

Monthly Performance Report

October 2016

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

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



P.O. Box 1600
Richland, Washington 99352

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APPROVED

By Janis Aardal at 1:17 pm, Nov 28, 2016

Release Approval

Date

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J. A. Ciucci
President and Chief
Executive Officer

Monthly Performance Report

U.S. Department of Energy Contract,
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October 2016
CHPRC-2016-10, Revision 0

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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:

- The Plutonium Finishing Plant (PFP) Closure Project finished removing hazardous materials in preparation for demolition of the Plutonium Reclamation Facility (PRF). All eight gloveboxes and one filter box were removed from PRF. These were the last to be removed before demolition.
- The Waste and Fuels Management Project (W&FMP) completed and started up the ventilation system at the Waste Encapsulation and Storage Facility (WESF) and completed core drilling in preparation for grouting of hot cells to support facility upgrades. Crews also completed the Hazard Review Board for the demobilization of contaminated grouting equipment, removed A Cell airlock door and installed a steel grout door. Awarded the Design and Fabrication Contract for the Cask Storage System.
- Workers at 324 Building repaired the building's exhaust fan.
- Soil and Groundwater Remediation Project (S&GRP) received and addressed DOE and EPA comments for the 300-FF-5 Stage A Uranium Sequestration report that details treatment of uranium in the 300 Area. Workers will take lessons learned from Stage A to apply to Stage B. Stage B fieldwork will be initiated in the fourth quarter of FY2017.
- The K Basin Operations and Plateau Remediation (KBO&PR) Project successfully installed the first major piece of equipment that will be used to remove sludge into the basin water.
- Workers at the 618-10 Burial Ground tested a new method to remove Vertical Pipe Units from 618-10.

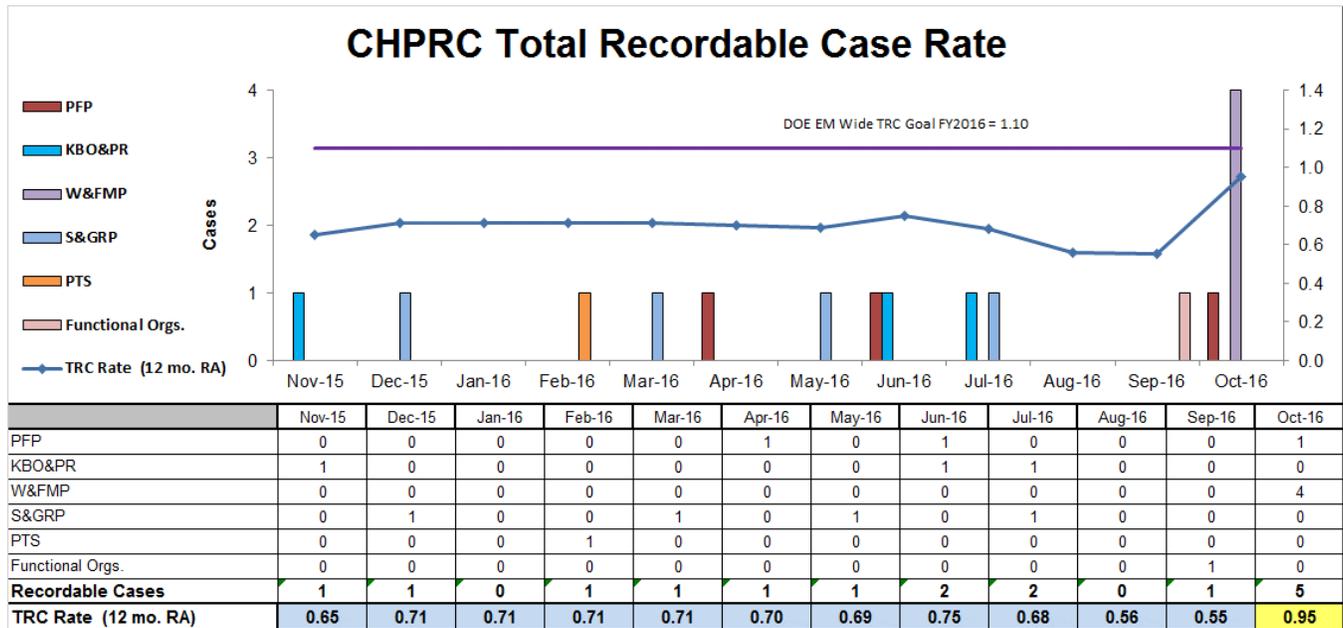


Plutonium Finishing Plant workers remove a glovebox from the roof of the Plutonium Reclamation Facility.

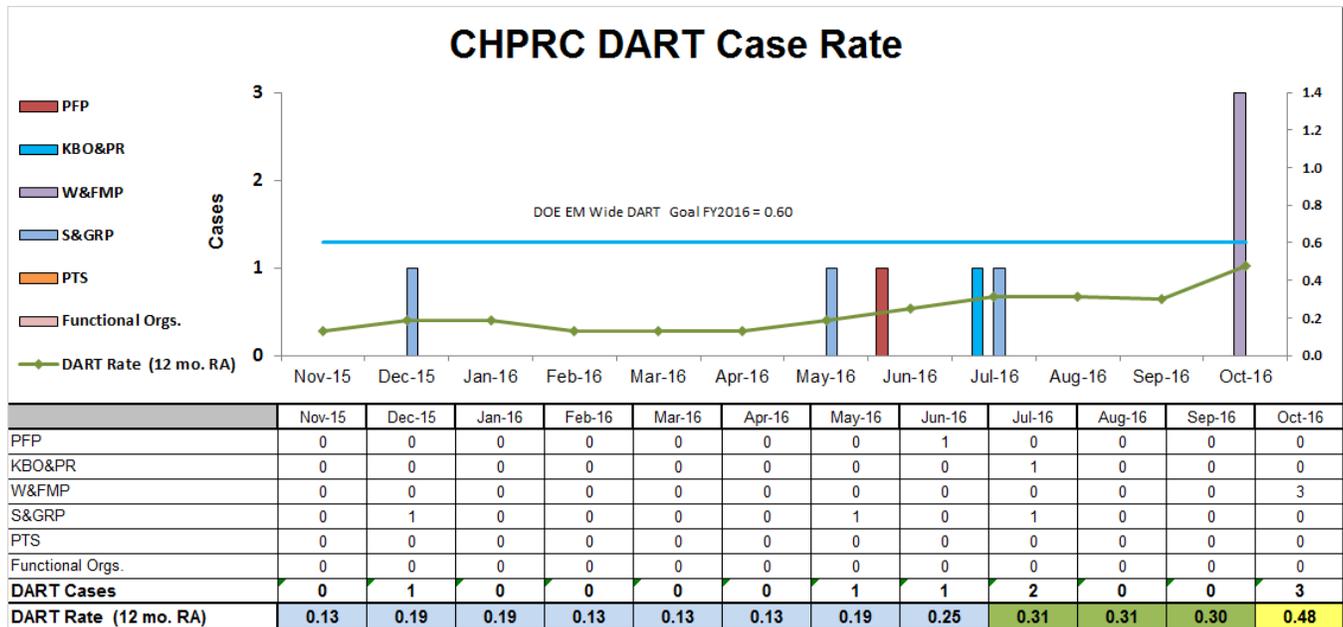
- The October 2016 President’s Zero Accident Council (PZAC) meeting was hosted by the K Basin Operations & Plateau Remediation organization. The three main ideas for the meeting were:
 - Winter Safety Campaign – Are you prepared?
 - Fire Safety is Everyone’s Business – Don’t Wait – Check the Date.
 - Do Work Safely – Follow procedures and maintain a questioning attitude.
- o Five “*Thinking Target Zero*” (TTZ) bulletins were published in October to convey important occupational, safety, health, and environmental messages:
 - Drive Safely Work Week 2016.
 - EMS – recycling plastics.
 - What to expect during the VPP Self-Assessment.
 - Autumn safety.
 - Fall back safely.
- o October *Weekly Safety Tailgate* briefing packages communicated relevant topics and safety information to the workforce:
 - Five Lessons Learned: Corporate CH2M Operations and Maintenance at the North Slope in Alaska - Mechanic’s hand is struck-by torsion style axle; LATA Environmental Services of Kentucky - Contact with heavy equipment dislodges hard hat; Pacific Northwest National Laboratory (PNNL) - Distraction leads to injury on auditorium stairs; Savannah River Nuclear Solutions Site (SRNS) - Employee cut left thumb with a pair of scissors while trying to cut a nylon tie; and PNNL - Powered Air Purifying Respirators (PAPRs).
 - Weekly Ethics Moments.
 - Drive Safely Work Week.
 - Material handling and ergonomics.
 - Smoke alarms to expire.
 - Winter safety campaign.
 - 2016 CHPRC United Way Campaign.
 - Road closures and delays.
- o Two special safety bulletins were presented in October: Safe driving expectations and occupational medical clearances.
- o The October *Kudos Corner* recognized individuals and teams who made a significant contribution to safety at work, home or play:
 - Kudos to the Central Waste Complex team for safely completing both the fiscal year (FY) 2016 drum overpack campaign and box shipment campaign.
 - Kudos to the Functional Organizations for achieving 652,127 safe work hours in FY2016.
 - Kudos to a KBO&PR worker for his awareness and questioning attitude toward a co-worker who did not seem to be himself. He talked to the co-worker, assessed the situation and encouraged the individual to seek medical attention, which ultimately resulted in an overnight stay in the hospital.
 - Kudos to the Environmental Program and Strategic Planning (EP&SP) team for developing the Stretch and Flex – at your desk! This activity was developed from the Workplace Wellness Initiative that focuses on the small daily steps we can make to improve our overall physical and mental wellbeing.
 - Kudos to a worker working in the H Area who noticed a single engine airplane that made an emergency landing on an island in the Columbia River. He immediately notified management and called 911. He also supported meeting Hanford emergency services to get them to the scene.

TARGET ZERO PERFORMANCE

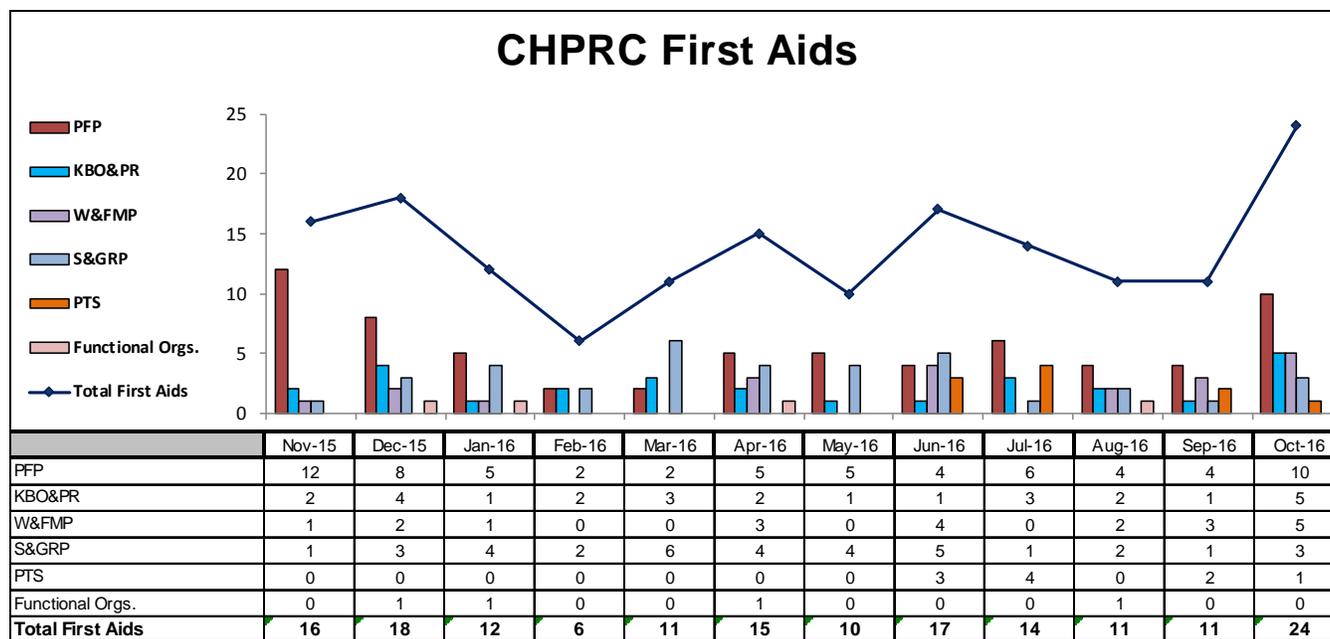
CHPRC continued focusing on integrating and implementing safety programs in all program and project areas.



Total Recordable Injury Case (TRC) Rate: The 12-month rolling average TRC rate of 0.95 is based on a total of 16 Recordable injuries. There were five Recordable cases for October.



Days Away, Restricted or Transferred (DART) Workdays Case Rate: The 12-month rolling average DART rate of 0.48 is based upon a total of eight Days Away cases. There were three DART cases in October.



First Aid Case Summary: CHPRC reported 24 first aid cases in October. The contributors were fourteen sprains/strains/pains, eight miscellaneous (burns, rashes, repetitive motion, etc.), and two abrasions/bruises/contusions injuries.

KEY ACCOMPLISHMENTS

Projects

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

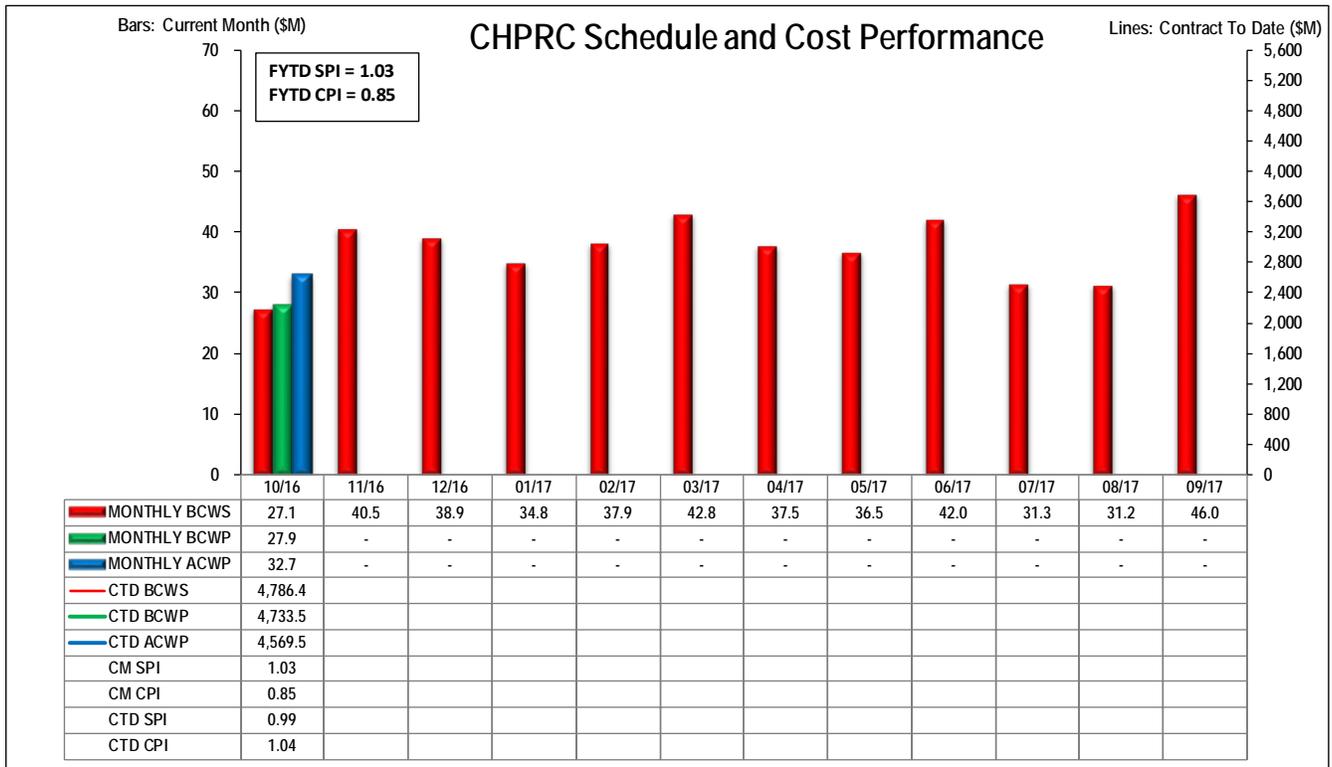
Project Services and Support (PTS)

- 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

Refer to Sections A through G as well as Appendix C of this report for the project specific Major Issues.

EARNED VALUE MANAGEMENT



	\$M					\$M					\$M		
	Current Period					Contract to Date					Contract Period		
	Budgeted Cost		Actual Cost	Variance		Budgeted Cost		Actual Cost	Variance				
	BCWS	BCWP	ACWP	Schedule	Cost	BCWS	BCWP	ACWP	Schedule	Cost	BAC	EAC	Variance
RL-0011 - Nuclear Materials Stab & Disp PFP	3.5	1.8	7.5	(1.6)	(5.6)	968.4	917.1	952.6	(51.2)	(35.5)	979.9	1,037.8	(58.0)
RL-0012 - SNF Stabilization & Disposition	4.5	4.7	5.0	0.2	(0.3)	627.2	628.4	602.6	1.2	25.8	737.8	711.4	26.4
RL-0013 - Solid Waste Stab & Disposition	5.9	6.8	6.3	0.8	0.5	1097.0	1099.9	1029.4	2.8	70.4	1,341.2	1,289.7	51.5
RL-0030 - Soil & Water Rem-Grndwtr/Vadose	6.6	6.9	6.7	0.3	0.2	1291.2	1279.7	1250.4	(11.5)	29.2	1,564.8	1,494.4	70.5
RL-0040 - Nuc Fac D&D - Remainder	1.0	1.0	1.5	0.0	(0.5)	426.5	423.1	391.6	(3.4)	31.5	472.3	444.4	28.0
RL-0041 - Nuc Fac D&D - RC Closure Project	5.5	6.6	5.7	1.1	0.9	353.8	363.0	324.7	9.2	38.3	527.4	478.3	49.1
RL-0042 - Nuc Fac D&D - FFTF Project	0.1	0.1	0.1	(0.0)	0.0	22.3	22.3	18.1	(0.0)	4.2	26.5	22.8	3.6
Total	27.1	27.9	32.7	0.9	(4.8)	4,786.4	4,733.5	4,569.5	(52.9)	164.0	5,649.9	5,478.8	171.0

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

* 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.

Performance Summary

CHPRC continues to track completion of contract scope within budget and is currently projecting a Variance at Completion of \$171.0 million with \$71.7 million of Management Reserve (MR) for a total positive variance of \$242.7 million. For October, the project was 3.2 percent ahead of schedule and 17.2 percent over planned cost. Contract to Date (CTD), the project was 1.1 percent behind schedule and 3.5 percent under planned cost.

The current month schedule variance is within reporting thresholds.

The current month negative cost variance is primarily due to PBS RL-0011 progress on discrete deactivation and decommissioning (D&D) work scope (apportioned) while a constant staff provides D&D support services. Subcontracted labor support costs are higher than planned due to the extension of field work completion date, as a result of impacts from the discrete work scope falling behind schedule. Cost of consumable materials are more than planned due to the extended time frame that it is taking to complete discrete ready for demolition field work. In addition, delay in completion of the PFP Project to achieve slab on grade is also causing a needed extension of Min Safe and Maintenance resources without budgeted cost of work scheduled to support the remaining D&D work scope until the facility becomes demo ready. The variance is partially offset due to PBS RL-0041 reversal of an accrual processed in the prior period and invoices associated with processing of waste from an offsite subcontractor were less than anticipated in the period due to modifications of invoice/contract needed prior to final approval of costs.

FUNDING ANALYSIS

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

PBS	Project	FY2017		Variance
		Projected Funding	Spending Forecast	
Estimate at Complete				
RL-0011	Nuclear Materials Stabilization and Disposition	104.9	98.1	6.8
RL-0012	Spent Nuclear Fuel Stabilization and Disposition	36.6	36.3	0.3
RL-0012	15-D-401 Sludge Retrieval Project	57.8	40.0	17.8
RL-0013	Waste and Fuels Management Project	103.3	88.7	14.6
RL-0030	Soil, Groundwater and Vadose Zone Remediation	130.7	106.1	24.6
RL-0040	Nuclear Facility D&D, Remainder of Hanford	36.1	20.3	15.8
RL-0041	Nuclear Facility D&D, River Corridor	139.4	97.0	42.4
RL-0042	Fast Flux Test Facility Closure	3.9	1.5	2.3
Total Estimate at Complete		612.6	488.0	124.7
Incremental Scope Pending Change Management				
RL-0011	Nuclear Materials Stabilization and Disposition	0.0	7.0	(7.0)
RL-0012	Spent Nuclear Fuel Stabilization and Disposition	0.0	3.6	(3.6)
RL-0012	15-D-401 Sludge Retrieval Project	0.0	0.0	0.0
RL-0013	Waste and Fuels Management Project	0.0	14.6	(14.6)
RL-0030	Soil, Groundwater and Vadose Zone Remediation	0.0	24.6	(24.6)
RL-0040	Nuclear Facility D&D, Remainder of Hanford	0.0	14.8	(14.8)
RL-0041	Nuclear Facility D&D, River Corridor	0.0	34.4	(34.4)
RL-0042	Fast Flux Test Facility Closure	0.0	0.0	0.0
Total Incremental Work Scope		0.0	99.0	(99.0)
Total Fiscal Year Spend Forecast				
RL-0011	Nuclear Materials Stabilization and Disposition	104.9	105.1	(0.3)
RL-0012	Spent Nuclear Fuel Stabilization and Disposition	36.6	39.9	(3.3)
RL-0012	15-D-401 Sludge Retrieval Project	57.8	40.0	17.8
RL-0013	Waste and Fuels Management Project	103.3	103.3	(0.0)
RL-0030	Soil, Groundwater and Vadose Zone Remediation	130.7	130.7	0.0
RL-0040	Nuclear Facility D&D, Remainder of Hanford	36.1	35.0	1.1
RL-0041	Nuclear Facility D&D, River Corridor	139.4	131.4	8.1
RL-0042	Fast Flux Test Facility Closure	3.9	1.5	2.3
Total		612.6	586.9	25.7

Funds/Variance Analysis

FY2017 expected funding of \$612.6 million includes \$92.3 million of carryover funding and \$60.3 million of funding provided by Department of Energy, Richland Operations Office (RL) in advance of FY2017, and an expected new budget authority of \$460 million. The Spending Forecast is based on the final FY2017 PMB annual update submitted to RL on September 8, 2016, with updates through October.

BASELINE CHANGE REQUESTS

In October 2016, CHPRC approved and implemented 16 Baseline Change Requests (BCRs) into the Performance Measurement Baseline (PMB). Each change request is identified in the table below:

Change Request #	Title	PBS	Summary of Change
BCRA-PRC-17-005R0	<i>PRCBCR Log Reconciliation</i>	Multi	This BCR reconciled the PRCBCR Log to correct rounding error deltas. This BCR does not change the PMB value.
BCR-012C-17-003R0	<i>SRP Annex Equipment Installation MR Draw</i>	RL-0012	This BCR drew Management Reserve (MR) for previously unrecognized tasks that are consistent with the general scope of work of the contract and unexpected future growth within the currently authorized work scope. This BCR increased the PMB value by \$754K.
BCR-013C-17-001R0	<i>Convert W-135 Planning Packages to Work Packages</i>	RL-0013	This BCR converted FY2017 planning package scope for W-135 and incorporated the finalized WBS structure for the Capital project scope. This BCR does not change the PMB value.
BCR-013-17-003R0	<i>Convert W-135 Planning Packages to Work Packages (Non-CAP)</i>	RL-0013	This BCR converted FY2017 planning package scope for the W-135 OA scope and incorporated the finalized WBS structure for the OA project scope. This BCR does not change the PMB value.
BCR-030-17-001R0	<i>Incorporate CO #312 Biomobilization & Biointrusion Sampling & Analysis Plan</i>	RL-0030	This BCR incorporated the scope associated with the \$162K Not to Exceed (NTE) value for Change Order #312, <i>Biomobilization and Biointrusion Evaluation Sampling and Analysis Plan</i> . Change Order #312 authorized scope related to the planning, development, and approval process for the issuance of a Biomobilization and Biointrusion Evaluation Sampling and Analysis Plan (SAP). This BCR increased the PMB value by \$162K.
BCR-030-17-002R0	<i>RL-030 TPA Milestone Revisions</i>	RL-0030	This BCR incorporated updates to Tri-Party Agreement milestones that are assigned to RL-030. Changes based on the final approval package for the tentative agreement on Hanford Federal Facility Agreement and Consent Order revisions for Central Plateau cleanup. This BCR does not change the PMB value.
BCR-041C-17-002R0	<i>Incorporate Additional Scope for 300-296 Waste Site Design Revisions</i>	RL-0041	This BCR incorporated the <i>CO #305, 300-296 Waste Site Design Revision & Initiate Procurement, Testing, and Debris Removal</i> for authorized work scope from October 2016 through January 2017. This BCR increased the PMB value by \$5,590K
BCR-041C-17-003R0	<i>Incorporate DOE Direction for Capital/Operations Split for 100K Remediation</i>	RL-0041	This BCR transferred PBS RL-041 scope currently identified as Capital to Operations scope as directed by DOE. This BCR does not change the PMB value.
BCR-012C-17-001R0	<i>Incorporate FY2017 Performance Measures – SRP Project</i>	RL-0012	This BCR incorporated the Performance Evaluation Measurement Plan for FY2017 identified in PRC Modification #544. This BCR does not change the PMB value.
BCR-012C-17-002R0	<i>FY2017 Calendar Change – SRP Project</i>	RL-0012	This BCR corrected a calendar error for December 2016. Implementing this change affected four activities in the RL-12 CAP Project 15-D-401, Sludge Removal Project. This BCR does not change the PMB value.
BCR-041C-17-001R0	<i>FY2017 Calendar Change – RL-041 CAP 1</i>	RL-0041	This BCR corrected a calendar error for December 2016. Implementing this change affected one activity in the RL-41 CAP. This BCR does not change the PMB value.

Change Request #	Title	PBS	Summary of Change
BCR-PRC-17-002R0	<i>FY2017 Calendar Change – OA Projects</i>	Multi	This BCR corrected a calendar error for December 2016. Implementing this change affected 12 activities on the OA projects. This BCR does not change the PMB value.
BCRA-PRC-17-004R0	<i>HPIC Updates October 2016</i>	RL-0011, RL-0012, RL-0013, RL-0030, RL-0041, 000s	This BCR documented Hanford Programs Integrated Control Module (HPIC) changes made in October 2016. These changes include new work packages and Control Account Manager (CAM) changes. This BCR does not change the PMB value.
BCR-PRC-17-001R0	<i>Incorporate FY2017 Performance Measures – OA Projects</i>	RL-0012, RL-0013, RL-0030, RL-0040	This BCR added the Performance Measures to the PMB schedule. This BCR does not change the PMB value.

The Allocated (Distributed) Budget increased by \$6,506K.

Undistributed Budget Activity

BCR Number	Title	PBS	Fiscal Year	UB
BCR-041C-17-004R0	<i>PBS RL-0041 Undistributed Budget Adjustments October 2016</i>	RL-0041	2015 - 2018	\$2,000K
BCR-PRC-17-003R0	<i>Undistributed Budget Adjustments October 2016</i>	RL-0011, RL-0030	2015 - 2018	\$188K

The Undistributed Budget increased by \$2,188K.

Management Reserve Activity

BCR Number	Title	PBS	Fiscal Year	MR
BCR-012C-17-003R0	<i>SRP Annex Equipment Installation MR Draw</i>	RL-0012	2015 - 2018	-\$754K

Overall, there was a decrease in Management Reserve (MR) of \$754K during October.

Fee Activity

BCR Number	Title	PBS	Fiscal Year	Fee
N/A	N/A	N/A	2015 - 2018	N/A

Overall, there was no change to Fee 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 fiscal year. The PMB values of change requests are summarized by fiscal year in the tables below (dollars in thousands):

October 2016 Summary of Changes

	FY 2009-2013	FY2014	FY2015	FY2016	FY2017	FY2018	FYs 2014-2018	Contract Period Total	Total PMB
September 2016 Estimate									
PMB	3,391,477	391,653	471,323	504,826	472,751	409,153	2,249,705	5,641,182	5,641,182
MR	0	0	0	0	52,282	20,132	72,414	72,414	72,414
Fee	155,504	14,325	14,501	27,804	10,461	18,636	85,726	241,230	241,230
Total	3,546,981	405,978	485,824	532,630	535,493	447,921	2,407,846	5,954,826	5,954,826
October 2016 Change									
PMB									
Change to PMB	0	0	0	0	-26,259	34,953	8,694	8,694	8,694
MR									
Change to MR	0	0	0	0	-754	0	-754	-754	-754
Fee									
Change to Fee	0	0	0	0	0	0	0	0	0
Total Change	0	0	0	0	-27,013	34,953	7,940	7,940	7,940
October 2016 Estimate									
PMB	3,391,477	391,653	471,323	504,826	446,492	444,107	2,258,400	5,649,876	5,649,876
MR	0	0	0	0	51,528	20,132	71,660	71,660	71,660
Fee	155,504	14,325	14,501	27,804	10,461	18,636	85,726	241,230	241,230
Total	3,546,981	405,978	485,824	532,630	508,480	482,874	2,415,786	5,962,766	5,962,766

Changes to/Utilization of Management Reserve in October 2016

	FY2009-2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2014-2018	Total
September 2016 MR Totals								
RL-0011	0	0	0	0	7,288	0	7,288	7,288
RL-0012	0	0	0	0	9,891	4,553	14,445	14,445
RL-0013	0	0	0	0	10,946	2,381	13,327	13,327
RL-0030	0	0	0	0	12,959	3,250	16,208	16,208
RL-0040	0	0	0	0	2,923	665	3,588	3,588
RL-0041	0	0	0	0	8,022	9,178	17,200	17,200
RL-0042	0	0	0	0	252	105	357	357
Total	0	0	0	0	52,282	20,132	72,413	72,413
October 2016 MR Changes/Utilization								
RL-0011	0	0	0	0	0	0	0	0
RL-0012	0	0	0	0	-754	0	-754	-754
RL-0013	0	0	0	0	0	0	0	0
RL-0030	0	0	0	0	0	0	0	0
RL-0040	0	0	0	0	0	0	0	0
RL-0041	0	0	0	0	0	0	0	0
RL-0042	0	0	0	0	0	0	0	0
Total	0	0	0	0	-754	0	-754	-754
October 2016 MR Totals								
RL-0011	0	0	0	0	7,288	0	7,288	7,288
RL-0012	0	0	0	0	9,137	4,553	13,691	13,691
RL-0013	0	0	0	0	10,946	2,381	13,327	13,327
RL-0030	0	0	0	0	12,959	3,250	16,208	16,208
RL-0040	0	0	0	0	2,923	665	3,588	3,588
RL-0041	0	0	0	0	8,022	9,178	17,200	17,200
RL-0042	0	0	0	0	252	105	357	357
Total	0	0	0	0	51,528	20,132	71,659	71,659

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 - 10/31/2016				Planned Subcontracting:	\$2,564,285,972
Reporting Category				Contract-to-date awards:	\$2,446,513,046
				Bal remaining to award:	\$117,772,926
	\$ Value	%	Goal %	Goal award\$	Bal to Goal
SB	\$1,318,951,588	53.91%	49.3%	\$1,264,192,984	-\$54,758,604
SDB	\$229,586,248	9.38%	8.2%	\$210,271,450	-\$19,314,799
SWOB	\$256,491,914	10.48%	7.5%	\$192,321,448	-\$64,170,466
HUB	\$52,938,432	2.16%	2.2%	\$56,414,291	\$3,475,860
VOSB	\$181,873,317	7.43%	3.5%	\$89,750,009	-\$92,123,308
SDVO	\$103,988,498	4.25%	1.3%	\$33,335,718	-\$70,652,780
NAB	\$47,426,751	1.94%	N/A		
Large	\$637,785,283	26.07%	N/A	PRC clause H.20 small business requirement ≥ 17% of CHPRC Contract Price performed by SB.	
GOVT	\$2,655,849	0.11%	N/A		
GOVT CONT	\$482,866,522	19.74%	N/A		
EDUCATION	\$108,763	0.00%	N/A	CHPRC Contract Value:	\$5,732,255,464
NONPROFIT_	\$3,770,354	0.15%	N/A	17% rqmt:	\$974,483,429
FOREIGN	\$374,687	0.02%	N/A	SB actual:	\$1,318,951,588
Total	\$2,446,513,046	100.00%	N/A	Bal to rqmt	-\$344,468,159

Notes:

1. Since the CHPRC contract award in October 2008, CHPRC has subcontracted over \$2.4 billion in goods and services with over 53 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 six percent of the remaining expenditures arising from P-Card purchases and three 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	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

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
PFP Closure Project

October 2016
CHPRC-2016-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

The removal of plutonium-contaminated process equipment continued with a particular focus on removing gloveboxes, associated piping, and ductwork. All gloveboxes have been removed from E4 ventilation and all preparations for demolition starting in Plutonium Reclamation Facility (PRF) are complete.

