8	3.7
Total	24.8	33.2	33.8	8.4	(0.6)	5,269.1	5,239.5	5,118.2	(29.6)	121.3	5,828.4	5,671.8	156.5

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

* In regards to RL-0041, CHPRC has implemented the River Corridor Closure Contract (RCCC) transitioned scope into the performance measurement baseline (PMB) for Earned Value Management (EVM) reporting purposes. When the change orders (CO 304, 305, 306) are definitized, 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 \$156.5 million, with \$57.1 million of management reserve (MR), for a total positive variance of \$213.6 million. For October, the project was 34.1 percent ahead of schedule and 1.8 percent over

planned cost. Contract to date (CTD), the project was 0.6 percent behind schedule and 2.3 percent under planned cost.

The \$156.5 million VAC increased \$11.5 million, mostly due to a Management Reserve draw of \$6.2 million in RL-0013 to account for additional labor and maintenance for facilities identified in surveillances.

The current month (CM) positive schedule variance is primarily due to PBS RL-0040 recovery of PUREX Tunnel 1 grouting, tunnel investigation, and field engineering activities. Additionally, a point adjustment to move historical budgeted cost of work scheduled (BCWS) and re-plan under appropriate Subsequent Unit for Individual Determination (SQUID) Work Breakdown Structure (WBS) has attributed to the positive variance.

Also contributing to the positive schedule variance is PBS RL-0011 working historical 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 2, 3, and 7, and completion of demolition and waste loadout of 267-Z – Fire riser number 9 valve house; 2503-Z – Electrical switchyard; and 252-Z-1 – Electrical substation activities, are contributing to this positive variance.

The CM cost variance is within reporting thresholds. However, CHPRC was directed by the FY2018 Annual PMB Update, received May 30, 2017, Correspondence No. 1702282A, to plan the FY2018 ERDF operations in the PMB under WBS 13.10. Subsequently, CHPRC was directed by RL-Contracting Officer email, sent August 4, 2017, documented by Correspondence No. 1703888, that FY2018 ERDF Operations cost accumulation could not be moved from PBS RL-0041 as charged in FY2017 to PBS RL-0013 in FY2018 until after the FY2018 appropriations was approved by Congress. As a result of the current FY2018 Continuing Resolution, PBS RL-0041 recognized ERDF cost of \$1.8 million in October without associated budget. This cost variance was partially offset by cost underruns at 618-10 due to the availability of the existing crews and equipment to self-perform the backfill work scope. Self-performing backfill efforts has led to increased efficiencies and fewer costs compared to the plan.

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	33.3	(0.1)
RL-0012	Spent Nuclear Fuel Stabilization and Disposition	43.1	29.6	13.5
RL-0012	15-D-401 Sludge Retrieval Project	36.8	13.9	22.9
RL-0013	Waste and Fuels Management Project	160.4	147.7	12.7
RL-0013	Management of Cesium and Strontium Capsules	7.4	2.7	4.7
RL-0030	Soil, Groundwater and Vadose Zone Remediation	128.9	107.3	21.6
RL-0040	Nuclear Facility D&D, Remainder of Hanford	50.4	32.0	18.3
RL-0041	Nuclear Facility D&D, River Corridor	129.4	122.2	7.2
RL-0042	Fast Flux Test Facility Closure	3.8	2.7	1.1
Total Estimate at Complete		593.3	491.4	101.9
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	12.4	(12.4)
RL-0012	15-D-401 Sludge Retrieval Project	0.0	0.0	(0.0)
RL-0013	Waste and Fuels Management Project	0.0	4.6	(4.6)
RL-0013	Management of Cesium and Strontium Capsules	0.0	0.0	0.0
RL-0030	Soil, Groundwater and Vadose Zone Remediation	0.0	21.5	(21.5)
RL-0040	Nuclear Facility D&D, Remainder of Hanford	0.0	19.0	(19.0)
RL-0041	Nuclear Facility D&D, River Corridor	0.0	12.6	(12.6)
RL-0042	Fast Flux Test Facility Closure	0.0	0.0	0.0
Total Incremental Work Scope		0.0	70.0	(70.0)
Total Fiscal Year Spend Forecast				
RL-0011	Nuclear Materials Stabilization and Disposition	33.2	33.3	(0.1)
RL-0012	Spent Nuclear Fuel Stabilization and Disposition	43.1	42.0	1.1
RL-0012	15-D-401 Sludge Retrieval Project	36.8	13.9	22.9
RL-0013	Waste and Fuels Management Project	160.4	152.3	8.1
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	0.1
RL-0040	Nuclear Facility D&D, Remainder of Hanford	50.4	51.0	(0.7)
RL-0041	Nuclear Facility D&D, River Corridor	129.4	134.8	(5.4)
RL-0042	Fast Flux Test Facility Closure	3.8	2.7	1.1
Total		593.3	561.4	31.8

Funds/Variance Analysis

FY2018 expected funding of \$593.3 million includes \$93.3 million of carryover funding and \$33.3 million of funding provided by RL in advance of FY2018, and an expected new funding of \$466.7 million. The spending forecast is based on the final FY2018 PMB annual update submitted to RL on September 13, 2017, with updates through October.

BASELINE CHANGE REQUESTS

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

Change Request #	Title	PBS	Summary of Change
BCR-012C-18-001R0	<i>Incorporate FY2018 Performance Measure Milestones –SRP CAP</i>	RL-0012	This BCR incorporated the Performance Measure (PM) Milestones authorized by Contract Modification 632 – <i>Section J.4, Performance Evaluation and Measurement Plan for Fiscal Year 2018 Performance Evaluation Measurement Plan</i> , received October 2, 2017. This BCR did not change the PMB value.
BCR-012C-18-002R0	<i>RL-0012 SRP Project MR Draw</i>	RL-0012	This BCR drew Management Reserve (MR) for in-scope unplanned work associated with realized risks, mitigated risks, and a change in execution strategy. This BCR increased the PMB by \$1,040K.
BCR-013C-18-001R0	<i>Incorporate FY2018 Performance Measure Milestones –W-135</i>	RL-0013	This BCR incorporated the PM milestones authorized by Contract Modification 632 – <i>Section J.4, Performance Evaluation and Measurement Plan for Fiscal Year 2018 Performance Evaluation Measurement Plan</i> , received October 2, 2017. This BCR did not change the PMB value.
BCR-013-18-002R0	<i>Incorporate CO #327 Increase NTE for T-Plant Sludge Acceleration</i>	RL-0013	This BCR incorporated scope associated with an additional not to exceed (NTE) for CO 327, <i>Accelerating The Shipment Of Sludge From 100-K West Basin To T-Plant</i> , as authorized by Contract Modification 628. This BCR increased the PMB value by \$1,000K.
BCR-013-18-003R0	<i>Incorporate CO #323 Increase NTE for Hanford Sitewide TSD Management</i>	RL-0013	This BCR incorporated the scope associated with the additional NTE for CO 323, <i>Hanford Sitewide Transportation Safety Document Management</i> , which was authorized by RL- Contracting Officer email direction, received September 18, 2017. This BCR increased the PMB value by \$100K.
BCR-013C-18-004R0	<i>W-135 Scope Deferral Due to Line Item Funding Unavailability</i>	RL-0013	This BCR incorporated a three-month deferral by RL direction, provided by DOE Letter 17-AMRP-0263, <i>Contract No. DE-AC06-08RL14788 – Line Item Funding Request for Management of the Cesium and Strontium Capsules Project W-135</i> , received October 2, 2017. This BCR did not change the PMB value.
BCR-013-18-005R0	<i>RL-0013 Facility Operations MR Draw</i>	RL-0013	This BCR drew MR for in-scope, unplanned work that is consistent with the general scope of work of the contract, risk mitigation and realized risks. The BCR increased the PMB value by \$6,284K.
BCR-030-18-001R0	<i>Unilateral Determination of CO316, CP 030 316 1637, Groundwater Engineering Reports and Groundwater Monitoring Plans for DWMUs</i>	RL-0030	This BCR incorporated the definition of CO 316, <i>Groundwater Engineering Reports and Groundwater Monitoring Plans for DWMUs</i> , per Contract Modification 609. This BCR also drew MR for in-scope unplanned work to offset the difference between TCoPD values and the unilaterally definitized values. This BCR increased the PMB value by \$2,637K.
BCR-030-18-002R0	<i>Move FY2018 Unfunded RL-0030 Work Activities to Planning Packages</i>	RL-0030	This BCR converted FY2018 unfunded RL-0030 scope into Planning Packages (PP) in September FY2018, where it will be held pending agreement between RL and CHPRC on its' disposition. This BCR did not change the PMB value.
BCR-040-18-001R0	<i>RL-0040 WBS Changes to Appropriate SQUID for FY2018</i>	RL-0040	This BCR re-aligned FY2018 work scope from WBS 040.01.22 <i>Emergency Response for Facility / Waste Site ESH&Q or Remediation</i> residing in the current PMB to the appropriate Subsequent Units for Individual Development (SQUID) WBS elements. This BCR did not change the PMB value.

Change Request #	Title	PBS	Summary of Change
BCR-041-18-002R0	<i>CO #328 Incorporate Additional Scope for 300-296 Waste Site Project into PMB for Reporting Purposes</i>	RL-0041	This BCR incorporated the additional 300-296 Waste Site Project scope through the end of FY2018 into the PMB. The additional scope for the project is incorporated into the PMB as Authorized Unpriced Work (AUW) as authorized by the RL CO via email dated September 20, 2017. This BCR increased the PMB value by \$67,957K.
BCR-041-18-003R0	<i>Incorporate CO #305 Revised Scope for 300-296 Waste Site Project.</i>	RL-0041	This BCR incorporated the additional 300-296 Waste Site Project scope through the end of FY2018 into the PMB. The additional scope for the project is incorporated into the PMB as AUW as authorized by the CO via email dated October 4, 2017. This BCR increased the PMB value by \$5,957K.
BCR-041-18-004R0	<i>Incorporate CO #330 Continued 100-K Remediation Activities in FY2018</i>	RL-0041	This BCR incorporated CO 330, <i>Continue 100-K Remediation Activities</i> , as authorized by Contract Modification 626, received September 26, 2017. This BCR increased the PMB value by \$6,478K.
BCR-041-18-005R0	<i>RL-0041 Correct WFR WBS Assignment</i>	RL-0041	This BCR corrected the error and transferred the RL-0041 Workforce Restructuring (WFR) BCWS and G&A Adjustment from WBS 041.91.01.01.01 into OA coded WBS 041.91.01.01.02 – RL-41 Workforce Restructuring-A. This BCR did not change the PMB value.
BCR-PRC-18-001R0	<i>Incorporate FY2018 Performance Measure Milestones –OA Projects</i>	RL-0012, RL-0013, RL-0030, RL-0040	This BCR incorporated the PM Milestones authorized by Contract Modification 632 – <i>Section J.4, Performance Evaluation and Measurement Plan for Fiscal Year 2018 Performance Evaluation Measurement Plan</i> , received October 2, 2017. This BCR did not change the PMB value.
BCRA-PRC-18-003R0	<i>HPIC Updates October 2018</i>	RL-0011, RL-0012, RL-0013, RL-0030, RL-0040, RL-0041, 000s	This BCR incorporated October FY2018 Hanford Programs Integrated Control Module (HPIC) updates. This BCR did not change the PMB value.

The Allocated (Distributed) Budget increased by \$91,453K.

Undistributed Budget Activity

BCR Number	Title	PBS	Fiscal Year	UB
BCR-PRC-18-002R0	<i>Undistributed Budget Adjustments October 2017</i>	RL-0011, RL-0013, RL-0030, RL-0040, RL-0041	2018	\$-12,350K

The Undistributed Budget decreased by \$12,350K.

Management Reserve Activity

BCR Number	Title	PBS	Fiscal Year	MR
BCR-012C-18-002R0	<i>RL-0012 SRP Project MR Draw</i>	RL-0012	2018	\$-1,040K
BCR-013-18-005R0	<i>RL-0013 Facility Operations MR Draw</i>	RL-0013	2018	\$-6,284K.
BCR-030-18-001R0	<i>Unilateral Determination of CO316, CP 030 316 1637, Groundwater Engineering Reports and Groundwater Monitoring Plans for DWMUs</i>	RL-0030	2018	\$-1,512K

Overall, there was a decrease in Management Reserve (MR) of \$8,836K during October.

Fee Activity

BCR Number	Title	PBS	Fiscal Year	Fee
BCR-030-18-001R0	<i>Unilateral Determination of CO316, CP 030 316 1637, Groundwater Engineering Reports and Groundwater Monitoring Plans for DWMUs</i>	RL-0030	2018	\$84K

Overall, there was an increase to the Fee of \$84K during October.

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):

October 2017 Summary of Changes

	FY 2009-2013	FY2014	FY2015	FY2016	FY2017	FY2018	FYs 2014-2018	Contract Period Total	Total PMB
September 2017 Estimate									
PMB	3,391,477	391,653	471,323	504,826	485,028	504,977	2,357,806	5,749,283	5,749,283
MR	0	0	0	0	0	65,969	65,969	65,969	65,969
Fee	155,504	14,325	14,501	27,804	10,612	18,636	85,877	241,381	241,381
Total	3,546,981	405,978	485,824	532,630	495,639	589,582	2,509,652	6,056,633	6,056,633
October 2017 Change									
PMB									
Change to PMB	0	0	0	0	0	79,103	79,103	79,103	79,103
MR									
Change to MR	0	0	0	0	0	-8,836	-8,836	-8,836	-8,836
Fee									
Change to Fee	0	0	0	0	0	84	84	84	84
Total Change	0	0	0	0	0	70,351	70,351	70,351	70,351
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

Changes to/Utilization of Management Reserve in October 2017

	FY2009-2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2014-2018	Total
September 2017 MR Totals								
RL-0011	0	0	0	0	0	5,980	5,980	5,980
RL-0012	0	0	0	0	0	10,925	10,925	10,925
RL-0013	0	0	0	0	0	7,300	7,300	7,300
RL-0030	0	0	0	0	0	23,201	23,201	23,201
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	65,969	65,969	65,969
October 2017 MR Changes/Utilization								
RL-0011	0	0	0	0	0	0	0	0
RL-0012	0	0	0	0	0	(1,040)	-1,040	-1,040
RL-0013	0	0	0	0	0	(6,284)	-6,284	-6,284
RL-0030	0	0	0	0	0	(1,512)	-1,512	-1,512
RL-0040	0	0	0	0	0	0	0	0
RL-0041	0	0	0	0	0	0	0	0
RL-0042	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	-8,836	-8,836	-8,836
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

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 - 10/31/2017				Planned Subcontracting:	\$2,720,084,369
Reporting Category				Contract-to-date awards:	\$2,636,515,071
				Bal remaining to award:	\$83,569,298
	\$ Value	%	Goal %	Goal award\$	Bal to Goal
SB	\$1,474,924,124	55.94%	49.3%	\$1,341,001,594	-\$133,922,530
SDB	\$279,768,486	10.61%	8.2%	\$223,046,918	-\$56,721,568
SWOB	\$275,423,167	10.45%	7.5%	\$204,006,328	-\$71,416,839
HUB	\$70,911,321	2.69%	2.2%	\$59,841,856	-\$11,069,464
VOSB	\$210,347,447	7.98%	3.5%	\$95,202,953	-\$115,144,494
SDVO	\$126,592,821	4.80%	1.3%	\$35,361,097	-\$91,231,724
NAB	\$65,336,793	2.48%	N/A	PRC clause H.20 small business requirement ≥ 17% of CHPRC Contract Price performed by SB.	
Large	\$665,899,795	25.26%	N/A		
GOVT	\$3,891,704	0.15%	N/A		
GOVT CONT	\$483,186,359	18.33%	N/A		
EDUCATION	\$114,179	0.00%	N/A		
NONPROFIT_	\$3,875,683	0.15%	N/A	CHPRC Contract Value:	\$5,732,255,464
FOREIGN	\$4,623,227	0.18%	N/A	17% rqmt:	\$974,483,429
Total	\$2,636,515,071	100.00%	N/A	SB actual:	\$1,474,924,124
				Bal to rqmt	-\$500,440,695

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 Perma-Fix Northwest, Inc. (PFNW) locations. RL is the authorized shipper and acts as signatory on the shipping papers and ensures DOE Manual 460.2-1 is complied with. RL arranges for Commercial Motor Vehicle Safety Alliance (CVSA) level VI vehicle inspections and verifies that the government drivers meet the applicable Department of Transportation (DOT) Federal Motor Carrier Safety Regulations (49 CFR 382 and 383). RL also inspects the load securement to ensure compliance with DOT regulations and/or Transportation Safety Document (TSD) requirements.	Ongoing
J.12/C.2.3.6	PBS-13, Transuranic Waste Certification	Waste Isolation Pilot Plant (WIPP): Provides shipping resources and manages the schedule for transportation of these containers to WIPP. The schedule is variable and the number of shipments is controlled by DOE-HQ on a complex-wide priority. Cost for shipment of TRU waste offsite is borne by the Carlsbad Field Office (CBFO).	No WIPP shipments are planned within the contract period of performance.

DOE ACTIONS/DECISIONS

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

Section A

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



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

October 2017
CHPRC-2017-10, 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 41 percent complete. This marks the end of more than 10 years of preparation for demolition activities to begin on all facilities at PFP. 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, and is ongoing and is 64 percent complete. Initiation of demolition on the 242-Z facility started in early January 2017, and was completed in April 2017. Demolition activities for 291-Z were initiated on June 30, 2017, and waste loadout was completed on September 29, 2017. Demolition of the 291-Z stack was completed on July 15, 2017, and waste loadout was completed July 27, 2017. Demolition of the 234-5ZA facility was initiated on July 27, 2017, and waste loadout was completed on September 15, 2017.

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

Significant accomplishments in October included:

- Continued demolition of 234-5Z
 - Completed zones 2, 3, and 7
- Completed demolition of 267-Z – Fire riser 9 valve house
- Completed demolition of 2503-Z – Electrical switchyard
- Completed demolition of 252-Z-1 – Electrical substation
- Shipped 352 roll-off cans to ERDF for waste disposition
- Shipped 90 cubic meters (m³) transuranic (TRU) waste
- Shipped 2,429 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	3	62 structures
Non-radioactive Waste Shipped	0 m ³	85 m ³
Transuranic/Transuranic Mixed (TRU/TRU-M) Shipped	90 m ³	3,140 m ³
LLW/MLLW Shipped	2,429 m ³	13,758 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	0%
			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	2	• N/A
Total Recordable Injuries	0	1	• N/A
First Aid Cases	1	72	10/02/17 – Employee had a pain in his back when putting gas in a bobcat while in an awkward position. (24640)
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

RL-0011 Accomplishments

PFP Waste Operations

- Shipped 90 m³ TRU/TRUM waste.
- Shipped 2,429 m³ LLW/MLLW.
- Shipped 352 roll-off cans to ERDF for waste disposition.

Demolition Activities

- Continued demolition of 234-5Z
 - Completed zones 2, 3, and 7
- Completed demolition of 267-Z – Fire riser 9 valve house
- Completed demolition of 2503-Z – Electrical switchyard
- Completed demolition of 252-Z-1 – Electrical substation

Project Technical Services (PTS)

- Operations Program
 - Emergency Preparedness (EP)
 - Conducted PFP Full Up Drill (PFP-EPDE-092617).

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: Risks PFP-DEMO-05 and PFP-DEMO-16 were removed as Realized Risks and added as Critical Risks. Risk PFP-DEMO-21 and PFP-DEMO-07 were removed as critical risks and added as High Threat risks.										
Realized Risks (Risks that are currently impacting project cost/schedule)										
No realized risks identified in the month of October.										
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: This risk was realized during the month of May due to high winds and lightening, limiting demolition activities. <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <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>Implement "tropical" shift and overtime (OT) shifts as necessary to mitigate further impacts associated with weather.</td> <td style="text-align: center;">Ongoing</td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table> Mitigation Assessment: During the month of October , there were no weather impacts. However, the risk remains critical due to upcoming high-wind and continued high-heat weather having the ability to impact the planned demolition. The PFP project will continue to adjust the daily work scope to plan for projected weather impacts.	Mitigation action(s)	FC Date	%	Implement "tropical" shift and overtime (OT) shifts as necessary to mitigate further impacts associated with weather.	Ongoing	N/A
Mitigation action(s)	FC Date	%								
Implement "tropical" shift and 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: A Continuous Air Monitoring (CAM) alarm sounded while crews were removing and packaging the third section of GB3 the PRF on Thursday, June 8, 2017. Demolition activities were stopped, and Radiological Controls Technicians (RCTs) began surveys in preparation to egress personnel. <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <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>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: top;">10/15/17</td> <td style="text-align: center; vertical-align: top;">100%</td> </tr> </tbody> </table> Mitigation Assessment:	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	%								
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High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)												
<p>PFM-DEMO-12: PFM/PRF Demolition Contamination Levels</p>	<p>Contamination levels on the canyon walls, floors, ventilation ducts, and the remaining areas of PFM 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>All recovery actions were completed in the month of October 2017. However, risk remains critical due to high risk demolition activities.</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>				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>Mitigation Assessment: No change in the month of October. At the end of January 2017, contamination was discovered outside the HCA/ARA/RA Zone established for demolition of the PRF after a Continuous Air Monitor (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 PFM 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>												
<p>PFM-DEMO-21: Glovebox/Equipment Removal/Demolition Material</p>	<p>A material handling event (e.g., dropped piece of process equipment) occurs during the PFM 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>				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>Mitigation Assessment: No change in the month of October. 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. PFM 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.</p>												
<p>PFM-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.</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>				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>Mitigation Assessment: No change in the month of October. 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.</p>												
Unassigned Risks (Pending ownership of identified risks/opportunities)												
No unassigned risks identified in the month of October.												