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

Significant accomplishments in October included:

- Continued 236-Z PRF low-level, hazardous, and combustible waste cleanup and load-out.
- Air-gapped 236-Z PRF steam, condensate drain, instrument, and compressor process air lines.
- Completed 236-Z Miscellaneous Treatment (MT) Gloveboxes and Column Gloveboxes overhead removal by crane.
- Applied final fixative paint in 236-Z PRF South Canyon Airlock and Floors 1, 2, 3, 4, 5 and 6.
- Completed grouting of 236-Z PRF exterior Below-Grade Exhaust Duct Extension to 291-Z.
- Completed grouting 242-Z Sump Pit.
- Pumped Water from waterwalls in 234-5Z A Line and C Line.
- Initiated preparations to grout tunnels and trenches in 234-5Z.
- Abated 235 feet of asbestos.
- Removed or dispositioned in place 164 feet of process vacuum piping.
- Shipped 29m³ TRU/TRU-M Waste.
- Shipped 99m³ 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	-	232 gloveboxes/hoods
COMPLETE KPP Rooms/Areas Ready for Demo	-	60 rooms/areas
Asbestos/ACM Removed	235	26,616 feet
Process Vacuum Piping Dispositioned	164	5,389 feet
COMPLETE Process Transfer Line Dispositioned	-	1,525 feet
COMPLETE Pencil Tank Units Removed (Shipped)	-	196 pencil tank units
Buildings Ready for Demo	-	47 structures
Buildings Demolished or Removed	-	47 structures
Non-radioactive Waste Shipped	2m ³	76 m ³
TRU/TRU-M Shipped	29m ³	2,253 m ³
LLW/MLLW Shipped	99m ³	7,506 m ³

EMS Objectives and Target Status

Objective #	Objective	Targets	Actions	Due Date	Status
16-EMS-PFP-OB1-T1	Minimize emissions resulting from demolition of 234-5Z, 236-Z, 242-Z, and 291-Z.	Inspect 234-5Z, 236-Z, 242-Z, and 291-Z for the presence of asbestos containing materials (ACM) and produce a report identifying ACM requiring removal or abatement and methods for protecting remaining ACM from resulting in visible emissions.	1. Issue report documenting thorough inspection of 236-Z	08/16/16	100%
			2. Issue report documenting thorough inspection of 242-Z	05/26/16	100%
			3. Issue report documenting thorough inspection of 234-5Z	01/26/17	50%
			4. Issue report documenting thorough inspection of 291-Z	01/31/17	0%

TARGET ZERO PERFORMANCE

	Current Month	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	1	N/A
Total Recordable Injuries	1	2	<ul style="list-style-type: none"> 10/6/2016 – Employee states that as he was exiting the fourth floor of PRF, using Stairwell #1, he turned his left ankle. He was taken to HPMC, where he was examined and diagnosed as having a strain/sprain to his left ankle. A cold pack was administered and non-prescription medication was given. He was not released to return to work. Work restrictions are no walking on uneven surfaces, no respirator use, and no lifting, pushing, pulling, carrying above 10 pounds. He was taken to Physician Immediate Care for further evaluation. (24142)
First Aid Cases	10	67	<ul style="list-style-type: none"> 10/3/2016 – Employee states he was using a sawzall to cut the ceiling on the fourth floor. The sawzall was getting stuck in metal mesh, and he had to pull it free. He began to have a sore or stinging feeling in his right hand. He was taken to HPMC, where he was examined and diagnosed as having a sprain/strain to his right hand (not fingers). No treatment was given, and he was released to return to work without restriction. (24138) 10/12/2016 – Employee stated he started having pain in his shoulders, arms and wrists after he had worked in gloveboxes for many years. His current work in the Mask Station requires the use of his shoulders, arms, and wrists, and the pain has continued during his work at the Mask Station. He was taken to HPMC where he was examined and diagnosed as having sprains/strains to both shoulders, forearms, and wrists. He was released to return to work without restriction. The employee is transferring to another job where repetitive work activities are not anticipated. (24150) 10/12/2016 – Employee stated that while performing a bench monitor check, he felt a shock in his left hand. Investigation by electricians found electrical components from the instrument in water. The employee was taken to HPMC, where he was examined and diagnosed as having nonfatal electrical current shock to his left hand and fingers. Cardiac monitoring was conducted with no negative findings. Non-prescription medication was given. He was released to return to work without restriction. (24152) 10/13/2016 – Employee states he was draining the fluid out of door closures with a drill in preparation for demolition. During this process, he started to feel nauseous. The employee was taken to HPMC, where he was examined and diagnosed as having a potential exposure to chemical contaminants. Blood and urine tests were administered. The employee was released to return to work without restriction. (24153) 10/24/2016 – Employee was working at the counter at the Mask Station. He turned to pick up a piece of equipment and as he turned, he felt a sharp pain in his right knee. His knee seemed fine, so he did not report it to his supervisor. The next day, his knee was swollen and painful. He

	Current Month	Rolling 12 Month	Comment
			<p>was taken to HPMC, where he was examined and diagnosed as having sprain/strain to his right knee. No treatment was given, and he was released to return to work without restriction. (24167)</p> <ul style="list-style-type: none"> • 10/25/2016 – Employee states that when he was working in the Mask Station, he reached backward with his right arm to prevent a powered air purifying respirator (PAPR) unit from falling to the floor. He was taken to HPMC, where he was examined and diagnosed as having a strain/sprain to his right shoulder. He was released to return to work with a temporary restriction, which was changed to no lifting above shoulder height with the right arm and no other use of the arm with greater than 10 pounds. (24174) • 10/27/2016 – Employee states he reached to open the door between Room 235C and 235B at the same time someone else was coming through from the other side. The employee’s finger and hand were bent backward. He was taken to HPMC where he was examined and diagnosed as having a sprain/strain to his right wrist, hand and fingers. A cold pack was administered, a soft splint for support was applied and non-prescription medication was given. He was released to return to work with restrictions of limited use of his right hand, no lifting, carrying, pushing or pulling with right hand. (24176) • 10/26/2016 – Employee states that he noticed increased soreness of his feet, particularly the bottom of the left foot. The employee states that this has been a cumulative effect. The employee was directed to go to HPMC for evaluation and treatment. The employee was returned to work with no restrictions. (24177) • 10/31/2016 – Employee was in the process of conducting a walkdown and removing posted signs, when he began to notice what he described as a rubber cement/glue-like smell followed by dizziness and slight headache. Employee was taken to HPMC for evaluation and treatment and returned to work with no restrictions. (24181) • 10/31/2016 – Employee, along with another employee, were in the process of conducting a walkdown and removing posted signs, when the employee and partner began to notice what they described as a rubber cement/glue-like smell. No adverse effects were reported at the time, but the following morning, a burning sensation to both eyes along with redness and inflammation was reported. The employee was sent to HPMC for evaluation and treatment and was referred to an outside medical provider for additional evaluation and treatment. An investigative team smelled nothing, and no anomalous readings were detected. An additional entry was made, and the team reported smelling a musty-like/old building smell, but nothing chemical in nature. The source of the reported rubber cement/glue-like smell is unknown at this time. (24186)
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

RL-0011 Accomplishments

234-5Z

- Duct Level:
 - o Abated 235 feet of asbestos.
 - o Removed or dispositioned in place 164 feet of process vacuum piping.
 - o Pumped water from waterwalls in 234-5Z A Line and C Line.
 - o Initiated preparations to grout tunnels and trenches in 234-5Z.

PFP Waste Operations

- Shipped 29m³ TRU/TRU-M waste.
- Shipped 99m³ LLW/MLLW.
- Shipped 2m³ Non-Rad waste.

236-Z PRF

- Continued 236-Z PRF low-level, hazardous, and combustible waste cleanup and load-out.
- Air-gapped 236-Z PRF steam, condensate drain, instrument, and compressor process air lines.
- Completed 236-Z Miscellaneous Treatment (MT) Gloveboxes and Column Gloveboxes overhead removal by crane.
- Applied final fixative paint in 236-Z PRF South Canyon Airlock and Floors 1, 2, 3, 4, 5 and 6.
- Completed grouting of 236-Z PRF exterior Below-Grade Exhaust Duct Extension to 291-Z.

242-Z

- Completed grouting 242-Z Sump Pit.

PTS Accomplishments

- N/A

MAJOR ISSUES

Issue:

On October 24, 2016, a stop work was issued at PFP on the use of Mine Safety Appliance, OptimAir TL powered air purifying respirators (PAPRs). The stop work was the result of the discovery of paint inside the blower housing (past the filter). Upon further investigation, it was discovered that with the MSA OptimAir TL PAPR in configuration of using the chemical-OV cartridges in conjunction with the “bumper guard,” there was no seal between the filter and the blower, allowing air to bypass the filter.

Corrective Action:

- All in service MSA OptimAir TL PAPRs at PFP were removed from service.
- An intrusive survey of the internals of several PAPRs were conducted.
- New PAPRs were put into service.
- Initiated an investigation of the affected time period in which this configuration was utilized.

Status:

- Developing a list of affected employees.
- Collecting air sample data for the time period in which this configuration was worn.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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

-  Increased Confidence
-  No Change
-  Decreased Confidence

Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
RL-0011/WBS-011.OA										
Explanation of major changes to the project monthly spotlight chart: No major changes to the monthly spotlight chart in the month of October .										
Realized Risks (Risks that are currently impacting project cost/schedule)										
No realized risks identified for RL-0011 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 in the month of October .										
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)										
PFP-096: PPE availability or failed respirator equipment impacts planned D&D work	Due to old generation PPE, respirator equipment fails planned D&D work and impacts project with cost and schedule delays. Risk Handling Strategy: Accept Probability: Likely (75% to 90%) Worst Case Impacts: \$1,000K, 24 days			Risk Trigger: The project is currently experiencing respirator equipment failing due to old generation respirators. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Procure additional PPE with new generation respirator equipment.</td> <td>Ongoing</td> <td>Ongoing</td> </tr> </tbody> </table> Mitigation Assessment: The mitigation strategies have been put in place, as a result, the risk strategy is to accept with no further mitigation actions.	Mitigation action(s)	FC Date	%	Procure additional PPE with new generation respirator equipment.	Ongoing	Ongoing
Mitigation action(s)	FC Date	%								
Procure additional PPE with new generation respirator equipment.	Ongoing	Ongoing								
PFP-DEMO-24: Stop work from concerned workers	Concerned workers results in a stop work to address an off-normal or safety issue. The work cannot be restarted until the implementation of corrective actions is completed. Risk Handling Strategy: Accept Probability: Likely (75% to 90%) Worst Case Impacts: \$0K, 24 days			Risk Trigger: The project is currently experiencing stop work from concerned workers due to SCBA cylinders, failed respirator equipment, chemical concerns, contamination events, and jurisdictional issues. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> Mitigation Assessment: The mitigation strategies have been put in place, as a result, the risk strategy is to accept with no further mitigation actions.	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 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	3.5	1.9	7.5	-1.6	-46.5	-5.7	-305.4

Numbers are rounded to the nearest \$0.1 million.

CM Schedule Variance: (-\$1.6M/-46.5%)

The current month unfavorable schedule variance is primarily the result of delay in progress on discrete demolition activities due to delays in readying the major PFP facilities (236-Z, 242-Z, and 234-5Z) for demolition. Also, work scope associated with the demolition of 234-5Z and 291-Z not being performed as originally scheduled contributed to the variance. The demolition of these facilities has been delayed due to resources being redirected to support ready for demolition activities associated with 234-5Z, 242-Z and 236-Z (other project critical path work). Full scale demolition of 236-Z is scheduled to begin in early November. This is partially offset by the hoisting and removal of the gloveboxes and completion of hazardous materials removal in 236-Z.

CM Cost Variance: (-\$5.7M/-305.4%)

The current month unfavorable cost variance is primarily the result of progress on discrete deactivation and decommissioning (D&D) work scope (apportioned) while a constant staff provides D&D support services. Subcontracted labor support costs are higher than planned due to the extension of field work completion date, as a result of impacts from the discrete work scope falling behind schedule. Cost of consumable materials are more than planned due to the extended time frame that it is taking to complete discrete ready for demolition field work. Additional Personal Protective Equipment (PAPRs, SCBA, etc.) to support implementation of more stringent radiological controls requirements are also contributing to the variance. In addition, delay in completion of the PFP Project to achieve slab on grade is also causing a needed extension of Min Safe and Maintenance resources without budgeted cost of work scheduled to support the remaining D&D work scope until the facility becomes demo ready. Also contributing to the variance are extra teams being assigned to complete demolition preparation activities in support of the PRF Ready for Demolition milestone.

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)	Variance at Completion (VAC)
Total	968.4	917.1	952.6	(51.3)	-5.3%	(35.5)	-3.9%	979.9	1,037.8	(58.0)

Numbers are rounded to the nearest \$0.1 million

Contract-to-Date (CTD) Schedule Variance (-\$51.3M/-5.3%)

The CTD unfavorable schedule variance relates to re-sequencing of D&D discrete work to align with availability of D&D workers causing a delay in start of work on 242-Z activities. Also contributing to the variance, the 234-5Z Backside Rooms team was assigned to higher priority work scope associated with unplanned door modifications, which supported the in-situ size reduction efforts on the HC-9B and HA-9A Gloveboxes located in 234-5Z. Delays have been caused by Stop Works on discrete D&D work associated with Beryllium, tight fitting masks, demister, weather (heat), PremAire breathing air systems and suits, chemical smells, contamination cleanup efforts as a result of a malfunctioning criticality alarm system, and radiological events. Also, duct level characterization, process vacuum, transfer and drain line teams were previously assigned to perform other critical path work in the 236-Z PRF, 242-Z Americium Facility, and Remote Mechanical A (RMA)/ Remote Mechanical C (RMC) key performance parameters (KPP) glovebox removal work efforts. As a result of this realignment of plant priorities and changing approach (area vs. system) to performing work within the balance of 234-5Z, characterization, and process equipment (e.g., ducting, piping, filter box etc.) removal is lagging. In addition, progress on the D&D project management Work Breakdown Structure (WBS) element is apportioned to the discrete D&D work scope and contributes to this variance. Impacts have also been recognized resulting from a chemical reaction when working on the PRF canyon floor cleanup efforts, failure of the PRF Canyon Crane, increased characterization efforts for safeguards termination issues, impacts from a contamination event resulting from a false criticality alarm during preventive maintenance activities, cleanup of a contamination event in 234-5Z, Room 264, delays in electrical isolations in PRF, and greater than anticipated efforts to prepare the PRF canyon for demolition. This is partially offset by completion of E4 characterization and scope avoidance as a result of favorable results from room characterization, removal of gloveboxes in PRF, and demolition of 2727-Z and 2729-Z facilities.

CTD Cost Variance (-\$35.5M/-3.9%)

The Cost Variance is within reporting thresholds.

Variance at Completion (-\$58.0M/-5.9%)

The Variance at Completion unfavorable variance is reflective of previous inability to achieve 20 percent increased efficiency associated with time on respirator as assumed in the baseline plan. The Collective Bargaining Agreement was accepted and recognized efficiencies are continuing to be recognized with more time on mask and implementation of the value engineering initiatives associated with high mass gloveboxes and grouting. In addition, characterization data in the 234-5Z duct level is allowing piping and ducting to be left in place for demolition. The variance at completion is reflective of PFP's current projected date to reach slab on grade no later than September 30, 2017.

Contract Performance Report Formats are provided in Appendix A.

FUNDS vs. SPEND FORECAST (\$M)

WBS 011/RL-0011 Nuclear Matl Stab & Disp PFP	FY2017		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	104.9	98.1	6.8
Incremental Scope Pending Change Management	0	7.0	(7.0)
RL-0011 - Total	104.9	105.1	(0.2)

Numbers are rounded to the nearest \$0.1 million

Funds/Variance Analysis

Fiscal year (FY) 2017 expected funding for PBS RL-0011 is \$104.9 million. The Fiscal Year Spend Forecast (FYSF) for October is \$98.1 million. The funds for estimate to complete (ETC) for regular scope are adequate to support current work. Continuing to recognize efficiencies will be necessary to support slab removal.

Critical Path Schedule

The PFP Critical Schedule Path is a resource-driven float path in which the critical path starts Asbestos abatement throughout 234-5Z. Once this is complete, final Cold & Dark activities, which leads 234-5Z to be ready for demolition. Demolition of 234-5Z will occur in the following sequence: 234-5ZA, Frontside, A-Labs, Backside Rooms/Plutonium Process Support Laboratories (PPSL), RMA Process Lines, RMC Process Lines, and the RADTU & Basement areas. Once the 234-5Z and 291-Z facilities have been demolished, the Tri-Party Agreement milestone – M-083-00A - *PFP Facility Transition and Selection Disposition Activities* will have been met.

MILESTONE STATUS

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

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-083-00A	PFP Facility Transition and Selection Disposition Activities	09/30/17		7/6/2017	During the month of October, the PFP project gained 19 days on the schedule from the September month end forecast completion date of the Tri-Party Agreement milestone for the PFP Project to reach Slab on Grade. This is as a result of realignment of the remaining activities in the FES to reach ready for demolition status in the 234-5Z facility. As the PFP Project continues to make progress on the behind schedule critical path work scope being performed, efficiencies will continue to be evaluated and implemented to recover schedule delays.

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	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

Description	CHPRC Delivery Date	RL Due Date
RL Review of Demolition Checklist (Administrative)	08/16/16 (A)	11/10/16
RL Sign Rev. 0 of Demolition Checklist (Administrative)	11/29/16	12/28/16

Section B

Spent Nuclear Fuel Stabilization and Disposition (RL-0012)



R. M. Geimer
Vice President for
K Basin Operations and
Plateau Remediation
(KBO&PR)

M. A. Wright
Vice President for
Project Technical
Services

October 2016
CHPRC-2016-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

1. Based upon discussions between RL and CHPRC Senior Management, the Sludge Treatment Plant (STP) Team has modified the field execution schedule (FES) to implement acceleration opportunities that could potentially facilitate the transfer of all sludge to T Plant in FY2018. In order to meet the accelerated schedule, support from CHPRC and RL is required for the following assumptions:
 - Significant overtime/weekend work will be required to reduce schedule duration
 - Reduced approval time on safety documentation
 - CD-4 approval will occur concurrently with sludge retrieval operations
 - Approval of integrated DSA will occur within 120 days of submittal
2. The 100K Operations group continued maintaining facilities in a safe and compliant condition, supporting continued debris dose mapping and relocation activities in 105KW Basin and performance of several monthly and quarterly routines during the period. In addition, support has been provided to Sludge Removal Project (SRP) for Annex/ In-Basin equipment installation and facility modifications.
3. The effort to retrieve and containerize the sludge pile in the KW Basin Center Bay discovered during debris mapping continues as resources allow.
4. The DOE Safety Basis Review Team (SBRT) has started their review of the 105K West Facility DSA and TSR. The SBRT is working directly with the CHPRC Nuclear Safety staff to answer questions and resolve comments during the review period. The review is on schedule with an expected approval in February 2017. The DSA/TSR must be approved and implemented prior to K Basin Preoperational Acceptance Testing (KPAT) activities that transfer 105KW Basin water into the 105KW Annex.
5. Project comments have been incorporated into the structural chapter for the One-Time Request for Shipment (OTRS). The acceptance test, packaging quality assurance and operations procedure chapters are in management review. The tiedown, criticality, gas generation, containment and thermal chapters are complete. The development of the OTRS is on schedule.

EMS OBJECTIVES AND TARGET STATUS

None currently identified.

TARGET ZERO PERFORMANCE

	CM Quantity	Rolling 12 Month	Comment
Dart Injuries	0	0	N/A
Recordable Injuries	0	2	N/A
First Aids	3	16	<ul style="list-style-type: none"> • 10/06/16: While using a utility knife to open a source box, the knife slipped, cutting a finger. Body part affected: L. index finger (24140) • 10/17/16: While working in a contaminated area, employee became overheated and became nauseated. Body part affected : Abdomen (24154) • 10/27/16: While moving a cart carrying materials, employee developed low back pain: Body part affected: Low back (24175)
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

RL-0012 Accomplishments

KW Basin Sludge Retrieval Capital Assesment Project

- Engineered Container Retrieval and Transfer System (ECRTS) Process Equipment Procurement:
 - o Procurement Set #7: 105KW Annex, Stack Monitoring System – The final data package was formally approved and the production system hardware was delivered to Acquisition Verification Services (AVS).
 - o Procurement Set #8: Sludge Transport & Storage Container (STSC) Vessels – Currently no additional progress has been made to clean additional STSCs, as this work is on hold pending completion of the free iron contamination causal analysis. Pending evaluation of the causal analysis, RL authorized CHPRC to resume fabrication on a limited work scope on STSC 414-424, which are currently being fabricated at ABW Technologies, Inc. Significant progress continues to be made on the iron contamination causal evaluation.
 - o Procurement Set #9: Safety Significant STSC Assemblies (Instrumentation & Appurtenances) – HiLine received STSC 410-413 and will begin installation of instrumentation and appurtenances. HiLine completed their review of the Becht Engineering technical document deriving the seismic response spectra that will be utilized for seismic testing and submitted this document to CHPRC for review/approval.
 - o Warranty Work on Transfer System and Density-Flowmeter Instrument Spools – Khrono Company shipped the instrument assemblies from England to Massachusetts to the calibration lab in California. The calibration lab immediately began calibration setups and the current plan has these instruments arriving in Richland in early November.
- Maintenance and Storage Facility (MASF) Preoperational Acceptance Test (MPAT) Execution:

- o The MASF Testing Team continues to focus on restoration of the ECRTS Test Article Loop to facilitate recommencing operations staff training later this calendar year. Efforts continued to produce the MPAT Final Test Report and prepare for the K-Basin Preoperational Acceptance Test (KPAT) at the 105KW Basin/Annex early next calendar year.

PTS Accomplishments

- KW Annex Construction
 - o Completed the installation of the 212-degree fusible links on the overhead (OH) door and conducted the OH door drop test.
 - o Rough Set 8 of 9 pieces of the Engineered Container Retrieval and Transfer System (ECRTS) process mechanical and electrical equipment on the mezzanine.
- KW Basin In Basin Modifications Construction
 - o Completed Installation of both Transfer System Booster Pumps, one located in the Center Bay and the other in the East Bay.
 - o Completed restoration of permanent facility handrail around all opening modified for the installation of ECRTS process equipment, completed the installation of the toe boards and restoration of the facility handrail.
 - o Installed the Hydrolance Deployment Beam.
 - o Erected the majority of the scaffolding in the Basin to support the conduit and cable installation.
- T Plant Modification Construction
 - o Ordered all Safety Significant material associated with the Nitrogen Purge System. Estimated delivery timeframe is late November. Expediting efforts are underway to accelerate delivery.
 - o Completed voltage verifications pre-CAT annunciator checks on the leak detection system and performed annunciator panel trouble shooting. Also completed voltage verifications on the newly installed receptacles on the water addition system.

MAJOR ISSUES

T Plant

Issue:

T Plant Construction is experiencing an approximate 2.5-month schedule delay:

- 1) The T Plant Design Authority (DA) is requiring replacement of the existing ball valve with a needle valve on the Nitrogen System, which will enable regulation of the flow.
- 2) ECRTS Engineering is evaluating recommendation by corrosion experts that suggest modification is required to the installed T Plant water addition system; and
- 3) Completion of the updated Nitrogen System Acceptance Test Procedure (ATP) is still in engineering development and then needs final approval by the DA.

Corrective Actions:

- 1) Order and expedite delivery of the general service components, the “needle valve,” and safety significant components to minimize construction installation delays.
- 2) ECRTS Engineering to complete the corrosion evaluation and initiate design change for the installed water system and applicable CAT changes.
- 3) ECRTS Design Agent and T Plant DA expedite completion of Nitrogen ATP development and final approval.

Status:

- 1) GS material and “Needle Valve” has been procured, receipt inspected and is available for installation.

- 2) Engineering is developing a design change to add a vent so they can drain the system without back-flowing water from the Canyon to the Ops Gallery.
- 3) ECRTS Title III Engineering Manager will meet with T Plant DA to formulate path forward to expedite Nitrogen ATP completion and approval.

Sludge Removal Project**Issue:**

Based upon iron contamination discoveries in STSC 402, 403, and 410-413, ABW has been instructed to conduct free iron testing of STSC 404-409.

Corrective Action:

ABW and CHPRC Technical Staff have developed procedures to aggressively remove iron contamination from STSCs and validate cleanliness via free iron testing of all 12 STSCs fabricated in FY2016 (first production run).

Status:

1. STSC 410-413 were cleaned, retested, and accepted by CHPRC.
2. STSC 404-409 have been shipped back to Arlington, WA, for testing, cleaning, and retesting, as appropriate. This work scope is on hold until CHPRC and ABW reach agreement on the change order submitted for testing, cleaning, and retesting STSC 410-413.
3. STSC 402-403 remain at HiLine (with instrumentation/appurtenances installed) and will be tested/cleaned/retested by HiLine personnel due to the difficulty/expense of returning these vessels to Arlington, WA, with instrumentation/appurtenance installed.
4. CHPRC is preparing a causal analysis, which is forecast to complete in November.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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

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

	Unmitigated Risk Impacts	Assessment		Comments																																
		Month	Trend																																	
RL-0012/WBS-012																																				
Explanation of major changes to the project monthly stoplight chart:																																				
No major changes to the monthly stoplight chart in the month of October .																																				
Realized Risks (Risks that are currently impacting project cost/schedule)																																				
STP-072: Delayed STSC/ECRTS Procurement & Delivery	Material delivery and fabrication issues at ECRTS vendor facilities delay the delivery of the components to the STP resulting in cost impacts and schedule delays. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$3,000K 120 days	●	↑	Risk Event: Event 1: This risk has been realized. Rust was discovered in STSCs. As a result, additional testing and cleaning is required to quantify and correct this condition. Event 2: Due to leak test failures encountered on the TLSB expansion joints, engineering processed a design change to revise the design to replace the expansion joint with a pipe spool. The late change and downstream procurement effort has pushed related installation activities onto project critical path. Event 3: Due to failure of two instrument spool mass flow meters during MPAT, replacement instrument spools had to be procured from Khrono Company in England. Due to slips in the delivery to the Hanford Site, testing at MASF and installation in the 105KW Basin have been delayed and are now on critical path. <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="text-align: center;">Risk recovery action(s)</th> <th style="text-align: center;">Risk Date</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr> <td>Re-plan Field FES activities to include a process of cleaning and delivery.</td> <td style="text-align: center;">07/22/16</td> <td style="text-align: center;">11/30/16</td> <td style="text-align: center;">80</td> </tr> <tr> <td>Procure replacement spool and install in TLSB</td> <td style="text-align: center;">09/01/16</td> <td style="text-align: center;">11/9/16</td> <td style="text-align: center;">25</td> </tr> <tr> <td>Deliver to 100K Area</td> <td style="text-align: center;">09/01/16</td> <td style="text-align: center;">11/9/16</td> <td style="text-align: center;">0</td> </tr> <tr> <td>Install in 105KW Annex</td> <td style="text-align: center;">09/01/16</td> <td style="text-align: center;">11/30/16</td> <td style="text-align: center;">0</td> </tr> <tr> <td>Procure replacement instrument spools</td> <td style="text-align: center;">05/31/16</td> <td style="text-align: center;">11/3/16</td> <td style="text-align: center;">80</td> </tr> <tr> <td>Test at MASF</td> <td style="text-align: center;">05/31/16</td> <td style="text-align: center;">12/12/16</td> <td style="text-align: center;">0</td> </tr> <tr> <td>Install in 105KW Basin</td> <td style="text-align: center;">05/31/16</td> <td style="text-align: center;">12/29/16</td> <td style="text-align: center;">0</td> </tr> </tbody> </table> Recovery Action Assessment: Contracting with NACE Certified SME to provide technical support in establishing acceptance criteria and monitoring progress to achieve receipt acceptance criteria. Testing has demonstrated that the use of Nitric Acid and pickling jell does appear to provided improved results leading to iron free vessels. STSCs 410-413 were successfully cleaned and shipped to the Hanford Site. ABW is on hold for further cleaning until a Change Order for STSCs 410-413 is settled with CHPRC, explaining the slip in completion date. The causal analysis report and change order are forecast to complete by 11/30/16.	Risk recovery action(s)	Risk Date	FC Date	%	Re-plan Field FES activities to include a process of cleaning and delivery.	07/22/16	11/30/16	80	Procure replacement spool and install in TLSB	09/01/16	11/9/16	25	Deliver to 100K Area	09/01/16	11/9/16	0	Install in 105KW Annex	09/01/16	11/30/16	0	Procure replacement instrument spools	05/31/16	11/3/16	80	Test at MASF	05/31/16	12/12/16	0	Install in 105KW Basin	05/31/16	12/29/16	0
Risk recovery action(s)	Risk Date	FC Date	%																																	
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Install in 105KW Basin	05/31/16	12/29/16	0																																	

Unmitigated Risk Impacts	Assessment		Comments								
	Month	Trend									
RL-0012/WBS-012											
<p>STP-111-B: Contractor/Subcontractor Performance - ECRTS Annex/In-Basin Equip. Installation</p> <p>The General Conditions Contractor and their supporting subcontractors have historically performed poorly and will be challenged on this project by compliance with project and contract flow down requirements (e.g., quality, nuclear standards, site safety requirements, subcontract management to ensure contract requirements are met, NRTL compliance, suspect counterfeit, Buy-American contract clause, Project Controls requirements, development of Construction Acceptance Testing [CAT], timely processing of submittals compliance with all the subcontract flow down requirements) as well as deployment and maintenance of key staff that are essential to safe, cost effective and on-time project delivery.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Very Likely (> 90%)</p> <p>Worst Case Impacts: \$792K, 96 days</p>	●	↔	<p>Risk Event: The contractor has responded to CH requests, hired an additional Field Work Supervisor and Project Engineer, and rearranged their Org Chart to increase efficiency of managing the project. This has helped the contractor turn in change order proposals on time and significantly decrease the amount of delinquent change order proposals as well as increase efficiency of work being done on equipment install. Material procurements continue to affect field execution.</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>Contractor delays due to inadequate staffing/mobilization. Will work with contractor to stabilize work resource planning.</td> <td>5/17/16</td> <td>Ongoing</td> <td>NA</td> </tr> </tbody> </table> <p>Recovery Action Assessment: This is a reoccurring risk relating to the performance of the General Contractor and their supporting subcontractors. The CHPRC project team continues to work with their subcontractors to ensure the contractors are thoroughly aware of their project responsibilities and have the opportunity to complete their project scope successfully. Mitigation actions are in place that are expected to reduce the probability of the risk occurrence and reduce the potential cost and schedule impact, and the risk will continue to be monitored. No additional mitigation actions have been identified at this time.</p>	Risk recovery action(s)	Risk Date	FC Date	%	Contractor delays due to inadequate staffing/mobilization. Will work with contractor to stabilize work resource planning.	5/17/16	Ongoing	NA
Risk recovery action(s)	Risk Date	FC Date	%								
Contractor delays due to inadequate staffing/mobilization. Will work with contractor to stabilize work resource planning.	5/17/16	Ongoing	NA								
<p>STP-123-B: Design Maturity - ECRTS Annex/In-Basin Equip.</p> <p>Finalization of design media for the ECRTS equipment installation will result in changes to both cost and schedule.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Medium (26% to 74%)</p> <p>Worst Case Impacts: \$912K, 64 days</p>	●	↑	<p>Risk Event: The project realized additional cost and schedule impacts in October as a result of missing design details for KW Modified Annex ALARA Design Review Checklist (DCN-068). The project has realized this risk. The project will design, procure, fabricate and install SRP Cask Leak Tester Panel at the Annex Facility utilizing a vacuum decay leak test as a change in method of performance.</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>Release Shielding Calculations and KW Modified Annex ALARA Design Review Checklist (068)</td> <td>12/16/12</td> <td>12/31/16</td> <td>90</td> </tr> </tbody> </table> <p>Recovery Action Assessment: During the weekly engineering meetings, the project identifies and reviews DCNs and define a path forward for the pending changes. A Title III Engineering manager has been hired to coordinate the design changes with the construction group. A BCR requesting management reserve for Cask Leak Test work is projected to be submitted in November of 2016. The risk will continue to be monitored by the project. No additional mitigation actions have been identified at this time.</p>	Risk recovery action(s)	Risk Date	FC Date	%	Release Shielding Calculations and KW Modified Annex ALARA Design Review Checklist (068)	12/16/12	12/31/16	90
Risk recovery action(s)	Risk Date	FC Date	%								
Release Shielding Calculations and KW Modified Annex ALARA Design Review Checklist (068)	12/16/12	12/31/16	90								
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)											
No critical risks identified in the month of October.											

Unmitigated Risk Impacts		Assessment		Comments															
		Month	Trend																
RL-0012/WBS-012																			
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)																			
FY2018 Risk Triggers (Risk could be realized in FY2018)																			
STP-018-O: STP Operational Upset or Spill - During 1st STSC	An operational upset or spill results in a work shutdown at K Basins, resulting in schedule delays. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$1.3 million, 96 days	●	↔	<p>Risk Trigger: 1) An operational upset or spill results in work shutdown at K Basin. This risk will commence in FY2018 and continue throughout project lifecycle until 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>10/11/17</td> <td>0</td> </tr> <tr> <td>Conduct testing and training at MASF and develop procedures that use the information and knowledge gained during the activity for use at the KW Basin.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No major changes in the month of October. Forecasted mitigation dates are consistent with overall STP critical path schedule. Training and procedure development will continue into FY2018. It will complete prior to completion of management self-assessment affidavits in December 2017.</p>	Mitigation action(s)	FC Date	%	Conduct rigorous startup testing following system installation at the 105KW Basin and Annex.	10/11/17	0	Conduct testing and training at MASF and develop procedures that use the information and knowledge gained during the activity for use at the KW Basin.	Ongoing	N/A						
Mitigation action(s)	FC Date	%																	
Conduct rigorous startup testing following system installation at the 105KW Basin and Annex.	10/11/17	0																	
Conduct testing and training at MASF and develop procedures that use the information and knowledge gained during the activity for use at the KW Basin.	Ongoing	N/A																	
STP-073-C: Processing Efficiency - Retrieval & Shipping, During 1st STSC	The realized processing efficiency associated with sludge retrieval and shipping operations does not match baseline plan. Risk Handling Strategy: Accept Probability: Low (10% to 25%) Worst Case Impacts: \$0K, 8 days	●	↔	<p>Risk Trigger: 1) Actual processing efficiency associated with sludge retrieval and shipping operations does not match baseline assumptions. This risk will commence in FY2018 beginning with operations campaign.</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 production system installation at 100K. No foreseeable impacts in the near future and no alternative course of actions 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																	
STP-103: K Basin Pre-Operational Acceptance Testing (KPAT) & ECRS Startup	The ECRS equipment does not operate as expected requiring increased engineering, startup, operations, and construction Firm Fixed Price contractor support; as well as equipment replacement, procurement, and retesting. Realization of this risk would also require additional training, procedure revision, and design modifications as a result 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	●	↔	<p>Risk Trigger: 1) The ECRS equipment does not operate as expected. 2) Unexpected attrition of critical testing personnel.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Develop and refine procedures based upon feedback from testing and operations personnel.</td> <td>3/15/17</td> <td>25</td> </tr> <tr> <td>Develop streamline strategy (work packages and procedures) to perform in-basin/annex integrated testing and troubleshooting.</td> <td>3/15/17</td> <td>10</td> </tr> <tr> <td>Utilize Overtime to offset schedule impacts.</td> <td>As Needed</td> <td>N/A</td> </tr> <tr> <td>Closely monitor employee satisfaction and consider employee incentive to retain key test personnel.</td> <td>As Needed</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No major changes in the month of October. Forecasted mitigation dates are consistent with overall STP critical path schedule.</p>	Mitigation action(s)	FC Date	%	Develop and refine procedures based upon feedback from testing and operations personnel.	3/15/17	25	Develop streamline strategy (work packages and procedures) to perform in-basin/annex integrated testing and troubleshooting.	3/15/17	10	Utilize Overtime to offset schedule impacts.	As Needed	N/A	Closely monitor employee satisfaction and consider employee incentive to retain key test personnel.	As Needed	N/A
Mitigation action(s)	FC Date	%																	
Develop and refine procedures based upon feedback from testing and operations personnel.	3/15/17	25																	
Develop streamline strategy (work packages and procedures) to perform in-basin/annex integrated testing and troubleshooting.	3/15/17	10																	
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)																			
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. If contract direction is given to accommodate the acceleration opportunities to the SRP project and the transfer of all sludge to T Plant is incorporated into FY2018, then CHPRC would re-assume ownership of these risks.																			

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	4.7	5.0	0.2	3.9%	-0.3	-5.5%

Numbers are rounded to the nearest \$0.1 million

CM Schedule Performance (+\$0.2M/+3.9%)

The variance is within reporting thresholds.

CM Cost Performance (-\$0.3M/-5.5%)

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)	Variance at Completion (VAC)
Total	627.2	628.4	602.6	1.2	0.2%	25.8	4.1%	737.8	711.4	26.4

Numbers are rounded to the nearest \$0.1 million

CTD Schedule Performance (+\$1.2M/+0.2%)

The variance is within reporting thresholds.

CTD Cost Performance (+\$25.8M/+4.1%)

The variance is within reporting thresholds.

Variance at Completion (+\$26.4M/+3.6%)

The variance is within reporting thresholds.

Contract Performance Report Formats are provided in Appendix A.

FUNDS vs. SPEND FORECAST (\$M)

RL-0012 Spent Nuclear Fuel Stabilization and Disposition	FY2017		Variance
	Projected Funding	Spending Forecast	
Expense - Spending Forecast	36.6	36.3	0.3
Incremental Scope Pending Change Management	0.0	3.6	(3.6)
Expense - Subtotal	36.6	39.9	(3.3)
Line Item	57.8	40.0	17.8
Incremental Scope Pending Change Management	0.0	0.0	0.0
LI -Subtotal	57.8	40.0	17.8
RL-0012 – Total	94.4	79.9	14.5

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis

FY2017 projected funding for project breakdown structure (PBS) RL-0012 is \$94.4 million. A BCR is planned for November to move the RL-00012.C1 other project cost from Expense to Line Item eliminating the current projected overrun.

Critical Path Schedule

The critical path flows through disassembly, cleaning, and inspection of the ECRTS production hardware test loop at MASF, transporting that hardware to 100K, installation of process equipment in the 105K West Basin and Annex, acceptance testing (KPAT) of the installed process equipment, readiness activities, and finally, containerized sludge retrieval operations. Completing retrieval operations, including the filling of STSCs with sludge and transferring them to T Plant, to complete Tri-Party Agreement milestone M-016-176, *Complete Sludge Removal from 105-KW Fuels Storage Basin*, is outside the current contract period in FY2019.

MILESTONE STATUS

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

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-016-175	Begin Sludge Removal from 105KW Fuel Storage Basin.	9/30/2018		8/24/2018	The forecast date includes schedule margin from the project's risk analysis. Project schedule margin is 123 days.
M-016-177	Complete installation of sludge transfer equipment in K West Reactor facilities	9/30/2017		8/03/2017	The forecast date does not include schedule margin.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	RL Due Date
RL Provide Comments of Integrated DSA/TSR in RCR	10/20/16 (A)	12/22/16
RL Approve Rev. 1 of Document RL-2011-15	11/13/16	11/28/16

Section C

Solid Waste Stabilization and Disposition (RL-0013)



C. J. Simiele
Vice President for
Waste and Fuels
Management Project
(W&FMP)

M. A. Wright
Vice President for
Project Technical
Services

October 2016
CHPRC-2016-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

The Waste and Fuels Management Project (W&FMP) maintained facilities in a safe and compliant condition. Overall, the project is delivering planned efficiencies, but continues to be impacted by emerging work and realized risks. This month, W&FMP Waste Encapsulation and Storage Facility (WESF) Stabilization and Ventilation Project (W-130) completed core drilling in A Cell airlock to create vent path in Hot Pipe Trench for grouting. Core drilling is 100% complete. The Hazard Review Board approval of Grout Leak Detection and Recovery work package has been completed as well as the approvals for the grout contamination control recovery plan. Department of Energy-Facility Representative Management conducted a tour of Canister Storage Building and Interim Storage Area.

EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
17-EMS-WFMP-OB1-T1	Implement the requirement to provide a "full printed name" in CHPRC Waste & Fuels controlled Resource Conservation and Recovery Act of 1976 (RCRA) inspection work packages and procedures	<ul style="list-style-type: none"> Review W&FMP inspection procedures, checklists, and work packages/PMs which implement RCRA inspection criteria for direction to use full printed name. Initiate modifications to necessary procedures, checklists, and work packages/PMs which implement RCRA inspection criteria to include the full printed name. 	5/12/17 9/28/17	
17-EMS-WFMP-OB2-T1	Implement 40 CFR 265 regulatory requirements identified by the Compliance Matrix for T Plant and Central Waste Complex at the project level.	<ul style="list-style-type: none"> Review the applicable 40 CFR 265 requirements to verify the implementing mechanisms and methods and to identify compliance gaps. Resolve identified gaps by initiating modifications to procedures into the PPS system. 	5/31/17 9/30/17	
17-EMS-WFMP-OB3-T1	Ensure W&FMP procedures inspection forms, checklists, and work packages which implement RCRA inspection requirements are capturing the RCRA inspection requirements and are appropriately located in the facility operating record.	<ul style="list-style-type: none"> Review all inspection procedures, checklists, and work packages to identify which are used to meet RCRA inspection requirements. Initiate updates into PPS and/or JCS systems to ensure RCRA inspection requirements are met and documentation is appropriately placed into the facility operating record. 	5/31/17 9/30/17	

TARGET ZERO PERFORMANCE

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	3	3	<ul style="list-style-type: none"> 10/10/2016 – MSA matrixed employee (driver) was not wearing seat belt, which caused employee’s body to hit the steering wheel and head to hit the visor when truck’s snowplow attachment caught the edge of pavement while driving on an unapproved road, bringing the vehicle to an abrupt stop. (24147) 10/10/2016 – MSA matrixed employee (passenger) strained neck due to truck’s snowplow attachment catching the edge of pavement, bringing the vehicle to an abrupt stop. (24145) 10/10/2016 – MSA matrixed employee (passenger) strained lower back due to truck’s snowplow attachment catching the edge of pavement, bringing the vehicle to an abrupt stop. (24146)
Total Recordable Injuries	4	4	<ul style="list-style-type: none"> 10/10/2016 – MSA matrixed employee (driver) was not wearing seat belt, which caused employee’s body to hit the steering wheel and head to hit the visor when truck’s snowplow attachment caught the edge of pavement while driving on an unapproved road, bringing the vehicle to an abrupt stop. (24147) 10/10/2016 – MSA matrixed employee (passenger) strained neck due to truck’s snowplow attachment catching the edge of pavement, bringing the vehicle to an abrupt stop. (24145) 10/10/2016 – MSA matrixed employee (passenger) strained lower back due to truck’s snowplow attachment catching the edge of pavement, bringing the vehicle to an abrupt stop. (24146) 10/11/2016 – Employee was stung by a bee. (24148)
First Aid Cases	5	*21	<ul style="list-style-type: none"> 10/4/2016 – Employee felt a strain in stomach/groin area. (24139) 10/11/2016 – Employee had an unusual red mark under eye. (24144) 10/12/2016 – Employee strained right wrist trying to open door. (24151) 10/18/2016 – Employee strained right knee on a side rack. (24160) 10/24/2016 – Employee’s right ear was plugged, affecting hearing after removing hearing protection gear. (24170) <p>*1 First Aid case, PTS in support of RL-0013.</p>
Near Misses	0	1	N/A

KEY ACCOMPLISHMENTS

13.01 Project Management

- o Submitted Change Proposal CP 013 1626, Revision 0, Contractor Requirements Document (CRD) 474.2 Change 3, Nuclear Material Control and Accountability.

13.02 Capsule Storage & Disposition

- o Performed/Completed:



- Canyon entry for installing/conducting 30-day functional testing of new continuous air monitor in support of W-130.
- Grouting of the remainder of the K3 filter pit chambers.
- o Surveillances/ Preventive Maintenance (PMs):
 - 23 Preventive Maintenance work packages.
- a. Waste Encapsulation and Storage Facility (WESF) Stabilization and Ventilation Project (W-130):**
 - o Performed/Completed:
 - Core drilling in A Cell airlock to create vent path in Hot Pipe Trench for grouting.
 - Gravel berm along south side of K3N vent skid pad to prevent water intrusion into truckport.
 - Hazard Review Board approval of Grout Leak Detection.
- 13.03 Canister Storage Building (CSB)**
 - o Performed/Completed:
 - New safety railing around the maintenance pit.
 - DOE-FR Management Tour of CSB and ISA.
 - o Surveillances/PMs:
 - 19 PM packages.
- 13.06 Transuranic (TRU) Repackaging**
 - o TRUM waste completed and returned fiscal year to date – 44m³.
 - o Shipped:
 - One large waste box from Central Waste Complex (CWC) to Perma-Fix Northwest (PFNW) in one shipment.
 - o Shipments Received:
 - Nine Standard Waste Boxes (SWBs) from PFNW to CWC in one shipment.
- 13.07 WRAP**
 - o Surveillances/PMs:
 - 79 Surveillances.
 - 11 PM packages.
 - o Shipments Received:
 - Ninety-two waste drums from PFP to WRAP in six shipments.
- 13.08 T Plant**
 - o Performed/Completed:
 - Installation of cover blocks on cell 8R.
 - o Surveillances/PMs:
 - 327 Surveillances.
 - 17 PM packages.
- 13.09 CWC and Low Level Burial Grounds (LLBG)**
 - o Performed/Completed:
 - Roof repairs and construction completion document at building 2336-W.
 - o Surveillances/PMs:
 - 25 Preventative Maintenance packages.
 - 244 Surveillances.
- 13.12 Integrated Disposal Facility**
 - o Completed monthly inspections.
- 13.16 Off Site Spent Nuclear Fuel Disposition**
 - o Maintained coordination for offsite Spent Nuclear Fuel Disposition.
- 13.21 Mixed Waste Disposal Trenches (MWT)**
 - o Surveillances/Preventive Maintenance:
 - 114 Surveillances.
 - o Shipments Received:

- Six waste boxes and one waste drum from PFNW to Mixed Waste Trench (MWT) in two shipments.

13.24 Management of Cesium and Strontium Capsules Project

- o Performed/Completed:
 - Baseline Change Request (BCR) for fiscal year (FY) 2017 activities was approved for October implementation.
 - Developing 413.3B tailoring strategy.

MAJOR ISSUES

Issue:

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

Corrective Action:

Significant risk remains. TRU Disposition activities would prepare the contents of these containers in a configuration suitable for eventual disposal at the Waste Isolation Pilot Plant (WIPP). This 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 and over-packing drums).

Issues:

The Canister Storage Building FF-01 license contains a maximum stack flow rate of 9,000 cubic feet per minute (CFM), while the monitoring system at start-up was verified to be in compliance with regulatory requirements at higher flow rates.

Corrective Action:

RL and Washington State Department of Health (WDOH) were notified of the situation. The path forward was to collect CSB stack flow data, then complete a statistical analysis of this data against a previously performed PNNL statistical analysis of other similar stacks at Hanford to justify the past flow rates at CSB of less than 9,000 CFM.

Status:

RL provided direction to proceed with PNNL statistical analysis of the CSB stack flow data as well as data from other similar stacks on July 29, 2015. PNNL supplied preliminary information on September 28, 2015, providing a basis for an expanded flow range. Washington State Department of Health (WDOH) provided positive feedback on the PNNL presentation; but wanted one of six original tests to be re-performed at lower flow rates to validate the PNNL statistical analysis, which used test results from similar stacks for comparison. RL contractual approval was provided April 19, 2016. The CSB stack flow testing, desired by WDOH, was completed on August 15, 2016. A presentation to WDOH and Washington State Department of Ecology was completed on September 21, 2016. CSB Engineering issued a final report, CHPRC-03083, Canister Storage Building Stack Qualification Testing and Comparative Analysis, on September 30, 2016. CHPRC/RL will submit a Notice of Construction (NOC) revision based on CHPRC-03083 to modify the license to reflect the wider range of CSB stack flow rates. Once approved (estimated approval as of June 30, 2017), CSB will procure and install higher flow capacity high-efficiency particulate air (HEPA) filters.

Issue:

On May 11, 2016, during the routine sampling of mechanically sealed Multi-Canister Overpack (MCO) H-176, the internal gas pressure was determined to be less than required per Process Standard 331-PS-610. The internal pressure represented a 10-year leak rate in excess of the assumed value utilized in the Canister Storage Building Safety Basis. By procedure the MCO was backfilled with high purity (99.96 percent) Helium. On May 18, 2016, CSB entered into the Potential Inadequacy in the Safety Analysis (PISA) process. On May 26, 2016, an operability evaluation was issued, and the Fuels Facilities (FF) Plant Review Committee determined that a positive Unreviewed Safety Question (USQ) exists. Occurrence report EM-RL — CPRC-CSB-2016-0001, positive USQ related to MCO H-176 Observed Pressure Decrease was initiated for:

3B(1) (SC-2) - Determination of a positive USQ that reveals a currently existing inadequacy in the documented safety analysis.

4A(1) (SC-3) - Performance degradation of any Safety Class (SC) or Safety Significant (SS) Structure, System, or Component (SSC), or any support system that is required for safety operation of the SC or SS SSCs, which prevents satisfactory performance of its design function when it is required to be operable.

Corrective Action:

On May 18, 2016, when the potential inadequacy in the safety analysis (PISA) process was initiated, a CSB Timely Order was issued to prevent movement of MCO H-176 from Sample/Weld Pit #7.

On May 26, 2016, the FF Plant Review Committee implemented compensatory actions for ensuring that MCO H-176 remains pressurized with an effectively pure inert gas to compensate for excessive MCO leakage. It will also avoid conditions (pressure inducing chemical reactions within the MCO) that may challenge the MCO pressure rating. The following actions were directed:

- A. Leave MCO H-176 in its current location (Sample/Weld Pit #7).
- B. Monitor, on a periodicity determined by Engineering, MCO H-176 temperature and pressure as displayed on the MCO shield plug gauges.
- C. As conditions may require, sample and re-fill MCO H-176 to maintain inert gas pressures within the range specified in process standard PS-610.

On June 23, 2016, an Evaluation of Safety of the Situation (ESS) on MCO H-176 was transmitted to RL. It concluded that MCO H-176 in its current condition is safe and that CSB, through implementation of three compensatory measures listed above, is in a safe configuration. CSB revised the initial Timely Order to implement the three compensatory measures until a safety basis change/revision has been approved by RL.

An interim engineering report (CHPRC-03058) summarizing the factors assumed to cause normal and expected changes in MCO pressure was released August 31, 2016. The results show that the changes in MCO pressure do not account for the pressure decreases observed in MCO H-176, concluding that the pressure decrease in MCO H-176 between 2006 and 2016 resulted from a leak rate that exceeds that assumed by the Final Safety Analysis Report (FSAR).

In response to the transmitted ESS, RL issued a Safety Evaluation Report (SER 16-NSD-0059_RL in Correspondence No. 1604415, *Review and Approval of the Evaluation of Safety of the Situation (ESS), the Operability Evaluation, and the Unreviewed Safety Question Regarding the Canister Storage Building (CSB) Multi-canister Overpack (MCO) H-176*), dated September 23, 2016, (received September 26, 2016). The RL letter indicates that the safety evaluation report (SER) shall be implemented within 90

days of receipt of the letter, which is December 25, 2016. In accordance with the criteria specified in PRC-PRO-NS-8317, Rev 3-0, Safety Basis Implementation and Maintenance, the safety basis change significance level is 'minor.'

Status:

A final report (CHPRC-03056) confirming the same conclusion stated in CHPRC-03058 will be issued providing the detailed basis for the conclusions stated in CHPRC-03058. Scheduled date for this final report is November 30, 2016.

The root cause analysis (RCA) was completed on October 10, 2016. The final occurrence report was submitted on October 13, 2016, and approved by RL on October 26, 2016. The remaining corrective actions listed in the RCA corrective action plan, including updating the CSB Safety Basis, are being tracked in Condition Reporting and Resolution System (CRRS).

Issue:

Mission Support Alliance, LLC (MSA) Cross-Connection Control Program recently performed a Health Hazard Level Re-evaluation following the guidance listed in Washington Administrative Code (WAC) 246-290-490, and internal MSA Cross-Connection Control procedures. During the course of this re-evaluation, it was determined that the 225-B (WESF) Health Hazard Level needs adjustment from High to Severe to be in alignment with WAC 246-290-490 Section 4, requiring service connections to premises posing a severe health hazard to have cross-connection installed with either:

- (A) Approved air gap installed for premises isolation; or
- (B) Approved reduced-pressure back-flow prevention assembly (RPBA) or RPDA installed for premises isolation in combination with an in plant approved air gap; or
- (C) Approved Hanford Site water sources modification with downstream controls at facilities.

Corrective Action:

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

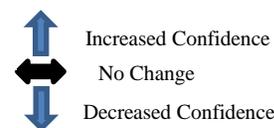
Status:

Central Environmental has prepared and submitted a pre-existing condition notification to DOE. A meeting was held on April 28, 2016, with the MSA Water Purveyor to initiate discussions on a path forward. Additionally, at the request of DOE, CHPRC prepared and presented a summary of the facility changes to compliantly isolate both potable and raw water connections. Both an approved in-plant air gap and an approved RPBA are required to meet the elevated hazard. Seven locations within the facility would require modification. DOE is evaluating the costs and benefits of remedying with a modification at the source by MSA versus modifications at each facility.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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



Risk Title	Unmitigated Risk Impacts	Assessment		Comments														
		Month	Trend															
RL-0013/WBS-013																		
Explanation of major changes to the project monthly spotlight chart: No major changes to the monthly spotlight chart in the month of October .																		
Realized Risks (Risks that are currently impacting project cost/schedule)																		
WSD-W130-17: Changes in the final design are needed after the design is issued. Changes are driven by unexpected conditions, additional reviews of the design media, or field conditions. Design changes result in cost impacts and schedule delays.	Changes in the final design are needed after the design is issued. Changes are driven by unexpected conditions, additional reviews of the design media, or field conditions. Design changes result in cost impacts and schedule delays. Risk Handling Strategy: Control Probability: Low (10% to 25%) Worst Case Impacts: \$512K, 64 days			<p>Risk Event: Risk was realized when additional reviews of design media and K3N ventilation skid as-built conditions were analyzed during writing of test and operating procedures. Four separate issues have led to the realization of this risk:</p> <ol style="list-style-type: none"> Changes in fire suppression system design are necessary to allow leak testing of the full system due to limitations in the existing skid design. K3N skid requires modifications to ensure proper operation at WESF. Hot cell penetration sealing requires more work than planned. Communication between hot pipe trench in WESF and B Plant causes grout to flow into B Plant during trench grouting. Extensive contamination and high dose rates were found at the hot cell cover blocks during grouting preparations, causing a change to the design to prevent grout leaking into the Canyon during grouting of the hot cells. <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>Prioritize completion of hot cell penetration sealing required for core drilling between hot cell walls first to mitigate schedule impacts</td> <td>02/01/16</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Seal seams at hot cell cover blocks and provide a controlled vent path for grouting of the hot cells</td> <td>10/17/16</td> <td>11/30/16</td> <td>10</td> </tr> </tbody> </table> <p>Recovery Action Assessment: All penetrations that run through the hot cell walls were completed prior to core drilling vertically through hot cell walls. A stiff grout mix was placed at the interface location between WESF and B Plant in the hot pipe trench to prevent grout from entering B Plant during hot pipe trench grouting. Installation of steel plates over the hot cell cover block seams is in progress to prevent grout from entering the canyon during hot cell grouting. A controlled HEPA-ventilation vent path will be provided in the hot cell cover block seams prior to placement of the last lift of grout to prevent over-pressurizing the hot cells during grouting.</p>	Risk recovery action(s)	Risk Date	FC Date	%	Prioritize completion of hot cell penetration sealing required for core drilling between hot cell walls first to mitigate schedule impacts	02/01/16	Complete	100	Seal seams at hot cell cover blocks and provide a controlled vent path for grouting of the hot cells	10/17/16	11/30/16	10		
Risk recovery action(s)	Risk Date	FC Date	%															
Prioritize completion of hot cell penetration sealing required for core drilling between hot cell walls first to mitigate schedule impacts	02/01/16	Complete	100															
Seal seams at hot cell cover blocks and provide a controlled vent path for grouting of the hot cells	10/17/16	11/30/16	10															
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 require additional resources to respond. Risk Handling Strategy: Accept Probability: Likely (75% to 90%) Worst Case Impacts: \$5 million, 0 day			<p>Risk Event: In November 2011, degraded containers were discovered in CWC.</p> <table border="1"> <thead> <tr> <th>Risk recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Perform daily/weekly waste container surveillances to identify container abnormalities.</td> <td rowspan="3">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> </tbody> </table> <p>Recovery Action Assessment: Project continued to perform container surveillances in the month of October to identify container and container cover abnormalities. The project will perform the overpack for Storage box 75DMA16F3, with a subsequent move into 2403WD, once resources become available. The remaining containers will continue to require surveillance and continue enhanced monitoring.</p>	Risk recovery action(s)	Risk Date	FC Date	%	Perform daily/weekly waste container surveillances to identify container abnormalities.	11/01/11	Ongoing	N/A	Manage a "watch-list" of waste containers that have shown signs of degradation or are associated with degraded containers.	Ongoing	N/A	Process waste packages at a rate funded by RL.	Ongoing	N/A
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															
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)																		
Lifecycle Risk Triggers (Risk could be realized at any point of the project)																		