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	0.6	3.3	4.6	2.6	418.2%	(1.3)	-40.0%

Numbers are rounded to the nearest \$0.1 million.

CM Schedule Variance: (+\$2.6M/+418.2%)

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 2, 3, and 7, and completion of demolition and waste loadout of 267-Z – Fire riser #9 valve house; 2503-Z – Electrical switchyard; and 252-Z-1 – Electrical substation activities are 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: (-\$1.3M/-40.0%)

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 are 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 PFWN helped realize schedule and safety improvements but has resulted in increased size reduction costs. Additional unplanned shipping materials (waste shipping containers such as IP-1 bags, etc.) were required to support waste loadout activities. In addition, recovery from contamination events during demolition of 236-Z contributed to this variance. Resources supported implementation of corrective actions including expanding the demo boundary and relocation of equipment. Due to contamination found on trailers and vehicles (e.g., trucks, van, JLG Lift Equipment, generators, etc.) within the new demo boundary, the project was forced to purchase the previously leased facilities and vehicles.

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	966.9	1,070.8	(21.6)	-2.2%	(103.9)	-10.7%	988.7	1,096.3	25.6	(107.7)

Numbers are rounded to the nearest \$0.1 million

Contract-to-Date (CTD) Schedule Variance (-\$21.6M/-2.2%)

The CTD schedule variance is within threshold.

CTD Cost Variance (-\$103.9M/-10.7%)

The negative CTD cost variance is primarily a result of prior year unrecoverable costs, as well as impacts to the D&D work scope 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 (MT-4 and 18M) and E4 ducting in 234-5Z have caused additional costs to support ready-for-demo activities also contributing to the unfavorable variance. 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 November 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 as 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 vs. 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 direct 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 (-\$107.7M/-10.9%)

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 November 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 22, 2017.

Contract Performance Report Formats are provided in Appendix A.

FUNDS vs. SPEND FORECAST (\$M)

WBS 011/RL-0011 Nuclear Matl Stab & Disp PFP	FY2017		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	33.2	33.3	(0.1)
Incremental Scope Pending Change Management	0.0	0.0	0.0
RL-0011 - Total	33.2	33.3	(0.1)

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 \$33.2 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 control point for estimate to complete (ETC) for regular scope are adequate to support current work. Efficiencies will be necessary to support slab removal if RL direction to perform this work is received.

Critical Path Schedule

The PFP Critical Path schedule begins with the continuation of demolition on the Backside Rooms Zone 4 in 234-5Z. After Backside Rooms Zone 4 is complete, the gallery gloveboxes and 236-Z Canyon demolition will run in parallel with the Front Side CSZ 2.5, Backside CSZ 4.2/4.3, RMC Process Line, and the basement of 234-5Z demolition. The 236-Z canyon demolition completes on December 22, 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.

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	PPF Facility Transition and Selection Disposition Activities	09/30/17		12/22/17	During the month of October, the project lost four days. This was an insignificant impact from the prior month. This four-day loss impacted the forecasted completion date as identified in the October month end forecast completion date of the Tri-Party Agreement milestone for the PPF 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

October 2017
CHPRC-2017-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

M. A. Wright
Vice President for
Project Technical
Services

PROJECT SUMMARY

The K Basin Pre-operational Acceptance Testing (KPAT) continued through October. Testing fieldwork is approximately 99 percent complete and forecast to complete by October 31, 2017. Following KPAT completion, the Construction Completion Document (CCD) will be signed, and Operational Acceptance Testing (OAT) will commence.

CHPRC personnel are finalizing Sludge Removal Project (SRP) training materials, operating/maintenance procedures, and readiness activities in preparation for operational acceptance testing and operational readiness reviews (ORRs), authorizing full-up Engineered Container Retrieval and Transfer System (ECRTS) Operation.

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 February 16, 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 prior to the start of sludge retrieval (Tri-Party Agreement M-016-175).

Project breakdown structure (PBS) RL-0012 scope is 94.9 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	4	18	<ul style="list-style-type: none"> 10/11/17: While walking, employee stepped on a yellow jacket causing employee to roll ankle and spraining it. (24646) 10/12/17: While showing a pen to a coworker, employee dropped the pen. As a reflexive action, the employee tried to catch it, causing a minor cut to the thumb. (24647) 10/25/17: While pulling on a garage door chain, employee developed elbow pain. (24656) 10/31/17: While walking, employee's knee popped. (24657)
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 Nuclear Chemical Operators (NCOs) are observing KPAT and are shadowing test personnel in the KW Basin.
- Tabletop drills of ECRTS upset conditions are being conducted weekly with participation by NCOs, health physics technician (HPTs), engineering, and operations management.

KW Basin Sludge Removal Capital Asset Project

- KPAT
 - KPAT continued with overall test progress approximately 99 percent complete as of October month-end.
 - The KPAT test team completed the initial transfer of 105KW Basin Water to an STSC located within the Annex Transfer Bay. This was significant as it marked the initial use of the ECRTS Process System to move liquid from the Basin to the Annex.
 - The KPAT test team completed several key test sections by completing final STSC fill, STSC disconnects, and inserting the STSC and Sludge Transportation System (STS) Cask.

- Installation of STSC instrumentation and appurtenances continued through the fiscal month. STSC 414-421: Have been delivered to HiLine for installation of associated instrumentation/appurtenances. STSC 422-424: Final data packages were received and these vessels are scheduled to be shipped to Richland by the end of the calendar month. HiLine personnel completed mass spectrometer leak detector (MSLD) testing on STSC 414 and 415.
- Development of the Operations and Maintenance Procedures supporting sludge removal and packaging operations continues. Status of procedures required to declare readiness for the 105KW Facility Sludge Removal Project:
 - o Twenty-two of 25 operation procedures have had their initial reviews completed: one is in job hazard analysis (JHA), five are currently in the comment incorporation phase, 15 are in the validation phase, and one is a site form – its review is complete.
 - o Alarm response procedures (four) have been drafted and are in the final comment incorporation phase.
 - o Ten of 11 maintenance procedures have been reviewed, with one remaining in development.
 - o Two of eight administration procedures have been published, one is currently in comment incorporation, two are still being worked, and three were just added and being drafted.

T Plant Preparations

- Responsible managers are working to complete the Readiness Self-Assessments (RSAs).
- Continued to work operations dry runs and mockups.
- Initiated Dock Number 2 installation and transportation path asphalt repairs.
- Completed three-month maintenance for STS cask trailer.
- MDSA/TSR/Safety Evaluation Report (SER) implementation activities are in progress and are forecast to complete on November 06, 2017.

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 spotlight chart: Risk STP-108-K, STP Annex Equipment and KPAT, was added as a realized risk, as it was processed for MR in BCR-012C-18-002R0.												
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 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 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%;"> <thead> <tr> <th>Risk recovery action(s)</th> <th>FC Date</th> <th>%</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>11/16/17</td> <td>50</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.	11/16/17	50			
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.	11/16/17	50										
Recovery Action Assessment: Perform PMs/CMs until facility maintenance is conducted by 100K Maintenance personnel.												
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)												
No critical risks identified in the month of October .												
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%;"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Use overtime to offset schedule impacts.</td> <td>As Needed</td> <td>N/A</td> </tr> <tr> <td>Closely monitor employee satisfaction and consider employee incentive to retain key test personnel.</td> <td>As Needed</td> <td>N/A</td> </tr> </tbody> </table>	Mitigation action(s)	FC Date	%	Use overtime to offset schedule impacts.	As Needed	N/A	Closely monitor employee satisfaction and consider employee incentive to retain key test personnel.	As Needed	N/A
Mitigation action(s)	FC Date	%										
Use overtime to offset schedule impacts.	As Needed	N/A										
Closely monitor employee satisfaction and consider employee incentive to retain key test personnel.	As Needed	N/A										
Mitigation Assessment: No major changes in the month of October . KPAT testing is forecast to complete September 31, 2017. Once KPAT is completed, this risk will no longer pose a threat to the project and will be closed.												

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 FY2018 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 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>Evaluate the potential for 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.</td> <td>12/06/17</td> <td>35</td> </tr> </tbody> </table> <p>Mitigation Assessment: No major changes in the month of October. Training and procedure development are nearing completion. RSA affidavits will be completed in late November 2017 and are expected to be approved in early 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 MASF and develop procedures that use the information and knowledge gained during the activity for use at the KW Basin.	Complete	100	Evaluate the potential for 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.	12/06/17	35
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 MASF and develop procedures that use the information and knowledge gained during the activity for use at the KW Basin.	Complete	100													
Evaluate the potential for 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.	12/06/17	35													
<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 October. 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	4.5	4.8	4.8	0.3	7.9%	0.0	0.8%

Numbers are rounded to the nearest \$0.1 million

CM Schedule Performance (+\$0.3M/+7.9%)

The variance is within reporting thresholds.

CM Cost Performance (+0.0M/+0.8%)

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	702.4	702.6	669.0	0.1	0.0%	33.6	4.8%	740.4	702.3	33.3	38.1

Numbers are rounded to the nearest \$0.1 million

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

The variance is within reporting thresholds.

CTD Cost Performance (+\$33.6M/+4.8%)

The variance is within reporting thresholds.

Variance at Completion (+\$38.1M/+5.1%)

Positive variance is the result of efficiencies for work completed to date including removal of knock-out pot material, processing of settler tube sludge, modification of T Plant to accept STSCs for sludge removal, and design, procurement, testing, and installation of ECRTS equipment in support of sludge removal operations.

Contract Performance Report Formats are provided in Appendix A.

FUNDS vs. SPEND FORECAST (\$M)

RL-0012 Spent Nuclear Fuel Stabilization and Disposition	FY2017		Variance
	Projected Funding	Spending Forecast	
Expense - Spending Forecast	43.1	29.6	13.5
Incremental Scope Pending Change Management	0.0	12.4	(12.4)
Expense - Subtotal	43.1	42.0	1.1
Line Item (LI)	36.8	13.9	22.9
Incremental Scope Pending Change Management	0.0	0.0	(0.0)
LI -Subtotal	36.8	13.9	22.9
RL-0012 – Total	79.9	55.9	24.0

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis

FY2018 funding for PBS RL-0012 is \$79.9 million. Positive variance of \$1.1 million in expense funding is the result of reclassification of Garnet Filter Media Removal and Sand Filter Media Removal scopes from PBS RL-0012 to PBS RL-0041, savings forecast for sample maintenance from Pacific Northwest National Laboratory (PNNL), and savings forecast for project management scope – work is being performed with reduced staff. Positive variance in LI for FY2018 is due to receipt of entire LI funding in the current year.

Critical Path Schedule

The critical path is being driven by completion of testing, updating of technical documentation, development/delivery of staff training, development/approval of procedures, and final readiness preparations. Following a successful Contractor and DOE ORR, RL will provide authorization to commence retrieval operations in parallel with the DOE-HQ review/approval of CD-4. Completing retrieval operations, including the filling of STSCs with sludge and transporting them to T Plant, to complete Tri-Party Agreement Milestone M-016-176, *Complete Sludge Removal from 105-KW Fuels Storage Basin* is required by (September 2019). However, the STP team has modified the 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 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		2/16/2018	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.
M-016-177	Complete installation of sludge transfer equipment in KW Reactor facilities.	9/30/2017		4/20/2017(A)	Complete

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
RL Final Approval of POA - K Basins	9/13/17(A)	11/17/17
RL POA Issued and Distributed	12/13/17	12/22/17
RL IP Issued	12/23/17	1/01/18

Section C

Solid Waste Stabilization and Disposition (RL-0013)



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

October 2017
CHPRC-2017-10, 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 October reporting period, October 1-22, 2017, Waste and Fuels Management Project (W&FMP) maintained facilities in a safe and compliant condition. Overall, the project continues to deliver ongoing efficiencies 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 the best and final offer (BAFO) was received to perform detailed design for CSA and WESF modifications. Kick off meeting was held with geophysics contractor and field activities will be initiated October 23, 2017. The Cask Storage System (CSS) preliminary design is ongoing. The project team continues to work with NAC International and West Valley Demonstration Project for transfer of equipment.
- The project continued implementation activities for the Solid Waste Operating Complex (SWOC) Master Documented Safety Analysis (MSDA) Revision 12.
- T Plant performed dry runs for Sludge Transport & Storage Container (STSC) receipt and continued development and review of Readiness Self Assessment (RSA) affidavits in preparation for sludge receipt Readiness Assessment. T Plant also completed the replacement/repair of exhaust fan number three.

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 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	0%

TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	0	
Total Recordable Injuries	0	1	
First Aid Cases	0	*20	*Two First Aid cases; PTS in support of RL-0013.
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 transmitted a letter to RL regarding Data Quality Objectives (DQOs) for SWOC Closure Plans (17-NWP-148). Ecology has directed RL to perform site-specific data quality objectives for each Dangerous Waste Management Unit (DWMU), which could substantially delay completion of the SWOC closure plans. CHPRC personnel are evaluating the request and will develop a proposed path forward.

13.02 Capsule Storage & Disposition

- o Performed/Completed:
 - WESF Permitting: The WESF permit documents have been cleared and are currently in the correspondence approval process.
- o Surveillances/Preventive Maintenance (PM):
 - 26 PM packages.

13.03 Canister Storage Building (CSB)

- o Performed/Completed:
 - Installation of outside safety lights on 212H for parking lot.
 - Installation of new high-density polyethylene shielding for area dosimetry for the CSB complex.
 - Sampling procedure and multi-canister overpack sampling mock up design comparison.

- o Surveillances/PMs:
 - 20 PM packages.

13.06 Transuranic (TRU) Repackaging

- o Performed/Completed:
- o M-091 Tri-Party Agreement Milestones:
 - Completed a preliminary draft of revised schedule for M-091-52 that recognizes the extension of Waste Isolation Pilot Plant (WIPP) Operational life to 2050.

- o Shipped:
 - One shipment of M-091 legacy suspect transuranic mixed (TRUM) waste was shipped to Perma-Fix Northwest (PFNW) from Central Waste Complex (CWC). Once returned, it will contribute 54.4 cubic meters (m³) toward the next objective.

13.07 Waste Receiving and Processing (WRAP)

- o Performed/Completed:
 - Shipment of 11 breakers from 2336W electrical switchgear to manufacturer for refurbishment.
 - Dry-run of Hazard Review Board (HRB) for removal of combustibles from glovebox in preparation to deactivate the dry chemical fire suppression system.
- o Surveillances/PMs:
 - 123 surveillances.
 - Two PM packages.

13.08 T Plant

- o Performed/Completed:
 - Replacement/repair of exhaust fan number three.
- o Surveillances/PMs:
 - 281 surveillances.
 - 13 PM packages.

Sludge Receipt

- o Performed/Completed:
 - Support to the MSDA Revision 12 implementation.
 - Dry runs for STSC receipt.
 - Development and review of RSA affidavits in preparation of sludge receipt Readiness Assessment.

13.09 Central Waste Complex (CWC) and Low-level Burial Ground (LLBG)

- o Performed/Completed:
 - Overpack of 24 watch list drums into stainless steel drums to support long-term storage configuration.
 - Floor repairs in building 2403WA.
 - Lighting upgrades in building 2402WH.
 - Demobilization of the Lampson crane and equipment from Trench 94 (after receipt of Naval reactor compartments).
 - All roof repairs at CWC waste storage buildings.
- o Surveillances/PMs:
 - 218 surveillances.
 - 25 PM packages.
- o Shipments received:
 - Nine Standard Large Box 2 (SLB2), seven drums, and nine standard waste boxes (SWBs) from the Plutonium Finishing Plant (PFP) into CWC in nine shipments.
 - Thirteen SWBs from PFNW into CWC in four shipments.

13.12 Integrated Disposal Facility (IDF)

- o Performed/Completed:
 - Monthly inspections.

13.15 TRU Disposition

- o Performed/Completed:
 - TRU program procedures and waste management procedures impacted by WIPP Washington Administrative Code (WAC), Revision 8, are approved and awaiting RL approval of the waste acceptance criteria.
 - Initiated first TRU waste stream evaluation 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:
 - 91 surveillances.
- o Shipments received:
 - Two boxes and one drum from PFNW into MWT31 in one shipment.

13.24 Management of Cesium and Strontium Capsules Project

- o Performed/Completed:
 - The WESF Modifications and CSA conceptual design documents were approved and vendor BAFOs were received to perform detailed design for CSA and WESF modifications.
 - Site investigation contracts kickoff meeting with the surface geophysics contractor was held October 16, 2017, and field activities will be initiated the week of October 23, 2017.
 - MCSC Permitting: The CSA permit documents were cleared and are currently in correspondence approval process.

13.25 Capsules Interim Storage Operations

- o Performed/Completed:
 - Cask Storage System Design: The Cask Storage System Design is on-going. The project team continues to work with NAC International and West Valley for transfer of equipment.

Project Technical Services (PTS) Support**Project Delivery****Canister Storage Building Door Refurbishment**

- o Performed/Completed:
 - Treatment and painting of north and south doors, bollards, and door support frames.

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 and Ecology to agree on the required document changes and schedule to provide needed SEPA coverage. The revised draft permitting plan that Ecology will distribute for review in October will reflect the approach of using a ROD amendment.

Status:

RL provided a justification to Ecology for why an EA is not needed on July 10, 2017. The project continues to await final decision.

Issue:

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

Corrective Action:

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

Status:

RL met with Ecology on June 22, 2017, and requested additional information regarding the need for the more detailed design. The project continues to await a response.