Risk Title	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
RL-0013/WBS-013													
WSD-W130-22: Loss of contamination control due to invasive activities	<p>There is a risk that during grout fill of the hot cells/duct that grout may leak from the cells/duct, through the wall and leak into the operating gallery or service gallery or truckport space. There is a risk that during operations, containment barriers are lost and the operating gallery, service gallery, filter pit area or truck port space is contaminated.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Medium (26% to 74%)</p> <p>Worst Case Impacts: \$408K, 48 days</p>	●	↔	<p>Risk Trigger Metric: The cell sealing and containment barriers are insufficient, or unidentified and cause loss of contamination control</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Conduct walk downs including experienced, non-project resources to identify potential grout egress points.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Extend contamination boundaries around penetrations areas and construct containment barriers prior to grouting.</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p>Mitigation Assessment: Walk downs of penetrations as well as contamination barriers/boundaries are complete. Currently evaluating any additional mitigations available or recommended prior to commencing hot cell grouting.</p>	Mitigation action(s)	FC Date	%	Conduct walk downs including experienced, non-project resources to identify potential grout egress points.	Complete	100	Extend contamination boundaries around penetrations areas and construct containment barriers prior to grouting.	Complete	100
Mitigation action(s)	FC Date	%											
Conduct walk downs including experienced, non-project resources to identify potential grout egress points.	Complete	100											
Extend contamination boundaries around penetrations areas and construct containment barriers prior to grouting.	Complete	100											
WSD-097: Major Equipment Failure - T-Plant	<p>T Plant suffers a major equipment failure (crane, primary power supply, etc.), resulting in cost impacts, and schedule delays.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Medium (26% to 74%)</p> <p>Worst Case Impacts: \$750K, 96 days</p>	●	↔	<p>Risk Trigger Metric: During planned facility operations activities a suspect 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).</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: The project has put into place mitigating strategies (i.e., aggressive S&M activities) to help reduce this risk. The project is also working toward identifying and procuring spare parts for the T Plant Crane to further reduce the risk. Work has been completed to repair/replace the crane rail clip. The crane is currently operational.</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) & 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: Medium (26% to 74%) Worst Case Impacts: \$2.5 million, 0 day	 	Risk Trigger Metric: Will continue throughout contract (September 30, 2018).			
			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 in which keeps them viable (i.e., keeps the doors open).		Ongoing	N/A
			Work with RL and PFNW to increase the quantity of NRC defined special nuclear material (SNM) in PFNW's Mixed Waste Facility (MWF). Their current limit is 200 grams of total Pu. The limit needs to be increased between 400 – 1,000 grams to allow for larger TRU/M waste quantities to be received and processed at their MWF.		Ongoing	N/A
Mitigation Assessment: 1) MLLW: Two contracts in place with offsite commercial waste treatment which provides sufficient capability/capacity to meet current MLLW treatment needs through the end of the CHPRC contract term. However, one of the contracts was recently restricted due to the closure of a Perma-Fix treatment facility in Tennessee (M&EC). Additional capability will need to be obtained to meet regulatory requirements. TRU/M: Only PFNW is provided with current capability to process TRU/M waste. This is due solely on the practical limitations imposed by the need to ship the TRU/M waste via road-closure; therefore, additional commercial providers cannot be obtained. 2) Two waste packages were authorized in the first quarter of FY2017 with a total volume of ~110m3, which will maintain PFNW's viability through the end of this calendar year. Additionally, PFP is shipping oversized TRU waste components to PFNW during the first quarter of FY2017. These shipments provide adequate waste to PFNW to maintain viability for all of FY2017 and possibly FY2018. 3) RL's action to authorize and/or fund this action. If the TRU/M waste generated from the PRF Canyon floor cleanout (J-Pan waste) requires treatment, it would significantly impact the projects ability to have sufficient treatment capability/capability at PFNW for the processing of Legacy TRU/M waste to meet M-091-47C and -47D objectives for FY2017 and FY2018. Current alternative course of action: To minimize potential impacts to PFP, the plan is to send the PRF Canyon Floor waste to CWC for interim storage, and then if required, gradually ship the waste packages to PFNW for processing as license limits permit. However by doing this, RL-0013 will assume the regulatory risk associated with the waste (i.e., more stringent requirements under RCRA at CWC compared to under CERCLA at PFP); additionally, if treatment is required, it will monopolize PFNW with respect to their Pu limits for several years which would significantly limit the shipment of other Pu containing waste (i.e., legacy large container TRU/M waste) to PFNW for processing.						
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)						
Lifecycle Risk Triggers (Risk could be realized at any point of the project)						

Risk Title	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
RL-0013/WBS-013													
WSD-136:CWC Components Fail	CWC facilities and components may reach their end of life or become obsolete. These items will need to be replaced and/or repaired outside of planned funding profiles, resulting in cost impacts. Risk Handling Strategy: Accept Probability: Medium (26% to 74%) Worst Case Impacts: \$1.5 million, 0 day	●	↑	<p>Risk Trigger Metric: During planned facility operations activities a suspect 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).</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: During quarterly review with the project, this risk was reduced and no longer qualifies as a key project risk. It will be removed from the stoplight report. The risk will continue to be monitored and tracked internally by the project until it no longer poses a threat.</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-137: OPP: Planned Efficiencies	Funding profile for the contract period are achieved through efficiencies. Risk Handling Strategy: Exploit Probability: Likely (75% to 90%) Worst Case Impacts: \$32 million, 0 day	●	↔	<p>Risk Trigger Metric: Will continue throughout project lifecycle (September 30, 2018).</p> <table border="1"> <thead> <tr> <th>Opportunity action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Plan work activities and procurements to be as efficient as possible with minimal resources.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Opportunity Assessment: No changes in the month of October. The project is continuing implementation of planned efficiencies (approximately \$58 million to date), however, due to impacts associated with increased regulatory scrutiny, maintenance lessons learned across CHPRC DOE Complex, and heightened compliance postures, forecasts will be updated to reflect a reduced level of efficiencies through the balance of the contract period of performance.</p>	Opportunity action(s)	FC Date	%	Plan work activities and procurements to be as efficient as possible with minimal resources.	Ongoing	N/A			
Opportunity action(s)	FC Date	%											
Plan work activities and procurements to be as efficient as possible with minimal resources.	Ongoing	N/A											
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: \$1,040K, 0 days	●	↔	<p>Risk Trigger Metric: This risk has been triggered due to current condition of 221-T Dock #2.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Repairs to 221-T Dock #2 are needed in support of sludge receipt</td> <td>04/30/17</td> <td>0</td> </tr> <tr> <td>A Notice of Change is being prepared to identify this as a RL risk</td> <td>11/14/16</td> <td>90</td> </tr> </tbody> </table> <p>Mitigation Assessment: Deterioration of the steel decking and steel support structure for 221-T Dock #2 has required that the dock be taken out of service. A new loading dock is necessary as one of the Life Safety Code required emergency egress points and to support the receipt of sludge. This dock also provides storage areas for various gas bottles. A Notice of Change is being drafted to RL in an attempt to get a contractual agreement for this change. 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	%	Repairs to 221-T Dock #2 are needed in support of sludge receipt	04/30/17	0	A Notice of Change is being prepared to identify this as a RL risk	11/14/16	90
Mitigation action(s)	FC Date	%											
Repairs to 221-T Dock #2 are needed in support of sludge receipt	04/30/17	0											
A Notice of Change is being prepared to identify this as a RL risk	11/14/16	90											
FY2017 Risk Triggers (Risk could be realized in FY2017)													
WSD-W130-18: Failure of WESF Hot Cell during Grouting	There is a risk that the capacity of the floor or walls of the hot cells cannot sustain the applied loads from grout and fails. In addition, a failure to the cover blocks and or the canyon floor result in cost impacts, and schedule delays. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$768K, 96 days	●	↔	<p>Risk Trigger Metric: Initiation of hot cell grouting.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Compare actual grout fill volume with estimated value to determine if hot pipe trench has been filled.</td> <td>12/15/16</td> <td>0</td> </tr> <tr> <td>Fill hot cells in 3 foot lifts to minimize sudden stress by allowing partial curing between lifts, as well as early detection of hot cell floor failure.</td> <td>12/15/16</td> <td>0</td> </tr> </tbody> </table> <p>Mitigation Assessment: Structural evaluations and calculations have been completed and identified controls necessary during grouting (limit lifts of grout placement to three feet, compare actual grout volume placed to calculate estimated volume). No alternative course of actions needed at this time. The schedule slip is due to a stop work on construction activities because the field configuration was not in alignment with the work documents.</p>	Mitigation action(s)	FC Date	%	Compare actual grout fill volume with estimated value to determine if hot pipe trench has been filled.	12/15/16	0	Fill hot cells in 3 foot lifts to minimize sudden stress by allowing partial curing between lifts, as well as early detection of hot cell floor failure.	12/15/16	0
Mitigation action(s)	FC Date	%											
Compare actual grout fill volume with estimated value to determine if hot pipe trench has been filled.	12/15/16	0											
Fill hot cells in 3 foot lifts to minimize sudden stress by allowing partial curing between lifts, as well as early detection of hot cell floor failure.	12/15/16	0											

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>Prepare Notice of Change letter to be sent to RL.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: 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. A Notice of Change is being drafted to RL in an attempt to get a contractual agreement for this change. 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	%	Prepare Notice of Change letter to be sent to RL.	Ongoing	N/A
Mitigation action(s)	FC Date	%								
Prepare Notice of Change letter to be sent to RL.	Ongoing	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 Notice of Change letter to be sent to RL.</td> <td>On going</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: 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 DOE review. A Notice of Change is being drafted to RL in an attempt to get a contractual agreement for this change. 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	%	Prepare Notice of Change letter to be sent to RL.	On going	N/A
Mitigation action(s)	FC Date	%								
Prepare Notice of Change letter to be sent to RL.	On going	N/A								
WSD-W135-17: Modifications to WESF	The transfer of the capsules to a 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: Modification 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>Prepare Notice of Change letter to be sent to RL.</td> <td>On going</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: The approach incorporated into the pre-conceptual design for the transfer of the capsules, required minimal modifications to the WESF. New or updated requirements will require more extensive modifications to the WESF. A Notice of Change is being drafted to RL in an attempt to get a contractual agreement for this change. 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	%	Prepare Notice of Change letter to be sent to RL.	On going	N/A
Mitigation action(s)	FC Date	%								
Prepare Notice of Change letter to be sent to RL.	On going	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	5.9	6.8	6.3	0.8	14.3%	0.5	6.7%

Numbers are rounded to the nearest \$0.1 million

CM Schedule Performance (+0.8M/+14.3%)

WBS 013.02.02.02 – WESF K3 Exhaust Ventilation has a positive schedule variance due to schedule recovery, work planned in prior months was performed in October.

CM Cost Performance (+0.5M/+6.7%)

The schedule 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)	Variance at Completion (VAC)
Total	1,097.0	1,100.0	1,029.4	2.8	0.3%	70.4	6.4%	1,341.2	1,290.0	51.5

Numbers are rounded to the nearest \$0.1 million

CTD Schedule Performance (+2.8M/+0.3%)

The schedule variance is within threshold.

CTD Cost Performance (+\$70.4M/+6.4%)

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

Variance at Completion (+\$51.5M/+3.8%)

The Variance at Completion is within threshold.

Contract Performance Report Formats are provided in Appendix A.

FUNDS vs. SPEND FORECAST (\$M)

WBS 013/RL-0013 Waste and Fuels Management Project	FY2017		Variance
	Projected Funding	Spending Forecast	
Estimate at Complete	103.3	88.7	14.6
Incremental Scope Pending Change Management	0.0	14.6	(14.6)
RL-0013 – Total	103.3	103.3	0.0

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis

FY2017 projected funding for PBS RL-0013 is \$103.3 million. The fiscal year spend forecast (FYSF) of \$103.3 million includes actions anticipated to achieve funding targets.

Critical Path Schedule

WESF Ventilation & Stabilization Project, W-130, critical path showed a completion date at October month end for Performance Measure, PM-13-5-16, on November 30, 2016. Project is working a 5 x 10 schedule with Saturday work evaluated weekly against available resources. However, there was a stop work on the W-130 construction activities because the field configuration was not in alignment with the work documents. This has delayed the critical path to an expected finish for PM-13-5-16 to December 13, 2016.

MILESTONE STATUS

Tri-Party Agreement milestones represent significant events in project execution. DOE Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The PMB Annual Update, implemented in September 2013, and subsequent approved 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-091-51	Submit secondary document for new or modified facilities to process all Hanford Site RH TRUM waste.	9/30/16	9/28/16	9/30/16	Completed
C-026-07K	Tritium Treatment Technology Developments to Ecology and EPA	3/31/17		3/31/17	On Schedule
M-091-03K	Submit Revision of TRUM Waste and MLLW PMP to Ecology	6/30/17		6/30/17	On Schedule

M-092-05	Determine Disposition Path and Establish Cs/Sr Interim Milestones.	6/30/17		6/30/17	On Schedule
M-091-47C	Certify or treat 280 cubic meters of TRUM/MLLW waste.	9/30/17		9/30/17	On Schedule
M-091-52	Submit change request with target dates for new/modified capabilities to process TRUM waste.	9/30/17		9/30/17	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-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 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 TSD requirements.	Ongoing
J.12/C.2.3.6	PBS-13, 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	RL Due Date
RL Review and Approve Master Documented Safety Analysis (MDSA) and Technical Safety Requirement (TSR) Rev. 12	11/15/16	03/14/17

Section D

Soil and Groundwater Remediation Project (RL-0030)



K. L. Wiemelt
Vice President and
Project Manager for
Soil and Groundwater
Remediation Project

M. A. Wright
Vice President for
Project Technical
Services

October 2016
CHPRC-2016-10, 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)		Nitrate as N (kg)		Tech-99 (pCi)		Uranium (kg)	
	CM	FYTD	CM	FYTD	CM	FYTD	CM	FYTD	CM	FYTD	CM	FYTD
DX P&T	30.0	30.0	3.7	3.7								
HX P&T	23.2	23.2	2.2	2.2								
KR-4 P&T	12.6	12.6	0.2	0.2								
KW P&T	0.0	0.0	0.0	0.0								
KX P&T	34.9	34.9	2.0	2.0								
200 West P&T	47.0	47.0	4.5	4.5	95	95	4073	4073	.12x10 ¹²	.12x10 ¹²	0.7	0.7
Combined	147.6	147.6	12.5	12.5	95	95	4073	4073	.12x10¹²	.12x10¹²	0.7	0.7
FY2017 KPG	--	2200	--	160	--	1700	--	80000	--	N/A	--	45

Well Drilling by Area	FY2017 Planned	Current Month	FY2017 Cumulative
100-KR-4	5	1	1
100-HR-3	6	-	-
200-UP-1	13	2	2
200-ZP-1	5	-	-
M-24 Milestone	5	-	-
300 Area	67	-	-
200-DV-1	5	-	-
Total Wells	103	3	3
Site Wide Boreholes	30	-	-

EMS Objectives and Target Status

Objective	Target	Actions	Due Date	Status
17-EMS-SGWR-OB1 Monitor and confirm low carbon tetrachloride emissions at the 200 West P&T Facility	T1 – Evaluate treated off gas analytical results from compliance sampling and process sampling each quarter.	Monitor and confirm low carbon tetrachloride emissions at the 200 West P&T Facility.	9/30/17	0%

TARGET ZERO PERFORMANCE

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	3	NA
Total Recordable Injuries	0	1	NA
First Aid Cases	4	*45	<ul style="list-style-type: none"> • 10/17/2016 – While trying to stop a tool bag from falling, employee twisted and felt a sharp pain in the back of the left knee. The employee was taken to HPMC for evaluation and released to work with restrictions. (24156) PTS • 10/26/2016 – Employee smelled an odor after taking a grab sample of dirt. The area was secured and an IHT found no detectable readings on the instruments. The employee was evaluated at HPMC and released to work without restrictions. (24173) • 10/31/16 – Employee was struck by door when a gust of wind pulled the door out of their hands. The employee was evaluated at HPMC and released with no restrictions. (24182) • 10/31/2016 – Employee was pushed off balance when a gust of wind pulled the door they were holding. The momentum caused the employee to over-extend their back. The employee was evaluated at HPMC and released to work with restrictions. (24184) <p style="text-align: right;">*9 FA cases, PTS in support of RL-0030.</p>
Near-Misses	0	2	NA

KEY ACCOMPLISHMENTS

RL-0030 Accomplishments

RL-0030.01 RL 30 Operations

Environmental Integration

- Prepared a presentation on Tri-Party Agreement approaches to modeling in response to an Ecology white paper on the use of the modeling approach developed for the Tank Closure and Waste Management EIS in the final CERCLA groundwater decision for the Hanford Site. The presentation emphasizes the nine-year history for the CERCLA modeling approach and the substantial investment in groundwater cleanup remediation based on the modeling approach.

Technical Integration

- Partnered with RL to lead a model quality assurance surveillance entrance meeting on October 7, 2016. Lines of inquiry focused on demonstration of compliance with DOE O 414.1D with regard to models used to support CERCLA decisions. Prepared responses to the lines of inquiry and coordinated response with Environmental Compliance and Quality Assurance.

River Corridor

100-HR-3 Operable Unit

- Submitted the cultural review requests for the fiscal year (FY) 2017 plume containment and remediation utilization plan performance measure work. Any changes to the planned work scope will impact our ability to complete the work in FY2017.
- Completed well re-development activities for 199-D4-102 and 199-D4-103, resulting in limited well yield improvement.

100-KR-4 Operable Unit

- Submitted the cultural review requests for the FY2017 plume containment and remediation utilization plan performance measure work. Any changes to the planned work scope will impact our ability to complete the work in FY2017.
- Continued collection, analysis and review of sampling results for the KW Rebound Study. Provided RL with status update briefing.
- Resolved EPA comments on the interim action Remedial Design/Removal Action Work Plan, Operations and Maintenance plan, and Sampling and Analysis Plan.
- Submitted the decisional draft KE-Borehole report to RL for review.

100-NR-2 Operable Unit

- Completed deactivation and decommissioning (D&D) of the 100-NR-2 P&T facility structure and equipment. Continuing with removal of the slab, piping, and waste load-out.

300-FF-5 Operable Unit

- Resolved RL comments on the draft Stage A Uranium Sequestration Performance Report.
- Resolved RL comments on the draft 300-FF-5 Operable Unit Remedy Implementation Sampling and Analysis Plan.

Central Plateau

200-UP-1 Operable Unit

- Submitted the cultural review requests for the FY2017 plume containment and remediation utilization plan performance measure work. Any changes to the planned work scope will impact our ability to complete the work in FY2017.
- Two well-drilling campaigns are currently underway. The first is a series of seven remedy monitoring wells, of which three are complete and two are in process. The second is a series of six SE chromium plume wells, of which, three are complete and a fourth well is being drilled.
- Completed the sampling and analysis of existing wells to further define the extent of the chromium plume. Reached concurrence with RL on the locations for four additional chromium plume characterization wells to be drilled in calendar year (CY) 2017.

200-BP-5/200-PO-1 Operable Unit

- Received and incorporated Ecology comments on the Draft A Action Memorandum for 200-BP-5 Operable Unit Groundwater Extraction.
- Provided a draft Tri-Party Agreement Change Control Form to extend the M-15-21A due date for the Draft A 200-BP-5/ 200 PO-1 Feasibility Study and Proposed Plan to RL. The extension is needed to accommodate an extended Ecology review of the Draft A RI reports.
- Provided draft comment dispositions on the Draft A 200-BP-5 Groundwater Sampling and Analysis Plan to Ecology.

200-EA-1 Operable Unit

- Initiated Tri-Party Agreement Appendix C change package for new waste site operable unit (OU) assignments.

200-IS-1 Operable Unit

- Initiated review and consolidation of Ecology comments on the 200-IS-1 Scoping Package.
- Provided RL with the updated C-13-01 change package and the four additional change packages on October 20, 2016.

200-DV-1 Operable Unit

- Completed the construction acceptance testing (CAT) of the perched water system tie-in to the 200 West P&T Facility and the Construction Completion Document (CCD).
- Issued the Rev 0 RI/FS Work Plan.
- Initiated activities in preparation for the installation of one injection well and four additional monitoring wells for the Uranium Reactive Gas Sequestration treatability study.

200-ZP-1 Operable Unit

- Submitted the cultural review requests for the FY2017 plume containment and remediation utilization plan performance measure work. However, adjustments to the well locations will likely re-start the cultural review schedule and impact our ability to complete the scope in FY2017.
- A draft TPA-CN for the Sampling and Analysis Plan for Eight Remediation Wells in the 200-ZP-1 OU (DOE/RL-2010-72) is being prepared adding the installation of four new injection wells. These new injection wells support maximizing flow through the 200 West P&T facility.

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

- Operated the 200 West P&T at an average of 1,053 gpm.
- Facility flow was reduced for the month of October to perform stainless steel piping conversions in ITB-2. The upgrade included replacement of the remaining pressurized PVC piping with stainless steel. Numerous piping breaks and leaks have previously occurred in ITB-2, which have required either a full plant shutdown or reduction to 50 percent flow while repairs were made. This upgrade will mitigate future PVC cyclic stress failures on the pressurized piping within the building, increasing facility reliability.
- Air Stripper Tower cleaning was also accomplished during this time period to optimize their performance.
- Other activities accomplished during October include:
 - Installation of a leak detection system in building 289T (Bio Building) and 289TA (Rad Building). This system will automatically shut down the facility in the event of a sustained large leak in either of these building.
 - Installation of additional Fluidized Bed Reactor (FBR) eductors. This upgrade increases the ability to clean the FBR beds at different levels, which should lead to fewer carbon carry over events.
 - Installation of a new check valve and isolation valve in the solids recycle line. This repair required a single day facility outage to accomplish. Replacement of the check valve allows centrate return to enter the Membrane Bio-Reactor (MBR) or the Recycle Tank. Thereby

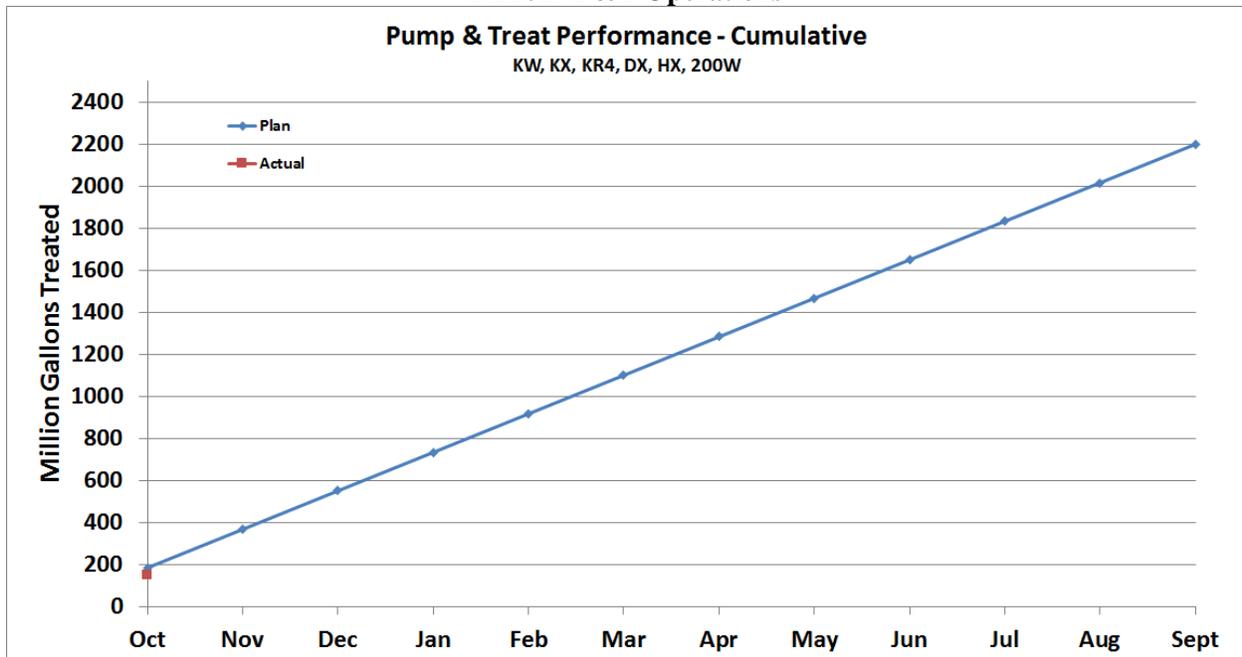
increasing the overall reliability and flexibility of the system. The new isolation valve allows future work on this system to occur without a facility outage.

- o Continued stainless steel conversions of facility extraction wells. Completion of the final three wells is expected by November 30, 2016.
- o Commenced preparations to perform the initial Tc-99 resin change. This included mock-ups and training. Resin change out is expected to be completed in November.

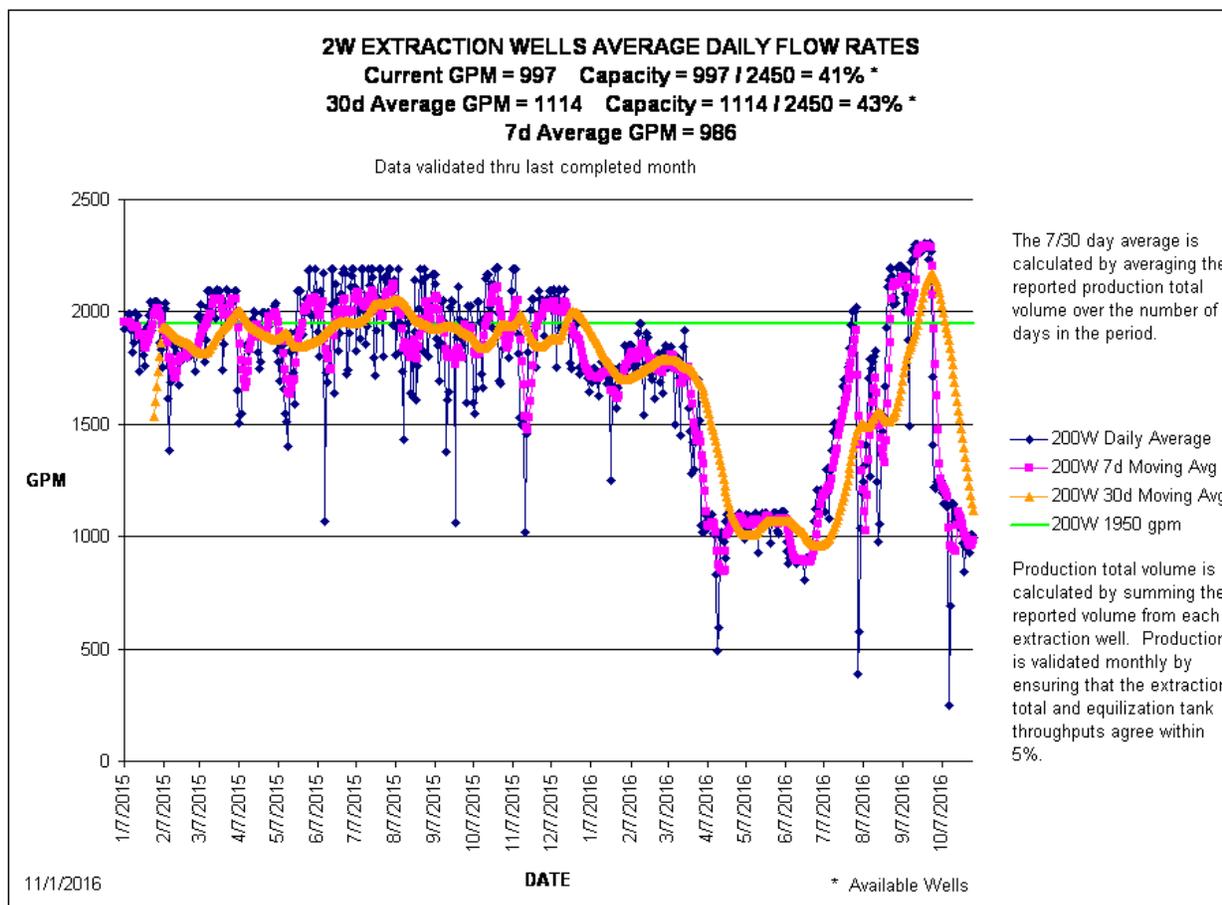
100 Area P&Ts

- Operated the DX P&T at 671 gpm, below the facility capacity of 775 gpm.
- Operated the KR-4 P&T at 281 gpm, below the facility capacity of 330 gpm.
- The KW P&T remains turned off to perform rebound study.
- Operated the KX P&T at 782 gpm, below the facility capacity of 900 gpm.
- Operated the HX P&T at maximum extraction well capacity. Monthly average at 519 gpm.

FY2017 P&T Operations



200 West P&T



MAJOR ISSUES

Issue:

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

- Ecology extended comment resolution on the 100-N RI/FS Report (DOE/RL-2012-15, Draft A).
- Ecology suspended review of the 200-BP-5 RI/200-PO-1 RI Addendum.
- Ecology approval of the 200-IS-1 Tri-Party Agreement change package C-013-01, which affects the 200-IS-1 RI/FS Work Plan (DOE/RL-2010-114) scope definition.

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 (NOC) letters to RL as contract activities are impacted. Elevate the 200-IS-1 change package dispute above the project manager level should agreement not be reached by November 1, 2016.

Status:

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

- 100-NR-2: A workshop with Ecology is planned to occur in November to determine the approach to complete the remedial investigation report and revise the feasibility study to be consistent with the latest information. The process improvements from the Kaizen meetings will be used to help complete the feasibility study. This item will be removed from the major issues since a path forward has been identified.
- 200-BP-5/200-PO-1: Ecology suspended review of the 200-BP-5 RI report and the 200-PO-1 RI report addendum on October 23, 2015 (15-NWP-189). Completion of this review is contingent on RL providing “adequate details” on how the modeling approach evolved from the Tank Closure & Waste Management Environmental Impact Statement (TC&WM EIS) modeling approach with a list of specific items to be provided. This issue has been elevated to RL senior management for resolution.

On October 31, 2016, RL, Ecology, and EPA met to develop a path forward on use of the EIS groundwater modeling approach. RL, with the support of EPA, presented materials that clarified the investment that has been made by the three parties in the CERCLA modeling approach (used in the CERCLA decision documents since 2007) and some of the significant challenges in adopting the EIS approach. Ecology committed to provide RL and EPA their position by the end of November.

- 200-IS-1: Ecology has stopped review of change package C-13-01 due to disagreement regarding treatment, storage and disposal (TSD) determinations and associated criteria.

On October 20, 2016, RL provided the updated Change Package C-13-01 and four other change packages, to better align the waste sites within the 200-IS-1 OU and several other OUs, to Ecology for review/approval. This topic has been included in the Senior Executive Council agenda for December 2016. The dispute resolution period was extended to March 16, 2017.

Issue:

Based on groundwater samples taken during drilling of the first set of three wells, the 200-UP-1 southeast chromium plume extends further to the southeast than previously mapped, and will likely require additional characterization wells (beyond the six wells planned) to define the southern plume boundary. This additional characterization will impact completion of Tri-Party Agreement Milestone M-016-193 to complete the remedial design investigation of the southeast chromium plume by September 30, 2017.

Corrective Action:

Two corrective actions have been identified:

1. Implement actions to define the southeast chromium plume. The two southern-most characterization wells drilled to date will be prioritized and resampled to confirm chromium concentrations. Six existing groundwater monitoring wells to the south of the plume will be sampled to help establish extent of the plume and locate additional characterization wells. Cultural reviews for six potential well locations will be prepared to help define the southern extent of the plume. The results from these additional samples will be used to define the need for additional characterization wells.
2. Meet with EPA and adjust the due date for Tri-Party Agreement Milestone M-016-193.