Issue:

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

Corrective Action:

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

Status:

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

Issue:

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

Corrective Action:

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

Status:

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

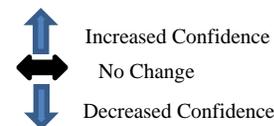
RL provided direction to MSA to remedy the majority of the issue with a modification at the source by MSA versus modifications at each facility. Description and preliminary schedule for WESF potable

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: Risks WSD-086, WSD-133, and WSD-136 were added to the spotlight chart as realized risks, as they were processed for MR in BCR-013-18-005R0.																					
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			Risk Event: In November 2011, degraded containers were discovered in CWC. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Risk recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Perform daily/weekly waste container surveillances to identify container abnormalities.</td> <td rowspan="4" style="text-align: center;">11/01/11</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Manage a "watch list" of waste containers that have shown signs of degradation or are associated with degraded containers.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Process waste packages at a rate funded by RL.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Procuring stainless steel 85 gallon over packs for alternative storage of containers showing signs of degradation.</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> Recovery Action Assessment: No significant changes in the month of October . The project continued to perform container surveillances in the month of October to identify container and container cover abnormalities. Twenty-four containers in 2404WC had signs of exterior corrosion that were placed on the watch-list and are being scheduled for overpack. The delivery of the stainless steel overpacks is complete, and the overpack of the twenty-four containers 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.	Risk recovery action(s)	Risk Date	FC Date	%	Perform daily/weekly waste container surveillances to identify container abnormalities.	11/01/11	Ongoing	N/A	Manage a "watch list" of waste containers that have shown signs of degradation or are associated with degraded containers.	Ongoing	N/A	Process waste packages at a rate funded by RL.	Ongoing	N/A	Procuring stainless steel 85 gallon over packs for alternative storage of containers showing signs of degradation.	Complete	100
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Risk Title	Unmitigated Risk Impacts	Assessment		Comments																	
		Month	Trend																		
RL-0013/WBS-013																					
<p>WSD-143: Safety Classification of SSCs - MDSA Rev. 12</p>	<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 the month of October. CHPRC received the Safety Evaluation Report (SER) 17-NSD-0041_from RL on July 31, 2017, and began implementation of 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 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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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																		
<p>WSD-086: W&FM Industrial Accident or Contamination</p>	<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: \$3M, 0 days</p>			<p>Risk Event: This risk was realized and processed for 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											
Risk recovery action(s)	FC Date	%																			
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Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
RL-0013/WBS-013										
<p>WSD-133: Results of External Audits/Assessments Impact Operations</p>	<p>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 PM's and additional permitting at T Plant for sludge receipt. These gaps require additional resources to address discrepancies, resulting in cost impacts.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Medium (26% to 74%) Worst Case Impacts: \$3M, 0 days</p>	●	↔	<p>Risk Event: This risk was realized and processed for MR in BCR-013-18-005R0. WESF operations has 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 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
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								
<p>WSD-136: CWC Components Fail</p>	<p>CWC facilities and components may reach their end of life. These items will need to be replaced and/or repaired outside of planned funding profiles, resulting in cost impacts.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Likely (75% to 90%) Worst Case Impacts: \$2M, 0 days</p>	●	↔	<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)										
<p>WSD-097: Major Equipment Failure - T-Plant</p>	<p>T Plant suffers a major equipment failure (crane, primary power supply, etc.), resulting in cost impacts and schedule delays.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Medium (26% to 74%) Worst Case Impacts: \$3 million, 96 days</p>	●	↔	<p>Risk Trigger Metric: During planned facility operation activities, a suspected system component is discovered that requires attention, or an unexpected malfunction results in this risk being realized. This risk will continue throughout the CHPRC (September 30, 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 the month of October. The project has put into place mitigating strategies (i.e., aggressive S&M activities) to help reduce this risk. The crane is currently operational, however, an adequate spare parts inventory is needed. The project has identified spare parts for the T Plant crane with input from the manufacturer and is in the process of procuring critical spares. The first order for mechanical parts is complete and parts are scheduled to be delivered through January 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 scheduled to be placed mid-December. The 2017 annual crane preventive maintenance work will be performed mid-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 transuranic (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													
				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																	
Mitigation Assessment: No significant changes in the month of October . 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&E). 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 number 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>11/3/2017</td> <td>95</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	11/3/2017	95	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	11/3/2017	95																	
Submittal of a BCR to break out the planning package planned for May.	Complete	100																	
Mitigation Assessment: No significant changes in the month of October . Deterioration of the steel decking and steel support structure for 221-T dock number 2 has required that the dock be taken out of service. A new loading dock is necessary, as one of the Life Safety Code required emergency egress points and to support the receipt of sludge. This dock also provides storage areas for various gas bottles. T Plant completed removal of dock number 2 and poured associated concrete pads. An onsite inspection of the bottle rack and stair fabrication was performed by the project in August. Dock number 2 installation is anticipated to complete in November. Additional asphalt work was identified in the vicinity of dock number 2 as well as repair to T Plant roads. Work is expected to complete 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 the month of October. 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 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 critical decision packages is impacted by DOE O 413.3B.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Prepare joint tailoring strategy with RL on how to meet the DOE O 413.3B requirements</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p>Mitigation Assessment: No changes in the month of October. The pre-conceptual design of the project was based on DOE O 413.3A; the current version is DOE O 413.3B, change 2. New requirements will impact the content of the critical decision packages or impact the duration and extent of the RL review. Working closely with RL on the tailoring strategy to meet the DOE O 413.3B requirements. 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 the 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 the month of October. 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 the month of October. 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 the month of October .										

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	6.7	6.7	6.4	0.0	0.2%	0.3	4.8%

Numbers are rounded to the nearest \$0.1 million

CM Schedule Performance (+\$0.0M/+0.2%)

The CM Schedule variance is within threshold.

CM Cost Performance (+0.3M/+4.8%)

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	1,197.4	1,201.1	1,123.0	3.7	0.3%	78.1	6.5%	1,362.4	1,279.9	156.9	82.5

Numbers are rounded to the nearest \$0.1 million

CTD Schedule Performance (\$+3.7M/+0.3%)

The CTD schedule variance is within threshold.

CTD Cost Performance (+\$78.1M/+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) reducing need for inspections/surveillances, reducing the size and number of Radioactive Areas/Radioactive Material Areas 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 Solid Waste Operating Complex, reducing dedicated resources for Corrective Action System 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.

Variance at Completion (+\$82.5M/+6.1%)

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) reducing need for inspections/surveillances, reducing the size and number of Radioactive Areas/Radioactive Material Areas 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 Solid Waste Operating Complex, reducing dedicated resources for Corrective Action System 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.

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	167.8	150.4	17.4
Incremental Scope Pending Change Management	0.0	4.6	(4.6)
RL-0013 – Total	167.8	155.0	12.8

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis

The FY2018 projected funding for Project Breakdown Structure (PBS) RL-0013 of \$167.8 million is based on RL funding guidance. The total fiscal year spend forecast (FYSF) of \$155.0 million with a \$12.8 million variance is primarily due to an expected transfer from RL-0041 into RL-0013 for first quarter the Environmental Restoration Disposal Facility (ERDF) operations once an appropriations is in place as ERDF is currently being costed in RL-041 due to Continuing Resolution (CR). In addition, Line Item funding was allocated, but not available due to the CR resulting in the deferral of preliminary design activities for WESF Modifications. Finally, due to continued development of M-091-52/53 milestone requirements, planned work has been deferred to FY2019.

Critical Path Schedule

Critical Path Analysis can be provided upon request.

MILESTONE STATUS

Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) milestones represent significant events in project execution. RL enforceable agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The performance measurement baseline (PMB) annual update, implemented in September 2013, and subsequently approved 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	8/8/17	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		9/30/18	On schedule
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 PFNW locations. RL is the authorized shipper and acts as signatory on the shipping papers, and ensures DOE Manual 460.2-1 is complied with. RL arranges for Commercial Motor Vehicle Safety Alliance (CVSA) level VI vehicle inspections and verifies that the government drivers meet the applicable DOT Federal Motor Carrier Safety Regulations (49 CFR 382 and 383). RL also inspects the load securement to ensure compliance with DOT regulations and/or TSD requirements.	Ongoing
J.12/C.2.3.6	PBS-RL-0013, Transuranic Waste Certification	WIPP provides shipping resources and manages the schedule for transportation of these containers to WIPP. The schedule is variable and the number of shipments is controlled by DOE-HQ on a complex-wide priority. Cost for shipment of TRU waste offsite is borne by the CBFO.	No WIPP shipments are planned within the contract period of performance.

DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
RL Review and Approve 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

October 2017
CHPRC-2017-10, 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	31.6	31.6	2.4	2.4						
HX P&T	29.8	29.8	2.7	2.7						
KR-4 P&T	9.5	9.5	0.2	0.2						
KW P&T	14.6	14.6	1.8	1.8						
KX P&T	15.6	15.6	0.9	0.9						
200 West P&T	97.2	97.2	7.8	7.8	185.0	185.0	.16x10 ¹²	.16x10 ¹²	8.3	8.3
Combined	198.3	198.3	15.7	15.7	185.0	185.0	.16	.16x10¹²	8.3	8.3
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	0	0
200-UP-1	8	0	0
200-ZP-1	4	0	0
M-24 Milestone	5	0	0
200-DV-1	2	0	0
Total Wells	38	0	0
Site Wide Boreholes	29	1	1

EMS Objectives and Target Status (Draft)

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>	Monitor and assess compliance of expired chemical management	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	2	*47	<ul style="list-style-type: none"> 10/9/2017 Employee reported pain in right shoulder after repetitive use of tools. (24643) 10/17/2017 Employee suffered what was perceived as a wasp sting on the neck. (24650) <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-HR-3 Operable Unit (OU)

- Completed construction and will continue with development of four wells planned as extraction wells in the 100-H Area.

100-KR-4 OU

- Initiated resolution of RL comments on the Decisional Draft KW Soil Flushing/Infiltration Treatability Test Plan, which were received on October 5, 2017.

100-NR-2 OU

- Submitted a white paper to RL, Ecology and EPA for review that recommends a Preliminary Remediation Goal (PRG) for strontium-90 of 278 pCi/L for the Columbia River shoreline/riparian zone.
- Submitted a white paper to RL for review that evaluated the attributes of long-term Monitoring Natural Attenuation (MNA) remedial approach for strontium-90 versus demonstrating that remediation to the PRG is technically impractical.
- Initiated the low-river respirometry testing for the insitu 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 200-UP-1 performance monitoring plan that added fourteen monitoring wells and their respective sampling requirements to RL for review on October 19, 2017.

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

- Developed general responses to Ecology comments on the Draft A 200-BP-5 Remedial Investigation (RI) and 200-PO-1 RI Addendum for RL review. RL and Ecology agreed to pursue an interim

Record of Decision (ROD) strategy, which is expected to streamline the completion process for the remedial investigation reports. A comment resolution meeting with Ecology has been scheduled for November 16, 2017. Delays associated with the RI report will require an extension to Tri-Party Agreement milestone M-015-21A to “Submit a 200-BP-5 and 200-PO-1 OU Feasibility Study Report and Proposed Plan(s).”

- Completed dispositions to Ecology comments received on the 200-BP-5 Removal Action Work Plan (RAWP). Working with Ecology and EPA to resolve additional regulator input received October 9, 2017, and October 12, 2017, respectively.

200-EA-1 OU

- Not funded for fiscal year (FY) 2018 working with RL to receive authorization to proceed by the end of October.

Central Plateau Closure Plans

- Provided letter materials to the RL team on September 6, 2017, in support of initiating the workflow for the 216-A-29, 216-B-63, and 216-B-3 procedural closure letters.
- Provided 216-S-10 waste designation evaluation calculation to RL for informal review.

200-DV-1 OU

- Submitted the draft final report for Deep Vadose Zone Treatability Test of Soil Desiccation for the Hanford Site Central Plateau to RL for review on October 17, 2017.
- Completed the four-deep vadose zone borehole drilling campaign on October 11, 2017, at the 216-T reverse well. This borehole was decommissioned on October 12, 2017, and the field team demobilized.

Groundwater P&T Facilities

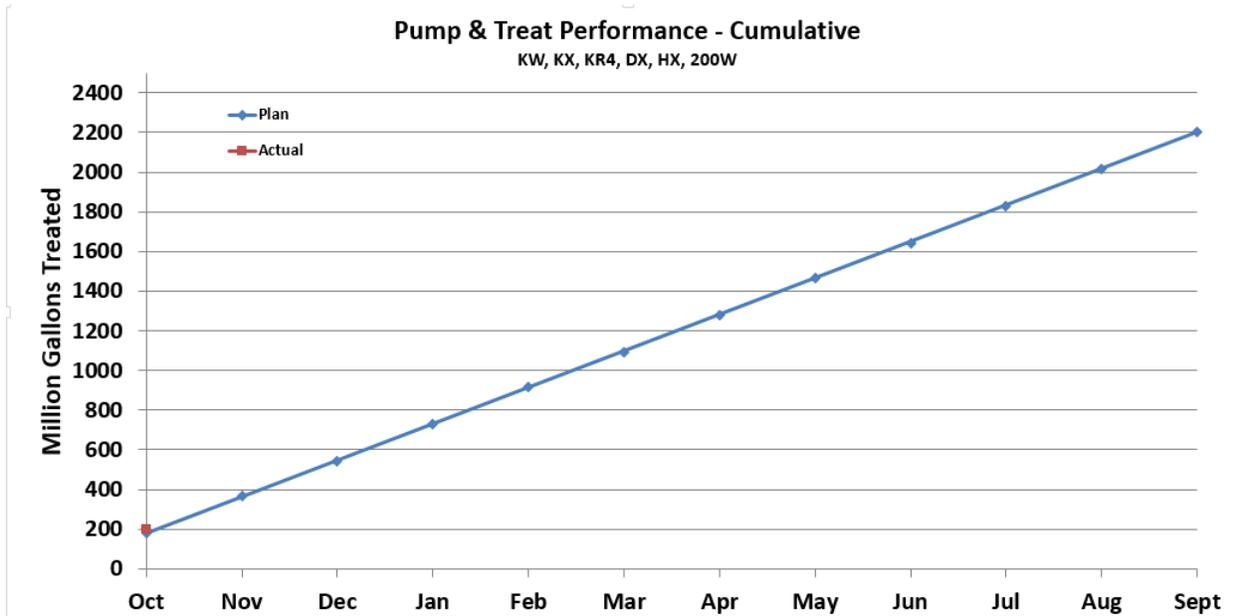
200 West P&T

- Operated the 200 West P&T at an average of 2,178 gallons per minute (gpm).

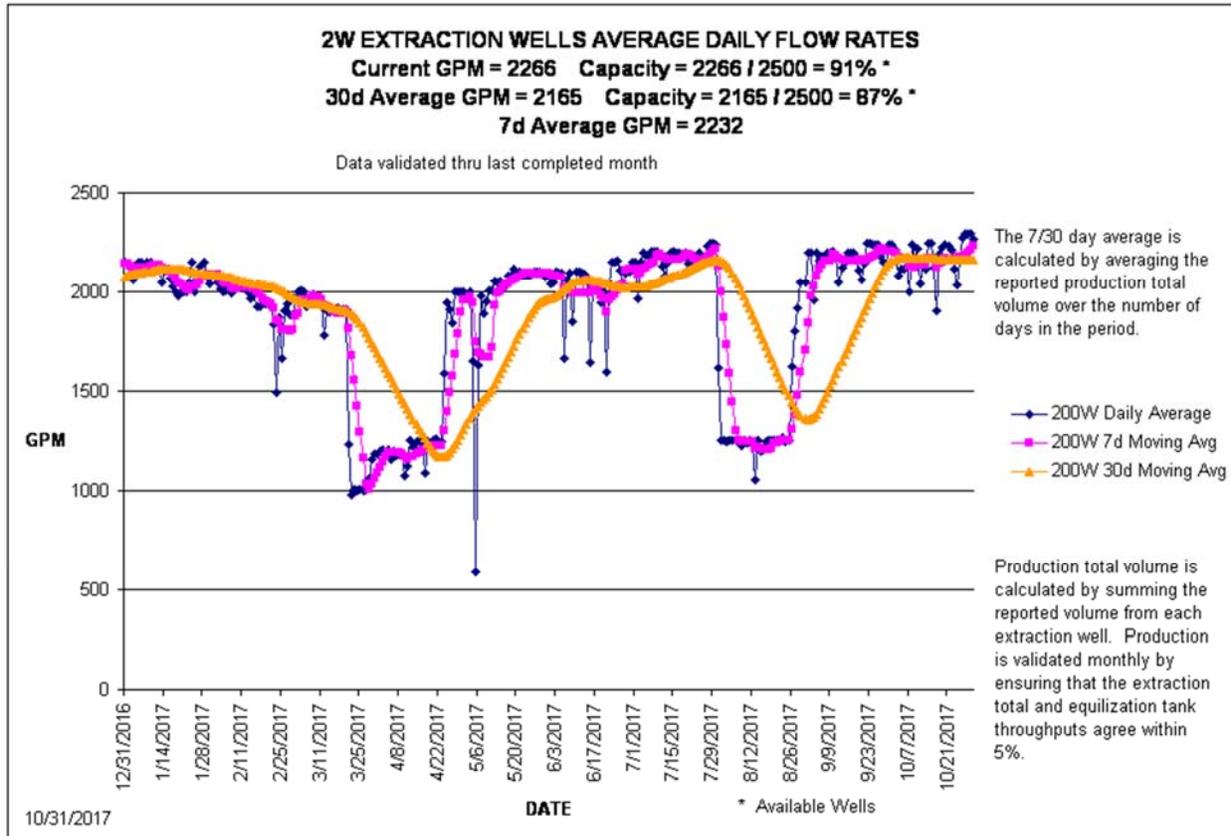
100 Area P&Ts

- 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. Completed conversion of the booster pump discharge header to stainless steel.
- Operated the HX P&T at 667 gpm, below the facility capacity of 900 gpm. Completed repairs of all fire damaged equipment and all affected equipment has been returned to service.

FY2017 P&T Operations



200 West P&T



Project Technical Services (PTS) Accomplishments

- Engineering Services
 - o Provided technical support to Soil and Groundwater Remediation Project (S&GRP) Engineering on pressure testing requirements on modified piping systems at the 200 West P&T.
 - o Reviewed solar heating calculations for S&GRP enclosed ammonia cylinder trailer. The calculations were to determine maximum internal temperatures and determine ammonia piping and pressure release requirements.
- Training and Procedures
 - o Presented rounds, configuration control, and waste training at HAMMER to River Corridor Nuclear Chemical Operators.
- Project Delivery
 - o Completed electrical/mechanical rack fabrication at 100-HR-3 Area wells.
 - o Completed MO 787 restroom trailer 600 Area installation.

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 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 was originally anticipated to be completed in September 2016. Completion of this ROD has further been delayed by the Yakama Nation request for consultation, which is anticipated to take an additional six months to address their concerns/questions (April 2018). No change.

Issue:

KX and KR-4 ion exchange (IX) vessels require diffuser repair. Approximately 14 of 36 vessels are in need of repair.

Corrective Action:

Repair all vessels with damaged diffuser.

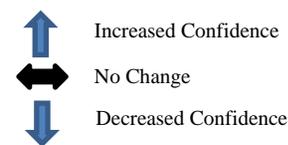
Status:

All bottom-access vessel diffusers have been repaired/replaced at the KX facility (four vessels). The first top-access vessel was repaired at the end of September. Two top-access vessels still require diffuser repair at the KX facility. These repairs are in progress and expected to complete by November 9, 2017. Work on the KR-4 IX vessels is expected to commence once KX repairs are completed.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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



Risk Title	Unmitigated Risk Impacts	Assessment		Comments								
		Month	Trend									
RL-0030/WBS-030												
Explanation of major changes to the project monthly spotlight chart: No major changes to the monthly spotlight chart in the month of October.												
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" style="width: 100%;"> <thead> <tr> <th>Risk recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>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									
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)												
No critical risks identified in the month of October.												
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)												
No high risks identified in the month of October.												
Unassigned Risks (Pending ownership of identified risks/opportunities)												
No unassigned risks identified in the month of October.												

PROJECT BASELINE PERFORMANCE

Current Month

(\$M)

RL-0030 Soil and Groundwater Remediation	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	6.4	6.9	7.3	0.5	7.1%	(0.4)	-5.9%

Numbers are rounded to the nearest \$0.1 million.

CM Schedule Performance (\$0.5M/7.1%)

The variance is within reporting thresholds.

CM Cost Performance (-\$0.4M/-5.9%)

The variance is within reporting thresholds.

**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	1,414.2	1,397.1	1,370.2	(17.1)	-1.2%	26.9	1.9%	1,566.7	1,537.1	166.9	29.6

Numbers are rounded to the nearest \$0.1 million.

CTD Schedule Performance (-\$17.1M/-1.2%)

The variance is within reporting thresholds.

CTD Cost Performance (+\$26.9M/+1.9%)

The variance is within reporting thresholds.