Status:

Corrective Action #1: Complete. The additional groundwater sampling from the perimeter wells has been completed and identified the need for four additional characterization wells. These additional wells will be incorporated into the 200-UP-1 SAP, and are planned to be drilled in CY2017 to help define the nature and extent of the chromium plume.

Corrective Action #2: Open. A meeting will be scheduled in November with EPA to adjust the due date for Tri-Party Agreement Milestone M-016-193 based on the recent information.

Issue:

Recent changes to implementation of the cultural review process in the Central Plateau now requires 180 days in order to complete the full Section 106 review, rather than using the Previously Reviewed Project Analysis (PRPA) process. This change could potentially delay field work in the Central Plateau by as much as five months.

Corrective Action:

None, see status below.

Status:

Several meetings were held with RL and Mission Support Alliance, LLC (MSA) to improve the cultural review process, which resulted in reducing the schedule for completing cultural reviews by 60 days (currently are planned for a 120-day duration). This duration will support implementation of the FY2017 work scope, as long as scope changes are not made during the fiscal year. Issue closed.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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

-  Increased Confidence
-  No Change
-  Decreased Confidence

Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
RL-0030/WBS-030										
Explanation of major changes to the project monthly spotlight chart: No major changes to the risk spotlight chart in the month of October .										
Realized Risks (Risks that are currently impacting project cost/schedule)										
OPPORTUNITY: SGW-007A: Sampling Requirement Reduction	Reduction in field sampling (locations, frequency, or total number of samples collected) has the opportunity to reduce long-term groundwater monitoring cost. Risk Handling Strategy: Exploit Probability: Very Likely (>90%) Worst Case Impacts: \$1 million, 0 day			<p>Opportunity Event: The <i>Optimization Plan to Revise the Groundwater Sampling Plan</i> is final and provides the roadmap to revise the groundwater monitoring SAPs over the next two years.</p> <table border="1"> <thead> <tr> <th>Opportunity action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Obtain Agency approval of the revised SAPs.</td> <td>10/30/16</td> <td>80</td> </tr> </tbody> </table> <p>Opportunity Assessment: All 10 CERCLA groundwater monitoring SAPs have been revised and transmitted to RL and the regulators. Seven of the 10 CERCLA SAPs are approved by RL and the Agencies, and are either implemented or in the process of being implemented. Revision 0 for the 100-KR-4 SAP is at RL for signature. Comment resolution continues with Ecology for the two CERCLA SAPs (200-BP-5 and 200-PO-1) that are impacted by the Central Plateau modeling issue.</p> <p>All 25 RCRA monitoring plans have been reviewed and of these, 13 plans required no changes. The remaining 12 monitoring plans were revised and transmitted to Ecology for review. Comments have been received from Ecology. Seven monitoring plans have been revised and implemented, with the remaining five plans in final comment incorporation. CHPRC is on schedule to complete the remaining groundwater monitoring plans by the end of the calendar year.</p> <p>No alternative course of actions are needed at this time.</p>	Opportunity action(s)	FC Date	%	Obtain Agency approval of the revised SAPs.	10/30/16	80
Opportunity action(s)	FC Date	%								
Obtain Agency approval of the revised SAPs.	10/30/16	80								
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	6.6	6.9	6.7	0.3	4.5%	0.2	2.4%

Numbers are rounded to the nearest \$0.1 million.

CM Schedule Performance (+\$0.3M/+4.5%)

The current month schedule variance is within reporting thresholds.

CM Cost Performance (+\$0.2M/+2.4%)

The current month cost 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)	Variance at Completion (VAC)
Total	1,291.2	1,279.7	1,250.4	-11.5	-0.9%	29.2	2.3%	1,564.8	1,494.4	70.5

Numbers are rounded to the nearest \$0.1 million.

CTD Schedule Performance (-\$11.5M/-0.9%)

The variance is within reporting thresholds.

CTD Cost Performance (+\$29.2M/+2.3%)

The variance is within reporting thresholds.

Variance at Completion (+\$70.5/+4.5%)

The variance is within reporting thresholds.

Contract Performance Report Formats are provided in Appendix A.

FUNDS vs. SPEND FORECAST (\$M)

FY2017			
RL-0030 Soil and Groundwater Remediation	Projected Funding	Spending Forecast	Variance
Spending Forecast	130.7	106.1	24.6
Incremental Scope Pending Change Management	0.0	24.6	(24.6)
RL-0030 –Total	130.7	130.7	0.0

Numbers are rounded to the nearest \$0.1 million

Funds/Variance Analysis

FY2017 initial budget guidance received from RL reflects expected funding of \$130.7 million for RL-0030 project. The fiscal-year spending forecast (FYSF) of \$130.7 million includes actions anticipated to achieve funding targets.

Critical Path Schedule

Critical path analysis can be provided upon request.

MILESTONE STATUS

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

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
Milestones in Dispute					
M-015-112	Submit Draft B, 200-IS-1 Operable Unit Pipeline System Waste Sites RFI/CMS/RI/FS Work Plan to Ecology	2/28/14		TBD	Dispute resolution extended to March 16, 2017
Milestones on Schedule or at Risk					

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-015-79	Submit RI/FS Report/PP for 100-BC-1/2/5 OUs for GW & Soil	12/15/16		12/15/16	On schedule
M-024-58J	Initiate Discussions of Well Commitments	6/1/17		6/1/17	On schedule
M-024-68-T01	Conclude Discussions of Well Commitments	8/1/17		8/1/17	On schedule
M-015-92A	Submit RFI/CMS & RI/FS Work Plan for 200-EA-1 OU to Ecology	9/30/17		8/30/17	On schedule
M-016-193	Complete the remedial design investigation of the SE chromium plume, including the installation of new wells and evaluation of the GW monitoring data and install monitoring wells needed for remedy performance monitoring as defined in the UP-1 RD/RA WP.	9/30/17		9/6/18	At risk, schedule extension discussion underway. Draft Tri-Party Agreement Change Control Form provided to RL that provides justification to extend Tri-Party Agreement Milestone M-016-193 by one year to September 30, 2018.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	RL Due Date
RL Transmit Rev. 0 of Stage A Delivery Performance Report to Regulators		11/16/16
RL Transmit Rev. 0 100-KR-4 Interim Action Monitoring Plan to Regulators for Review	11/18/16	12/17/16
RL Transmit Draft A 100-BC-5 RI/FS Report to Regulators for Review	12/2/16	12/15/16
RL Transmit Draft A 100-BC-5 PP to Regulators for Review	12/2/16	12/15/16

Section E

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



R. M. Geimer
Vice President for
K Basin Operations and
Plateau Remediation
(KBO&PR)

October 2016
CHPRC-2016-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

The project completed removal and disposal of the 275EA Steam Lines. The mobile office trailer site has located and cleared in preparation for installation. Mobilization continues for reduction and oxidation (REDOX) roof repairs and removal and disposal of ground interferences North of REDOX was completed.

EMS Objectives and Target Status

None currently identified.

TARGET ZERO PERFORMANCE

	Current Month	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	0	N/A
Total Recordable Injuries	0	0	N/A
First Aid Cases	1	6	While headed back to vehicle after taking photos, the employee failed to see a curb. The employee tripped on the curb and fell. Body part affected: Ankle (24166)
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

RL-0040 Accomplishments

- Operations/Maintenance:
 - o Completed Close Out of 2710S High Risk Demolition Work Package.
 - o Completed Removal and Disposal of 275EA Steam Lines.
 - o Completed Draft and Internal Review of 275EA Facility Status Change Forms.
 - o Completed U Plant Entries in Support of T Plant Canyon Crane Investigations.
 - o Commenced Initial Planning Entries for Development of REDOX North Sample Gallery Work Plans.
 - o Located and Cleared Site for Additional Mobile Office Trailer.
 - o Developed scope of work (SOW) for Executing PUREX Stack Sampling System Replacement Detailed Design.
 - o Completed Functional Reviews for PUREX Stack Sampling System Replacement Detailed Design SOW.
 - o Procured Containments for B Plant ACT pre-filter replacement
 - o Completed Draft and Functional Reviews of B Plant ACT pre-filter replacement work package.
 - o Completed Aerosol testing for HEPA vacuums required to support B Plant ACT pre-filter replacement.
- Continued Progress on Canyon Stabilization Documents:

- o Approved and Released REDOX Complex FY2017 – FY2019 Deactivation Plan.
- o Completed MSA Fire Marshall Review of PUREX FHA.
- o Dispositioned REDOX EE/CA Informal Regulator Document Review Comments.
- o Commenced Preparation of PUREX Tunnel data quality objective (DQO).
- o 276BA Closure plan comment resolution continued; meetings with Ecology were held to review the review comment record (RCR).
- o PUREX North Closure Plan comment review period ended; responses from Ecology are anticipated in November.
- o Removal Action Work Plan (RAWP) for B ancillary (276BA, 222B, 2716B) is at review at Ecology.
- o The RAWP for 242-B/BL and 276C was completed and sent to RL.
- o RAWP for PUREX ancillaries (203A and 211A tank farms) review was completed by RL; comments were incorporated.
- o The REDOX EE/CA dispute was resolved; EPA approved the draft proposal for the document.
- REDOX Roof:
 - o Continued mobilization activities.
 - o Continued planning in support of roof removal activities.
 - o Completed removal and disposal of ground interferences North of REDOX (Power poles, waste containers).
 - o Continued 120V power supply removal investigations.
 - o Continued Fabrication of Roofing Materials

MAJOR ISSUES

None currently identified.

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 stoplight chart:				
No major changes to the monthly stoplight chart in the month of October .				
Realized Risks (Risks that are currently impacting project cost/schedule)				
No realized risks for 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)				

Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
RL-0040/WBS-040										
D4-064: Aging Building Systems/Components	Problems with aging building systems/components (e.g., roofing/structures, etc.) result in inoperability or requires unscheduled maintenance/outages, resulting in cost impacts. Risk Handling Strategy: Accept Probability: Likely (75% to 90%) Worst Case Impacts: \$2 million, 0 day	●	↔	<p>Risk Trigger Metric: During routine surveillance activities, unforeseen events cause systems to be compromised. This is a lifecycle risk and will continue through the CHPRC (September 30, 2018).</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: During monthly routine surveillance activities, it was identified that this risk was triggered based on several events with the PUREX Stack Sample System (i.e., bearing sheaves, belt replacement, damper repairs, heat trace failure, and sample line damaged). A pre-conceptual design has been provided to RL with an estimate for a like for like replacement of the entire PUREX stack sample system. CHPRC was provided a NTE to complete a detailed design package for the system and to start demolition and installation activities; however, it is expected the NTE amount will be expended early on during construction. The SOW for performing the detailed design has been prepared and the RFP will be issued for contractor bid by November month end.</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	1.0	1.0	1.5	0	4.8%	(0.5)	-44.2%

Numbers are rounded to the nearest \$0.1 million

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

The schedule variance is within reporting thresholds.

CM Cost Performance: (-\$0.5M/-44.2%)

The schedule variance is within reporting thresholds.

Contract-To-Date (\$M)

WBS 040/ RL-0040 Nuclear Facility D&D	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Variance at Completion (VAC)
Total	426.5	423.1	391.6	(3.4)	-0.8%	31.5	7.4%	472.3	444.4	28.0

Numbers are rounded to the nearest \$0.1 million

Cost to date (CTD) Schedule Performance: (-\$3.4M/-0.8%)

The schedule variance is within reporting thresholds.

CTD Cost Performance: (+\$31.5M/+7.4%)

The favorable cost variance is due to prior year activity that has been previously reported 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 in base-funded work is due to efficiencies for Surveillance and Maintenance and D4 activities as a result of utilization of existing site equipment and less resources and Program Management utilizing less resources.

Variance at Completion (+\$28.0M/+5.9%)

The favorable Variance at Completion is due to under runs in the Waste Identification Form (WIF) Development, Cold and Dark, and Demolish 212N, 212P, and 212R Projects during the ARRA Project. Efficiencies were gained by combining these activities into the D4 activities thus reducing overall resource requirements.

Contract Performance Report Formats are provided in Appendix A.

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

WBS 040/RL-0040 Nuclear Facility D&D	FY2017		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	36.1	20.3	15.8
Incremental Scope Pending Change Management	0.0	14.8	(14.8)
RL-0040 – Total	36.1	35.1	1.0

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis

FY2017 projected funding for PBS RL-0040 is \$36.1 million.

Critical Path Schedule

Critical path analysis can be provided upon request.

MILESTONE STATUS

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

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-016-250b	Submit to ECY a three-year rolling prioritized schedule to implement waste site removal actions	3/31/2017		3/31/2017	On Schedule
M0-85-80A	Submit to Ecology secondary doc a DQO report to access structural integrity of PUREX storage tunnels 1 and 2.	9/30/2017		9/30/2017	On Schedule

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	RL Due Date
RL Review of 242BBL RAWP	10/10/16 (A)	12/07/16
RL Review of 221B Demo Prep & Stabilization of Legacy Vent System Action Memo	12/20/16	01/23/17
RL Review of 202S Demo Prep / D&D / Annex Action Memo	12/14/16	01/17/17
RL Sign on Facility Status Change Form for 275EA	12/1/16	12/05/16

Section F

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



R. M. Geimer
Vice President for
K Basin Operations and
Plateau Remediation
(KBO&PR)

October 2016
CHPRC-2016-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

M. A. Wright
Vice President for
Project Technical
Services

C. J. Simiele
Vice President for Waste
and Fuels Management
Project (W&FMP)

PROJECT SUMMARY

Support of Truthful Cost and Pricing Data deliverables for change orders definitization of River Corridor Closure Contract (RCCC) scope continued and is expected to be completed in December 2016. In addition, the project continued 100K waste site remediation, 165KE asbestos abatement, 618-10 and 316-4 remediation, 300-296 design for the 324 Building structural modifications and Mockup.

EMS Objectives and Target Status

None currently identified.

TARGET ZERO PERFORMANCE

	Current Month	Rolling 12 Months	Comment
Days Away, Restricted or Transferred	0	0	N/A
Total Recordable Injuries	0	0	N/A
First Aid Cases	1	6	10/10/2016 – Employee entered area near an application of pesticides was being applied. Employee experienced discomfort and taken to HPMC for evaluation. (24141)
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

RL-0041 Accomplishments

- 100K AB Waste Site Area Remediation:
 - In October, the last of 18 chemical waste sites, which included demolition of the south wall of the sedimentation basin (waste site 100-K-101) and the disposal of a total of approximately 135,000 tons (project to date) of contaminated soil and concrete at the Environmental Restoration Disposal Facility (ERDF), was completed.
 - EPA approved Verification Sample instructions for waste sites 126-KE-2, 100-K-14, 100-K-50 and 1607.
 - EPA approved closure of waste site 100-K-105.
- 105-K West Fuel Storage Basin Deactivation
 - The draft long-range plan (LRP) for the deactivation and demolition of K West Fuel Storage Basin (includes work breakdown structure, a preliminary schedule, and relative order of magnitude basis of estimate) was completed and presented to the RL Federal Project Director for funding consideration. CHPRC cost estimating is reviewing the basis of estimate and when complete and comments have been resolved, the LRP will be uploaded to the CHPRC LRP file (TPA-M-16-178 and TPA-M-16-181).

- 165KE Asbestos Abatement:
 - Lower boiler room Negative Pressure Enclosure (NPE) installation completed.
 - Work crew demobilized and sent to PFP for higher priority work. 165-KE asbestos remediation will not restart until fiscal year (FY) 2018.
- Remaining Closure Operations (RCO)
 - Received and reviewed Washington Closure Hanford, LLC (WCH) revegetation contract documentation.
 - Developed scope of work (SOW) and issued contract for FY2017 grass seed.
 - Held a kickoff/planning meeting with revegetation contractor.
- 618-10 Burial Ground:
 - Completed 618-10 documented safety analysis (DSA).
 - 57 of 80 VPU LLW Retrievals Complete.
 - 53 of 80 VPU Fixatives applied.
 - Continued preparations and mockups for 14 Steel VPU Retrievals.
 - 70 Additional drums retrieved and characterized; 1,972 Contract to Date (CTD).
 - 63 additional drums processed; 1,774 CTD.
 - 40 drums shipped to Perma-Fix Northwest (PFNW) for offsite processing.
 - Continued drum excavation and characterization of discovered drums in south trench.
 - Completed “Due Diligence” Radiation Surveys and finalized final draft report.
- 316-4 Waste Site:
 - Completed decommissioning of well 699-S6-E4L.
 - Continued planning and design preparations for 316-4 remediation.
 - Excavation scheduled to begin late November 2016.
- 324 Building Min Safe:
 - Introduced Steam to the building.
 - Completed 8000 HR PM on air compressor CA-CMPR-1001.
 - Batteries replacement in temperature sensors throughout the building.
 - Chasing threads on fan housing bolts for EP-975.
 - Completed EP-901 and EP-902 Cleanout activities.
 - Steam to the EP-902 Coils.
 - Replacement of Fan Motor on Air Cooler Condenser
 - o 324 Exhaust Fan Status: Fan EP975 repair will start on October 20, 2016, and should complete by October 27, 2016. Upon return to 324, the installation and operational checks are anticipated to be a couple of days.
- 300-296 Soil Remediation Project:
 - The project team safely transitioned from 2420 Stevens Center to MO2232 in the 300 Area.
 - Criteria document for the annual update and for the planned new soil remediation addendum has been reviewed and issued.
 - Major modification determination for the facility changes within the 324 Building is in the final review process.
 - Planning for the proof-of-principle testing of the floor saw and Remote Excavator Arm (REA) is underway.
 - Design for the concrete pad is complete and the scope of work, specification, and drawing for the concrete pad for the floor saw testing has begun.
 - Fabrication of the floor saw test article is underway.

- Procurement specification for the waste box that will be used to transport soil bins to ERDF during the soil removal activities at the 324 Building has been formally issued.
 - Nuclear chemical officer and radiological control technician team continues to expand and training continues with the approved training and qualification plan.
 - A breathing air walk-down was conducted to assess conditions within the 324 Building for the Airlock and Cell Cleanout activities.
 - Breathing air compressor and associated equipment was received and planning has been initiated to prepare the equipment to support the scheduled activities.
- ERDF:
 - 42 of 81 post transition items
 - Receipt of 5,489 tons by CHPRC fiscal year to date (FYTD).
 - Completed commercial vehicle safety alliance inspection of shuttle trucks

PTS Accomplishments

- 300-296 Soil Remediation Project
 - Completed surveying at mockup site and at the 324 Building in support of the N access ramp. Completed housekeeping activities and weed removal at the Mockup site.
 - Progressing infrastructure design at 300-296 site.
 - Issued request for proposal (RFP) for Mobile Office Trailer procurements.
 - Eco/Cultural review completed for the 300-296 site.
 - Received City of Richland permit comments on infrastructure permit at mockup site.

MAJOR ISSUES

None currently identified.

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 to the monthly stoplight chart in the month of October .				
Realized Risks (Risks that are currently impacting project cost/schedule)				
No realized risks for 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)				

<p>RCC-618-10-07: Contamination Event at 618-10 Waste Site</p>	<p>During field work activities, a contamination event occurs that requires corrective actions, resulting in schedule and cost impacts.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Low (10% to 25%) Worst Case Impacts: \$1,288K, 64 days</p>			<p>Risk Trigger Metric: Heavy rainfall or high winds could indicate that a contamination event is about to occur. Biological spread of contamination is also possible.</p> <table border="1" data-bbox="878 302 1563 380"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Post-Transition due diligence perimeter surveys completed.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Enhanced radiological controls implemented on project.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Assessment: 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 the baseline (i.e. a prolonged work shutdown).</p>	Mitigation action(s)	FC Date	%	Post-Transition due diligence perimeter surveys completed.	Ongoing	N/A	Enhanced radiological controls implemented on project.	Ongoing	N/A						
Mitigation action(s)	FC Date	%																	
Post-Transition due diligence perimeter surveys completed.	Ongoing	N/A																	
Enhanced radiological controls implemented on project.	Ongoing	N/A																	
<p>RCC-618-10-09: Discovery of Unexpected Waste</p>	<p>Discovery of unexpected waste/contamination, waste/contamination quantities above what is assumed, waste/contamination that is above and beyond COC's or waste profile, or waste/contamination is found in the assumed clean area of the design. Resulting in greater than planned RAD controls resulting in cost and schedule impacts.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Very Low (<10%) Worst Case Impacts: \$640K, 64 days</p>			<p>Risk Trigger Metric: Risk has been triggered by discovery of more drums than planned. Air/radiation monitoring surveys could indicate unexpected contamination found during excavation activities.</p> <table border="1" data-bbox="878 722 1563 800"> <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: The estimate for the remediation of the 618-10 waste site included an assumed amount of additional drums still to be remediated. The project has identified unexpected additional drums that were not planned or estimated. The project will continue to closely monitor and manage waste inventories and any new discoveries.</p>	Mitigation action(s)	FC Date	%	Closely managing waste inventories and discoveries and making adjustments as required.	Ongoing	N/A									
Mitigation action(s)	FC Date	%																	
Closely managing waste inventories and discoveries and making adjustments as required.	Ongoing	N/A																	
<p>RCC-300-296-03: Mockup testing and qualification of remote equipment / process identifies major modification requirements.</p>	<p>Issues such as equipment interferences, equipment reliability, etc. arise during mockup or component testing, resulting in negative cost or schedule impacts during future production work. There is the potential for more frequent equipment repairs/full equipment change-outs than planned, which could result in cost and schedule impacts.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Low (10% to 25%) Worst Case Impacts: \$86K, 80 days</p>			<p>Risk Trigger Metric: Risk could be triggered through the conduct of component testing or testing/training performed at the mockup that produced inadequate or unexpected test results.</p> <table border="1" data-bbox="878 1121 1563 1352"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Conduct REA Pass Through Testing at MASF to Determine Equipment Limitations & Hose Management (3420)</td> <td>10/18/17</td> <td>0</td> </tr> <tr> <td>Conduct Concrete Floor Saw Test (cut rate, embedment cutting) and determine P.O.P. (3500)</td> <td>08/01/17</td> <td>0</td> </tr> <tr> <td>Perform Construction Acceptance Test at Mockup Facility (3550)</td> <td>10/02/18</td> <td>0</td> </tr> <tr> <td>Conduct Full Equipment Test at Mockup Facility (3551)</td> <td>10/31/18</td> <td>0</td> </tr> </tbody> </table> <p>Mitigation Assessment: The Mockup is used primarily for training personnel for installation, removal, and operation of soil remediation equipment in the 324 Building. Remotely operated equipment (e.g. floor saw and REAs) could experience higher failure rates and/or performance issues from lack of thorough demonstration testing. This risk is being controlled through the mitigation actions identified above. Through testing of the major equipment, the project can identify and resolve issues before the execution of the actual remediation work.</p>	Mitigation action(s)	FC Date	%	Conduct REA Pass Through Testing at MASF to Determine Equipment Limitations & Hose Management (3420)	10/18/17	0	Conduct Concrete Floor Saw Test (cut rate, embedment cutting) and determine P.O.P. (3500)	08/01/17	0	Perform Construction Acceptance Test at Mockup Facility (3550)	10/02/18	0	Conduct Full Equipment Test at Mockup Facility (3551)	10/31/18	0
Mitigation action(s)	FC Date	%																	
Conduct REA Pass Through Testing at MASF to Determine Equipment Limitations & Hose Management (3420)	10/18/17	0																	
Conduct Concrete Floor Saw Test (cut rate, embedment cutting) and determine P.O.P. (3500)	08/01/17	0																	
Perform Construction Acceptance Test at Mockup Facility (3550)	10/02/18	0																	
Conduct Full Equipment Test at Mockup Facility (3551)	10/31/18	0																	

<p>RCC-300-296-11: Current REC cell seismic analysis is inadequate</p>	<p>Regulatory agencies require different seismic analysis criteria than the UBC 1961 methodology that was originally used, resulting in additional design and more significant structural alterations to 324 Building, which would negatively impact project cost and schedule. Risk Handling Strategy: Control</p> <p>Probability: Low (10% to 25%) Worst Case Impacts: \$288K, 48 days</p>			<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" data-bbox="872 312 1554 365"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Engage 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 was based on the 1961 Uniform Building Code (UBC). Facility structural modifications have been analyzed using the UBC 1961 methodology (Section 7.8, KUR-1782F-CALC-C001, 324 BUILDING REC STRUCTURAL STABILITY EVALUATION) as the most appropriate and cost effective approach given the overall intent to remediate the building following soil removal. Through early engagement with DNFSB, this risk can be reduced so that it carries a very low probability to impact the project. The risk can be closed once RL accepts the CHPRC analysis and issues the safety evaluation report, which is expected in December 2017.</p>	Mitigation action(s)	FC Date	%	Engage DNFSB early concerning seismic design criteria	Ongoing	N/A
Mitigation action(s)	FC Date	%								
Engage DNFSB early concerning seismic design criteria	Ongoing	N/A								
<p>Unassigned Risks (Pending ownership of identified risks/opportunities)</p>										
<p>No unassigned risks identified in the month of October.</p>										

PROJECT BASELINE PERFORMANCE

Current Month

(\$M)

WBS 041/RL-0041 Nuclear Facility D&D – River Corridor	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	5.5	6.6	5.7	1.1	20.0%	0.9	13.7%

Numbers are rounded to the nearest \$0.1 million

CM Schedule Performance (+\$1.1M/+20.0%)

The favorable schedule variance reflects the accelerated completion of 618-10 blue-sheeted of procedures and manuals into the CHPRC system ahead of schedule as well as completion of previously behind schedule drum processing activities. Additionally, implementation of BCR-041C-17-003R0, Incorporate DOE direction for Capital/Operations Split for 100K Remediation, that transferred scope from Capital Asset WBS elements to Operations WBS elements, resulted in the movement of unfunded scope from prior years to FY2017/FY2018, creating a current month positive schedule point adjustment of \$944K.

CM Cost Performance (+\$0.9M/+13.7%)

The favorable cost variance is primarily due to delays in the 618-10 consumable materials and mixing box procurements, reversal of a year-end accrual that was overstated, as well as slight delays in the establishment of subcontracts to capture all invoices and accruals.

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)	Variance at Completion (VAC)
Total	353.8	363.0	324.7	9.2	2.6%	38.3	10.6%	527.4	478.3	49.1

Numbers are rounded to the nearest \$0.1 million

CTD Schedule Performance (+\$9.2M/+2.6%)

The schedule variance is within reporting thresholds.

CTD Cost Performance (+\$38.3M/+10.6%)

The favorable cost variance is primarily due to prior year activity that have been previously reported and Confirmatory Sampling No Action (CSNA) waste sites that were completed early and under cost. In addition, less demolition was required for the KE Sedimentation Basin and there were underruns in G&A and Direct Distributable costs. This was partially offset by the cost overruns in prior years for the Utilities Project.

Variance at Completion (+\$49.1M/+9.3%)

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

Contract Performance Report Formats are provided in Appendix A.

FUNDS vs. SPEND FORECAST (\$M)

WBS 041/RL-0041 Nuclear Facility D&D – River Corridor	FY2017		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	139.4	97.0	42.4
Incremental Scope Pending Change Management	0	34.4	(34.4)
RL-0041 - Total	139.4	131.4	8.1

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis:

FY2017 projected funding for PBS-0041 is \$139.4 million.

Critical Path Schedule

Critical Path Analysis can be provided upon request.

MILESTONE STATUS

None currently identified.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS / DECISIONS

None currently identified.

Section G

Fast Flux Test Facility Closure (RL-0042)



R. M. Geimer
Vice President for
K Basin Operations and
Plateau Remediation
(KBO&PR)

October 2016
CHPRC-2016-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

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

EMS OBJECTIVES AND TARGET STATUS

None currently identified.

TARGET ZERO PERFORMANCE

	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

- Completed paperwork to support mobile office trailer installation and cleared site.
- Placed order for Electrical Fire Pump Control Panel Replacement.
- 481 Fire Suppression Riser Supply Piping –Subcontractor Inspection Report completed
- Project Technical Services (PTS) started development of the draft work package to execute the P-16 submersible pump replacement.
- Ordered the necessary parts and pump replacement for replacing the failed P-16 submersible pump.
- Developed the draft engineering change request (ECR), sketches and subcontractor scope of work (SOW) for installing the P-16 submersible pump replacement and routed for functional reviews.
- Drained the T-58 and T-87 tanks and installed new heating elements; new conduit still needs to be installed prior to returning the tanks to service.
- Ordered service water pump replacements for the 481 building; however, the pump was rejected during on-site inspections due to physical damage/sizing issues. Started coordinating delivery of a replacement with the vendor.
- Ordered a new boroscope to assist with fire suppression riser inspection in the 481 Building.
- Routed ebom for purchasing new ductless cooling pump system for the 481 Building.
- Continued drafting the ECR to replace the FFTF contactor to resolve maintenance issues with the 481 Building motor control centers.
- Identified a preferred location for installing a new 400 Area change trailer for stationary operating engineers and removed an unoccupied trailer from the preferred location.

- Obtained fire marshal acceptance on the proposed location for the new 400 Area change trailer.

PTS Accomplishments

- None identified at this time.

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)	-1.7%	0.0	39.0%

Numbers are rounded to the nearest \$0.1M

CM Schedule Performance: (-\$0.0M/-1.7%)

The schedule variance is within reporting thresholds.

CM Cost Performance: (+\$0.0M/+39.0%)

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)	Variance at Completion (VAC)
Total	22.3	22.3	18.1	(0.0)	-0.0%	4.2	18.7%	26.5	22.8	3.6

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/+18.7%)

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

Variance at Completion (+\$3.6M/+13.6%)

The Variance at Completion is within reporting thresholds.

Contract Performance Report Formats are provided in Appendix A.

FUNDS VS. SPEND FORECAST (\$M)

RL-0042 FFTF Closure	FY2017		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	3.9	1.5	2.3
Incremental Scope Pending Change Management	0.0	0.0	0.0
RL-0042 – Total	3.9	1.5	2.3

Numbers are rounded to the nearest \$0.1 million

Funds Analysis

FY2017 projected funding for PBS RL-0042 is \$3.9 million.

Critical Path Schedule

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

MILESTONE STATUS

None currently identified.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS/DECISIONS

None currently identified.

Appendix A

Contract Performance

Reports

Format 1 - Work Breakdown Structure

Format 2 - Organizational Categories

Format 3 - Baseline

Format 4 - Staffing

Format 5 - Explanation and Problem Analysis



October 2016
CHPRC-2016-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

**CONTRACT PROGRAM MANAGEMENT REPORT
FORMAT 1 - WORK BREAKDOWN STRUCTURE**

DOLLARS IN Thousand \$ PENDING UPDATE TO 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) 2016 / 10 / 01		
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE			b. TO (YYYYMMDD) 2016 / 10 / 23		
		c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE	NO	X	YES	(YYYYMMDD) 2009 / 09 / 18	

5. CONTRACT DATA									
a. QUANTITY 1	b. NEGOTIATED COST 5,581,041	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 140,539	d. TARGET PROFIT/FEE 241,230	e. TARGET PRICE 5,822,271	f. ESTIMATED PRICE 5,791,717	g. CONTRACT CEILING 5,822,271	h. ESTIMATED CONTRACT CEILING 5,791,717	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		5,478,827			c. SIGNATURE			d. DATE SIGNED (YYYYMMDD)	
b. WORST CASE		5,574,057							
c. MOST LIKELY		5,550,486	5,721,580	171,093					

8. PERFORMANCE DATA	CAPN.PBS																			
	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)				
	ITEM (1)	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)									
	RL-0011 Nuclear Mat Stab & Disp PFP	3,459	1,850	7,498	-1,609	-5,649	968,389	917,141	952,635	-51,248	-35,494	0	0	0	979,501	1,037,498	-57,996			
	RL-0012 SNF Stabilization & Disp	4,531	4,707	4,968	177	-261	627,221	628,417	602,576	1,196	25,841	0	0	0	737,684	711,243	26,440			
	RL-0013 Solid Waste Stab & Disp	5,928	6,776	6,319	848	457	1,097,024	1,099,867	1,029,418	2,843	70,449	0	0	0	1,341,140	1,289,679	51,461			
	RL-0030 Soil & Water Rem-Grndwtr/Vadose	6,585	6,884	6,717	298	166	1,291,185	1,279,652	1,250,410	-11,532	29,242	0	0	0	1,563,894	1,493,433	70,462			
	RL-0040 Nuc Fac D&D - Remainder Hanfrd	992	1,040	1,500	48	-460	426,453	423,053	391,568	-3,401	31,484	0	0	0	472,334	444,373	27,961			
	RL-0041 Nuc Fac D&D - RC Closure Proj	5,470	6,565	5,663	1,095	903	353,805	363,048	324,729	9,244	38,320	0	0	0	523,965	474,853	49,113			
	RL-0042 Nuc Fac D&D - FFTF Proj	118	116	71	-2	45	22,284	22,281	18,116	-3	4,165	0	0	0	26,455	22,846	3,609			
	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														4,903	4,903	0			
	e. SUBTOTAL	27,083	27,937	32,736	854	-4,798	4,786,361	4,733,459	4,569,453	-52,902	164,006	0	0	0	5,649,876	5,478,827	171,049			
	f. MANAGEMENT RESERVE														71,660					
	g. TOTAL	27,083	27,937	32,736	854	-4,798	4,786,361	4,733,459	4,569,453	-52,902	164,006	0	0	0	5,721,536					
	9. RECONCILIATION TO CONTRACT BUDGET BASELINE																			
	a. VARIANCE ADJUSTMENT															0				
	b. TOTAL CONTRACT VARIANCE															-52,902	164,006	5,721,536	5,478,827	242,709

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

CLASSIFICATION (When Filled In)

**CONTRACT PROGRAM MANAGEMENT REPORT
FORMAT 2 - ORGANIZATIONAL CATEGORIES**

DOLLARS IN Thousand \$

PENDING UPDATE TO
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) 2016 / 10 / 01		
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE			b. TO (YYYYMMDD) 2016 / 10 / 23		
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO X YES (YYYYMMDD) 2009 / 09 / 18					

WBS.Resp Org Group WBS.Resp Org Code 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	710	567	553	-143	14	65,075	65,052	60,463	-23	4,589	0	0	82,493	80,592	1,901		
340 - Environmental Prog & Regl Mgt	710	567	553	-143	14	65,075	65,052	60,463	-23	4,589	0	0	82,493	80,592	1,901		
35 - Business Services	0	0	0	0	0	472,524	472,524	448,542	0	23,982	0	0	472,524	448,542	23,982		
36K - Support to PRC Finance	0	0	0	0	0	472,524	472,524	448,542	0	23,982	0	0	472,524	448,542	23,982		
36 - Prime Contract & Proj Integr	99	99	108	0	-9	5,203	5,203	2,733	0	2,470	0	0	8,414	6,033	2,381		
365 - Perf Assess & Risk Mgmt	99	99	108	0	-9	5,203	5,203	2,733	0	2,470	0	0	8,414	6,033	2,381		
3B - PFP Closure Project	3,459	1,850	7,489	-1,609	-5,639	881,130	829,882	873,256	-51,248	-43,374	0	0	892,242	957,874	-65,631		
36V - Matrixed to PFP	0	0	0	0	0	4,822	4,822	5,328	0	-507	0	0	4,822	5,328	-507		
3B0 - PFP Close/BOSS D&D & Infrastruc	0	0	5	0	-5	134	134	134	0	0	0	0	134	555	-422		
3B3 - Project Management/Subcontracts	1	800	3,603	799	-2,802	384,875	380,967	409,312	-3,908	-28,344	0	0	385,523	424,472	-38,949		
3B4 - Engrg Nuc Saf Plng&Wrk Control	3,162	1,013	1,706	-2,149	-693	195,724	150,169	185,501	-45,555	-35,332	0	0	205,514	228,722	-23,208		
3B7 - Environmental & Waste	284	25	685	-259	-659	72,867	71,081	60,394	-1,786	10,687	0	0	73,507	77,943	-4,436		
3B8 - Project Mgmt D&D	11	11	1,491	0	-1,479	222,710	222,710	212,587	0	10,123	0	0	222,743	220,853	1,890		
3C - Waste & Fuels Management Project	8,013	8,858	8,286	844	572	997,749	1,000,528	927,995	2,779	72,533	0	0	1,282,069	1,226,935	55,133		
3C0 - Waste & Fuels Management Proj	2,757	3,411	2,742	653	669	28,048	26,285	25,911	-1,763	374	0	0	53,076	53,740	-664		
3CE - Fuels Facilities	1,181	1,236	1,479	55	-243	100,624	100,307	101,807	-316	-1,499	0	0	145,309	149,429	-4,120		
3CF - Waste Disposition	1,783	1,818	1,845	35	-26	410,331	410,073	383,187	-259	26,886	0	0	486,044	450,568	35,476		
3CG - W&FMP Projects & Strategic Programs	19	21	39	2	-18	63,301	62,984	56,153	-317	6,831	0	0	63,974	56,800	7,175		
3CH - Maintenance & Waste Integration	663	768	889	105	-121	171,719	178,702	158,687	6,984	20,016	0	0	186,765	175,872	10,894		
3CJ - W&FMP Engineering & Tech Support	88	141	108	53	33	3,357	3,368	2,597	11	770	0	0	73,524	103,375	-29,852		
3CK - W&FMP Business Services	1,522	1,463	1,185	-59	279	220,369	218,809	199,653	-1,560	19,156	0	0	273,376	237,152	36,224		
3D - Soil & Groundwater Remediation	5,842	6,283	6,127	441	156	1,126,469	1,114,960	1,084,095	-11,509	30,866	0	0	1,380,616	1,305,875	74,741		
3D0 - Soil & Groundwater Remediation	950	952	908	1	43	106,430	106,431	99,558	1	6,873	0	0	139,490	121,402	18,088		
3D2 - GW Remediation Support	966	1,439	1,299	474	141	219,743	220,326	204,790	583	15,536	0	0	284,861	269,390	15,472		
3D4 - GW Operations	2,153	2,155	2,105	2	50	239,638	239,589	217,872	-49	21,717	0	0	316,879	276,952	39,927		
3D8 - GW Analysis and Reporting	1,773	1,738	1,815	-35	-78	560,659	548,615	561,876	-12,044	-13,261	0	0	639,385	638,130	1,254		
3G - K Basin Oper & Plateau Remediation Project	8,960	10,281	10,173	1,321	108	1,238,210	1,245,310	1,172,370	7,100	72,940	0	0	1,526,615	1,448,073	78,542		
32X - Support to KBOPR	158	206	107	48	99	8,793	8,655	8,611	-138	44	0	0	13,712	12,272	1,440		
38Z - Support to STP	1,895	2,050	2,411	155	-361	117,419	119,400	111,521	1,982	7,879	0	0	145,169	141,981	3,188		
3CX - support to 3G 100K Area Project & BOS D&D	0	0	0	0	0	13,577	13,577	18,217	0	-4,640	0	0	13,577	18,217	-4,640		
3G0 - K Basin Oper & Plateau Remediation Project	1,318	1,400	1,251	82	149	6,934	6,783	6,658	-151	125	0	0	19,073	18,992	82		
3G1 - STP / 100K	1,210	1,202	1,139	-8	62	289,029	288,777	274,610	-252	14,167	0	0	322,035	303,710	18,325		
3G2 - CPS&M / D4	742	1,669	2,256	926	-588	606,237	612,500	567,385	6,263	45,116	0	0	720,096	669,747	50,349		
3G4 - ESHQ&R	20	20	0	0	20	34,085	34,085	27,144	0	6,941	0	0	36,201	28,838	7,363		
3G5 - Environmental Compliance	0	0	0	0	0	0	0	0	0	0	0	0	1,480	1,384	96		
3G8 - 100 K Operations	1,278	1,261	1,316	-18	-55	156,569	156,173	153,818	-396	2,355	0	0	201,710	199,741	1,968		
3G9 - 618-10 Remediation	2,339	2,476	1,692	136	783	5,567	5,359	4,406	-208	953	0	0	53,562	53,192	371		
b. COST OF MONEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
c. GENERAL AND ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
d. UNDISTRIBUTED BUDGET													4,903	4,903	0		
e. SUBTOTAL (Performance Measurement Baseline)	27,083	27,937	32,736	854	-4,798	4,786,361	4,733,459	4,569,453	-52,902	164,006	0	0	5,649,876	5,478,827	171,049		
f. MANAGEMENT RESERVE													71,660				
g. TOTAL	27,083	27,937	32,736	854	-4,798	4,786,361	4,733,459	4,569,453	-52,902	164,006	0	0	5,721,536				

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

CONTRACT PERFORMANCE REPORT															Form Approved OMB No. 0704-0188				
FORMAT 3 - BASELINE										DOLLARS IN THOUSANDS									
1. CONTRACTOR CH2M HILL Plateau Remediation Company b. LOCATION: Richland, WA			2. CONTRACT a. NAME: Plateau Remediation Contract b. NUMBER: RL14788 c. TYPE: CPAF d. SHARE RATIO:				3. PROGRAM a. NAME: Plateau Remediation Contract b. PHASE c. EVMS ACCEPTANCE NO YES X 9/18/2009				4. REPORT PERIOD a. FROM: 2016/10/01 b. TO: 2016/10/23								
5. CONTRACT DATA																			
a. ORIGINAL NEGOTIATED COST 4,312,366			b. NEGOTIATED CONTRACT CHANGE \$1,268,675		c. CURRENT NEGOTIATED COST (A + B) \$5,581,041		d. ESTIMATED COST AUTH UNPRICED WORK \$140,539		e. CONTRACT BUDGET BASE (C + D) \$5,721,580		f. TOTAL ALLOCATED BUDGET \$5,721,536		g. DIFFERENCE (E - F) \$44						
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-16 (4)	+2 Dec-16 (5)	+3 Jan-17 (6)	+4 Feb-17 (7)	+5 Mar-17 (8)	+6 Apr-17 (9)	FY09-13 (10)	FY14 (11)	FY15 (12)	FY16 (13)	FY17 (14)		
a. PM BASELINE (BEGIN OF PERIOD)			4,759,278	27,597	38,745	47,879	35,194	39,502	45,325	39,061	3,391,477	391,653	471,323	504,826	472,750	406,439	2,715	5,641,182	
b. BASELINE CHANGES AUTH DURING REPORT PERIOD																			
BCR-012C-17-003R0 - SRP Annex Equipment Installation MR Draw														0	754			754	
BCR-013-17-003R0 - Convert W-135 Planning Packages to Work Packages (Non-CAP)															(31,844)	31,844		(0)	
BCR-013C-17-001R0 - Convert W-135 Planning Packages to Work Packages															23	(23)		0	
BCR-030-17-001R0 - Incorporate CO #312 Biomobilization & Biointrusion Sampling & Analysis Plan														0	162			162	
BCR-041C-17-001R0 - FY2017 Calendar Change - RL-041 CAP 1														0	(0)			(0)	
BCR-041C-17-002R0 - Incorporate Additional Scope for 300-296 Waste Site Design Revisions														0	5,590			5,590	
BCR-041C-17-003R0 - Incorporate DOE Direction for Capital/Operations Split for 100K Remediation														0	(944)	944		0	
BCR-041C-17-004R0 - PBS RL-041 Undistributed Budget Adjustments October 2016																	2,000	2,000	
BCR-PRC-17-002R0 - FY2017 Calendar Change - OA Projects															0			0	
BCR-PRC-17-003R0 - Undistributed Budget Adjustments October 2016																	188	188	
c. PM BASELINE (END OF PERIOD)			4,786,362	27,083	40,481	38,932	34,777	37,937	42,828	37,502	3,391,477	391,653	471,323	504,826	446,491	439,204	4,903	5,649,876	
7. MANAGEMENT RESERVE																		71,660	
8. TOTAL																		5,721,536	

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CLASSIFICATION (When Filled In)

CONTRACT PROGRAM MANAGEMENT REPORT FORMAT 4 - STAFFING													PENDING UPDATE TO OMB No. 0704-0188	
1. CONTRACTOR			2. CONTRACT				3. PROGRAM			Dollars: FTE			4. REPORT PERIOD	
a. NAME CH2M HILL Plateau Remediation Company			a. NAME Plateau Remediation Contract				a. NAME Plateau Remediation Contract			a. FROM (YYYYMMDD) 2016 / 10 / 01			b. TO (YYYYMMDD) 2016 / 10 / 23	
b. LOCATION (Address and ZIP Code) Richland, WA			b. NUMBER RL14788				b. PHASE			c. EVMS ACCEPTANCE NO <input type="checkbox"/> X YES <input checked="" type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18				
			c. TYPE CPAF				d. SHARE RATIO							
5. PERFORMANCE DATA														
WBS.Resp Org Group		ACTUAL CURRENT PERIOD	ACTUAL END OF CURRENT PERIOD (Cumulative)	FORECAST (Non-Cumulative)										AT COMPLETION
ORGANIZATIONAL CATEGORY (1)				SIX MONTH FORECAST BY MONTH (Enter names of months)						ENTER SPECIFIED PERIODS				
		(2)	(3)	+1 NOV 2016 (4)	+2 DEC 2016 (5)	+3 JAN 2017 (6)	+4 FEB 2017 (7)	+5 MAR 2017 (8)	+6 APR 2017 (9)	REMAIN FY17 (10)	FY18 (11)	FY19-LC (12)	(15)	
300 - Office of the President		5	660	6	6	6	6	6	6	30	63	0	789	
303 - Internal Audit		4	425	5	5	5	5	5	5	25	60	0	540	
304 - General Counsel		6	396	5	5	5	5	5	5	25	60	0	510	
31 - Communications		9	925	9	9	9	9	9	9	45	108	0	1132	
32 - Safety Health Security & Quality		57	6588	67	65	65	65	65	65	324	785	0	8090	
34 - Env Program & Strategic Plng		40	4372	46	48	48	48	48	47	230	602	0	5489	
35 - Business Services		61	6992	72	72	72	72	72	72	358	772	0	8555	
36 - Prime Contract & Proj Integr		64	4347	71	71	71	71	71	71	347	701	0	5820	
38 - Project Technical Services		32	5228	38	38	38	38	38	38	187	426	0	6069	
3B - PFP Closure Project		367	45775	396	392	353	359	280	184	559	45	0	48343	
3C - Waste & Fuels Management Project		436	46325	435	414	387	399	405	412	1948	4156	694	55575	
3D - Soil & Groundwater Remediation		287	32970	274	267	276	276	283	288	1388	3445	746	40213	
3G - K Basin Oper & Plateau Remediation Project		365	43733	505	526	515	452	447	405	1924	4208	211	52926	
g. TOTAL DIRECT		1733	198735	1929	1918	1850	1806	1734	1608	7391	15430	1651	234052	

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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) 2016/10/01			
b. LOCATION (Address and ZIP Code) Richland, WA 99354		b. NUMBER DE-AC06-08RL14788		b. PHASE Base		b. TO (YYYY/MM/DD) 2016/10/23			
		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:	27,083	27,937	32,736	854	3.2%	(4,798)	-17.2%	1.03	0.85
Cumulative:	4,786,362	4,733,459	4,569,453	(52,902)	-1.1%	164,006	3.5%	0.99	1.04
	BAC	EAC	VAC in \$	VAC in %	TCPI				
At Complete:	5,649,876	5,478,827	171,049	3.0%	1.01				
Explanation of Variance/Description of Problem:									
Current Period Schedule Variance: The current month schedule variance is within reporting thresholds.									
Current Period Cost Variance: The current month negative cost variance is primarily due to PBS RL-0011 progress on discrete deactivation and decommissioning (D&D) work scope (apportioned) while a constant staff provides D&D support services. Subcontracted labor support costs are higher than planned due to the extension of field work completion date, as a result of impacts from the discrete work scope falling behind schedule. Cost of consumable materials are more than planned due to the extended time frame that it is taking to complete discrete ready for demolition field work. In addition, delay in completion of the PFP Project to achieve slab on grade is also causing a needed extension of Min Safe and Maintenance resources without (BCWS) to support the remaining D&D work scope until the facility becomes demo ready. The variance is partially offset due to PBS RL-0041 reversal of an accrual processed in the prior period and invoices associated with processing of waste from an offsite subcontractor were less than anticipated in the period due to modifications of invoice/contract needed prior to final approval of costs.									
Cumulative Schedule Variance: The variance is within reporting thresholds.									
Cumulative Cost Variance: The variance is within reporting thresholds.									
Impact:									
Current Period Schedule: The lifecycle EAC has been updated. No significant impact overall.									
Current Period Cost: The lifecycle EAC has been updated. No significant impact overall.									
Cumulative Schedule: N/A									
Cumulative Cost: N/A									
Corrective Action:									
Current Period Schedule: No Corrective actions, the EAC has been adjusted accordingly.									
Current Period Cost: EAC has been adjusted accordingly.									
Cumulative Schedule: N/A									
Cumulative Cost: N/A									
Monthly Summary (to include technical causes of VARs, Impacts, and Corrective Action(s):									
CHPRC continues to track completion of contract scope within budget and is currently projecting a Variance at Completion of \$171.0 million with \$71.7 million of Management Reserve (MR) for a total positive variance of \$242.7 million. For October, the project was 3.2 percent ahead of schedule and 17.2 percent over planned cost. Contract to Date (CTD), the project was 1.1 percent behind schedule and 3.5 percent under planned cost.									
There were two significant BCRs in the period that impacted the PMB; BCR-041C-17-002R0 – <i>Incorporate Additional Scope for 300-296 Waste Site Design Revisions</i> , and BCR-012C-17-003R0 – <i>SRP Annex Equipment Installation MR Draw</i> .									
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 + \$171.0 million, +3.0% and is within reporting thresholds.									

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

Format 1 and 3 Contract Data:		Contract Price Adjustments	
CPS - In Process			
	Total Authorized Unpriced Work		\$140,539
Approved Adjustments to Contract Price (not reflected in B.4-1 Table)			
	Total Negotiated Cost Changes		-
	Grand Total Adjustments		\$140,539

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

BCR Number	Title	PBS	Fiscal Year	UB
BCR-041C-17-004R0	<i>PBS RL-0041 Undistributed Budget Adjustments October 2016</i>	RL-0041	2015 - 2018	\$2,000K
BCR-PRC-17-003R0	<i>Undistributed Budget Adjustments October 2016</i>	RL-0011 RL-0030	2015 - 2018	\$188K

The Undistributed Budget increased by \$2,188K.

Management Reserve Activity

BCR Number	Title	PBS	Fiscal Year	MR
BCR-012C-17-003R0	<i>SRP Annex Equipment Installation MR Draw</i>	RL-0012	2015 - 2018	-\$754K

Overall, there was a decrease in Management Reserve (MR) of \$754K during October.

Fee Activity

BCR Number	Title	PBS	Fiscal Year	Fee
N/A	N/A	N/A	2015 - 2018	N/A

Overall, there was no change to Fee 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: 11/16/2016	Approved by:	Date:
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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 2016
CHPRC-2016-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

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

D. A. Millikin
Director of
Communications

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

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

PROGRAM SUMMARY

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

EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
17-EMS-ADMIN-OB1-T1	Reduce energy intensity.	Increase facility occupancy rates to greater than 83% by compressing occupancy and vacating underutilized facilities. Vacated/unoccupied facilities declared unusable and designated inactive placed in Care Taker system.	9/30/17	0%
17-EMS-ADMIN-OB2-T1	Maximize the acquisition and use of environmentally preferable products in the conduct of operations.	Establish/utilize green catalogs to maximum extent for products beyond office supply purchases on the web site.	10/9/17	0%
17-EMS-PTS-OB1-T1	Universal Waste, Recycling Compliance, Spill Prevention, and Satellite Accumulation Area Inspections.	Monitor and evaluate universal waste, other recycling, and satellite accumulation areas for compliance with CHPRC procedures and WAC 173-303 regulations.	9/30/17	8%
17-EMS-PTS-OB2-T1	Monthly Chemical Management Inspection.	Ensure chemical products are accurately tracked, maintained, and excessed/disposed. Perform quarterly assessment on chemical inventory locations.	9/30/17	8%

TARGET ZERO PERFORMANCE

	Current Month	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	0	N/A
Total Recordable Injuries	1*	2	*9/29/16 – Worker was rear ended by another vehicle that had been rear ended by an MSA vehicle (24136)
First Aid Cases	0	4	N/A
Near-Misses	0	0	N/A

KEY ACCOMPLISHMENTS

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

- There were no injuries during the month of October in the functional groups; however, a September injury was posted this month.
 - o Occupational Safety and Industrial Hygiene (OS&IH) accomplishments:
 - Completed 54 beryllium annual assessments in October.
 - Provided technical support to Project Technical Services (PTS) regarding Reduction-Oxidation (REDOX) roof asbestos work plan.
 - Provided technical review of Plutonium Finishing Plant (PFP) Industrial Hygiene Exposure Assessments for Plutonium Reclamation Facility (PRF) demolition.
 - Initiated the Vehicle Safety Board to review recent and past events to determine appropriate corrective actions to reduce incidents.
 - o Radiological Control accomplishments:
 - Completed due diligence radiological surveys at 618-10 and submitted final report.
 - Supported PFP readiness for PRF demolition activities.
 - o Nuclear Operations Support & Compliance accomplishments:
 - Correspondence sent to RL:
 - Letter, CHPRC-1604548, dated October 17, 2016, *Transmittal of the 2016 Annual Update to HNF-14804, Revision 7, B Plant Documented Safety Analysis, the Unreviewed Safety Question Determination Summary, and CP-41842, Revision 1, B-Plant Fire Hazards Analysis.*
 - Letter, CHPRC-1604692, dated October 20, 2016, *Transmittal of PRC-STP-00946, Revision 0, 105KW Facility Documented Safety Analysis, PRC-STP-00992, Revision 0, 105KW Facility Technical Safety Requirements, and HNF-SD-SNF-FHA-001, Revision 4, Fire Hazards Analysis for the 105KW Facility.*
 - Letter, CHPRC-1604889, dated October 27, 2016, *Transmittal of the 2016 Annual Update to the Waste Encapsulation and Storage Facility Documented Safety Analysis, HNF-8758, Revision 12, the Waste Encapsulation and Storage Facility Technical Safety Requirements, HNF-8759, Revision 12, Summary of the Waste Encapsulation and Storage Facility Unreviewed Safety Question Determinations, and the Fire Hazards*

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CHPRC-2016-10, Rev. 0 · Appendix B

Analysis For Building 225-B Waste Encapsulation and Storage Facility, HNF-SD-WM-FHA-019, Revision 8.

- Correspondence received from RL:
 - Letter, 16-ESQ-0121, dated September 30, 2016, *Transmittal of Assessment on CH2M HILL Plateau Remediation Company (CHPRC), Design Control, A-16-ESQ-CHPRC-001.*
 - OPAW Report, Operation Awareness Report, *RL NCS SME Review of the Documented Safety Analysis for the Reduction-Oxidation Facility (CHPRC-1603084)*, dated October 6, 2016.
 - OPAW Report, Operational Awareness Report, *2016 Annual Update of the Package-Specific Safety Document for the Steel Drums (CHPRC-01039, Rev. 3) (No Changes)*, dated October 26, 2016.
- Other:
 - CSER 15-004, Revision 2, *Criticality Safety Evaluation Report for Removal of Residual Pipe and Drain Line at the Plutonium Finishing Plant.*
 - CSER 15-002, Revision 3, *Criticality Safety Incredibility Evaluation Report for the Final Demolition of Buildings 234-5Z, 236-Z and 242-Z.*
 - HNF-7098, Revision 26, *Criticality Safety Program.*
- o Contractor Assurance Regulatory Reporting (CARR) accomplishments:
 - 303 Condition Reports (CRs) were screened:
 - Two significant issues identified.
 - Five adverse issues identified.
 - 131 Track until Fixed (TUF) issues identified.
 - 58 Trend Only (TO) items identified.
 - 99 Opportunity for Improvement (OFI) items identified.
 - Eight Screened Out.
 - 246 CRs administratively closed.
 - 396 CRs actions administratively closed.
 - Provided course 600081, *Responsible Manager, Issues Management*, to 22 employees.
 - Completed Root Cause evaluation and submitted final Occurrence Reporting and Processing System (ORPS) report for EM-RL--CPRC-PFP-2016-0009, *Refrigerant Sprayed On Worker When Air Conditioner Refrigeration Line Was Cut.*
 - Fourteen documents were provided in response to DNFSB requests for information.
 - Published the September 2016 Contractor Assurance System Summary Report.
 - One external Just-In-Time Report was submitted to OPEXShare in October 2016: SSB 10-12-16, *Safe Driving Expectations.*
- o Performance Oversight, Assessment, and Quality Assurance accomplishments:
 - Coordinated with RL ASME division on oversight activities for first quarter Assessments.
 - Supported close out of Readiness Assessment concerns for commencement of PFP demolition.
 - Developed strategy and briefing for Senior Supervisory Watch in support of PFP demolition.
 - Completed SHS&Q-2017-MA-17731, *FY 2016 ISMS Effectiveness Declaration.*
 - Obtained Executive Safety Review Board (ESRB) approval of fiscal year (FY) 2017 Performance Objectives, Measurements, and Commitments (POMC) and provided to RL for review/comment.
 - Completed Integrated Evaluation Plan scheduling for FY2017 – ESRB approval pending.
 - Initiated planning for the 10 CFR 835, Subpart H, “Records,” surveillance activity scheduled for November through December.

- Periodic review and update of QA-298, Nonconformance Report of Items procedure.
- o Fire Protection accomplishments:
 - Two OSU students are being recruited for Associate Fire Protection Engineer (FPE) positions. Another FPE position is being recruited at the Senior FPE position.
 - Staff assignments continue to adjust and Project priorities change.
 - Deactivation analysis is in progress for the 234-5 facility at PFP.
 - The REDOX Facility Hazards Analysis (FHA) minor update was completed and included the new roof. The design package was reviewed and approved.
 - The following Technical Safety Requirement (TSR) activities were completed:
 - Solid Waste Operations Complex (SWOC):
 - o 2T-16-05410S, 3 Month Combustible Control Surveillance.
 - o Two issues were identified – compliance to Fire Marshal Permits and combustible loading on the Canyon Deck.
 - PFP:
 - o SR 5.12.4.2 – Monthly Inspection of sprinkler deactivation or deviation areas.
 - o SR 5.18.4.2 – Monthly inspection of facility and exterior for compliance with fire protection combustible controls.
 - o SR 5.19.4.3 – Monthly inspection of facility for energized power cords, energized battery chargers and spontaneous ignition source material.
 - o SAC 5.20.2 – Bi-weekly inspection of front side ventilation zone 1 areas – performed by facility support operators (FSO) (2).
 - Facility Hazards Analysis (FHA):
 - o T Plant FHA is in revision; coordination on comments by RL, T Plant Operations and Nuclear Safety is in progress.
 - o PUREX FHA is under review by the Hanford Fire Marshal, comments have been received, and resolution is in progress.
 - o The REDOX FHA went through a minor revision and has been published. A transitional FHA needs to be developed.
 - o U Plant FHA is being developed.
 - o 402 Building FHA is being developed.
 - o 324 Building FHA needs to be rewritten for the 300-296 Project; a team has begun working on the FHA.
 - o The 618-10 FHA needs to be modified based on the Due Diligence Report.
 - o An Integrated Disposal Facility (IDF) FHA needs to be written to support the Project.
 - o Facility Fire Protection Assessments are complete for calendar year 2016.
- Status of Safety, Health, Security & Quality (SHS&Q) Focus Areas:
 - o **Issue:** Beryllium program assessment findings from DOE-HQ, Office of Safety, Health and Security Independent Oversight Inspection report.
 - o **Status:** Revision 3 was signed off by T. L. Vaughn.
 - o **Action:** Beryllium facility assessments and characterization on schedule. Beryllium facility assessments have been completed on 1,446 CHPRC facilities.
 - o **Issue:** Accident & Injury Reduction.
 - o **Status:** Continue investigating recordable, days away, restricted, or transferred (DART), and first aid injuries to determine cause, prevention, reduction, to prevent recurrence.
 - o **Action:** CHPRC will conduct the root cause analysis (RCA) for the recent Waste and Fuels (W/F)-Mission Support Alliance (MSA) teamster vehicle incident.
 - o **Issue:** PFP support.
 - o **Status:** Supporting PFP with dedicated OS&IH personnel and RadCon personnel, from the SHS&Q Central group for oversight of high-risk work activities.

- o **Action:** Providing senior supervisory watch for PRF demolition activities.
- o **Issue:** Fire Protection program improvements.
- o **Status:** CHPRC Fire Protection personnel are actively interfacing with Hanford Fire Department (HFD) and RL regarding Fire Protection program improvements related to fire hazard analyses.
- o **Action:** Continued interface with MSA regarding CHPRC fire system maintenance back log items.

Environmental Program and Strategic Planning (EP&SP)

Environmental Protection

- **Compliance Status**
 - o CHPRC filed a Notice of Appeal to the Pollution Control Hearing Board (PCHB) of the State of Washington in response to a Resource Conservation and Recovery Act of 1976 (RCRA) Notice of Penalty and associated Administrative Order issued by Ecology for alleged violations of waste designation and record keeping requirements at T Plant. Settlement discussions with Ecology were initiated on October 19 with a Hanford Site visit and tour of the T Plant facility.
 - o There were two Washington State Department of Health (WDOH) inspections of CHPRC-managed areas and facilities covering stack emission units at the Waste Receiving and Processing Facility (WRAP), B Plant, and the Waste Encapsulation and Storage Facility (WESF).
 - o Continued meetings with RL and Ecology on issues pertaining to renewal of the Hanford Facility RCRA Permit. Current issues under discussion and review are security, dangerous waste management units, contingency planning and closure standards.
 - o CHPRC is supporting the TPA dispute resolution process associated with Ecology comments on a draft revision of the PUREX S&M plan and requirements for a closure plan as part of the operating record in the current disposition phase. The disputed issue developed through responses to a February 2016 compliance report resulting from a March 2015 inspection. A Statement of Dispute is due to Ecology on November 2, 2016.