Variance at Completion (+\$29.6M/+1.9%)

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	107.3	21.6
Incremental Scope Pending Change Management	0.0	21.5	(21.5)
RL-0030 –Total	128.9	128.8	0.1

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 \$128.8 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		11/19/18	At risk, impacted by RI report comment resolution.
M-015-92A	Submit RFI/CMS & RI/FS Work Plan for 200-EA-1 OU to Ecology	7/31/18		6/8/18	On schedule.
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 Version A 200-ZP-1 RD/RAWP Rev I	9/6/17 (A)	10/30/17
RL Review of Decisional Draft 100-HR-3 RD/RAWP	9/21/17 (A)	11/22/17
RL Review of Decisional Draft Biomobilization/Biointrusion SAP	9/27/17 (A)	10/30/17
Concurrent RL and CHRPC Review of Internal Draft SST WMA TX-TY Engineering Evaluation Report	10/30/17	11/10/17
RL Review and Comment on Decisional Draft U Plant TPA Change Notice	11/8/17	12/7/17
Concurrent RL and CHRPC Review of Internal Draft LLBG WMA-3 Engineering Evaluation Report	11/10/17	11/16/17
RL Submit Draft SST WMA U Engineering Evaluation Report to Ecology for Review	11/14/17	11/15/17
RL Review Decisional Draft 200 Area P&T Performance Monitoring Plan	11/20/17	12/20/17
RL Submit Draft SST WMA T Engineering Evaluation Report to Ecology for Review	12/6/17	12/7/17
RL Transmit Draft Rev 0 200-BP-5 RAWP for Regulator Final Check Review	12/7/17	12/11/17

Description	CHPRC Delivery Date	Expected RL Due Date
Concurrent RL and CHRPC Review of Internal Draft 216-S-10 Pond and Ditch Engineering Evaluation Report	12/13/17	12/20/17
Concurrent RL and CHRPC Review of Internal Draft LLBG WMA-4 Engineering Evaluation Report	12/13/17	12/20/17
RL Transmit Draft A U Plant TPA Change Notice to EPA	12/28/17	1/31/17
RL Submit Draft LLBG WMA-3 Engineering Evaluation Report to Ecology for Review	12/28/17	12/29/17
RL Submit Draft SST WMA TX-TY Engineering Evaluation Report to Ecology for Review	1/4/2018	2/7/2018
RL Review of Draft Rev 0 100-BC-5 Proposed Plan	1/12/18	1/22/18
RL Review Draft Central Plateau Tracer Test SAP	1/17/18	2/12/18
Concurrent RL and CHRPC Review of Internal Draft LLBG WMA-2 Trench 94 Engineering Evaluation Report	1/17/18	1/23/18
RL Transmit Draft A Biomobilization/Biointrusion SAP to Regulators for Review		1/23/18
RL Submit Draft LLBG WMA-4 Engineering Evaluation Report to Ecology for Review	1/30/18	1/31/18
RL Submit Draft 216-S-10 Pond and Ditch Engineering Evaluation Report to Ecology for Review	1/30/18	1/31/18

Section E

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



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

October 2017
CHPRC-2017-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

The grouting of Plutonium Uranium Extraction Plant (PUREX) Tunnel 1 commenced on October 4, 2017. Approximately 3,800 cubic yards was placed by fiscal month-end with grouting activities anticipated to complete in early November 2017. The reduction and oxidation (REDOX) roof construction contractor demobilized from site and punchlist items were completed. Additionally the contract was awarded for replacement of the PUREX stack sampling system.

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

- Completed “White Powder” sampling in PUREX gallery and the white room.
- Completed B Plant combustible surveillance.
- Completed asbestos encapsulation at REDOX.
- Completed annual miscellaneous facilities surveillance.
- Completed 224T annual surveillance.
- Completed REDOX Exhaust System Stack Flow Test.
- Completed REDOX Sandfilter Aerosol Test.
- Initiated annual steam line surveillance.

PUREX Tunnels

- Commenced grouting PUREX Tunnel 1 on October 4, 2017.
- As of October 19, 2017, a total of 3,800 cubic yards was placed in tunnel 1 (3,554 cubic yards in the south section and 246 cubic yards in the north section). The north section is limited to lifts of one to two feet, to limit the hydraulic pressure on the water door seal.
- Grouting is anticipated to complete in early November.

PUREX Stack Sampling System Replacement

- Awarded the construction contract to Apollo Mechanical Contractors for the PUREX Stack Sampling System Replacement.
- Held kickoff meeting with construction contractor.
- Completed work package planning walk down with contractor.

B Plant Pre-filter and HEPA Filter Change-out

- Received high-efficiency particulate air (HEPA) filters from the independent testing facility.
- Mobilized subset of HEPA filters to B Plant and completed the required Quality Assurance inspections on each filter.
- Removed and staged all of the primary HEPA filters from the ACT-001 filter bank.
- Loaded three of nine new HEPA filters into the ACT-001 primary filter bank.
- Finished assembly and delivery of boxes and spacer pallets that will be used to package the removed HEPA filters into the Environmental Restoration Disposal Facility (ERDF) Roll on/Roll off containers.
- Continued assembly of additional plastic shield boxes that are placed around the HEPA filters after removal.

REDOX Risk Mitigation

- Supported Annual REDOX Surveillance, completing Tour Paths 4, 7, 8, and 3 (Silo).
- Routed REDOX Electrical Intrusive Investigation Package for Review. This package is intended to allow for investigations anywhere in the facility.
- Approved Work package for the Biohazard Removal and commenced REDOX Loading Dock Biohazard Removal to enhance waste and personnel access/egress.
- Completed legacy waste removal for the remainder of the Silo Aqueous Makeup Unit (AMU) areas.

REDOX Roof

- Completed Construction completion document punch list items.
- Contractor demobilized from site.

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.

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:

Risk WSR-202S-02: REDOX – Inclement weather has been removed from the Spotlight Chart. Recovery actions have been completed and the risk exposure associated with the REDOX Roof Replacement has passed.

Realized Risks (Risks that are currently impacting project cost/schedule)

<p>D4-042: Unexpected Site Conditions - D4</p>	<p>Unexpected site conditions are encountered during deactivation, decommission, decontamination, and demolition (D4) activities, resulting in schedule delays.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Likely (75% to 90%) Worst Case Impacts: \$0K, 300 day</p>			<p>Risk Event: The B Plant ventilation system was shut down due to elevated differential pressure readings in the ACT-002 filter bank. Upon initial investigation, it was determined that the pre-filters were saturated with water and there was standing water within the ACT-001 filter bank. The result of this unexpected occurrence is that the pre-filters and HEPA filters in the ACT-002 bank, and presumably the pre-filters and the HEPA filters in the ACT-001 filter bank, need to be replaced prior to startup of the B Plant ventilation system. Unexpected radiological contamination identified within/outside the containment tent used to initiate the pre-filter change out resulted in delays to the pre-filter replacement.</p> <table border="1"> <thead> <tr> <th>Risk recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Work Package 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="4" 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 style="text-align: center;">10/30/2017</td> <td style="text-align: center;">44%</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. <p>Once the pre-filters and HEPA filters are replaced in both ACT filter banks, the ventilation system will be restarted. This is expected to occur in November. The system will continue to be monitored for changes in differential pressure and/or elevated radiation levels. Buildup of condensate after filter replacement could result in further shutdown of the system; however, it would most likely impact the pre-filters rather than the HEPA filters if differential pressure fluctuations are identified early. Pre-filters are low-cost and are changed out more frequently than the high cost HEPA filters.</p>	Risk recovery action(s)	Risk Date	FC Date	%	Work Package 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.	10/30/2017	44%
Risk recovery action(s)	Risk Date	FC Date	%																		
Work Package 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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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.		10/30/2017	44%																		

Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)

No critical risks identified in the month of October.

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



Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
RL-0040/WBS-040										
D4-064: Aging Building Systems/Components	<p>Problems with aging building systems/components (e.g., roofing/structures, etc.) result in inoperability or requires unscheduled maintenance/outages, resulting in cost impacts.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Likely (75% to 90%)</p> <p>Worst Case Impacts: \$2 million, 0 Day</p>	●	↔	<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" 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>None identified at this time.</td> <td style="text-align: center;">N/A</td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table> <p>Recovery Assessment: No major changes in the month of October. 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 in the end of October. 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 will continue until mid-November before mobilization occurs. Construction of the sample cabinet and vacuum pump cabinets are scheduled to be constructed and tested in November.</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 the month of October .										

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	1.5	4.9	4.0	3.5	232.6%	0.9	18.4%

Numbers are rounded to the nearest \$0.1 million

CM Schedule Performance: (\$3.5M/+232.6%)

The current month schedule variance is due to recovery of PUREX Tunnel 1 grouting, tunnel investigation, and field engineering activities (\$1.5 million).

Additionally \$1.6 million is due to a point adjustment in 40.01.26.01 as a result of moving historical budgeted cost of work scheduled and re-planning under the appropriate Subsequent Unit for Individual Determination (SQUID) Work Breakdown Structure (WBS) in fiscal year (FY) 2018 (see BCR 40-18-001R0).

CM Cost Performance: (\$0.9M/+18.4%)

The favorable cost variance is due to the significant progress made in the PUREX tunnel interim actions in October. The investment in labor hours and subcontract effort in the mock-ups from last month allowed an efficient placement of grout this month. Also the total volume of grout is less than originally anticipated.

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	459.6	457.3	428.3	(2.3)	-0.5%	29.0	6.3%	496.9	468.2	39.9	28.7

Numbers are rounded to the nearest \$0.1 million

Cost to date (CTD) Schedule Performance: (-\$2.3M/-0.5%)

The contract to date schedule variance is partially due to changed assumptions for the B Plant pre-filter change out (40.03.01.01.18.01). The pre-filters were originally planned to be replaced annually, but have been changed on an as needed basis. Therefore, the FY2016 and FY2017 scope has not been performed and is under negotiation for a scope deduction. The current pre-filter and HEPA 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. (-\$1.4 million)

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 (-\$0.4 million).

The electrical breaker preventive maintenance work is also behind schedule due to work planning priorities and the ability to hire electricians (-\$0.4 million).



CTD Cost Performance: (+\$29.0M/+6.3%)

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

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

Variance at Completion (+\$28.7M/+5.8%)

The Variance at Completion (VAC) is within reporting thresholds and is in line with the contract to date cost variance. However, the Estimate at Completion (EAC) of \$468.2 million does not include the balance of Change Order 311, Change Order 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	32.0	18.3
Incremental Scope Pending Change Management	0.0	19.0	(19.0)
RL-0040 – Total	50.4	51.0	(0.7)

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 Change Orders 311 and 324 reside in the incremental scope.

Critical Path Schedule

Critical path analysis can be provided upon request.

MILESTONE STATUS

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

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-016-250C	Submit to ECY a 3-Year Rolling Prioritized Schedule to Implement Waste Site Removal Actions	3/31/2018		3/31/2018	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	11/21/16 (A)	11/10/17
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

October 2017
CHPRC-2017-10, 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 the following progress: 100K Closure Project performed waste site remediation and K East Sedimentation Basin backfill; Garnet Filter Media Removal System equipment fabrication and 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 324 facility modifications 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	0%
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	0%
18-EMS-324BDP-OB1-T1	Increase EMS awareness	Promote and increase 324 Building Disposition Project (324 BDP) personnel EMS awareness via various means throughout FY2018.	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 to capture operating record information and assign appropriate metadata.	9/30/18	0%

TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	Current Month	Rolling 12 Months	Comment
Days Away, Restricted or Transferred	0	0	N/A
Total Recordable Injuries	0	*1	*Recordable incident 24238 on November 17, 2016, was recorded under project breakdown structure (PBS) RL-0013; however, the incident occurred at the Environmental Restoration Disposal Facility (ERDF), which is part of PBS RL-0041.
First Aid Cases	3	38	<ul style="list-style-type: none"> 10/6/2017 – Employee stood after obtaining an air sample out of a box and experienced back pain. Employee was taken to HPMC for evaluation and released to work without restriction. (24642) 10/16/2017 – Employee tripped over a cord protector, falling to a concrete surface and receiving contusions to hands and chest wall. Employee was taken to HPMC for evaluation and was released for work without restrictions. (24649) 10/23/2017 – Employee stepped on a rock and fell, causing pain in both hands. Employee was taken to HPMC for evaluation and released to work without restrictions. (24655)
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

RL-0041 Accomplishments

- 100K Closure Project:
 - o 100K Soil Remediation
 - Continued backfill of the 183.2 K East Sedimentation Basin.
 - Environmental Protection Agency (EPA) approved the waste site reclassification form and closure of Waste Site 1607-K5.
 - Completed excavation and post-excavation survey of Waste Sites 100-K-107 & 100-K-108.
 - Began excavation of Waste Site 100-K-99.
 - CHPRC will submit the Change Proposal for Change Order Number 330, FY2018 100K Soil Remediation to RL on October 25, 2017.
 - o K West Basin Deactivation:
 - Garnet Filter Media Removal System (GFMRS)
 - Columbia Energy and Environmental Services continued making good progress on fabrication of GFMRS process equipment, and American Boiler Works continued with material procurements and fabrication of four Sludge Transport and Storage Container (STSCs).
 - Performed Garnet Filter number 3 sluice outlet valve risk mitigation
 - Approved the RFP to core drill the Garnet Filter number 3 shield wall.
 - o Development and fabrication of special tools for Garnet Filter number 3 valve actuator removal and manual valve actuator fabrication at Maintenance and Storage Facility (MASF) is nearing completion.
 - Sand Filter Media Removal System (SFMRS)
 - Continued progress on the development of the SFMRS work package, test procedure, test material procurements, retrieval concept, and test set up.
 - KW Basin Below-water Debris Characterization
 - Completed West Bay debris field model set-up and survey plan.
 - Fabrication of the gamma camera underwater enclosure and basin floor and debris sampling retrieval system at MASF is nearing completion. MASF has successfully completed shop testing the basin floor core sample tool.
 - Developed draft risk registry input for the K West Basin characterization effort. Risk scenarios recognize Central Waste Complex requirements for packaging remote-handled transuranic waste (RH TRU) material remaining in the basin.
 - o Currently, Central Waste Complex (CWC) requires RH TRU material to be packaged in a manner that affords shipment to Waste Isolation Pilot Program (WIPP) 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 (FY)2018.
- Remaining Closure Operations
 - o Issued Tri-Party Agreement M-094-00, Complete Disposition of All 300 Area Surplus Facilities excluding the 324 Building Radiological Control Organization (RCO) completion letter to RL on October 19, 2017.
 - o Mission Support Alliance, LLC (MSA) continued development of 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 (about 120 days) to ensure that approval is received prior to the spring construction activities.

- Performance of a full assessment will push out completion, but should not delay the planned fieldwork.
- o Completed the draft civil site sketches for the impermeable barriers over the 300 and 400 Area interim stabilization sites.
 - o Continued collecting shrub seeds from various locations around the Hanford Site to support FY2019 re-vegetation efforts (includes 618-10).
 - o Progressed the Class 1 Permit modification package for removal of the 1324-N/NA Liquid Waste Disposal Facility from the site-wide permit. Ecology is currently addressing comments received during the public comment review period.
- 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 Brought steam into the building for the heating season.
 - o Replaced the fittings for the Radiochemical Engineering Cells (REC) controller gauges.
 - o Installed the airlock in-cell ventilation filters.
 - o Repaired the 901 North steam coil (leak).
 - o Issued Vital Safety System Quarterly reports on all five systems.
 - o Developed the work plan for modifying the REC Pressure Differential Alarm system.
 - o Removed/replaced damper controllers and positioners located in Room 310.
 - o Performed 11 monthly, quarterly, or annual preventive maintenance packages.
 - 300-296 Soil Remediation Project:
 - o Conducted project kickoff meeting with the Facility Modifications Contractor on October 3, 2017.
 - o Implemented the Annual Update to the 324 Building Safety Basis on October 5, 2017.
 - o Conducted a bidder's conference for the Ventilation System Modifications solicitation on October 5, 2017.
 - o Completed load test for the Seal Breaker/Lifting Device on October 12, 2017; the equipment is ready for installation in D-Cell.
 - o Conducted successful airlock entry October 18, 2017, during which a waste storage box was removed and an empty waste box was placed in the airlock for future use.
 - o Issued a request for proposal (RFP) for the Mockup Grouting System on October 19, 2017.
 - o Issued a request for information (RFI) for Geoprobe Case Cutting Options to address a soil excavation risk on October 19, 2017.
 - o Crews continued to make significant progress with airlock cleanout activities, including: washing down the televator in preparation of its removal, washing the airlock floor to remove hot spots, installation of a new camera to improve visibility in the cells for upcoming in-cell activities, and installation of the roughing filters on the exhaust ventilation duct inlets.
 - o Electrical connections to the mockup overhead crane and rollup doors were accepted by Washington State Labor and Industries and both systems were commissioned for use.
 - o Revised the A-05 Airlock procedure (Revision 1) and issued the Retrieve Televator/Duct Reel Work Plan.
 - o Repaired the REC Airlock manipulator.
 - Environmental Restoration Disposal Facility (ERDF):
 - o Receipt of 11,275 tons by CHPRC for the fiscal month of October.
 - o Receipt of 11,275 tons by CHPRC fiscal year to date (FYTD).

- o Off-loaded one long-length item with the non-standard crane.
- o Worked three Fridays and one Sunday of overtime supporting PFP waste.
- o PTS published ERDF-PRO-OP-54118 (WO-100-3.8), Operating the Waste Operations Fuel Tankers Truck

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: No major changes in the month of October .													
Realized Risks (Risks that are currently impacting project cost/schedule)													
No realized risks identified in the month of October .													
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)													
RCC-300-296-03: Mockup testing and qualification of remote equipment / process identifies major modification requirements.	Issues such as equipment interferences, equipment reliability, etc., arise during mockup testing, leading to major re-design of equipment and resulting in cost and schedule delays. Risk Handling Strategy: Control Probability: Low (10% to 25%) Worst Case Impacts: \$86K, 80 days			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. <table border="1" style="width: 100%;"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Conduct Concrete Floor Saw Test (cut rate, embedment cutting), and determine P.O.P.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Perform Construction Acceptance Test at mockup facility – including REA system with HPUs, cameras, and lighting and transfer mechanisms.</td> <td>4/11/18</td> <td>0</td> </tr> </tbody> </table> Mitigation Assessment: The mockup will be used to validate equipment performance and to support establishing proficiency for personnel for installation, relocation, and operation of remote soil remediation equipment in the 324 Building. Remotely operated equipment (Remote Excavation Arm, transfer mechanism, cameras and lighting, and floor saw) could experience higher failure rates and/or performance issues from lack of personnel proficiency. Vendor contracts have been awarded for the REA, transfer mechanism, 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.	Mitigation action(s)	FC Date	%	Conduct Concrete Floor Saw Test (cut rate, embedment cutting), and determine P.O.P.	Complete	100	Perform Construction Acceptance Test at mockup facility – including REA system with HPUs, cameras, and lighting and transfer mechanisms.	4/11/18	0
Mitigation action(s)	FC Date	%											
Conduct Concrete Floor Saw Test (cut rate, embedment cutting), and determine P.O.P.	Complete	100											
Perform Construction Acceptance Test at mockup facility – including REA system with HPUs, cameras, and lighting and transfer mechanisms.	4/11/18	0											
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 or a change in cleanup requirements 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%;"> <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 the month of October . 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	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											

				significant enough to warrant corrective actions outside the baseline (i.e., a prolonged work shutdown).						
RCC-618-10-09: Discovery of Unexpected Waste/Contamination	Discovery of unexpected waste/contamination, waste/contamination quantities above what is assumed, waste/contamination that is above and beyond COCs or waste profile, or waste/contamination is found in the assumed clean area of the design. Resulting in greater than planned RAD controls resulting in cost and schedule impacts. Risk Handling Strategy: Accept Probability: Very Low (<10%) Worst Case Impacts: \$1,280K, 64 days			<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 the month of October. The estimate for the remediation of the 618-10 Waste Site included an assumed amount of additional drums still to be remediated. The project identified unexpected additional drums that were not planned or estimated. The project will continue to closely monitor and manage waste inventories and any new discoveries.</p>	Mitigation action(s)	FC Date	%	Closely managing waste inventories and discoveries, and making adjustments as required.	Ongoing	N/A
Mitigation action(s)	FC Date	%								
Closely managing waste inventories and discoveries, and making adjustments as required.	Ongoing	N/A								
Unassigned Risks (Pending ownership of identified risks/opportunities)										
RCC-300-296-11: Current REC cell seismic analysis is inadequate	Regulatory agencies require different seismic analysis criteria than the 1961 Uniform Building Code (UBC) methodology that was originally used, resulting in additional design and more significant structural alterations to the 324 Building, which would negatively impact project cost and schedule Risk Handling Strategy: Control Probability: Low (10% to 25%) Worst Case Impacts: \$288K, 48 days			<p>Risk Trigger Metric: This risk would be triggered at the same time it is realized, with regulatory agencies requiring different seismic analysis criteria than what was used in the original estimates.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Engage Defense Nuclear Facility Safety Board (DNFSB) early concerning seismic design criteria.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: The original design of the 324 Building is based on the 1961 UBC. Facility structural modifications have been analyzed using the UBC 1961 methodology (Section 7.8, KUR-1782F-CALC-C001, and 324 Building REC Structural Stability Evaluation); as the most appropriate and cost effective approach given the overall intent to remediate the building following soil removal. The project conducts a bi-monthly update to DNFSB field and technical representatives, and the most recent update was provided on September 13, 2017. The contract for structural modifications has been awarded and the structural design is progressing. In addition, DOE have “informally” accepted this risk as a transfer risk. Once this risk has been formally accepted, it will be removed from the stoplight chart.</p>	Mitigation action(s)	FC Date	%	Engage Defense Nuclear Facility Safety Board (DNFSB) early concerning seismic design criteria.	Ongoing	N/A
Mitigation action(s)	FC Date	%								
Engage Defense Nuclear Facility Safety Board (DNFSB) early concerning seismic design criteria.	Ongoing	N/A								

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	5.0	6.5	6.8	1.5	31.0%	(0.2)	-3.7%

Numbers are rounded to the nearest \$0.1 million

CM Schedule Performance (\$1.5M/31.0%)

The current month favorable schedule variance is partially due to backfill activities at the 618-10 Burial Ground being ahead of schedule. A RL-directed BCR was implemented removing 100-K Area Waste Site Remediation work scope that was not completed as part of CO 307. WP 041.02.02.03.01 Area AA, \$113.1K, and WP 041.02.02.03.1 Area AF had \$1,270.4K of scheduled work removed, for a current month favorable schedule variance of \$824.4K. Implementation of October BCRs re-aligned scope to install the 300-296 Airlock Rail System and complete the 324 structural modification design based upon changes in strategy. Scope was re-planned from FY2017 to FY2018, resulting in a current month positive variance.