Environmental Management System (EMS)

- **Objectives and Target Status**
 - o Completed 94% of all CHPRC Targets and Objectives in FY2016. Targets and Objectives for FY2017 have been drafted.

Environmental Compliance & Quality Assurance (ECQA)

- **Assessment Program**
 - o A surveillance to assess implementation of a revised Environmental Activity Screening Form was conducted by ECQA from September 6-29, 2016. The assessment report, issued October 3, 2016, identified two findings.
 - o A surveillance of CHPRC laydown areas was held performed by ECQA from September 19-26, 2016, and an effectiveness review of corrective actions associated with the FY2015 CHPRC laydown area assessment was finalized following field activities. The surveillance report, issued October 24, 2016, identified 14 findings and six opportunities for Improvement.
 - o A surveillance to determine CHPRC compliance with sanitary waste water requirements was conducted by ECQA October 11, 2016. The assessment report, issued on October 26, 2016, identified no Findings.
 - o A surveillance to determine CHPRC compliance with requirements associated with discharges to the ground under Permit 4511 was conducted by ECQA from September 27, through October 16, 2016. The assessment report, issued October 27, 2016, identified no Findings and one Noteworthy Practice.
- **Requirements Management**
 - o Training on the environmental requirements management process and DOORS_PRC

application has been developed for the basic end user who will have read-only access to the environmental requirements management database. Training sessions were conducted for CHPRC personnel with additional sessions scheduled through December. Invitations to attend training sessions have been provided to both the RL Divisions for Environmental, Safety and Quality and Waste Management and D&D.

Business Services

• Acquisition Planning:

- o Met with RL and project staff regarding the lease and site access for the 300-296 mock-up facility located on AREVA land. Drafted lease agreement and provided to AREVA for consideration. Provided revised language and coordinated with CHPRC Legal upon receipt of AREVA comments.
- o Developed a procurement method for addressing truck washing for heavy vehicles that were transitioned from RCCC. Coordinated the interface between Procurement, Accounts Payable, and the Project.
- o Reviewed a revised property clause FAR 52.249-1 to determine the impact to the property management system. Researched the basis for the language change and compared those changes to the current property management system.
- o Worked with 618-10 and ERDF to ensure technical services including air monitor maintenance and data analysis that were performed by MSA for Washington Closure Hanford in FY2016 were continued for the transitioned scope. Developed draft documents for project consideration and coordinated a review by MSA individuals.
- o Developed the procurement approach for performing the detailed design of the PUREX Stack Sampling System. Drafted the statement of work and assisted in identifying the proper reviewer for the approval of the technical aspects of the work.
- o Developed the long-term procurement strategy for acquiring civil surveying services. Assisted in developing the statement of work and provided sample solicitation language to Procurement for use.
- o Performed a site tour for KPMG auditors that included a visit to the 100B Reactor site.
- o Performed an evaluation of procurement system review criteria at the request of DOE-HQ. It included a review against current prime contract requirements and Contractor Purchasing System Review requirements. Comments and recommendations for updates were transmitted to DOE-HQ for consideration.
- o Met with MSA and WRPS representatives to discuss DOE complex-wide strategic sourcing initiatives.
- o Completed the management assessment of procurement procedures and processes as it relates to the project and functional review of statements of work. Issued an opportunity for improvement (OFI) to enhance procedure language.
- o Developed the procurement strategy and approach to the installation of several mobile offices in support of the 300-296 Soil Remediation Project.
- o Drafted a statement of work for the evaluation and repair of a heavy front-end loader at the 618-10 project site. Coordinated with Procurement on the procurement approach and protocols.
- o Facilitated a panel discussion and supported the annual small business outreach event Bridging Partnerships.
- o At the request of RL, assisted in the review of FY2011 and FY2012 claimed costs from Fluor as part of Fluor's DCAA cost incurred audit.
- o Assisted CH2M affiliate at the West Valley Demonstration Project with a review of procurement approaches as it relates to subcontracts with travel and living expenses.

- o Completed a review of the procurement procedures and processes as it relates to National Electric Code requirements and proper flow-downs. Determined that an SOW template could be enhanced with a link to the appropriate procurement quality assurance clauses.
- **Facilities & Property Management (F&PM):**
 - o FY2016 Physical Property Inventory review continues with field work target completion date of November 30, 2016. Final inventory review reports and Balanced Score Card will be submitted by December 1, 2016. F&PM has completed locating 89.30 percent of 3,317 items through October 2016.
 - o 2420 Stevens move planning continues. Floor layouts updated and move forms nearing completion. Initial draft integrated schedule developed. Major move activity expected to start in December.
 - o Efforts to remove and replace MO029 at WESF continue. Target completion date of February 28, 2017.
 - o Addition of a shower trailer to support S&GRP Drilling and Sampling Operations at Waste Sampling and Characterization Facility (WSCF) continues.
 - o A single wide office trailer is being planned for addition in the 400 area in support of potable water operations.
 - o A single wide restroom trailer is being planned for addition to the 300 area in support of the 324 project.
- **Finance:**
 - o Received Department of Revenue refund for FY2012-2015. The Department of Revenue issued CHPRC a tax refund of \$808,544 plus interest. The refund is related to subcontracts with labor cost that is not subject to use tax.
 - o October month end completed with no suspensions.
 - o Received provisional approval for all existing rates for FY2017.
 - o Submitted an accounting practice change related to the ERDF billing methodology
- **Human Resources:**
 - o Bridging Partnership Small Business Symposium – Human Resources (HR) partnered with the Procurement group in supporting the Bridging Partnership Small Business Symposium at the TRAC in Pasco Washington. HR moderated the afternoon speakers while Procurement spoke at lunch and moderated prime contract executive management panel discussion.
 - o JuMP Network – JuMP - Hike Badger Day – 11 JuMPers encouraged each other to new heights while building new relationships as they ascended to the top of Badger Mountain together. JuMPers were encouraged to consider this quote along the way, “If you want to travel fast, travel alone. If you want to travel far, travel together.”
 - o Building Bridges & Breaking Down Barriers – Recognition Ceremony/Education Sessions/Career Fair – The HR team supported team member, Annie Robinson, who was the keynote speaker, at the Building Bridges & Breaking Down Barriers” event at CBC. Annie shared her heartwarming story of how she has conquered her hearing disability over her lifetime and how employers and family/friends have given her the support she has needed to be successful. CHPRC was presented with an award, accepted by Annie Robinson and Tracy Heidelberg, for efforts that the company (CHPRC) has taken to attract, recruit, hire and support/provide accommodations to employees with disabilities.
 - o Completed CY2016 Salary Planning process for Exempt and Salaried Nonexempt employees. Increases for impacted employees were effective on October 10, 2016, and will be reflected in employee paychecks on Friday, October 28, 2016.

- **Labor Relations (LR):**
 - o LR attended 70th Annual Metal Trades Department (MTD) Convention to meet new MTD leadership, network national union leadership and continue positive relations building with local union membership.
 - o Arbitration originally scheduled for December 15-16, 2015, to address HAMTC's General Council grievance in regards to decontamination and decommissioning (D&D) activities at PFP has been postponed. Although CHPRC has not received the official withdrawal, HAMTC has verbally notified CHPRC of its intent to withdraw this grievance and the grievances that have been held in abeyance as a result of this grievance.
 - o Grievances PRC-015-051 and PRC-016-014 continues dealing with purchasing items (i.e. pipe spools) from offsite vendors have been requested to proceed to arbitration, although the union put a hold on selecting the panel until they can further review.
 - o Arbitration scheduled for October 11, 2016, was postponed by mutual agreement in an effort to allow parties additional time to reach settlement in regards to Grievance PRC-015-011 in which the Union is claiming miss-assignment of work in regards to respirator maintenance.
 - o Two grievances (PRC-016-022 and PRC-016-027) have been requested to proceed to arbitration by the Union.
- **Procurement:**
 - o Awarded/amended 106 contracts with a total value of \$14.7 million. Additionally, awarded 214 new material Purchase Orders (PO) valued at \$988,678 to support ongoing project objectives.
 - o At the end of the first 97 months of the CHPRC project, procurement volume has been significant; \$2.45 billion in contract activity has been recorded with approximately 53.91 percent, or \$1.31 billion, in awards to small businesses. This includes 7,491 contract releases, 21,664 POs, and 257,606 P-Card transactions.
 - o Contract 37351, release 174 was awarded to Tradewinds on October 2, 2016. This is a labor hour contract for construction engineer support valued at \$149,929.50.
 - o Contract 60241, release 1 was awarded to Advanced Technologies and Laboratories on October 3, 2016. This is a time and material contract for "Issues Management-Dispute Resolution," valued at \$22,456.32.
 - o Contract 61070 was awarded to Energx, LLC, on October 6, 2016. This is a labor hour contract for electrical engineer support valued at \$261,712.
 - o Contract 56537, release 19 was awarded to Terragraphics Environmental Engineering, Inc., on October 13, 2016. This is a time and material contract for environmental document editor/processor support valued at \$86,977.50.
 - o Received RL CO consent for CS/Sr Cask Procurement valued at \$21 million.
 - o The sludge IG investigation resulted in a Management Report and no audit will be pursued.

Prime Contract and Project Integration (PC&PI)

- **Prime Contract Compliance (PCC):**
 - o In October, PCC received and processed five contract modifications (543, 546, 548, 550, and 551) from RL.
 - o The Correspondence Review Team received and determined the distribution for 87 incoming letters/documents. The PCC Manager reviewed 67 outgoing correspondence packages.
 - o Submitted the following FY 2016 Performance Measure Completion Packages to RL:
 - CHPRC-1604667, PM-40-1-16
 - CHPRC-1604693, PM-41-1-16
 - CHPRC-1604688, PM-13-4-16
 - CHPRC-1604418, PM-12-1-16, PM-12-3-16, PM-12-6-16, PM-12-7-16, PM-12-8-16, PM-12-9-16

- CHPRC-1604513, PM-41-2-16
- CHPRC-1604405, PM-13-1-16
- CHPRC-1600627.2, PM-00-1-16
- o Issued CHPRC-1604638AR1, *Impact Analysis for Contractor Requirements Document Order 241.1B, Administrative Change 1, Scientific and Technical Information Management.*

Integrated Services

• Estimating & Program Support

- o One CP/REA was submitted to RL in October 2016:
 - CP 013 1626 - *(CRD) 474.2 Change 3, Nuclear Material Control and Accountability, submitted on October 13, 2016.*
- o One CP/REA has been submitted on or ahead of schedule FY2017 to-date.
- o Initiated development of five CPs/REAs:
 - CP 013 315 1633 - *Debris Cleanup in the Vicinity of WESF, CSB, and SWOC.*
 - CP 013 PRC 1634 - *Temporary Storage of the WESF Concrete Cores.*
 - CP 013 PRC 1635 - *Impacts of Completing FY2017 Audits of All TRU Waste Generators and Implementing Required TRU Program Upgrades From the New Waste Isolation Pilot Plant (WIPP) -Waste Acceptance Criteria (WAC).*
 - CP 030 316 1636 - *Groundwater Engineering Reports and Groundwater Monitoring Plans for Dangerous Waste Management Units (DWMU).*
 - CP 030 317 1631 - *Compliance with TPA Milestone Change Control Form M-91-15-01.*
- o Continued development of two CPs/REAs:
 - CP 013 PRC 1620 - *WESF Storage Basin Analysis and Quarterly Report.*
 - CP 030 312 1627 - *Bio-Mobilization and Bio-Intrusion Evaluation Sampling and Analysis Plan.*
- o Supported development of Groundwater and other miscellaneous baseline change requests (BCRs).
- o Supported Pacific Northwest National Laboratory (PNNL) to develop an estimate for the demolition of the PNNL Radiological Technology Laboratory complex located on the PNNL campus in Richland, Washington.
- o Supported development of a rough order of magnitude (ROM) for work scope associated with the replacement of obsolete, or soon to be obsolete, Fire Alarm Control Units (FACUs) at several project and general purpose facilities managed by CHPRC.
- o Supported RL's request for information (RFI) on Change Orders:
 - CP 041 289 1563 - *Initiation of Transition Planning for the RCCC Work Scope.*
 - CP 041 304 1594 - *Initiate Transition of RCC Scope Activities into the Plateau Remediation Contract (PRC) - 300-296 Design Review and Gap Analysis.*
 - CP 041 305 1616 - *300-296 Waste Site Design Change, Initiate Procurements, Initiate Testing, and Initiate Removal of Debris.*
 - CP 041 306 1613 - *Minor Capital Funded Projects RCCC Transition Add-Ons.*
 - CP 041 306 1615 - *Surveillance & Maintenance Sites RCCC Transition Add-Ons.*
- o Supported RL's request for Truthful Cost or Pricing Data (TCoPD) for Change Orders:
 - CP 041 304 1592 - *Initiate Transition of RCC Scope Activities into the Plateau Remediation Contract (PRC) - RCC Transition Implementation.*
 - CP 041 304 1593 - *Initiate Transition of RCC Scope Activities into the Plateau Remediation Contract (PRC) - 324 Complex.*
 - CP 041 304 1594 - *Initiate Transition of RCC Scope Activities into the Plateau Remediation Contract (PRC) - 300-296 Design Review and Gap Analysis.*

- CP 041 306 1595 - *Initiate Transition of RCC Scope Activities into the Plateau Remediation Contract (PRC) - ERDF Operations.*
- CP 041 306 1596 - *618-10 Burial Ground.*
- CP 041 306 1597 - *RCCC Remaining Closure Operations.*
- CP 041 306 1600 - *316-4 Waste Site.*
- CP 041 306 1610 - *600-63 Waste Site.*
- CP 041 306 1613 - *Minor Capital Funded Projects RCCC Transition Add-Ons.*
- CP 041 306 1615 - *Surveillance & Maintenance Sites RCCC Transition Add-Ons.*
- **Interface Management:**
 - o Interfaces (Technical, Administrative and Regulatory):
 - Facilitating request to expedite approval of Waste Treatment Plant/Washington River Protection Solutions (WRPS) Direct Feed Low Activity Waste (DFLAW) transfer line excavation permitting. Proposed lines would traverse CHPRC owned waste sites. Issue with waste transfer lines crossing an un-remediated waste site was reviewed by the Contractor Interface Board, with follow on meetings to develop options established. A joint CHPRC/WRPS presentation, with regulatory options for RL to consider was presented in a joint meeting with RL and ORP in mid-October. Discussions are ongoing.
 - Prepared and transmitted response to WAI to retain CHPRC priority samples in archive at the 222-S facility for FY2017.
 - Prepared the FY2017 Service Level Agreement to WAI. Transmittal is awaiting final signature.
 - Participated in Hanford Road Closure Violations Kaizen Blitz on October 5, 2016, to identify challenges and brainstorm solutions related to road closure violations on the Hanford Site.
 - Continue to support communications between WRPS at 222-S and CHPRC at REDOX. Unreviewed safety question (USQ) reviews of adjacent contractor work packages are ongoing.
 - Worked on a joint effort between WRPS, MSA, and CHPRC to allow the guzzler to be available to support an emerging operational need at PFP.
 - Participated in MSA RFAR replacement integration meetings and project planning reviews.
 - o Annual Forecast of Services:
 - Transmitted Final forecast of services to MSA on October 3, 2016, including emerging request and delivery of additional resources for the PFP project.
 - o Inter-Contractor Issue Resolution:
 - Facilitated communications between MSA Biological Controls and CHPRC representatives regarding an employee pesticide exposure event at MO245 in the 300 Area.
 - Engaged with CHPRC S&GW project representatives to facilitate movement of HDPE transfer lines out of Utility easements at the request of MSA Electrical Utilities.
 - o Controlling and Service Agreements:
 - Preparation of a preliminary draft Administrative Interface Agreement (AIA) is underway in response to the apparent need for an interface agreement between WRPS and CHPRC regarding timely response and notification of environmental sampling event data as produced by the Soil and Groundwater organization for Other Hanford Contractors.
 - Finalized and transmitted AIA with WAI for Beryllium analysis laboratory support, PRC-AIA-OHCs-3433, Revision 0. This document will supersede the AIA with the former laboratory contractor, HNF-47243.
 - Published Interface Control Document (ICD) with MSA for Electrical utilities.
 - Sent MOA-HPMC-CHPRC-2013, Rev. 0, MOA for the Performance of Services between HPMC Occupational Medical Services HPMC and CHPRC, out for internal annual review.

- o J.3 Table Maintenance:
 - No action during the month of October 2016. Awaiting J.3 Table contract modifications for the Effluent Treatment Facility and River Corridor Closure Contract scope transitions' and other miscellaneous changes.
- o J.13 and J.14 Tables Maintenance
 - Continue tracking new assignments related to the RCCC transition that will be captured in the next J.13/J.14 table review and other contract related actions.
- o Internal Operations:
 - Eight of the remaining 11 CRRS actions resulting from the Interface Management work site assessment of SOWs for services provided to CHPRC by MSA were completed in October. These actions involve corrections/changes to specific Project SOWs to align with Procurement templates, J.3 usage-based service definitions, and other pertinent interface agreements. To assist facility Buyer's Technical Representatives (BTRs)/POCs in this effort, SOWs were redlined with recommended changes and sent out with a communique from Interface Management. Anticipate closure of the three remaining CRRS actions in November.
 - Working several documents revisions/cancellations related to the RCCC scope transfer to PRC. Involved parties include City of Richland, PNNL, and MSA.
 - Working with ERDF and 618-10 Project teams to confirm GSA vehicle assignments.
- **Information Management:**
 - o Processed 21,412 Electronic Records into the Integrated Document Management System (IDMS).
 - o Continued support to Waste and Fuels Management Project (W&FMP) for documentation of requirements for Field Automated Checklist Tracking System (FACTS).

Project Integration

- o During October, Project Integration facilitated and supported the processing of 16 BCRs.
- o CHPRC (through EFCOG) provided support to the DOE-HQ Office of Project Management Oversight & Assessments (PM-30) session/track on "EVMS Self Governanace" at the Integrated Project Management Workshop (IPMW), held in Bethesda, MD, October 31 – November 2, 2016.
- o CHPRC also attended the EFCOG Project Controls Subgroup (PCSG) workshop meeting immediately following the IPMW/PM-30/EFCOG joint sessions. The purpose of the workshop was to identify the DOE HQ (PM-30) implementation expectations for the recently released Earned Value Management System Interpretation Handbook V2.0 (EVMSIH). This working session facilitated EFCOG member strategies for incorporating the EVMSIH requirements into the organizational aspects of the EFCOG contractors EVMS's, in support of self-governance. The PCSG reviewed the Project Delivery Working Group approved FY2017 Work Plan (which is inclusive of the PCSG deliverables) and assigned Task Leads.

Program Integration

- o **000 Project EVM Support:**
 - o Issued 000 Project Work Authorization Documents and Work Charge Authorizations based on FY2017 Project Direction Notice.
 - o Established targets by work breakdown structure account for 000 Project organizations for FY2017.
 - o Updated all Control Account Manager notebooks for FY2016 year end and FY2017 start-up.
- o **Risk Management and Reporting:**

- o Submitted PM-00-1-16 critical assessment of its progress in safely and compliantly performing contract scope of work and meeting contract deliverables within cost and on schedule as described.
 - o Submitted FY2017 ETC risk analysis to support a follow-on BCR to reallocate management reserve values.
 - o Completed factual accuracy review and closed out PCPI -2016-WSA-18023, Field Execution Schedule practices for RL-0011, and RL-0012.
 - o Continued to interface with Estimating and Program Support to incorporate risk management into change proposals as noted under the Estimating & Program Support section of this report.
 - o Issued the CHPRC September Monthly Performance Report to RL.
 - o Issued the CHPRC September Monthly Highlights to the Nuclear Business Group.
- o **Strategic Management:**
- o Progress continues to be made toward completion of the Productivity Corrective Actions. Completed 24 of 25 actions through October. Remaining action was verification review that is scheduled to complete by November 3.
 - o Distributed guidance to field projects to direct completion of Long Range Planning for FY2019-FY2021. Guidance regarding development of WBS dictionaries and BOEs is improved. Goal is to complete supporting documentation by January 2017.
 - o Integrated FY2017 PMs and TPA Milestone dates to support revision of the Integrated Priority List.
 - o Held monthly Productivity Tracking Log meeting with the projects. Discussed company level metrics and Projects briefed their metrics of productivity delays and efficiencies.
 - o Issued revision to PRC-STD-PM-53101 CHPRC Productivity Tracking Log, to identify roles and responsibilities, define impacts, innovations, and efficiencies, and to integrate guidance on FES tracking.
 - o Developed and presented Productivity Tracking training module to CHPRC points of contact and Project Control Managers.
 - o Issued updated Productivity Tracking Causal Code guidance to ensure consistency and accuracy of Productivity metrics.
 - o Discussed a list of recent key radionuclide additions to ERDF with Waste Facilities Engineering and Risk and Modeling Integration. This work supports the annual review of waste disposals required by the ERDF Performance Assessment maintenance plan. Additional discussions are required to determine if quantities of uranium waste recently added to ERDF are overstated, and to analyze plutonium and cobalt additions to ERDF.
 - o Provided information associated with an October 1959 burial of two PUREX H-4 concentrator tube bundles currently being investigated by SGRP.
 - o Provided waste forecast updates on 200-PW-1, 200-PW-6, and 200-CW-5 to W&FMP for the annual Solid Waste Information and Tracking System (SWITS) update, in support of SGRP.

Project Technical Services (PTS)

- **Engineering Services (000 Project Support)**

- o Participated in a pilot training course for DOE-0359, Hanford Site Electrical Safety Program.
- o Prepared the System Engineer Program Manager annual report.
- o Reviewed SOW, Design Change Notice (DCN), and Facility Modification Package (FMP) for the installation of trailers south of 324 Building and near the Project 300-296 Mockup Facility.
- o Performed MOPs on the planning and performance of an STP WSA, and the configuration management of electrical equipment for the Perched Water Extraction System.

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- o The remotely operated roof robot was transferred from PFP to PTS and is currently stored in Building 2269E.
- o Provided authority having jurisdiction (AHJ) approval for the non-NRTL acceptance of an Eaton circuit breaker tester for use by W&FMP.
- o Supported STP with the review of ECRTS construction/fabrication submittals.
- o Provided a draft of an SOW to Procurement to support a new RFP for the contract with Hartford Steam Boiler (HSB) of Connecticut, which provides 3rd Party Inspections for boilers and pressure vessels.
- o Supported S&GRP in the procurement of stainless steel pipe spools to replace plastic piping sections within the 200W Pump and Treat facility.
- o Performed a WSA on the fabrication of equipment at MASF for the Sludge Treatment Project.
- o Reviewed an SOW for the fabrication of steel boxes in support of VPU remediation.
- o Supporting the qualification of welders for hardfacing to support D&D at PFP. Hardfacing repairs will be required on the shears that will be used in the demolition process.
- o Supported PFP CAM heating calculation for continuous air monitors outside of PFP. The CAM's must maintain an intake air temperature above freezing to ensure alpha detection is not shielded by frost. Further solid modelling and computerized flow/heat transfer simulation has been performed to understand the temperatures to be expected if heating the intake air was performed.
- o Prepared a revision to PRC-PRO-EN-24208 "HEPA Filter Degradation Evaluation Process" Procedure to improve procedure clarity and add content.
- o Continued verification and validation activities to demonstrate the validity of Solidworks design simulation features. The V&V will validate finite element analysis features including stress/strain, heat transfer, vibration, and interaction of each.
- o Participated in a seminar on Special Inspections under the International Building Code Chapter 17. The seminar covered the special inspections and inspector qualification for soil and foundations, concrete and masonry, steel, wood construction, welding, and fire-resistant materials for structures.
- o Supported Project 618-10 Burial Ground for extension of the excavation limits to remove buried drums.
- o Supported Project 300-296 in the review of the SOW for the Infrastructure 324 Site and Mockup Facility.
- o Supported Project 316-4 in the review and approval of the Remedial Design Excavation Civil Site.
- **Training and Procedures**
 - o 000 Support
 - Refined Training and Qualification Records Kaizen Get to Excellence plan.
 - Assisted Plutonium Finishing Plant (PFP) with new procedure for Radcon to use their new Bladewerx breathing zone monitors.
 - Completed Plutonium Reclamation Facility (PRF) Shutdown Procedure.
 - Conducted Task Analysis for Engineered Container Retrieval and Transfer System (ECRTS) Teamsters.
 - Completed First Draft of Operations Water Sampling Guide and sent for review.
 - Worked with facility management to develop a staffing path forward to meet emergent needs.
 - Published CPSM-PRO-EM-53067, *Notifications*.
 - Published Course# 324013, 324 Facility Safety Basis Training- CBT.
- **Operations Program**
 - o ConOps/Work Control/Conduct of Work
 - 000 Project Services Support

- Supported response to Facilities Information Management System (FIMS) request letter from DOE; involves obtaining some information and estimates from JCS Programmers.
- Worked with CinD Hayes to set up sessions for 180400 (Work Management Overview) and 604240 (FWC) classes.
- Updated ISMS/work management flowchart with JCS work status codes and sent to WC managers.
- Submitted a change to the Pre-Job Briefing Checklist as part of a program to emphasize a pre work check of high energy/energy source for ALL work, not just when LOTO is required. Also working on a slide for the tailgate, write-ups for FWS and RM and Workers, etc.
- Working on setting up meetings with the shop stewards to discuss revising GHA and CHAs.
- Updating work management web pages.
- Supported site Lockout/Tagout (LOTO) committee.
- Attended meeting with Facility Managers to discuss options for better tracking of PMs especially to address monthly issue with fire systems maintenance FSM work package closure.
- Attended root cause/CARB meetings for two hazardous energy events at PFP.
- Attended critique for cut pressurized airline.
- RL-0012 Support
 - Answered questions about what replaced the WHA, and what are we supposed to use now.
 - Helped JCS Admin with some contact information, and also what to do with an unconventional old work package being prepared for scanning.
 - Held CPSM planner session as they work through their qualification cards.
- RL-0013 Solid Waste Stabilization and Disposition
 - Supporting WFMP in developing method for multi-user edits of work packages (Sharepoint).
- RL-0030 Soil and Groundwater Remediation Project
 - One S&GRP Planner qualification card interview.
 - Supported causal analysis of Controlled Work Area Boundary non-compliance at extraction well.
- RL-0041 Nuclear Facility D&D, River Corridor
 - IWCP meeting to discuss transition to PRO-12115 and strategy to develop work packages at B324 and support 300-296 project.
- o Emergency Preparedness (EP)
 - 000 Central Programs Project Services and Support
 - Working Corrective action plan for RL Triennial Findings, submitting extension through CHPRC to RL. CAP 30 working day extension requested from November 3, to January 2, 2017.
 - Working CR Closure plans for RL past assessments.
 - Working Path to Green actions for ESRB.
 - Updating EP Coordinator Qual Card, Drill Evaluation Process, Hotwash Process.
 - Conducted One-to-One EPC Feedback Meetings.
 - Reviewed the EP Assessment criteria and Established draft 2017 assessment breakdown.

- Conducted MSA drill package development training.
- Conducted RL Triennial Assessment Corrective Action Plan Review.
- Updated Hanford Site Hazardous Facility Summaries with EOC.
- RL-0011 PFP Nuclear Materials Stabilization and Disposition
- Supported PFP Readiness Assessment, completed interviews with Readiness Assessment team.
- Updated PFP EP Procedures.
- RL-0012 100K/618-10 Spent Nuclear Fuel Stabilization and Disposition.
- Conducted 100K Tabletop Drill.
- Completed annual review of 100K Building Emergency Plan and submitted for issue.
- 618-10 Updated ICP with FERO Binders.
- RL-0013 CSB/WESF/CWC/T Plant/324 Solid Waste Stabilization and Disposition.
- Conducted T-Plant Full-Up EP Drill.
- RL-0030 Soil and Groundwater Remediation Project.
- Conducted Operational Drill at S&GRP Sampling Group (100HX P&T).
- Conducted drill scenario development for 200W P&T.
- RL-0040 CPS&M Nuclear Facility D&D, Remainder of Hanford.
- Completed Emergency Preparedness Coordinator (EPC) turnover checklist with to new EPC.
- Conducted CPSM EP/OPS Status Update Meeting.
- RL-0041 RCCC Nuclear Facility D&D, River Corridor.
- Conducting transition implementation review of EP procedures.

Communications

- o Communications supported RL in the development of news releases that ran in media, including:
 - Recent progress toward demolition at PFP – articles were published in the Tri-City Herald, The Registered-Guard and The Columbian. The story was also covered by several local and regional broadcast outlets.
 - Progress in groundwater cleanup, 90 tons of contamination have been removed from Hanford’s groundwater – articles appeared in the Tri-City Herald and the Weapons Complex Monitor.
- o Communications supported RL in the development of an DOE-EM Update electronic newsletter featuring the following headlines:
 - Twenty Years of Preparations to Culminate in Plutonium Finishing Plant Demolition.
 - Hanford Site Completes Successful River Corridor Closure Contract Transition.
 - Hanford Site Technology Completes Cleanup to Protect Groundwater.
 - Twenty Years of Preparations to Culminate in Plutonium Finishing Plant Demolition.
- o Communications supported RL in the development of several social media posts, including:
 - Year-end wrap-up of remediation and building demolitions.
 - Completing ventilation modifications at WESF.
 - Roof, filter box and glove box removal from the PRF.
 - Preparations for beginning soil remediation.
 - An award presented to CH2M for employment of people with disabilities.
 - CHPRC’s end of year accomplishments video.
- o Communications supported RL in the coordination of the following public comment processes:
 - Planning and initiating the public involvement process to support a 30-day public comment period for REDOX Complex Engineering Evaluation/Cost Analysis (EE/CA) Document.

- Developing the responsiveness summary for the public comments received on the 100 D/H Proposed Plan.
- o Developing and coordinating a PFP Demolition Update Presentation to the Hanford Communities Board.