CM Cost Performance (-\$0.2M/-3.7%)

The current month cost variance is within reporting thresholds. However, CHPRC was directed by the FY2018 Annual Performance Measure Baseline (PMB) Update, received May 30, 2017, Correspondence No. 1702282A, to plan the FY2018 ERDF operations in the PMB under Work Breakdown Structure (WBS) 13.10. Subsequently, CHPRC was directed by RL-Contracting Officer email, sent August 4, 2017, documented by Correspondence No. 1703888, that FY2018 ERDF Operations cost accumulation could not be moved from PBS RL-0041 as charged in FY2017 to PBS RL-0013 in FY2018 until after the FY2018 appropriations was approved by Congress. As a result of the current FY2018 Continuing Resolution, PBS RL-0041 recognized ERDF cost of \$1.8 million in October without associated budget. This cost variance was partially offset by cost underruns at 618-10 due to the availability of the existing crews and equipment to self-perform the backfill work scope. Self-performing backfill efforts has led to increased efficiencies and fewer costs compared to the plan.

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	482.5	490.2	436.7	7.7	1.6%	53.5	10.9%	646.9	565.3	128.6	81.6

Numbers are rounded to the nearest \$0.1 million

CTD Schedule Performance (+\$7.7M/+1.6%)

The schedule variance is within reporting thresholds.

CTD Cost Performance (+\$53.5M/+10.9%)

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, and excavation and backfill efficiencies at the 316-4 Waste Site. These favorable variances are offset by a negative CTD variance in the 300-296 project primarily due to difficulties in execution of airlock cleanout while maintaining crew costs.

Variance at Completion (+\$81.6M/+12.6%)

The Variance at Completion 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.

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	122.2	7.2
Incremental Scope Pending Change Management	0.0	12.6	(12.6)
RL-0041 - Total	129.4	134.8	(5.4)

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis:

FY2018 projected funding for PBS RL-0041 is \$129.4 million. The delta between the spending forecast and projected funding levels for FY2018 is partially 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 contributed to the decrease in the spending forecast. The 300-296 spend forecast is slightly over funding which resulted from increases in the mockup equipment fabrication, but the project continues to look for efficiencies to bring the forecast back into alignment with funding.

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-016-00A	Complete all response actions for 100 Areas except GW in M-016-00 and 100 K addressed in M-016-00C.	3/31/2017	3/8/2017 (A)		Completed ahead of schedule.
M-016-164	Complete 100-N Interim Response Actions & Close 100-N Ancillary Facilities Area of Contamination.	3/31/2017	3/8/2017 (A)		Completed ahead of schedule.
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 TPA 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 and Regulator Review of CVP and Waste Site Reclassification Form for 316-4 Waste Site	8/21/17 (A)	10/5/17 (A)
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #1	9/21/17 (A)	10/2/17 (A)
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #6	9/28/17 (A)	10/2/17 (A)
RL/EPA Review of Closure Documentation for 600-403 Waste Site	10/5/17 (A)	10/13/17 (A)
RL and Regulator Second Review of CVP and Waste Site Reclassification Form for 316-4 Waste Site	10/10/17 (A)	11/7/17
RL/EPA Review of Closure Documentation for 600-393 Waste Site	10/23/17	12/6/17
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #4	10/24/17	10/30/17
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #11	10/31/17	11/6/17
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #5	11/1/17	11/7/17
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #3	11/8/17	11/14/17
RL SBRT Review DSA/TSR revision	11/22/17	01/20/18
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #10	12/1/17	12/7/17
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #9	1/10/18	1/16/18
DOE Independent Structural Modification Review	02/13/18	03/14/18
RL Prepare, Review & Approve DSA/TSR SER Revision	02/14/18	03/28/18
RL and Regulator Review of CVP and Waste Site Reclassification Form for 618-10 Burial Ground	3/28/18	5/11/18
RL Issue SER for 324 DSA/TSR	03/29/18	04/04/18

Section G

Fast Flux Test Facility Closure (RL-0042)



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

October 2017
CHPRC-2017-10, 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

- Set, blocked, leveled, anchored, and skirted the new MO-4100 trailer.
- Placed orders for the additional materials required to replace sections of the corroded 481 Building fire supply riser.
- Resumed development of a work package to replace the leaking sections of the 481 Building fire suppression system riser.
- Ordered additional parts for replacement of the leaking sections of the 481 Building fire suppression system riser.

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	0.1	0.1	0.1	(0.0)	-1.6%	0.1	46.4%

Numbers are rounded to the nearest \$0.1M

CM Schedule Performance: (\$-0.0M/-1.6%)

The schedule variance is within reporting thresholds.

CM Cost Performance: (\$0.1M/+46.4%)

The cost variance is within reporting thresholds.

Contract-to-Date

(\$M)

RL-0042 FFTF Closure	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Estimate to Complete (ETC)	Variance at Completion (VAC)
Total	24.4	24.4	20.2	(0.0)	-0.0%	4.2	17.2%	26.5	22.8	2.6	3.7

Numbers are rounded to the nearest \$0.1 million

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

The schedule variance is within reporting thresholds.

CTD Cost Performance (+\$4.2M/+17.2%)

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

Variance at Completion (+\$3.7M/+14.1%)

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	2.7	1.1
Incremental Scope Pending Change Management	0.0	0.0	0.0
RL-0042 – Total	3.8	2.7	1.1

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 \$2.7 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



October 2017
CHPRC-2017-10, 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 Plateau Remediation Contract		a. NAME Plateau Remediation Contract		a. FROM (YYYYMMDD) 2017 / 10 / 01	
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 / 10 / 22	

5. CONTRACT DATA								
a. QUANTITY 1	b. NEGOTIATED COST 5,588,957	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 289,265	d. TARGET PROFIT/FEE 241,466	e. TARGET PRICE 5,830,423	f. ESTIMATED PRICE 5,970,437	g. CONTRACT CEILING 5,830,423	h. ESTIMATED CONTRACT CEILING 5,970,437	i. DATE OF OTB/OTS (YYYYMMDD)

6. ESTIMATED COST AT COMPLETION				7. AUTHORIZED CONTRACTOR REPRESENTATIVE					
MANAGEMENT ESTIMATE AT COMPLETION (1)		CONTRACT BUDGET BASE (2)		VARIANCE (3)		a. NAME (Last, First, Middle Initial) Dickerson, Kala K		b. TITLE Prime Contract Compliance Manager	
a. BEST CASE 5,671,838						c. SIGNATURE		d. DATE SIGNED (YYYYMMDD)	
b. WORST CASE 5,841,656									
c. MOST LIKELY 5,728,971		5,878,222		149,251					

8. PERFORMANCE DATA																	
Control Account.PBS																	
ITEM (1)	CURRENT PERIOD					CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION			
	BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (9)	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)	
	WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)							
RL-0011 Nuclear Mat Stab & Disp PFP	628	3,252	4,551	2,624	-1,299	988,527	966,881	1,070,778	-21,645	-103,896	0	0	0	988,527	1,096,208	-107,681	
RL-0012 SNF Stabilization & Disp	4,454	4,804	4,763	350	41	702,440	702,556	668,982	115	33,574	0	0	0	740,205	702,120	38,086	
RL-0013 Solid Waste Stab & Disp	6,680	6,694	6,373	14	321	1,197,383	1,201,069	1,123,002	3,687	78,067	0	0	0	1,358,599	1,276,141	82,458	
RL-0030 Soil & Water Rem-Grndwtr/Vadose	6,410	6,868	7,270	458	-403	1,414,205	1,397,113	1,370,235	-17,092	26,877	0	0	0	1,565,109	1,535,542	29,567	
RL-0040 Nuc Fac D&D - Remainder Hanfrd	1,486	4,943	4,032	3,457	911	459,646	457,318	428,313	-2,328	29,005	0	0	0	493,980	465,244	28,736	
RL-0041 Nuc Fac D&D - RC Closure Proj	4,980	6,523	6,763	1,542	-241	482,505	490,198	436,675	7,693	53,523	0	0	0	643,535	561,886	81,649	
RL-0042 Nuc Fac D&D - FTF Proj	136	134	72	-2	62	24,375	24,374	20,184	-1	4,190	0	0	0	26,487	22,754	3,733	
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	11,943	-11,943
e. SUBTOTAL	24,774	33,218	33,825	8,444	-607	5,269,080	5,239,508	5,118,169	-29,572	121,339	0	0	0	5,816,442	5,671,838	144,604	
f. MANAGEMENT RESERVE															57,133		
g. TOTAL	24,774	33,218	33,825	8,444	-607	5,269,080	5,239,508	5,118,169	-29,572	121,339	0	0	0	5,873,575			
9. RECONCILIATION TO CONTRACT BUDGET BASELINE																	
a. VARIANCE ADJUSTMENT																	
b. TOTAL CONTRACT VARIANCE																	
										-29,572	121,339				5,873,575	5,671,838	201,737

* 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

CLASSIFICATION (When Filled In)

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

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

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME Plateau Remediation Contract		a. FROM (YYYYMMDD) 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 <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	569	488	688	-81	-200	75,559	75,408	69,858	-151	5,550	0	0	0	84,902	79,139	5,763	
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	117	117	61	0	56	6,991	6,991	4,230	0	2,761	0	0	0	8,807	6,232	2,575	
3B - PFP Closure Project	628	3,252	4,552	2,624	-1,300	899,745	878,099	989,733	-21,645	-111,633	0	0	0	899,745	1,011,663	-111,918	
3C - Waste & Fuels Management Project	6,667	6,681	6,363	14	318	1,087,626	1,091,313	1,013,357	3,687	77,956	0	0	0	1,248,628	1,166,055	82,573	
3D - Soil & Groundwater Remediation	5,806	6,345	6,568	539	-223	1,237,607	1,220,666	1,193,179	-16,941	27,487	0	0	0	1,378,622	1,348,756	29,866	
3G - K Basin Oper & Plateau Remediation Project	7,089	11,504	10,010	4,415	1,494	1,357,348	1,361,227	1,280,375	3,879	80,852	0	0	0	1,494,078	1,382,173	111,905	
3H - 618-10 and ERDF	1,477	1,578	3,034	101	-1,457	81,219	85,113	69,181	3,894	15,931	0	0	0	97,575	81,328	16,247	
3J - Building 324 Disposition Project	2,423	3,254	2,549	831	705	45,689	43,396	44,743	-2,294	-1,347	0	0	0	126,790	127,535	-745	
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														11,943	11,943	0	
e. SUBTOTAL (Performance Measurement Baseline)	24,774	33,218	33,825	8,444	-607	5,269,080	5,239,508	5,118,169	-29,572	121,339	0	0	0	5,828,386	5,671,838	156,548	
f. MANAGEMENT RESERVE														57,133			
g. TOTAL	24,774	33,218	33,825	8,444	-607	5,269,080	5,239,508	5,118,169	-29,572	121,339	0	0	0	5,885,519			

* 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.

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 / 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 <input type="checkbox"/> YES <input checked="" type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18			

5. PERFORMANCE DATA		FORECAST (Non-Cumulative)														AT COMPLETION
WBS.Resp Org Group	ACTUAL CURRENT PERIOD	ACTUAL END OF CURRENT PERIOD (Cumulative)	SIX MONTH FORECAST BY MONTH (Enter names of months)						ENTER SPECIFIED PERIODS						AT COMPLETION (15)	
			+1	+2	+3	+4	+5	+6	3rd Qtr FY18	FY18	FY19	FY19-LC	ATCOMPLETE			
			NOV 2017	DEC 2017	JAN 2018	FEB 2018	MAR 2018	APR 2018	(10)	(11)	(12)	(13)	(14)			
ORGANIZATIONAL CATEGORY (1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)		
300 - Office of the President	7	731	6	6	6	6	6	6	6	6	13	19	0	0	0	802
303 - Internal Audit	6	480	5	5	5	5	5	5	5	5	9	14	0	0	0	530
304 - General Counsel	4	447	5	5	5	5	5	5	5	5	10	15	0	0	0	501
31 - Communications	8	1028	8	8	8	8	8	8	8	8	17	25	0	0	0	1118
32 - Safety Health Security & Quality	50	7197	52	52	54	54	54	54	54	54	107	161	0	0	0	7784
34 - Env Program & Strategic Plng	45	4855	45	46	48	47	45	45	45	45	91	129	0	0	0	5350
35 - Business Services	60	7751	62	62	62	62	62	62	62	62	125	187	0	0	0	8438
36 - Prime Contract & Proj Integr	63	5094	68	68	68	68	68	68	68	68	135	203	0	0	0	5838
38 - Project Technical Services	31	5602	34	34	34	34	34	34	34	34	69	103	0	0	0	5978
3B - PFP Closure Project	202	49421	223	163	90	64	30	19	7	0	0	0	0	0	0	50017
3C - Waste & Fuels Management Project	356	50032	329	327	339	341	330	330	662	980	4	366	0	0	0	54041
3D - Soil & Groundwater Remediation	294	36432	257	250	254	241	250	258	523	807	399	1036	0	0	0	40707
3G - K Basin Oper & Plateau Remediation Project	374	47643	389	339	324	347	317	284	532	753	2	0	0	0	0	50929
3H - 618-10 and ERDF	113	1941	51	49	46	41	39	36	70	61	0	0	0	0	0	2334
3J - Building 324 Disposition Project	128	1708	131	137	143	146	149	152	296	382	3	0	0	0	0	3245
g. TOTAL DIRECT	1742	220359	1664	1551	1488	1470	1402	1366	2665	3839	407	1402	0	0	0	237612

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) 2017/10/01			
b. LOCATION (Address and ZIP Code) Richland, WA 99354		b. NUMBER DE-AC06-08RL14788		b. PHASE Base		b. TO (YYYY/MM/DD) 2017/10/22			
		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:	24,774	33,218	33,825	8,444	34.1%	(607)	-1.8%	1.34	0.98
Cumulative:	5,269,080	5,239,508	5,118,169	(29,572)	-0.6%	121,339	2.3%	0.99	1.02
	BAC	EAC	VAC in \$	VAC in %	TCPI				
At Complete:	5,828,386	5,671,838	156,548	2.7%	1.06				
Explanation of Variance/Description of Problem:									
<p>Current Period Schedule Variance: The current month positive schedule variance is primarily due to PBS RL-0040 recovery of PUREX Tunnel 1 grouting, tunnel investigation, and field engineering activities. Additionally, a point adjustment to move historical budgeted cost of work scheduled (BCWS) and re-plan under appropriate Subsequent Unit for Individual Determination (SQUID) Work Breakdown Structure (WBS) has attributed to the positive variance.</p> <p>Also contributing to the positive schedule variance is PBS RL-0011 working historical 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 2, 3, and 7, and completion of demolition and waste loadout of 267-Z – Fire riser number 9 valve house; 2503-Z – Electrical switchyard; and 252-Z-1 – Electrical substation activities, are contributing to this positive variance.</p> <p>Current Period Cost Variance: The variance is within reporting thresholds. However, CHPRC was directed by the Fiscal Year (FY) 2018 Annual Performance Measure Baseline (PMB) Update, received May 30, 2017, Correspondence No. 1702282A, to plan the FY2018 Environmental Restoration and Disposal Facility (ERDF) operations in the PMB under WBS 13.10. Subsequently, CHPRC was directed by RL-Contracting Officer email, sent August 4, 2017, documented by Correspondence No. 1703888, that FY2018 ERDF Operations cost accumulation could not be moved from PBS RL-0041 as charged in FY2017 to PBS RL-0013 in FY2018 until after the FY2018 appropriations was approved by Congress. As a result of the current FY2018 Continuing Resolution, PBS RL-0041 recognized ERDF cost of \$1.8 million in October without associated budget. This cost variance was partially offset by cost underruns at 618-10 due to the availability of the existing crews and equipment to self-perform the backfill work scope. Self-performing backfill efforts has led to increased efficiencies and fewer costs compared to the plan.</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									
Corrective Action:									
Current Period Schedule: The current month schedule variance is within reporting thresholds.									
Current Period Cost: Costs associated with the HDPE water loop will be transferred to the Mission Support Alliance Contractor in the month of November to align with requirements of the J3 Table.									
Cumulative Schedule: N/A									
Cumulative Cost: N/A									

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

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 corrected VAC of \$156.5 million, with \$57.1 million of management reserve (MR), for a total positive variance of \$213.6 million. For October, the project was 34.1 percent ahead of schedule and 1.8 percent over planned cost. Contract to date (CTD), the project was 0.6 percent behind schedule and 2.3 percent under planned cost.

The \$156.5 million VAC increased \$11.5 million, mostly due to a Management Reserve draw of \$6.2 million in RL-0013 to account for additional labor and maintenance for facilities identified in surveillances.

There were 9 of the 17 BCRs in the period that impacted the PMB:

- BCR-012C-18-002R0, RL-0012 SRP Project MR Draw
- BCR-013-18-002R0, Incorporate CO #327 Increase NTE for T Plant Sludge Acceleration
- BCR-013-18-003R0, Incorporate CO #323 Increase NTE for Hanford Sitewide TSD Management
- BCR-013-18-005R0, RL-0013 Facility Operations MR Draw
- BCR-030-18-001R0, Unilateral Determination of CO #316 GW Engir Reports-Mon Plans for DMWUs
- BCR-041-18-002R0, CO #328 Incorporate Additional Scope for 300-296 into PMB
- BCR-041-18-003R0, CO #305 Implementation of FY2018 Scope into PMB
- BCR-041-18-004R0, Incorporate CO #330 Continued 100-K Remediation Activities in FY2018
- BCR-PRC-18-002R0, Undistributed Budget Adjustments October 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 + \$156.5 million, +2.7% 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-18-002R0	<i>Undistributed Budget Adjustments October 2017</i>	RL-0011, RL-0013, RL-0030, RL-0040, RL-0041	2018	\$-12,350K

The Undistributed Budget decreased by \$12,350K.

Management Reserve Activity

BCR Number	Title	PBS	Fiscal Year	MR
BCR-012C-18-002R0	<i>RL-0012 SRP Project MR Draw</i>	RL-0012	2018	\$-1,040K
BCR-013-18-005R0	<i>RL-0013 Facility Operations MR Draw</i>	RL-0013	2018	\$-6,284K.
BCR-030-18-001R0	<i>Unilateral Determination of CO316, CP 030 316 1637, Groundwater Engineering Reports and Groundwater Monitoring Plans for DWMUs</i>	RL-0030	2018	\$-1,512K

Overall, there was a decrease in Management Reserve (MR) of \$8,836K during October.

Fee Activity

BCR Number	Title	PBS	Fiscal Year	Fee
BCR-030-18-001R0	<i>Unilateral Determination of CO316, CP 030 316 1637, Groundwater Engineering Reports and Groundwater Monitoring Plans for DWMUs</i>	RL-0030	2018	\$84K

Overall, there was an increase to the fee of \$84K during October.

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: 11/16/2017	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

October 2017
CHPRC-2017-10, 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	8%
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	12%

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	13	N/A
Near-Misses	0	0	N/A

KEY ACCOMPLISHMENTS

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

- There were no injuries during the month of October in the functional groups.
 - o Occupational Safety and Industrial Hygiene (OS&IH) accomplishments:
 - Kicked off Winter Safety Campaign.
 - Completed assessment on the use of personal protective equipment across all CHPRC projects.
 - Performed technical reviews of Project Drill Packages.
 - Completed revision to Reporting, Investigating, and Managing Health, Safety and Property/Vehicle Events procedure.
 - Initiated procedural revision of the Motor Vehicle & Heavy Equipment procedure.
 - Supported development of an Industrial Hygiene Technician Fundamentals training program to be provided by HAMMER.
 - o Radiological Control accomplishments:
 - Continued to provide health physicist support to the Waste Encapsulation and Storage Facility (WESF).
 - Provided support in preparation for the National Institute for Occupational Safety and Health site visit.
 - Provided support to Labor Relations in response to the worker information request from the Plutonium Finishing Plant (PFP) event on June 8, 2017.
 - Radiological staff attended vendor training for new sitewide access control system (Sentinel).
 - Performed benchmarking activities in support of implementing program efficiencies for:
 - In-Progress As Low as Reasonably Achievable (ALARA) Reviews and Post Job ALARA Reviews.
 - Partial entries for personnel and equipment.
 - ALARA structure program and goals.
 - Implemented program efficiencies in procedure revisions for:
 - Preparation, Review, and Approval of Radiation Protection Technical Evaluations and Technical Basis Documents.
 - Derived Air Concentration-Hour Tracking.
 - Internal Dosimetry Program.

- Routine Personnel Partial Entries.
- Completed reviews and approved revision for Workplace Air Monitoring Technical Basis Document.
- Completed reviews and approved technical evaluations for:
 - Research Technology Laboratory Radiation Protection Technical Evaluation.
 - Canister Storage Building (CSB) Radiological Technical Evaluation.
- Environmental Restoration Disposal Facility (ERDF) Technical Evaluation, Survey Techniques for Elevated Alpha and/or Beta Background Count Rates.
- o Nuclear Operations Support & Compliance accomplishments:
 - Correspondence transmitted to RL:
 - Letter, CHPRC-1704783A R1, dated October 23, 2017, *Impact Analysis for Removal of DOE/RL-2001-0036, Revision 1E, Hanford Sitewide Transportation Safety Document, from Section J, Attachment J.2, “Requirements Sources and Implementing Documents.”*
 - Correspondence received from RL:
 - Letter, 17-NSD-0049_RL, dated September 27, 2017, *Approval of the Annual Update to the “224-B Facility Documented Safety Analysis, CP-18179, Revision 9, and the Unreviewed Safety Question Determinations Summary.”*
 - Letter, 17-NSD-0058_RL, dated October 3, 2017, *DOE/RL-2001-0036 Revision 1E, “Hanford Sitewide Transportation Safety Document.”*
 - Letter, 17-NSD-0033_RL, dated October 4, 2017, *Approval of the Annual Update to the “200 Area Interim Storage Area (ISA) Documented Safety Analysis,” HNF-40627, Revision 3, and the “Fire Hazards Analysis for the 200 Area Interim Storage Area,” HNF-48109, Revision 0.*
 - Letter, 17-NSD-0056_RL, dated October 18, 2017, *Approval of the One-Time Request for Shipment (OTRS) for Sludge Transport from K West Basin to T Plant, CHPRC-03111, Revision 1.*
 - Letter, 17-NSD-0057_RL, dated October 18, 2017, *Approval of the Canister Storage Building Evaluation of Safety of the Situation for Secondary Accidents Induced by Natural Events, CHPRC-03432, Revision 0.*
 - Letter, 18-NSD-0003_RL, dated October 18, 2017, *Approval of CH2M HILL Plateau Remediation Company, CHPRC, Submittal of the “Waste Encapsulation and Storage Facility (WESF) Evaluation of Safety of the Situation (ESS) for Secondary Accidents Induced by Natural Events,” CHPRC-03419, Revision 0.*
- o Other
 - An independent assessment of CHPRC’s Nuclear Operation Support and Compliance (NOSC) program was completed. The assessment reviewed the programs adequacy to capture DOE Safety Basis requirements and implement. The following was concluded:
 - Six opportunities for improvement – Two were related to the training and qualification program, two were related to compliance, one was related to quality assurance (QA), and one was related to documentation of performance assessments.
 - Two good practices were identified – One was related to the review/facility responsibility matrix in PRO-700 is detailed and complete, and one was related to the Management Assessment Program (MAP) as being well defined and appropriate.

- o Contractor Assurance Regulatory Reporting (CARR) accomplishments:
 - 267 Condition Reports (CRs) were screened:
 - No significant issue identified.
 - Two adverse issues identified.
 - 107 Track Until Fixed (TUF) issues identified.
 - 70 Trend Only items identified.
 - 86 Opportunity for Improvement (OFI) items identified.
 - Two Screened Out.
 - 277 CRs administratively closed.
 - 421 CRs actions administratively closed.
 - Provided full-time support to PFP Issues Management and Occurrence Reporting activities.
 - Provided support to ERDF in facilitation of a critique for a stop work on disposal of PFP Roll-on/Roll-off containers.
 - Completed Root Cause Evaluation and transmitted Final Occurrence Reporting and Processing System (ORPS) report EM-RL--CPRC-PFP-2017-0013, *Employee Struck by Vehicle During Flood Response*.
 - Transmitted Notification ORPS reports: EM-RL--CPRC-PFP-2017-0015, *Transuranic Waste Staging Area Did Not Have The Required Physical Barrier*, and EM-RL CPRC-ERDF-2017-0006, *Potential Exposure To An Uncontrolled Hazardous Energy Source*.
 - Provided support for the causal evaluation in response to findings in the DOE Plutonium Uranium Extraction Plant (PUREX) Tunnel 1 Collapse report.
 - Provided support for the Bi-Monthly Defense Nuclear Facility Safety Board (DNFSB) Resident Inspector Meeting.
 - Eighteen documents were provided in response to DNFSB requests for information.
 - Provided support to the DNFSB Hanford Site representatives.
 - Provided support for the upcoming DNFSB on-site review of radiological safety at the 324 Building.
 - One external lessons learned was submitted to OPEXShare in October: 2017-RL-HNF-0022, *Employee Struck by Vehicle During a Facility Emergency*.
- o Performance Oversight, Assessment, and Quality Assurance accomplishments:
 - Completed in-field activities and issued final report for 10 CFR 835 Subpart L “Radioactive Contamination Control”
 - Provided mentoring and feedback to assessors and responsible managers who conducted management assessments.
 - Completed fiscal year (FY) 2018 Integrated Evaluation Plan (IEP) scheduling of Required Assessments as verified in SHS&Q-2017-WSA-19207.
 - Obtained Executive Safety Review Board (ESRB) approval of FY2018 IEP baseline.
 - Completed fourth quarter FY2017 performance objectives, measures, and commitments (POMC) updates.
 - Assisted in completion of the Sludge Treatment Project (STP) 100KW Preoperational Acceptance Test.
- o Fire Protection (FP) accomplishments:
 - Correspondence received from Other Contractors:
 - Letter, MSA-1605752.9, dated September 28, 2017, *Transmittal of Hanford Fire Systems Monthly Health Report; Fiscal Year 2017 Performance Incentive 2.1.5, “Improve the Performance of Fire Systems Inspection, Testing and Maintenance”*.
 - Produced 46 Hanford Fire Marshal Permits/CHPRC Hot Work Permits
 - 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 T Plant – 2T-17-04922 and 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. Walkdown identified a requirement common to the PFP Facilities Hazards Analysis (FHA) and PFP TSR AC 5.20.2.concerning required combustible separation distances.
 - Facility Hazards Analysis (FHA):
 - o SWOC and T Plant FHAs are in a minor revision based upon comments by RL.
 - o The 324 Building FHA is undergoing final comment resolution.
- There were six Facility Fire Protection Assessments completed in October.
- SHS&Q Focus Areas:
 - o **Issue:** Beryllium program assessment findings from Department of Energy (DOE-HQ), Office of Safety, Health and Security Independent Oversight (SHS&Q) inspection report.
 - **Status:** Revision 4 continues to be developed by the Hanford Beryllium Committee, Revision 3 has been pulled back by RL. Revision 2 remains in effect.
 - **Action:** Beryllium facility assessments have been completed. 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. Five October 2016 recordable injuries and three October 2016 DART cases dropped out of our 12 month rolling average this month.
 - 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. One open personnel requisition for a fire protection engineer remains unfilled, outside subcontractor support is being considered for this position.

Environmental Program and Strategic Planning (EP&SP)

- **Environmental Compliance and Quality Assurance**
 - o Assessment Status
 - No assessments were completed during the reporting period.

- o 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.
 - Monthly Tier 2 meeting (i.e., Joe Franco, Rob Hastings, Alex Smith).
 - Two strategy sessions schedule optimization sessions with Ecology, DOE (RL or DOE Office of River Protection [ORP] as appropriate) and the respective contractor: one session was held with ORP's Waste Treatment Plant (WTP) project, and the second with CHPRC's S&GRP project.
 - Weekly schedule strategy discussions with Ecology.
 - Maintained the permit schedule, including weekly schedule status meetings with Ecology, RL, ORP, and Hanford Site contractors.
 - Provided a detailed previous month 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.
- o Quality and timeliness of key documents submitted
 - Completed an environmental document author training course for more than 50 participants.
- **Environmental Protection**
 - o Compliance Status
 - Supported RL in appealing the PUREX White Powder Administrative Order.

Business Services

- **Supply Chain:**
 - o Met with Washington River Protection Services (WRPS) representatives to discuss Hanford Site scanning and surveying services. Provided potential vendors to WRPS for their use. In parallel, developed a statement of work for Project Technical Services (PTS) that will be used for CHPRC work.
 - o Developed a draft statement of work (SOW) and procurement strategy for conduct of operations mentoring for field work supervisors (FWS) at Project 618-10 work site.
 - o Assisted Project 618-10 with identifying steps to excess property. Discussed the need for Export Control Classification Numbers (ECCN) and proper points of contact.
 - o Identified current rental equipment on hand at Project 618-10 for the purposes of returning to the equipment company at the conclusion of Project 618-10 work.
 - o Met with W-135 Project representatives to discuss the refurbishment of government furnished property (GFP) by a lower-tier subcontractor. This property will be transferred from the West Valley Cleanup Contractor (CHBWV) to CHPRC.
 - o Prepared the acquisition strategy and draft SOW to provide 300-296 Project with self-directed construction electricians.
 - o Worked with Waste & Fuels and WRPS representatives to identify waste boxes that CHPRC had in storage but could be transferred to WRPS for immediate use.
 - o Assisted the K Basin PTS organization in the development of a construction SOW that will be used to repair an actuator in the K West Basin.
 - o Troubleshooted a billing error on a utility bill from the city of Richland. The original bill was over by approximately \$90,000. The bill was subsequently revised to \$1,610.
 - o Met with S&GRP representatives to draft solicitation criteria, review draft request for proposal (RFP) language, and develop the acquisition plan for well realignment work that will start in January 2018.

- o Drafted solicitation criteria and acquisition plan for Project W-135 technical support. Included priced option that will permit work to continue into out-years should additional project requirements be encountered in the future.
- o Held a conference call with a HUBZone waste box manufacturer to discuss future procurement opportunities and other opportunities within the DOE Office of Environmental Management (DOE-EM) complex.
- **Facilities & Property Management (F&PM):**
 - o The FY2017 Inventory campaign continues – 100 percent complete. Processing the loss/damage/destruction report (LDDR) and excess forms.
 - o 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. Some CHPRC personnel remain in temporary offices. Approximately 15 to 20 CHPRC Finance and S&GRP project support members will move to final permanent offices tentatively in December. Federal Building configuration is anticipated to be complete in December 2017.
 - o New shower trailer at S&GRP Drilling and Sampling Facility (WSCF) completed in October.
 - o MO-885 demobilized and returned to vendor.
 - o Continued initial planning to relocate seven mobile trailers from PFP to be set-up at reduction and oxidation (REDOX).
 - o 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.
- **Finance:**
 - o Began a series of RL Finance/change order (CO) meetings to discuss and align topics identified in CHPRC Incurred Cost Audit Corrective Action Plan.
 - o October month-end completed with no cost suspensions.
 - o Submitted quarterly reconciliation of RL's 2110 account (RL Finance accounting of PRC).
 - o Continued support of the Bi-Annual Pricing Review.
 - o Transferred Inter-Company Work Exchange Agreement (ICWEA) process to procurement due to downsizing of finance group.
 - o Working with RL regarding FY2016 Invoice Assessment results.
- **Human Resources (HR):**
 - o Completed calendar year (CY) 2017 salary planning process for exempt and salaried nonexempt employees. Increases for impacted employees will be effective on October 23, 2017, and will be reflected in employee paychecks on Friday, November 10, 2017.
 - o Supported the Connect Tri-Cities event at the Toyota Center in Kennewick in an effort to bridge the gap between our youth and our community and engage the workforce of tomorrow. This was an opportunity for CHPRC to educate our youth on the important work we do, employment opportunities to consider in their future, and the skill sets and credentials that they will need to join us in our mission.
 - o Several human resources (HR) members attended the Access Tri-Cities Building Bridges and Breaking Barriers event at Columbia Basin College in Pasco. Educational seminars were offered to address disability inclusion in the workforce, followed by a career fair targeted at individuals with disabilities.
 - o Seventy-three employees were exited on October 19, 2017, during Phase 3 of our Workforce Restructuring. These exits involved the appointments, meetings, and interviews relevant to each individual. HR coordinated with HPMC, Mission Support Alliance (MSA) and internal departments to efficiently process these employees with minimal disruption to project work.
 - o The Phase 4 self-select window will open for D&D workers on October 23, 2017, and will close November 2, 2017. An information session will be offered on October 30, 2017.

- o HR brought in a local Veterans' Advocate to educate our department on terminology typically used in résumés with military experience. The advocate spent time explaining terminology and providing useful websites to help CHPRC more effectively find, recruit, and employ qualified military veterans.
- **Labor Relations (LR):**
 - o The following is the current status of grievances in the arbitration process:
 - RC-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 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-016-059 – failure to meet CHPRC pre-employment screening. Status: Union canceled arbitration and will withdraw grievance.
 - 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 155 contracts with a total value of \$14.1 million. Additionally, awarded 227 new material purchase orders (PO) valued at \$769,594 to support ongoing project objectives.
 - o At the end of the first 109 months of the CHPRC project, procurement volume has been significant; \$2.63 billion in contract activity has been recorded with approximately 55.9 percent, or \$1.47 billion, in awards to small businesses. These awards include 7,896 contract releases, 24,245 POs, and 286,289 PCard transactions.

- o Major contract awards:

Contract/Release	Award Date	Awarded To	Title	Contract Type	Value
36538-103	10/5/2017	Watts Construction	RTL Complex D4 Installation of Office & Restroom Trailers/Fencing	FFP	\$250,000
655747-11	10/9/2017	Apollo Sheet Metal Inc. dba Apollo Mechanical Contractors	PUREX Stack Monitor Sampling System	FFP	\$239,198
56537-27	10/10/2017	Terragraphics Environmental Engineering, Inc.	RCRA CERCLA & AEA Core Sciences General Support	T&M	\$200,000

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

Prime Contract and Project Integration (PC&PI)

- **Project Management/Compliance Assessments**
 - o Project Management PRC Procedure System documents were modified during October:
 - PRC-STD-PM-53-11, CHPRC Project Management Plan
 - PRC-STD-PM-53012, Project Categorization and Tailoring
 - PRC-STD-PM-53014, Project Execution Plans.
 - o Project Management Sites Forms were modified during October:
 - A-6006-721, Project Categorization and Tailoring-EPC
 - A-6006-722, Project Categorization and Tailoring-ER
 - A-6006-723, Project Categorization and Tailoring-D and D
 - A-6006-725, Project Categorization
 - A-6006-726, Project Closeout.
 - o The annual Earned Value Management System (EVMS) surveillance to demonstrate the continued compliance of CHPRC’s EVMS certification is being finalized. The surveillance package includes audits, assessments, and automated data testing results of Capital Asset Projects (CAPs) cost and schedule data.
- **Prime Contract Compliance (PCC):**
 - o In October, PCC received and processed one contract modification (634) from RL.
 - o The Correspondence Review Team received and determined the distribution for 78 incoming letters/documents. The PCC manager reviewed 52 outgoing correspondence packages.
 - o Submitted CHPRC-1704835R1, “Request for Equitable Adjustment Due to Range Fire at 100-HR-3 Operable Unit.”
 - o Submitted CHPRC-1704615AR2 – “Notification of Change Regarding Fiscal Year 2018 Work Authorization for Project Breakdown Structure RL-030.”
 - o Submitted CHPRC-1704615AR3 – “Notification of Change Regarding Fiscal Year 2018 Work Authorization for Project Breakdown Structure RL-040.”
 - o Submitted CHPRC-1704615AR1 – “Notification of Change Regarding Fiscal Year 2018 Work Authorization for Project Breakdown Structure RL-013.”

- **Information Management:**
 - o Processed 24,122 electronic records into the Integrated Document Management System (IDMS). Initiated desktop computing equipment upgrade project in support of HLAN Windows 10 implementation to be completed in FY2018.
- **Project Integration**
 - o Project Support, Systems Integration, & Schedule Integration
 - During October, Project Support & Systems Integration facilitated and supported the processing of 17 baseline change requests (BCRs).
 - o Estimating & Program Support
 - One Change Proposal (CP) has been submitted in FY2018, on or ahead of schedule.
 - CP 041 330 1662 - 100-K FY2018 Waste Site Remediation Activities, submitted October 26, 2017.
 - Five Request for Equitable Adjustments (REAs) were submitted to RL in October 2017:
 - REA 011 PRC 1671 - Plutonium Finishing Plant Impacts as a Result of Discovered 234-5Z Equipment Stubs, submitted October 12, 2017.
 - REA 011 PRC 1672 - Plutonium Finishing Plant Impacts as a Result of Discovered 234-5Z Process Pits, submitted October 12, 2017.
 - REA 011 PRC 1675 - Plutonium Finishing Plant Impacts as a Result of the Electrical Spark While Deactivating Electrical Panel, submitted October 11, 2017.
 - REA 011 PRC 1677 - Plutonium Finishing Plant Stop Work for Worker Safety, submitted October 11, 2017.
 - REA 011 PRC 1678 - Plutonium Finishing Plant Impacts as a Result of Defective Respiratory Protective Equipment, submitted October 17, 2017.
 - Began/continued development of three CPs/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.
 - CP 0410 PRC 1681 - Deduct Proposal for Removal of the 622S Lysimeter Test Facility from the PRC Scope.
 - Provided two Truthful Cost or Pricing Data (TCoPD) evaluations/updates for CPs/REAs:
 - CP 040 324 1641 - Miscellaneous Project Breakdown Structure RL-040 Work Scope, submitted October 5, 2017.
 - CP 041 326 1651 - 105-KW Fuel Storage Basin, submitted October 5, 2017.
 - Began nine cost evaluations for CPs/REAs submitted under Change Orders 304, 305, and 306.
 - Supported RL requests for information (RFIs) for two CPs/REAs:
 - CP 030 318 1618 - 200-WA-1 and 200-BC-1 Operable Units Characterization, submitted October 23, 2017.
 - CP 041 330 1662 – 100-K FY2018 Waste Site Remediation Activities, received October 30, 2017.
 - Miscellaneous estimating support:
 - Supported the closeout of the RL-directed audit of the CHPRC CPs associated with the former RCCC scope transitioned to CHPRC, being performed by Cohn Reznick. The COs associated with CHPRC's RCCC replaced CPs include CO 304, *Initiate Transition of River Corridor Contract (RCC) Scope Activities into the Plateau Remediation Contract (PRC)*, CO 305, *300-296 Waste Site Design Change, Initiate Procurements, Initiate Testing, and Initiate Removal of Debris*, and CO 306, *Remainder of RCC Project Transition Activities*.

- o 000 Project EVM Support & Reporting:
 - Prepared and processed BCR-041-18-005R0, RL-0041 Correct WFR WBS Assignment to move workforce restructuring budget from capital project to operating project for RL-0041.
 - Prepared and submitted September Indirect Project Review.
 - Issued the CHPRC September Monthly Performance Report to RL.
 - Provided PC&PI input into Contractor Assurance System (CAS) September Report.
 - Compiled the PM-00-1-17 CHPRC Critical Self-Assessment.
 - Aligned the Gold Metrics with the fiscal year work plan for FY2017, which was finalized in August, and submitted the Gold Metrics to RL.
 - Worked with projects to incorporate change in maintenance cost gathering for Facilities Information Management System (FIMS) reporting – majority of projects will now use cost account charge number (CACNs) as collection point versus code of account (COAs).
- **Program Integration**
 - o **Interface Management:**
 - Initiated a J.3 table update review process with the Other Hanford Contractors regarding the recent inclusion of the Hanford Sitewide Transportation Safety Document (TSD) in the PRC for site coordination and maintenance on behalf of RL. The J.3 item will become a new entry in the table as number J.3 76.
 - Facilitated the property transfer of used Department of Transportation (DOT) Type-7A boxes from the CWC to the WRPS.
 - Submitted the final Annual Forecast of Services to MSA. Any emerging changes will be handled through communications between CHPRC project, MSA service managers, and interface management representatives.
 - Continued involvement on several activities related to contractor activities in the 300 Area. These items include the update of the Utility Agreement, the RL/PNSO Operational Agreement, and the transfer of water/sewer services from MSA to Pacific Northwest National Laboratory (PNNL), effective October 1, 2017.
 - Completed reviews and concurrence on three MSA Service Delivery Documents.
 - Continued attempts to confirm appropriate Fire Systems Maintenance (FSM) contractual performance requirements with MSA interface management. Tentative agreement would change procedural performance requirements from CHPRC facility managers to MSA FSM. MSA FSM is currently estimating this work and seeking additional funding from RL to perform the scope.
 - o **Risk Management:**
 - CHPRC Risk Management continued to make progress toward completion of the FY2018 Annual Update/Long Range Plan (LRP) Risk Analysis. The FY2018 Annual Update/LRP Risk Analysis Report is on-track to complete October 30, 2017.
 - o **Strategic Management:**
 - Strategic Management continued their support of a DOE Headquarter Integrated Project Team (IPT) visit on the aging structures, specifically focused on the Excess Hazard Category I/II facilities. For follow-up to the visit, additional information was prepared and shared on the Risk Evaluation Matrix and the relationship to the excess facilities. Work will continue on this IPT visit response, and will include providing a desktop instruction on the Risk Evaluation Matrix.
 - Continued partnering with RL strategy to reduce risks from aging infrastructure. In October, workshops were held to begin detailing out the approach and on aging infrastructure and near-term/long-term priorities, to detail out planning package scope and identify specific FY2018-beyond priorities. Strategic planning continues to support this effort.

- Continued work in October on a joint RL-CHPRC Integrated Priority List (IPL) that will outline the FY2018 priorities. In the month, strategic management reviewed and provided numerous updates to RL to support the creation of the Execution Year Priority List. Supported project integration to provide incremental scope costs to RL as part of a funding request.
- Strategic management implemented a change tracking to the LRP scope to document LRP changes and ensure accurate accounting as FY2018 begins. Strategic management analyzed the authorized LRP scope and worked with the project to develop a path forward on the discrepancies, including reducing funding targets for unauthorized non-contract work scope.
- Continued an improvement initiative for the Productivity Tracking Log to ensure the process provides key data and decision-making information and can utilize existing metrics to make reporting more streamlined. An update to the standard is in progress.

PTS

- Engineering Services
 - o Continued company- and site-wide committee coordination activities for implementation of a revision to the site-wide electrical safety procedure.
 - o Issued a letter to notify RL of implementation of the National Electrical Code (NEC), NFPA 70, 2017 edition.
 - o Provided direction for the revision of arc flash calculations for warehouse and shop buildings in the Unsecured Core Area.
- Training and Procedures
 - o Completed Hanford Integrated Training and Procedures (HITS) testing support.
 - o Administered the DOE National Security Briefing.
 - o Prepared updates to technical authority and functional manager assignment changes due to voluntary reduction of force employees.
 - o Prepared “Mock Up” displays for HAMMER’s 20th anniversary celebration and Board of Directors meeting.
 - o Completed DOE TPL-150, *Safety Culture Training for Front Line Leaders*, train-the-trainer for five CHPRC personnel.
- Operations Program
 - o ConOps/Work Control/Conduct of Work
 - Completed update of job hazard analyses checklist and instructions and submitted for review.
 - Interfaced with Fire Systems Maintenance to discuss proposed Job Control System (JCS) coding changes.
 - Provided a report to quality assurance of Calibration Transaction count over the past three years and related non-compliance request count in support of a QA Assessment.
 - Provided ESRB Conduct of Operations semi-annual presentation with data analysis.
 - Prepared materials and conducted two sessions of a work planner workshop.
 - Supported work between RFP and JCS programmers to get the new JCS Facility Group working to facilitate Research Technology Laboratory (RTL) project.
 - o Emergency Preparedness (EP)
 - Completed third and fourth quarter assessments.
 - Began prep for FY2018 first quarter assessment.

Communications:

- Communications supported RL in five proactive and reactive media stories:
- Communications supported RL in the development of social media posts featuring:
 - o 324 Building completion of modifications to the mock-up structure
 - o REDOX Plant roof replacement
 - o Injecting grout into PUREX Tunnel
 - o PFP progress updates
 - o Sludge removal equipment testing progress and completion
 - o Groundwater treatment program treating 2.2 billion gallons of contaminated groundwater
 - o Connect Tri-Cities tour of 324 Building mock-up
- CHPRC supported four tours of the Hanford Site in October.

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	0.1	0.1	0.1	0.0	0.0%	0.0	5.0%
Internal Audit	0.1	0.1	0.1	0.0	0.0%	0.1	53.0%
General Counsel	0.1	0.1	0.1	0.0	0.0%	0.0	32.9%
Communications	0.1	0.1	0.1	0.0	0.0%	0.0	6.0%
Safety, Health, Security, and Quality	0.8	0.8	0.7	0.0	0.0%	0.1	10.3%
Environmental Program and Strategic Planning	0.3	0.3	0.3	0.0	0.0%	0.0	-5.5%
Business Services	1.5	1.5	1.5	0.0	0.0%	(0.1)	-3.8%
Prime Contract and Project Integration	1.4	1.4	1.4	0.0	0.0%	0.1	5.1%
Project Technical Services	0.5	0.5	0.4	0.0	-0.2%	0.1	11.3%
Indirect WBS 000 Total	5.0	5.0	4.7	0.0	-0.0%	0.2	4.9%

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: (+\$0.2M/+4.9%)

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	0.1	0.1	0.1	0.0	0.0%	0.0	5.0%	2.0
Internal Audit	0.1	0.1	0.1	0.0	0.0%	0.1	53.0%	1.9
General Counsel	0.1	0.1	0.1	0.0	0.0%	0.0	32.9%	1.6
Communications	0.1	0.1	0.1	0.0	0.0%	0.0	6.0%	1.3
Safety, Health, Security and Quality	0.8	0.8	0.7	0.0	0.0%	0.1	10.3%	13.6
Environmental Program and Strategic Planning	0.3	0.3	0.3	0.0	0.0%	0.0	-5.5%	5.1
Business Services	1.5	1.5	1.5	0.0	0.0%	(0.1)	-3.8%	24.1
Prime Contract and Project Integration	1.4	1.4	1.4	0.0	0.0%	0.1	5.1%	23.9
Project Technical Services	0.5	0.5	0.4	0.0	-0.2%	0.1	11.3%	8.4
Indirect WBS 000 Total	5.0	5.0	4.7	0.0	-0.0%	0.2	4.9%	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: (+\$0.2M/+4.9%)

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)	5.0	4.7	0.2	81.9	80.9	1.0
Office of the President	0.1	0.1	0.0	2.0	2.0	0.0
Internal Audit	0.1	0.1	0.1	1.9	1.8	0.1
General Counsel	0.1	0.1	0.0	1.6	1.6	0.0
Communications	0.1	0.1	0.0	1.3	1.3	0.0
Safety, Health, Security and Quality	0.8	0.7	0.1	13.6	13.5	0.2
Env. Program & Strategic Planning	0.3	0.3	(0.0)	5.1	4.6	0.5
Business Services	1.5	1.5	(0.1)	24.1	24.1	0.0
Prime Contract and Project Integration	1.4	1.4	0.1	23.9	23.9	(0.0)
Project Technical Services	0.5	0.4	0.1	8.4	8.2	0.2

FY2018		
G&A Distribution	(5.5)	(88.1)
G&A Liquidation (Over)/Under	(0.8)	(7.2)

Liquidation Analysis

For October, application of the G&A rate has over-liquidated total to date G&A cost by \$0.8 million. The FY2018 year-end projected over-liquidation of \$7.2 million reflected in the FY spend forecast reflects a projected increase 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 yearend.

Appendix C

Capital Asset Projects



October 2017
CHPRC-2017-10, 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

October 2017
CHPRC-2017-10, 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 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 97 percent complete.

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

<i>Key Metrics</i>	<i>Current Month Plan</i>	<i>Current Month Actuals</i>	<i>Cumulative Plan</i>	<i>Cumulative Actuals</i>
Glovebox/Hood Removed	-	0	174	169
COMPLETE KPP Rooms/Areas Ready for Demo	-	0	72	72 rooms/areas

KEY ACCOMPLISHMENTS

RL-0011_C1 Accomplishments

- None

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 spotlight chart: Risk PFP-DEMO-21 <i>Glovebox/Equipment Removal/Demolition Material Handling Event</i> was moved from a Critical Risk to a High Threat Risk during the month of October.						
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 the month of October.						
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 the month of October.						
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 FY2017.		
				Mitigation action(s)	FC Date	%
				None identified at this time.	N/A	N/A
Mitigation Assessment: No change in the month of October. 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.						
Unassigned Risks (Pending ownership of identified risks/opportunities)						
No unassigned risks identified for RL-0011/WBS-011.05.01.01.06 (CAP.1) in the month of October.						

CRITICAL PATH SCHEDULE

The PFP C1 Critical Path schedule begins with the continuation of demolition on the Backside Rooms Zone 4 in 234-5Z. After Backside Rooms Zone 4 is complete, Front Side CSZ 2.5, Backside/PSSL CSZ 4.2/4.3, and RMC Zone 5 will be worked. The last glovebox is removed during demolition of RMC Zone 5. This will allow the project to complete CD-4 closeout on the RL-0011.C1 project with CD-4 finishing February 7, 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	2/7/2018	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 nine day gain since September month-end as a result of recognized efficiencies on demolition activities in 234-5Z. The total gloveboxes removed to date is at 97 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



October 2017
CHPRC-2017-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

CONTRACT PERFORMANCE REPORT FORMAT 1 - WORK BREAKDOWN STRUCTURE													FORM APPROVED OMB No. 0704-0188																
1. CONTRACTOR			2. CONTRACT			3. PROGRAM			4. REPORT PERIOD			DOLLARS IN Thousands of \$																	
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 / 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 <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 344,951		g. CONTRACT CEILING 327,423		h. ESTIMATED CONTRACT CEILING 344,951		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 332,680												c. SIGNATURE			d. DATE SIGNED (YYYYMMDD)														
b. WORST CASE 335,212																													
c. MOST LIKELY 335,073						330,987																							
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		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		0		0		0		0		0		0		0		0		0		0		0		0					
RL_0011_C1.02 Maintain Safe & Compliant PFP		0		0		0		0		0		0		0		0		0		0		0		0					
RL_0011_C1.05 Disposition PFP Facility		0		0		0		0		235,514		235,244		259,761		-270		-24,517		0		0		235,514		259,892		-24,378	
RL_0011_C1.06 Project Management & Support		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		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		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		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	
c. GENERAL AND ADMINISTRATIVE		0		0		0		0		0		0		0		0		0		0		0		0		0		0	
d. UNDISTRIBUTED BUDGET		0		0		0		0		0		0		0		0		0		0		0		0		0		0	
e. SUBTOTAL		0		0		0		0		315,152		314,882		332,548		-270		-17,667		0		0		315,152		332,680		-17,528	
f. MANAGEMENT RESERVE		0		0		0		0		0		0		0		0		0		0		0		0		2,393		0	
g. TOTAL		0		0		0		0		315,152		314,882		332,548		-270		-17,667		0		0		317,545		332,680		-15,135	
9. RECONCILIATION TO CONTRACT BUDGET BASELINE																													
a. VARIANCE ADJUSTMENT																													
b. TOTAL CONTRACT VARIANCE																													
													-270			-17,667			317,545			332,680			-15,135				

*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 / 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 <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	0	0	0	0	254,725	254,455	279,968	-270	-25,513	0	0	0	254,725	280,100	-25,375		
b. COST OF MONEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
c. GENERAL AND ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
d. UNDISTRIBUTED BUDGET														0	0	0		
e. SUBTOTAL (Performance Measurement Baseline)	0	0	0	0	0	315,152	314,882	332,548	-270	-17,667	0	0	0	315,152	332,680	-17,528		
f. MANAGEMENT RESERVE														2,393				
g. TOTAL	0	0	0	0	0	315,152	314,882	332,548	-270	-17,667	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 / 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 <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 NOV 2017 (4)	+2 DEC 2017 (5)	+3 JAN 2018 (6)	+4 FEB 2018 (7)	+5 MAR 2018 (8)	+6 APR 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	9	0	0	0	0	0	0	0	0	0	0	0	15449
g. TOTAL DIRECT	0	15457	9	0	0	0	0	0	0	0	0	0	0	0	15466

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) 2017/10/01			
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		(YYYYMMDD) 2009 / 09 / 18			

Direct Projects

5. Evaluation	Budget	Earned	Actuals	SV in \$	SV in %	CV in \$	CV in %	SPI	CPI
Current:	0	0	0	0	0	0	0	0	-
Cumulative:	315,152	314,882	332,548	-270	-0.1%	-17,667	-5.6%	1.00	0.95
	BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:	315,152	332,680	-17,528	-5.6%	-	2.06			

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 February 7, 2018. There was a nine day gain since September month-end as a result of recognized efficiencies on demolition activities in 234-5Z.

The current RL-11 performance schedule indicates that the PFP project will achieve slab-on-grade by December 22, 2017. During the month of October, there was a four day loss as a result of impacts from delay of re-starting demolition efforts on the Plutonium Reclamation Facility. 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 ~\$17.7M and 5.6%, and CPI of .95 reflect impacts of the safety pauses, stop works, contamination events, and increased complexity of the HA-9A/HC-9B size reduction efforts and preparations and removal of the HA-7A, HC18M and HC-7C and 2275 and 227T gloveboxes. This is partially offset by recognized efficiencies in cleaning up the RMA/RMC control rooms after completion of the size reduction efforts of the 9A/9B gloveboxes.

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

Corrective Action:

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 October.
- Forecast Schedule with No Baseline: None in the month of October.
- UB Balance: None in the month of October.
- Negative ACWP: None in the month of October.
- EAC Analysis: Best Case = \$332,680; Most Likely = \$335,073; Worst Case = \$335,212
- 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: BCR-011C-17-010R0 moved \$2,393.0K of unused FY2017 MR associated with PFP CAP1 Project scope to FY2018 for a net zero change to MR by PBS
- Freeze Period Changes: None in the month of October.
- Retroactive Changes: None in the month of October.
- EVT Changes: None in the month of October.

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

October 2017
CHPRC-2017-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

Progress continued to work toward critical decision (CD)-4 closure as teams continued to ready the Plutonium Finishing Plant (PFP) facilities for demolition. Demolition on the Plutonium Reclamation Facility (PRF) began on November 8, 2016. Demolition of 291-Z commenced on June 30, 2017. The 291-Z stack was demolished on July 15, 2017, and loadout 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. 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	12
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	-	3	15	13
Turnover Facility to Long Term Surveillance & Maintenance	-	-	-	-

KEY ACCOMPLISHMENTS

RL-0011_C2 Accomplishments

- Continued demolition of 234-5Z
 - Completed zones 2, 3, and 7
- Completed demolition of 267-Z – Fire riser #9 valve house
- Completed demolition of 2503-Z – Electrical switchyard
- Completed demolition of 252-Z-1 – Electrical substation

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:				
Risks PFP-DEMO-05 and PFP-DEMO-16 were removed as Realized Risks and added as Critical Risks. Risk PFP-DEMO-21 and PFP-DEMO-07 were removed as critical risks and added as High Threat risks.				
Realized Risks (Risks that are currently impacting project cost/schedule)				
No realized risks identified in the month of October.				

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 the month of 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 the month of October, no impacts have occurred as a result of weather. However, the risk remains critical due to upcoming high-wind and projected winter conditions, 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 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 major changes in the month of October. 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 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 the month of October. 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.</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 demolish.</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p>Mitigation Assessment: No change in the month of October. 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.</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											
Unassigned Risks (Pending ownership of identified risks/opportunities)													
No unassigned risks identified in the month of October.													

CRITICAL PATH SCHEDULE

The PFP C2 Critical Path schedule begins with the continuation of demolition on the Backside Rooms Zone 4 in 234-5Z. After Backside Rooms Zone 4 is complete, the gallery gloveboxes and 236-Z Canyon demolition will run in parallel with the Front Side CSZ 2.5, Backside CSZ 4.2/4.3, Remote Mechanical C (RMC) Process Line, and the basement of 234-5Z demolition. The 236-Z canyon demolition completes on December 22, 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.

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	4/27/18	Progress continued to work toward CD-4 closure as teams continued to ready the PFP facilities for demolition. The PRF facility initiated demolition on November 8, 2016, and completion of demolition activities will occur in 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 October primarily as a result of impacts from inability to reinstate demolition activities on the PRF (236-Z) facility.

*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



October 2017
CHPRC-2017-10, Rev. 0
Contract DE-AC07-08RL14788
Deliverable C.3.1.3.1 - 1

**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 / 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 <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18			

WBS.Resp Org Group	CURRENT PERIOD						CUMULATIVE TO DATE					REPROGRAMMING			AT COMPLETION		
	BUDGETED COST		ACTUAL	VARIANCE		BUDGETED COST		ACTUAL	VARIANCE		ADJUSTMENTS			BUDGETED	ESTIMATED	VARIANCE	
	WORK SCHEDULED (2)	WORK PERFORMED (3)	COST WORK PERFORMED (4)	SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	COST WORK PERFORMED (9)	SCHEDULE (10)	COST (11)	COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	(14)	(15)	(16)	
3B - PFP Closure Project	628	3,128	2,753	2,501	375	55,307	36,504	38,954	-18,803	-2,450	0	0	0	55,307	52,587	2,720	
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)	628	3,128	2,753	2,501	375	55,307	36,504	38,954	-18,803	-2,450	0	0	0	55,307	52,587	2,720	
f. MANAGEMENT RESERVE														3,434			
g. TOTAL	628	3,128	2,753	2,501	375	55,307	36,504	38,954	-18,803	-2,450	0	0	0	58,741			

CLASSIFICATION (When Filled In)

CONTRACT PERFORMANCE REPORT

FORMAT 4 - STAFFING

Dollars in: FTE

FORM APPROVED

OMB No. 0704-0188

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME RL_0011_C2 PFP Demolition Capital Asset Project		a. FROM (YYYYMMDD) 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 <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18			

5. PERFORMANCE DATA

WBS.Resp Org Group	ACTUAL CURRENT PERIOD	ACTUAL END OF CURRENT PERIOD (Cumulative)	FORECAST (Non-Cumulative)											AT COMPLETION	
			SIX MONTH FORECAST BY MONTH (Enter names of months)						ENTER SPECIFIED PERIODS						
			+1 NOV 2017 (4)	+2 DEC 2017 (5)	+3 JAN 2018 (6)	+4 FEB 2018 (7)	+5 MAR 2018 (8)	+6 APR 2018 (9)	3rd Qtr FY18 (10)	FY18 (11)	FY19 (12)	FY19-LC (13)	ATCOMPLETE (14)		
3B - PFP Closure Project	139	745	147	99	59	49	6	6	6	1	0	0	0	0	1111
g. TOTAL DIRECT	139	745	147	99	59	49	6	6	6	1	0	0	0	0	1111

CLASSIFICATION (When Filled In)										
CONTRACT PERFORMANCE REPORT										
FORMAT 5 - Explanations and Problem Analysis										
FORM APPROVED OMB No. 0704-0188										
1. CONTRACTOR		2. CONTRACT		3. PROGRAM				4. REPORT PERIOD		
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME RL_0011_C2 PFP Demolition Capital Asset Project				a. FROM (YYYYMMDD) 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 (YYYYMMDD) 2009 / 09 / 18						
Direct Projects										
5. Evaluation		Budget	Earned	Actuals	SV in \$	SV in %	CV in \$	CV in %	SPI	CPI
Current:		627.5	3,128.5	2,753.2	2,500.9	398.5%	375.3	12.0%	4.99	1.14
Cumulative:		55,306.9	36,503.6	38,953.8	-18,803.3	-34.0%	-2,450.2	-6.7%	0.66	0.94
		BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:		55,306.9	52,587.1	2,719.8	4.9%	1.15	1.38			
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 on ancillary buildings (252-Z1 and 2503-Z) is also contributing to this positive variance. Demolition of 236-Z is scheduled to re-commence in November, 2017. 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 cost variance relates to procurement of contaminated equipment associated with impacts from a PRF contamination event that occurred in June, 2017. A DOE contingency BCR was implemented in October, 2017 which recovered costs for a realized risk. The purchase was planned as a one month LOE activity resulting in \$500K of performance being claimed. The costs for the actual purchase of this equipment will not be recognized until December, 2017.										
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 October 11, 2017 "associated with to 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 October 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 three 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 October 11, 2017 "associated with to 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 demolition of the 2727-Z										
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 October 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 October 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 October 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										

Corrective Action:

P/Q shift will be initiated and maintained until 234-5Z has been demolished and the completion of the PRF (236-Z Facility) will complete on dayshift only. - Action Tim Trevis ECD 11/30/17

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

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

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

1. Schedule Margin Analysis: In the EAC there is currently no remaining schedule margin in this capital asset account. Schedule margin was lost in October 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 October
3. Forecast Schedule with No Baseline: No change in the month of October
4. UB Balance: No change in the month of October
5. Negative ACWP: No change in the month of October
6. EAC Analysis: Best Case = \$52,587; Most Likely = \$56,022; Worst Case = \$62,051
7. Negative CV > VAC: No change in the month of October
8. MR Transactions: No change in the month of October
9. Freeze Period Changes: No change in the month of October
10. Retroactive Changes: No change in the month of October
11. EVT Changes: No change in the month of October

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

October 2017
CHPRC-2017-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

M. A. Wright
Vice President for
Project Technical
Services

PROJECT SUMMARY

The K Basin Pre-operational Acceptance Testing (KPAT) continued through October. Testing fieldwork is approximately 99 percent complete and forecast to complete by October 31, 2017. Following KPAT completion, the Construction Completion Document (CCD) will be signed, and Operational Acceptance Testing (OAT) will commence.

CHPRC personnel are finalizing Sludge Removal Project (SRP) training materials, operating/maintenance procedures, and readiness activities in preparation for operational acceptance testing and operational readiness reviews (ORRs), authorizing full-up Engineered Container Retrieval and Transfer System (ECRTS) Operation.

CHPRC Transportation Safety personnel are focused on finalizing the 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 February 16, 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 prior to the start of sludge retrieval (Tri-Party Agreement M-016-175).

Project breakdown structure (PBS) RL-0012 scope is 94.9 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

- o KPAT continued with overall test progress approximately 99 percent complete as of October month-end.
- o The KPAT test team completed the initial transfer of 105KW Basin Water to an STSC located within the Annex Transfer Bay. This was significant as it marked the initial use of the ECRTS Process System to move liquid from the Basin to the Annex.
- o The KPAT test team completed several key test sections by completing final STSC fill, STSC disconnects, and inserting the STSC & STS Cask.
- Installation of STSC instrumentation and appurtenances continued through the fiscal month. STSC 414-421: Have been delivered to HiLine for installation of associated instrumentation/appurtenances. STSC 422-424: Final data packages were received and these vessels are scheduled to be shipped to Richland by the end of the calendar month. HiLine personnel completed Mass spectrometer leak detector (MSLD) testing on STSC 414 and 415.
- Development of the Operations and Maintenance Procedures supporting sludge removal and packaging operations continues. Status of procedures required to declare readiness for the 105KW Facility Sludge Removal Project:
 - o Twenty-two of 25 operation procedures have had their initial reviews completed: one is in job hazard analysis (JHA), five are currently in the comment incorporation phase, 15 are in the validation phase, and one is a site form – its review is complete.

- o Alarm response procedures (4) have been drafted and are in the final comment incorporation phase.
- o Ten of 11 maintenance procedures have been reviewed, with one remaining in development.
- o Two of eight administration procedures have been published, one is currently in comment incorporation, two are still being worked, and three were just added and being drafted.

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 October.													
Realized Risks (Risks that are currently impacting project cost/schedule)													
No realized risks identified in the month of October													
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)													
No critical risks identified in the month of October.													
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) & 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; margin-bottom: 5px;"> <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>Utilize overtime to offset schedule impacts.</td> <td style="text-align: center;">As Needed</td> <td style="text-align: center;">N/A</td> </tr> <tr> <td>Closely monitor employee satisfaction and consider employee incentive to retain key test personnel.</td> <td style="text-align: center;">As Needed</td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table> Mitigation Assessment: No major changes in the month of October. KPAT testing is forecast to complete September 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 October.													

CRITICAL PATH SCHEDULE

The critical path is being driven by completion of testing, updating of technical documentation, development/delivery of staff training, development/approval of procedures, and final readiness preparations. Following a successful Contractor and DOE ORR, RL will provide authorization to commence retrieval operations in parallel with the DOE-HQ review/approval of CD-4. Completing retrieval operations, including the filling of STSCs with sludge and transporting them to T Plant, to complete Tri-Party Agreement Milestone M-016-176, *Complete Sludge Removal from 105-KW Fuels Storage Basin* is required by (September, 2019). However, the STP team has modified the 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	4/12/2018	The forecast date includes schedule margin from the project's risk analysis. Project schedule margin is 123 days.

*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)	11/17/17
RL POA Issued and Distributed	12/13/17	12/22/17
RL IP Issued	12/23/17	1/01/18

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



October 2017
CHPRC-2017-10, 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 15_D_401 KW Basin Sludge Removal Project				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 <input type="checkbox"/> X YES (YYYYMMDD) 2009 / 09 / 18								
5. CONTRACT DATA																				
a. QUANTITY 1	b. NEGOTIATED COST 295,873	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 0		d. TARGET PROFIT/FEE 7,950	e. TARGET PRICE 303,823		f. ESTIMATED PRICE 291,714		g. CONTRACT CEILING 303,823		h. ESTIMATED CONTRACT CEILING 291,714		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					
				278,342							c. SIGNATURE				d. DATE SIGNED (YYYYMMDD)					
a. BEST CASE				285,872																
b. WORST CASE				283,764		295,873		12,109												
c. MOST LIKELY																				
8. PERFORMANCE DATA																				
CAPN.PBS Control Account.PARS 2 WBS (2)		CURRENT PERIOD				CUMULATIVE TO DATE				REPROGRAMMING ADJUSTMENTS			AT COMPLETION							
		BUDGETED COST		ACTUAL COST WORK PERFORMED		VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED		VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)	
ITEM (1)		WORK SCHEDULED (2)	WORK PERFORMED (3)	ACTUAL COST WORK PERFORMED (4)	SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	ACTUAL COST 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		0	0	0	0	0	156,861	156,861	156,786	0	75	0	0	0	156,861	156,786	75			
RL_0012_C1_1.16 Sludge Treatment Project		2,520	2,866	2,812	346	54	126,075	126,195	114,640	120	11,556	0	0	0	133,421	121,556	11,864			
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		2,520	2,866	2,812	346	54	282,936	283,056	271,426	120	11,631	0	0	0	290,282	278,342	11,939			
f. MANAGEMENT RESERVE															5,421					
g. TOTAL		2,520	2,866	2,812	346	54	282,936	283,056	271,426	120	11,631	0	0	0	295,703					
9. RECONCILIATION TO CONTRACT BUDGET BASELINE																				
a. VARIANCE ADJUSTMENT																				
b. TOTAL CONTRACT VARIANCE													120	11,631				295,703	278,342	17,361

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 / 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 <input type="checkbox"/> X YES (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)							
3G - K Basin Oper & Plateau Remediation Project	2,520	2,866	2,812	346	54	282,936	283,056	271,426	120	11,631	0	0	0	290,282	278,342	11,939		
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)	2,520	2,866	2,812	346	54	282,936	283,056	271,426	120	11,631	0	0	0	290,282	278,342	11,939		
f. MANAGEMENT RESERVE														5,421				
g. TOTAL	2,520	2,866	2,812	346	54	282,936	283,056	271,426	120	11,631	0	0	0	295,703				

CLASSIFICATION (When Filled In)

CONTRACT PERFORMANCE REPORT FORMAT 3 - BASELINE														DOLLARS IN THOUSANDS			Form Approved OMB No. 0704-0188	
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 RL_0012_15_D_401 KW Basin Sludge Removal Project a. NAME: Plateau Remediation Contract b. PHASE c. EVMS ACCEPTANCE NO YES X 9/18/2009				4. REPORT PERIOD a. FROM: 2017/10/01 b. TO: 2017/10/22						
5. CONTRACT DATA																		
a. ORIGINAL NEGOTIATED COST 295,873				b. NEGOTIATED CONTRACT CHANGE \$0		c. CURRENT NEGOTIATED COST (A + B) \$295,873		d. ESTIMATED COST AUTH UNPRICED WORK \$0		e. CONTRACT BUDGET BASE (C + D) \$295,873		f. TOTAL ALLOCATED BUDGET \$295,703		g. DIFFERENCE (E - F) \$170				
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						FY09-13 (10)	FY14 (11)	FY15 (12)	FY16 (13)	FY17 (14)	FY18 (15)	UNDISTRIB BUDGET (16)	TOTAL BUDGET (17)		
			+1 Nov-17 (4)	+2 Dec-17 (5)	+3 Jan-18 (6)	+4 Feb-18 (7)	+5 Mar-18 (8)	+6 Apr-18 (9)										
a. PM BASELINE (BEGIN OF PERIOD)	280,416	1,960	2,787	1,508	851	1,347	338	33	94,574	27,547	50,942	67,673	39,680	8,826	0	289,242		
b. BASELINE CHANGES AUTH DURING REPORT PERIOD																		
BCR-012C-18-001R0, Incorporate FY2018 Performance Measure Milestones -SRP CAP													0	0	0	0		
BCR-012C-18-002R0, RL-0012 SRP Project MR Draw													0	1,040	0	1,040		
c. PM BASELINE (END OF PERIOD)	282,936	2,520	3,240	1,535	851	1,347	338	33	94,574	27,547	50,942	67,673	39,680	9,866	0	290,282		
7. MANAGEMENT RESERVE																		
																5,421		
8. TOTAL																		
																295,703		

**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 / 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 <input type="checkbox"/> X YES (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					ATCOMPLETE (14)	
			+1 NOV 2017 (4)	+2 DEC 2017 (5)	+3 JAN 2018 (6)	+4 FEB 2018 (7)	+5 MAR 2018 (8)	+6 APR 2018 (9)	3rd Qtr FY18 (10)	FY18 (11)	FY19 (12)	FY19-LC (13)			
3G - K Basin Oper & Plateau Remediation Project	71	7181	62	67	45	68	5	0	0	0	0	0	0	0	7429
g. TOTAL DIRECT	71	7181	62	67	45	68	5	0	0	0	0	0	0	0	7429

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) 2017/10/01	
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		(YYYYMMDD) 2009 / 09 / 18	

5. Evaluation

Direct Projects

	Budget	Earned	Actuals	SV in \$	SV in %	CV in \$	CV in %	SPI	CPI
Current:	2,519.8	2,866.0	2,807.6	346.2	13.7%	58.4	2.0%	1.14	1.02
Cumulative:	282,935.9	283,056.3	271,421.4	120.4	0.0%	11,634.9	4.1%	1.00	1.04
	BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:	290,281.7	278,338.1	11,943.5	4.1%	0.38	1.04			

Explanation of Variance/Description of Problem:

Current Period:
Schedule Variance: Within Threshold.

Cost Variance: Within Threshold.

Cumulative To Date:

Schedule Variance: Within Threshold.

Cost Variance: Within Threshold.

Impact:

Schedule Impact: None identified at this time - project is within threshold. However, as a result of delays in approval of the Documented Safety Analysis/Technical Safety Requirements (DSA/TSR), forecast to be approved on 9/1/2018, the project has assumed additional risk to readiness activities, including training and procedure development which are dependent on the final, approved safety documents.

The current non-risk adjusted forecast date to begin sludge removal is February 16, 2018. The Project implemented recovery methods to initiate sludge removal in February, 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 October.
- Forecast Schedule with No Baseline: None in the month of October.
- UB Balance: None in the month of October.
- Negative ACWP: Control Account 012.17.01.09 has negative costs in the month of October due to a rate adjustment to the ICWEA support of Title III engineering (various individuals). Negative ACWP in Control Account 012.17.02.01 was the result of a time card correction to this account.
- EAC Analysis: Best Case = \$278.3M; Most likely = \$283.8M; Worst Case = \$285.9M.
- Negative CV > VAC: 012.17.01.10/012.17.01.11 - due to schedule acceleration it is anticipated the turnover from Construction to Operations will occur in October 2017 rather than December 2017 resulting in recovery of a portion of the negative cost variance.
- MR Transactions: BCR-012C-18-002R0, RL-0012 SRP Project MR Draw was generated in October, 2017 to utilize \$1,040k of Management Reserve for in-scope unplanned work associated with realized risks, mitigated risks and a change in execution strategy.
- Freeze Period Changes: None in the month of October
- Retroactive Changes: None in the month of October.
- EVT Changes: None in the month of October.

Prepared by: M. Thompson

Date: 10/19/17

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

October 2017
CHPRC-2017-10, 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 the month of October, and continued to disposition excess materials and supplies.

KEY ACCOMPLISHMENTS

618-10 Burial Ground Backfill (14 percent complete - baseline)

- 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.
- The project continued backfilling decision units one and six.

618-10 Burial Ground Complex Demobilization

- Crews continued consolidating and dispositioning miscellaneous materials/supplies to send off-site.
- The emergency road was removed and used as backfill material.
- Craft consolidated crew trailers and conex boxes in the container transfer area (CTA).
- The 618-10 Project shipped a backhoe to the Environmental Restoration Disposal Facility (ERDF) to support Plutonium Finishing Plant (PFP) activities.

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 the month of October .										
Realized Risks (Risks that are currently impacting project cost/schedule)										
No realized risks identified in the month of October .										
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)										
No critical risks identified in the month of October .										
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 style="width: 70%;">Mitigation action(s)</th> <th style="width: 15%;">FC Date</th> <th style="width: 15%;">%</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 the month of October . 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 style="width: 70%;">Mitigation action(s)</th> <th style="width: 15%;">FC Date</th> <th style="width: 15%;">%</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 the month of October . 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 the month of October .										

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	52.6	56.5	39.1	4.0	7.6%	17.4	30.8%	68.9	51.3	12.2	17.7

Numbers are rounded to the nearest \$0.1 million

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

CRITICAL PATH SCHEDULE

The critical path flows through 618-10 Burial Ground closeout sampling and analysis to support preparing calculations for backfill concurrence. Following receipt of backfill concurrence from RL/ 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 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	11/29/2017	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 and Regulator Review of CVP and Waste Site Reclassification Form for 316-4 Waste Site	8/21/17 (A)	10/5/17 (A)
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #1	9/21/17 (A)	10/2/17 (A)
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #6	9/28/17 (A)	10/2/17 (A)
RL and Regulator Second Review of CVP and Waste Site Reclassification Form for 316-4 Waste Site	10/10/17 (A)	11/7/17
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #4	10/24/17	10/30/17
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #11	10/31/17	11/6/17
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #5	11/1/17	11/7/17
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #3	11/8/17	11/14/17
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #10	12/1/17	12/7/17
RL/EPA Review & Approve Interim Backfill Concurrence for 618-10 Decision Unit #9	1/10/18	1/16/18
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



October 2017
CHPRC-2017-10, 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 / 01							
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		c. EVMS ACCEPTANCE NO X YES (YYYYMMDD) 2009 / 09 / 18				b. TO (YYYYMMDD) 2017 / 10 / 22							
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 51,260	g. CONTRACT CEILING 0	h. ESTIMATED CONTRACT CEILING 51,260	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 51,260						c. SIGNATURE			d. DATE SIGNED (YYYYMMDD)								
b. WORST CASE 51,684																	
c. MOST LIKELY 51,260		68,921		17,661													
8. PERFORMANCE DATA																	
CAPN.PBS Control Account.PARS 2 WBS (3)		CURRENT PERIOD				CUMULATIVE TO DATE				REPROGRAMMING ADJUSTMENTS			AT COMPLETION				
ITEM (1)	BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (9)	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)	
	WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)							
RL-0041 Nuc Fac D&D - RC Closure Proj																	
RL_0041_C1.05.02 618-10 Burial Ground	447	1,471	1,198	1,024	273	43,728	44,494	34,420	766	10,075	0	0	0	56,127	46,480	9,647	
RL_0041_C1.05.03 316-4 Waste Site	553	63	23	-490	41	7,983	10,813	4,242	2,830	6,571	0	0	0	11,183	4,327	6,856	
RL_0041_C1.05.04 600-63 Waste Site	476	44	0	-432	44	854	1,235	451	380	783	0	0	0	1,611	452	1,159	
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	1,477	1,578	1,220	101	358	52,565	56,542	39,113	3,977	17,429	0	0	0	68,921	51,260	17,661	
f. MANAGEMENT RESERVE														0			
g. TOTAL	1,477	1,578	1,220	101	358	52,565	56,542	39,113	3,977	17,429	0	0	0	68,921			
9. RECONCILIATION TO CONTRACT BUDGET BASELINE																	
a. VARIANCE ADJUSTMENT																	
b. TOTAL CONTRACT VARIANCE													3,977	17,429	68,921	51,260	17,661

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 / 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 <input type="checkbox"/> X YES (YYYYMMDD) 2009 / 09 / 18	

WBS FOC Control Account.PARS 2 WBS (3) ITEM (1)	CURRENT PERIOD					CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL	VARIANCE		BUDGETED COST		ACTUAL	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)
	WORK SCHEDULED (2)	WORK PERFORMED (3)	COST WORK PERFORMED (4)	SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	COST WORK PERFORMED (9)	SCHEDULE (10)	COST (11)						
041.6 - 618 10 Projects																
RL_0041_C1.05.02 618-10 Burial Ground	447	1,471	1,198	1,024	273	43,728	44,494	34,420	766	10,075	0	0	0	56,127	46,480	9,647
RL_0041_C1.05.03 316-4 Waste Site	553	63	23	-490	41	7,983	10,813	4,242	2,830	6,571	0	0	0	11,183	4,327	6,856
RL_0041_C1.05.04 600-63 Waste Site	476	44	0	-432	44	854	1,235	451	380	783	0	0	0	1,611	452	1,159
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)	1,477	1,578	1,220	101	358	52,565	56,542	39,113	3,977	17,429	0	0	0	68,921	51,260	17,661
f. MANAGEMENT RESERVE														0		
g. TOTAL	1,477	1,578	1,220	101	358	52,565	56,542	39,113	3,977	17,429	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 PARS II - RL-0041.C1 Base Funded Nuc Fact D&D River Corr a. NAME: Plateau Remediation Contract b. PHASE c. EVMS ACCEPTANCE NO YES X 9/18/2009				4. REPORT PERIOD a. FROM: 2017/10/01 b. TO: 2017/10/22				
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 Nov-17 (4)	+2 Dec-17 (5)	+3 Jan-18 (6)	+4 Feb-18 (7)	+5 Mar-18 (8)	+6 Apr-18 (9)	FY09-13 (10)	FY14 (11)	FY15 (12)	FY16 (13)	FY17 (14)	FY18 (15)		
a. PM BASELINE (BEGIN OF PERIOD)	51,088	1,477	1,738	1,738	1,410	1,864	1,708	953	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)																
	52,565	1,477	1,738	1,738	1,410	1,864	1,708	953	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 / 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 <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18			

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 NOV 2017 (4)	+2 DEC 2017 (5)	+3 JAN 2018 (6)	+4 FEB 2018 (7)	+5 MAR 2018 (8)	+6 APR 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	50	1045	47	49	46	41	39	36	70	61	0	0	0	0	1435
RL_0041_C1.05.03 316-4 Waste Site	0	69	4	0	0	0	0	0	0	0	0	0	0	0	73
RL_0041_C1.05.04 600-63 Waste Site	0	13	0	0	0	0	0	0	0	0	0	0	0	0	14
g. TOTAL DIRECT	50	1128	51	49	46	41	39	36	70	61	0	0	0	0	1521

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 0		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		(YYYYMMDD) 2009 / 09 / 18	

5. Evaluation

Direct Projects

	Budget	Earned	Actuals	SV in \$	SV in %	CV in \$	CV in %	SPI	CPI
Current:	1,476.5	1,577.8	1,220.3	101.3	6.9%	357.5	22.7%	1.07	1.29
Cumulative:	52,564.9	56,542.1	39,113.0	3,977.2	7.6%	17,429.2	30.8%	1.08	1.45
	BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:	68,920.9	51,259.7	17,661.3	25.6%	0.42	1.02			

Explanation of Variance/Description of Problem:

CURRENT MONTH

The current month schedule variance is within reporting thresholds.

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.

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 October.
- Forecast Schedule with No Baseline: None in the month of October.
- UB Balance: N/A
- Negative ACWP: There was negative ACWP in the 316-4 Waste Site excavation account and 600-63 Waste Site account this month due to staff aug rate adjustments and FY2017 accrual reversals.
- EAC Analysis: Best Case: \$51,260; Most Likely: \$51,260; Worst Case: \$51,684
- Negative CV > VAC: N/A
- MR Transactions: None in the month of October.
- Freeze Period Changes: None in the month of October.
- Retroactive Changes: None in the month of October.
- EVT Changes: None in the month of October.