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	-6.9%
Internal Audit	0.1	0.1	0.0	0.0	0.0%	0.0	23.5%
General Counsel	0.1	0.1	0.1	0.0	0.0%	0.0	3.6%
Communications	0.1	0.1	0.1	0.0	0.0%	0.0	-35.1%
Safety, Health, Security and Quality	0.9	0.9	0.9	0.0	0.0%	0.0	-4.5%
Environmental Program and Strategic Planning	0.3	0.3	0.3	0.0	0.0%	0.0	-5.5%
Business Services	1.3	1.3	0.9	0.0	0.0%	0.4	29.9%
Prime Contract and Project Integration	1.4	1.4	1.3	0.0	0.0%	0.0	1.7%
Project Technical Services	0.4	0.4	0.6	0.0	4.1%	(0.1)	-31.8%
Indirect WBS 000 Total	4.6	4.6	4.4	0.0	0.4%	0.2	4.8%

Numbers are rounded to the nearest \$0.1 million.

Indirect WBS 000

CM Schedule Performance: (+\$0.0M/+0.4%)

The variance is within reporting thresholds.

CM Cost Performance: (+\$0.2M/+4.8%)

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	-6.9%	1.8
Internal Audit	0.1	0.1	0.0	0.0	0.0%	0.0	23.5%	1.2

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General Counsel	0.1	0.1	0.1	0.0	0.0%	0.0	3.6%	1.5
Communications	0.1	0.1	0.1	0.0	0.0%	0.0	-35.1%	1.1
Safety, Health, Security and Quality	0.9	0.9	0.9	0.0	0.0%	0.0	-4.5%	15.6
Environmental Program and Strategic Planning	0.3	0.3	0.3	0.0	0.0%	0.0	-5.5%	5.5
Business Services	1.3	1.3	0.9	0.0	0.0%	0.4	29.9%	24.1
Prime Contract and Project Integration	1.4	1.4	1.3	0.0	0.0%	0.0	1.7%	24.5
Project Technical Services	0.4	0.4	0.6	0.0	4.1%	(0.1)	-31.8%	7.5
Indirect WBS 000 Total	4.6	4.6	4.4	0.0	0.4%	0.2	4.8%	82.9

Numbers are rounded to the nearest \$0.1 million.

Indirect WBS 000

FYTD Schedule Performance: (+\$0.0M/+0.4%)

The variance is within reporting thresholds.

FYTD Cost Performance: (+\$0.2M/+4.8%)

The variance is within reporting thresholds.

FY2017 G&A Analysis (\$M)

WBS 000 Project Services and Support	FY 2017					
	FYTD	FYTD	FYTD	FY2017	FY2017	FY2017
	BCWS	Actual	Variance (O)/U	BCWS	Forecast	Variance (O)/U
General & Administrative (G&A)	4.6	4.4	0.2	82.9	83.1	(0.3)
Office of the President	0.1	0.1	(0.0)	1.8	2.1	(0.3)
Internal Audit	0.1	0.0	0.0	1.2	1.1	0.0
General Counsel	0.1	0.1	0.0	1.5	1.5	(0.0)
Communications	0.1	0.1	(0.0)	1.1	1.4	(0.3)
Safety, Health, Security and Quality	0.9	0.9	(0.0)	15.6	14.5	1.1
Env. Program & Strategic Planning	0.3	0.3	(0.0)	5.5	4.8	0.7
Business Services	1.3	0.9	0.4	24.1	25.2	(1.1)
Prime Contract and Project Integration	1.4	1.3	0.0	24.5	24.4	0.1
Project Technical Services	0.4	0.6	(0.2)	7.5	8.1	(0.6)

FY2017		
G&A Distribution	(5.4)	(84.2)
G&A Liquidation (Over)/Under	(1.0)	(1.1)

Liquidation Analysis

For October, application of the G&A rate has over-liquidated total to date G&A cost by \$1.0 million. The FY2017 year-end projected over-liquidation of \$1.1 million reflected in the fiscal year 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 year end.

MAJOR ISSUES

None currently identified.

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																		
Executive Level Risks																					
Explanation of major changes to the project monthly spotlight chart: No major changes to the risk profile for the month of October .																					
Realized Risks (Risks that are currently impacting project cost/schedule)																					
PRC-022: Higher Than Anticipated Attrition	Higher than planned attrition or staffing reduction is experienced resulting in project schedule delays, and increased training costs. Risk Handling Strategy: Avoid Probability: Likely (75% to 90%) Worst Case Impacts: \$5 million, 40 days			Risk Event: CHPRC continues to experience higher than anticipated attrition for FY2016. <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>Develop/implement CHPRC People Legacy Program.</td> <td rowspan="4" style="text-align: center;">FY2015</td> <td>On Going</td> <td>N/A</td> </tr> <tr> <td>Target recruiting for key project resources</td> <td>On Going</td> <td>N/A</td> </tr> <tr> <td>Continue PFP resource transition plan</td> <td>On Going</td> <td>N/A</td> </tr> <tr> <td>River Corridor Closure recruitment</td> <td>On Going</td> <td>N/A</td> </tr> </tbody> </table> Recovery Action Assessment: Forecasted completion dates for recovery actions were updated to reflect continued planned efforts to recover this risk throughout the PRC. CHPRC continues to increase recruitment, and analysis of comparable markets for salary competitiveness. Potential problems exist pending funding profiles for other site contractors. No alternative course of actions needed at this time.	Risk recovery action(s)	Risk Date	FC Date	%	Develop/implement CHPRC People Legacy Program.	FY2015	On Going	N/A	Target recruiting for key project resources	On Going	N/A	Continue PFP resource transition plan	On Going	N/A	River Corridor Closure recruitment	On Going	N/A
Risk recovery action(s)	Risk Date	FC Date	%																		
Develop/implement CHPRC People Legacy Program.	FY2015	On Going	N/A																		
Target recruiting for key project resources		On Going	N/A																		
Continue PFP resource transition plan		On Going	N/A																		
River Corridor Closure recruitment		On Going	N/A																		
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 threat value risks identified in the month of October .																					
Unassigned Risks (Pending ownership of identified risks/opportunities)																					
CHPRC continues to conduct internal reviews to ensure risks are still valid. In cases where risk has passed/or is no longer valid CHPRC will no longer report, and close the risk in the database. In the event risk are still valid ownership will need to be established to further identify and address potential impacts to project cost and schedule. There are cases when risks are identified but are outside the control and management of the contractor. However, CHPRC risk management process identifies all risks that could impact overall project success.																					

MILESTONE STATUS

None currently identified.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

Appendix C
Capital Asset Projects
RL-0011_C1, RL-0011_C2, and RL-0012_C1_1



October 2016
CHPRC-2016-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

Appendix C
Capital Asset Project
RL-0011_C1 - PFP D&D
(Removal of 174 Gloveboxes from 234-5Z)



T. E. Bratvold
Vice President for
PFP Closure Project

October 2016
CHPRC-2016-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

Progress continued to work toward CD-4 closure as teams continued to prep glovebox/hoods for extraction during demolition. It is expected that final preparations will be complete on January 10, 2017. At that time, gloveboxes will be staged until demolition of 234-5Z commences and completion of Capital Assets Project discrete scope will be completed. The total number of gloveboxes removed to date is at 94 percent complete.

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

<i>Key Metrics</i>	<i>Current Month Plan</i>	<i>Current Month Actuals</i>	<i>Cumulative Plan</i>	<i>Cumulative Actuals</i>
Glovebox/Hood Removed	-	-	174	164
COMPLETE KPP Rooms/Areas Ready for Demo	-	-	60	60 rooms/areas

KEY ACCOMPLISHMENTS

RL-0011_C1 Accomplishments

- Work remaining on this capital asset project is removal of the gloveboxes from the 234-5Z facility. All work associated with glovebox process equipment removal has been completed. Final preparations to support the physical removal of the remaining gloveboxes will be completed by January 10, 2017. As the project nears the ready for demolition milestone for the 234-5Z building (approximately March 2017), more gloveboxes will begin to be removed from the facility.

PTS Accomplishments

None identified at this time.

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: No major changes to the monthly spotlight chart in 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)						
FY2017 Risk Triggers (Risk could be realized in FY2017)						
PFP-DEMO-21: Glove Box/Equipment Removal/Demolition Material Handling Event	A material handling event (e.g., dropped piece of process equipment) occurs during the Plutonium Finishing Plant (PFP) demolition, resulting in cost impacts and schedule delays. Risk Handling Strategy: Accept Probability: Low (10% to 25%) Worst Case Impacts: \$150K, 30 days			Risk Trigger: During pre-demolition/demolition activities in FY2017.		
				<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
Mitigation action(s)	FC Date	%				
None identified at this time.	N/A	N/A				
Mitigation Assessment: 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 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.						
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)						
No high threat value risks identified for RL-0011/WBS-011.05.01.01.06 (CAP.1) in the month of October .						
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 Critical Schedule Path is a resource-driven float path, in which the critical path starts Asbestos abatement throughout 234-5Z. Once this is complete, final Cold & Dark activities, which leads 234-5Z to be ready for demolition. Demolition of 234-5Z will occur in the following sequence: 234-5ZA, Frontside, A-Labs, Backside Rooms/Plutonium Process Support Laboratories (PPSL), Remote Mechanical A (RMA) and Remote Mechanical C (RMC) Process Lines, and the RADTU & Basement areas. Once the 234-5Z and 291-Z facilities have been demolished, the Tri-Party Agreement Milestone M-083-00A - *PFP Facility Transition and Selection Disposition Activities* will have been met.

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	9/15/17	Progress continued to work toward CD-4 closure as teams continued to prep glovebox/hoods for extraction during demolition. It is expected that final preparations for removal will be complete on January 10, 2017. At that time gloveboxes will be staged until demolition of 234-5Z commences and completion of CAP discrete scope will be completed. There was a 20-day gain for the month of October as efficiencies are beginning to be recognized on the ready for demolition activities in the 234-5Z facility and PRF demo is planned to start early November. The total number of gloveboxes removed to date is at 94 percent complete.

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

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

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

Nothing to report at this time.

DOE ACTIONS / DECISIONS

Nothing to report at this time.

RL-0011_C1

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 2016
CHPRC-2016-10, 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							
1. CONTRACTOR	2. CONTRACT				3. PROGRAM				DOLLARS IN Thousands of \$				4. REPORT PERIOD							
a. NAME CH2M HILL Plateau Remediation Company	a. NAME Plateau Remediation Contract				a. NAME MPB-RL_0011_C1 - PFP D&D (ARRA/Base)				a. FROM (YYYYMMDD)				2016 / 10 / 01							
b. LOCATION (Address and ZIP Code) Richland, WA	b. NUMBER RL14788				b. PHASE				b. TO (YYYYMMDD)				2016 / 10 / 23							
	c. TYPE CPAF				d. SHARE RATIO				c. EVMS ACCEPTANCE NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18											
5. CONTRACT DATA																				
a. QUANTITY 1		b. NEGOTIATED COST 317,545		c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 0		d. TARGET PROFIT/FEE 9,878		e. TARGET PRICE 327,423		f. ESTIMATED PRICE 344,615		g. CONTRACT CEILING 327,423		h. ESTIMATED CONTRACT CEILING 344,615		i. DATE OF OTB/OTS (YYYYMMDD)				
6. ESTIMATED COST AT COMPLETION																				
				MANAGEMENT ESTIMATE AT COMPLETION (1)		CONTRACT BUDGET BASE (2)		VARIANCE (3)		7. AUTHORIZED CONTRACTOR REPRESENTATIVE										
				332,344						a. NAME (Last, First, Middle Initial) Dickerson, Kala K				b. TITLE Prime Contract Compliance Manager						
a. BEST CASE				335,219						c. SIGNATURE				d. DATE SIGNED (YYYYMMDD)						
b. WORST CASE				334,737		317,545		-17,192												
c. MOST LIKELY																				
8. PERFORMANCE DATA																				
CAPN-PBS Control Account-PARS 2 WBS (2)	CURRENT PERIOD											CUMULATIVE TO DATE			REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
ITEM (1)	BUDGETED COST		ACTUAL COST WORK PERFORMED		VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED		VARIANCE		COST VARIANCE (12a)		SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)	
	WORK SCHEDULED (2)	WORK PERFORMED (3)	SCHEDULE (5)	COST (6)	SCHEDULE (7)	COST (8)	SCHEDULE (9)	COST (10)	SCHEDULE (11)	COST (11)	SCHEDULE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)		
RL-0011 Nuclear Mat Stab & Disp PFP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RL_0011_C1.02 Maintain Safe & Compliant PFP	19	44	13	25	31	235,418	234,568	259,092	-850	-24,524	0	0	0	235,514	259,557	-24,042	235,514	259,557	-24,042	
RL_0011_C1.05 Disposition PFP Facility	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RL_0011_C1.06 Project Management & Support	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RL_0011_C1.90 Usage Based Services Distributions -PBS RL-11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RL_0011_C1.98 Ramp-up and transition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RL_0011_C1.99 PBS RL-11 UBS, G-n-A, Direct Distrib	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
b. COST OF MONEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
c. GENERAL AND ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
d. UNDISTRIBUTED BUDGET	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
e. SUBTOTAL	19	44	13	25	31	315,055	314,206	331,880	-850	-17,674	0	0	0	315,152	332,344	-17,192	315,152	332,344	-17,192	
f. MANAGEMENT RESERVE	0	0	0	0	0	0	0	0	0	0	0	0	0	2,393	0	0	0	0	0	
g. TOTAL	19	44	13	25	31	315,055	314,206	331,880	-850	-17,674	0	0	0	317,545	332,344	-14,799	317,545	332,344	-14,799	
9. RECONCILIATION TO CONTRACT BUDGET BASELINE																				
a. VARIANCE ADJUSTMENT																				
b. TOTAL CONTRACT VARIANCE																				
													-850	-17,674	0	0	317,545	332,344	-14,799	

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 MPB - RL_0011_C1 - PFP D&D (ARRA/Base)		a. FROM (YYYYMMDD)	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		2016 / 10 / 01	
		c. TYPE CPAF		d. SHARE RATIO		b. TO (YYYYMMDD) 2016 / 10 / 23	
				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			AT COMPLETION		
	BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST	WORK		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	19	44	13	25	31	254,628	253,779	279,299	-850	-25,521	0	0	0	254,725	279,764	-25,039	
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)	19	44	13	25	31	315,055	314,206	331,880	-850	-17,674	0	0	0	315,152	332,344	-17,192	
f. MANAGEMENT RESERVE														2,393			
g. TOTAL	19	44	13	25	31	315,055	314,206	331,880	-850	-17,674	0	0	0	317,545			

CLASSIFICATION (When Filled In)

CLASSIFICATION (When Filled In)

CONTRACT PERFORMANCE REPORT FORMAT 4 - STAFFING													FORM APPROVED OMB No. 0704-0188		
1. CONTRACTOR			2. CONTRACT				3. PROGRAM				4. REPORT PERIOD				
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) 2016 / 10 / 01				
b. LOCATION (Address and ZIP Code) Richland, WA			b. NUMBER RL14788				b. PHASE				b. TO (YYYYMMDD) 2016 / 10 / 23				
			c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18								
5. PERFORMANCE DATA															
WBS.Resp Org Group ORGANIZATIONAL CATEGORY (1)	ACTUAL CURRENT PERIOD (2)	ACTUAL END OF CURRENT PERIOD (Cumulative) (3)	FORECAST (Non-Cumulative)										AT COMPLETION (15)		
			SIX MONTH FORECAST BY MONTH (Enter names of months)						ENTER SPECIFIED PERIODS						
			+1 NOV 2016 (4)	+2 DEC 2016 (5)	+3 JAN 2017 (6)	+4 FEB 2017 (7)	+5 MAR 2017 (8)	+6 APR 2017 (9)	REMAIN FY17 (10)	FY18 (11)	FY19-LC (12)	ATCOMPLETE (13)			
35 - Business Services	0	17	0	0	0	0	0	0	0	0	0	0	0	0	17
3B - PFP Closure Project	0	15404	10	15	6	0	0	1	6	0	0	0	0	0	15442
g. TOTAL DIRECT	0	15421	10	15	6	0	0	1	6	0	0	0	0	0	15459

CLASSIFICATION (When Filled In)

CLASSIFICATION (When Filled In)

CONTRACT PERFORMANCE REPORT
FORMAT 5 - Explanations and Problem Analysis

FORM APPROVED

OMB No. 0704-0188

1. CONTRACTOR		2. 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) 2016/10/01			
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2016/10/23			
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE No X Yes		(YYYYMMDD) 2009 / 09 / 18			

Direct Projects

5. Evaluation	Budget	Earned	Actuals	SV in \$	SV in %	CV in \$	CV in %	SPI	CPI
Current:	19	44	13	25	127%	31	71%	2.27	3.45
Cumulative:	315,055	314,206	331,880	-850	0%	-17,674	-5.6%	1.00	0.95
	BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:	315,152	332,344	-17,192	-5.5%	-	2.04			

Explanation of Variance/Description of Problem:

Current Period:
Schedule Variance: The current month positive schedule variance is associated with completing historical BCWS to complete characterization of 234-5Z Room 166. This work was originally planned to be completed in September, 2015 and was completed in October, 2016.

Cost Variance: The current month positive cost variance is associated with recognized efficiencies while performing characterization efforts in 234-5Z Room 166 and a cost correction for inaccurate charging against the Project Management account.

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

Impact:
Schedule Impact: The RL-011.C1 project baseline completion date is November 16, 2016. The current schedule now reflects a completion date of September 15, 2017, a gain of 20 calendar days since September, 2016. This is as a result of realigning the removal of the gloveboxes from 234-5Z in a more efficient manner than originally assumed. The majority of RL-011.C1 field work cannot continue until 234-5Z demolition begins. The baseline completion date is not considered recoverable.

The current RL-11 performance schedule indicates that the PFP project will achieve slab-on-grade by July 6, 2017. Efficiencies were 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 allowing 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. 234-5Z contains the gloveboxes requiring removal to meet the end state of the KPP and TPA milestone. The project expects to increase progress in the 234-5Z facility as all resources have been reassigned to complete the demo preparations in this facility. The PFP Project is currently on track to meet the re-negotiated TPA milestone M-083-00A due date of 9/30/17 for achieving slab-on-grade.

Cost Impact: The historical negative cost variance of ~\$17.2M 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. This variance is not considered recoverable. The cost variance 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. The EAC did not change in the month of October.

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

Corrective Action:
No Corrective Actions Required

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

- 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 = \$332,344; Most Likely = \$334,737; Worst Case = \$335,219
- Negative CV > VAC: Scope to perform size reduction efforts on the high gram glovebox removal efforts was estimated to be completed in a much shorter time frame with much fewer resources than originally planned causing the large Cost Variance. The EAC is reflective of the current approach to perform the remaining work scope.
- MR Transactions: None in the month of 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.

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

Appendix C

Capital Asset Project

RL-0011_C2 - Demolition of PFP Facilities



T. E. Bratvold
Vice President for
PFP Closure Project

October 2016
CHPRC-2016-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

Progress continued to work toward CD-4 closure as teams continued to ready the Plutonium Finishing Plant (PFP) facilities for demolition. It is expected that the Plutonium Reclamation Facility (PRF) facility will initiate demolition in November 2016 and completion of demolition activities will occur in July 2017.

The following are key metrics associated with this CAP.

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

KEY ACCOMPLISHMENTS

RL-0011_C2 Accomplishments

- Initiated removal of gloveboxes from PRF in preparation of physical demolition.

PTS Accomplishments

None identified at this time.

MAJOR ISSUES

None identified 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 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 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)																
No realized risks identified for RL-0011/WBS-011.05.C3 (CAP.2) in the month of October .																
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)																
FY2017 Risk Triggers (Risk could be realized in FY2017)																
PFP-DEMO-21: Glovebox/Equipment Removal/Demolition Material Handling Event	A material handling event (e.g., dropped piece of process equipment) occurs during the PFP demolition resulting in cost impacts and schedule delays. Risk Handling Strategy: Accept Probability: Low (10% to 25%) Worst Case Impacts: \$150K, 30 days	●	↔	Risk Trigger: During pre-demolition/demolition activities in FY2017. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;">Mitigation action(s)</th> <th style="width: 10%;">FC Date</th> <th style="width: 10%;">%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td style="text-align: center;">N/A</td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table> Mitigation Assessment: No changes 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 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.	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: Likely (75% to 90%) Worst Case Impacts: \$1.5 million, 60 days	●	↔	Risk Trigger: During pre-demolition/demolition activities in FY2017. Dates tracked in the FES. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;">Mitigation action(s)</th> <th style="width: 10%;">FC Date</th> <th style="width: 10%;">%</th> </tr> </thead> <tbody> <tr> <td>Identify and pre-rig equipment with lifting slings.</td> <td style="text-align: center;">03/07/17</td> <td style="text-align: center;">50</td> </tr> <tr> <td>Initiate discussions early in the demo planning of the equipment being left in place for removal during demolish.</td> <td style="text-align: center;">Ongoing</td> <td style="text-align: center;">N/A</td> </tr> <tr> <td>Apply fixative to internals of equipment intended to be removed during demolition to contain contamination.</td> <td style="text-align: center;">Ongoing</td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table> Mitigation Assessment: The forecasted completion date for pre-rigging equipment with lifting slings would be performed as a pre-demolition activity and therefore was updated to align with FES date for 234-5Z ready for demo. Additionally an effort will soon be taken to develop a removal path for several of the gloveboxes for Criticality Incredibility. If the opportunity presents itself additional gloveboxes currently slated for removal during demolition (e.g. HC-227S, HC227T) will be removed during pre-demolition as risk mitigation strategy. At this time, no alternative course of actions needed.	Mitigation action(s)	FC Date	%	Identify and pre-rig equipment with lifting slings.	03/07/17	50	Initiate discussions early in the demo planning of the equipment being left in place for removal during demolish.	Ongoing	N/A	Apply fixative to internals of equipment intended to be removed during demolition to contain contamination.	Ongoing	N/A
Mitigation action(s)	FC Date	%														
Identify and pre-rig equipment with lifting slings.	03/07/17	50														
Initiate discussions early in the demo planning of the equipment being left in place for removal during demolish.	Ongoing	N/A														
Apply fixative to internals of equipment intended to be removed during demolition to contain contamination.	Ongoing	N/A														
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)																
FY2017 Risk Triggers (Risk could be realized in FY2017)																

Risk Title Risk Owner	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
RL-0011/WBS-011.05.C3 (CAP.2)										
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: During pre-demolition/demolition activities in FY2017. Dates tracked in the FES.</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No changes 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 develop work plans to incorporate required controls. 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								
Unassigned Risks (Pending ownership of identified risks/opportunities)										
To ensure success of the project ownership needs to be established to further identify and address potential impacts to project cost and schedule. There are cases when risks are identified but are outside the control and management of the contractor. However, CHPRC risk management process identifies all risks that could impact overall project success.										
PFP-DEMO-18: Level of Readiness Effort	<p>PFP Demolition activities and hazard categorization provide for a Readiness Assessment (RA); however, due to the first-of-its-kind project at the Hanford Site, CHPRC will be directed by the customer to perform a more rigorous RA than planned resulting in cost impacts and schedule delays.</p> <p><u>CHPRC Comment:</u> The rework required between the first submittal on May 26, 2015, through the resubmittal on August 27, 2015, and subsequent approval on October 8, 2015, has increased cost of demolition and impacted schedule. The additional cost is due to a technical difference in the readiness scoring by RL that is not consistent with historical scoring. The addition of a readiness team and performance of an exercise versus a drill have impacted the project. The additional requirements may represent realization of previously identified risk PRC-010, Requirements Change. Accordingly, CHPRC is entitled to an adjustment to cost and fee to implement the direction. In December, a notice of change was sent to RL for the potential change. The letter was re-submitted based on RL feedback. The project continues to wait for direction from RL and will revisit after completion of the RA as actual costs will be able to be compiled.</p>									

CRITICAL PATH SCHEDULE

The PFP Critical Schedule Path is a resource driven float path, in which the critical path starts Asbestos abatement throughout 234-5Z. Once this is complete, final Cold & Dark activities, which leads 234-5Z to be ready for demolition. Demolition of 234-5Z will occur in the following sequence: 234-5ZA, Frontside, A-Labs, Backside Rooms/Plutonium Process Support Laboratories (PPSL), Remote Mechanical A (RMA) Process Lines, Remote Mechanical C (RMC) Process Lines, and the RADTU & Basement areas. Once the 234-5Z and 291-Z facilities have been demolished, the Tri-Party Agreement Milestone M-083-00A - *PFP Facility Transition and Selection Disposition Activities* will have been met.

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
RL-011.C2	Completion Demolition of all PFP Facilities	8/31/18	11/28/17	Progress continued to work toward CD-4 closure as teams continued to ready the PFP facilities for demolition. It is expected that the PRF facility will initiate demolition in November 2016 and completion of demolition activities will occur in July 2017. A determination was made that gloveboxes in 236-Z would need to be removed from the facility prior to physical demolition of the PRF structure and to ensure demolition of the PRF facility was initiated in early FY2017. Resources have been diverted from other critical path work scope to ensure that this occurs.

*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

None to report at this time.

RL-0011_C2

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 2016
CHPRC-2016-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

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

DOLLARS IN Thousands of \$

FORM APPROVED
OMB No. 0704-0188

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) 2016 / 10 / 01	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2016 / 10 / 23	
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)							
3B - PFP Closure Project	3,143	415	772	-2,728	-357	38,415	9,992	11,784	-28,424	-1,792	0	0	0	48,109	46,766	1,343	
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)	3,143	415	772	-2,728	-357	38,415	9,992	11,784	-28,424	-1,792	0	0	0	48,109	46,766	1,343	
f. MANAGEMENT RESERVE														3,574			
g. TOTAL	3,143	415	772	-2,728	-357	38,415	9,992	11,784	-28,424	-1,792	0	0	0	51,683			

CLASSIFICATION (When Filled In)

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 RL_0011_C2 PFP Demolition Capital Asset Project a. NAME: Plateau Remediation Contract b. PHASE c. EVMS ACCEPTANCE NO YES X 9/18/2009			4. REPORT PERIOD a. FROM: 2016/10/01 b. TO: 2016/10/23							
5. CONTRACT DATA																
a. ORIGINAL NEGOTIATED COST 51,683			b. NEGOTIATED CONTRACT CHANGE \$0		c. CURRENT NEGOTIATED COST (A + B) \$51,683		d. ESTIMATED COST AUTH UNPRICED WORK \$0		e. CONTRACT BUDGET BASE (C + D) \$51,683		f. TOTAL ALLOCATED BUDGET \$51,683		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						FY09-13 (10)	FY14 (11)	FY15 (12)	FY16 (13)	FY17 (14)	FY18 (15)	UNDISTRIB BUDGET (16)	TOTAL BUDGET (17)
			+1 Nov-16 (4)	+2 Dec-16 (5)	+3 Jan-17 (6)	+4 Feb-17 (7)	+5 Mar-17 (8)	+6 Apr-17 (9)								
a. PM BASELINE (BEGIN OF PERIOD)	35,273	3,143	4,359	2,388	1,952	779	114	93	0	0	6,090	29,182	12,837	0	0	48,109
b. BASELINE CHANGES AUTH DURING REPORT PERIOD None during the reporting period.												0	0	0	0	0
c. PM BASELINE (END OF PERIOD)	38,415	3,143	4,359	2,388	1,952	779	114	93	0	0	6,090	29,182	12,837	0	0	48,109
7. MANAGEMENT RESERVE															3,574	
8. TOTAL															51,683	

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) 2016 / 10 / 01	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2016 / 10 / 23	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18			

5. PERFORMANCE DATA														
WBS.Resp Org Group ORGANIZATIONAL CATEGORY (1)	ACTUAL CURRENT PERIOD (2)	ACTUAL END OF CURRENT PERIOD (Cumulative) (3)	FORECAST (Non-Cumulative)											AT COMPLETION (15)
			SIX MONTH FORECAST BY MONTH (Enter names of months)						ENTER SPECIFIED PERIODS					
			+1 NOV 2016 (4)	+2 DEC 2016 (5)	+3 JAN 2017 (6)	+4 FEB 2017 (7)	+5 MAR 2017 (8)	+6 APR 2017 (9)	REMAIN FY17 (10)	FY18 (11)	FY19-LC (12)	ATCOMPLETE (13)		
3B - PFP Closure Project	34	123	64	64	53	53	103	121	371	12	0	0	0	965
g. TOTAL DIRECT	34	123	64	64	53	53	103	121	371	12	0	0	0	965

CLASSIFICATION (When Filled In)

CLASSIFICATION (When Filled In)

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

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

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME RL_Q011_C2 PFP Demolition Capital Asset Project		a. FROM (YYYYMMDD) 2016/10/01	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2016/10/23	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE		2009 / 09 / 18	
				No	X	Yes	(YYYYMMDD)

Direct Projects									
5. Evaluation	Budget	Earned	Actuals	SV in \$	SV in %	CV in \$	CV in %	SPI	CPI
Current:	3,142.8	415.0	772.0	-2,727.8	-86.8%	-357.0	-86.0%	0.13	0.54
Cumulative:	38,415.4	9,991.7	11,783.7	-28,423.7	-74.0%	-1,792.0	-17.9%	0.26	0.85
	BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:	48,109.2	46,766.1	1,343.0	2.8%	1.05	1.09			

Explanation of Variance/Description of Problem:

Schedule Variance: The current month negative schedule variance is due to delays in demolition of the 234-5Z and 291-Z facilities as neither facility is currently ready for demolition. Field resources are currently focused on getting 236-Z and 242-Z followed by 234-5Z ready for demo. Efforts to get 291-Z ready for demo to follow once resources are available. Demolition of 236-Z is targeted to begin early November 2016 while demolition of 234-5Z is targeted to begin in early March 2017. As a result of impacts associated with redirecting resources to support ready for demolition activities in the PRF facilities, the C2 CD-4 is now scheduled to complete by November 28, 2017, a gain of 16 calendar days since September. The TPA milestone M-083-00A due date of 9/30/2017 is expected to be achieved. In addition, the support activities for project management, cross-cutting support, and consumable materials, which are apportioned against discrete demolition work also account and contribute to the negative schedule variance. This is partially offset by removal of gloveboxes from the 236-Z Facility.

Cost Variance: The current month negative cost variance is associated with MSA subcontracted resources arriving to support PFP demolition that had a planned baseline start date of January 2016. Because the project is behind schedule in initiating demolition activities, 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 initiate demolition activities as identified in the current schedule, these costs will continue to be realized resulting in a potential unrecoverable cost variance. In addition, Readiness activities are taking longer than originally assumed due to increased requirements required by the Readiness Assessment team to demonstrate readiness for demolition of the PRF facility. This is partially offset by recognized efficiencies in the removal of the gloveboxes from 236-Z.

Cumulative to Date:

Schedule Variance: The cumulative 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 the 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) and increased characterization efforts. Once the 236-Z building is ready for demo the diverted resources will be redirected to support ready for demolition activities for the ancillary buildings, 234-5Z and 291-Z. Initiation of demolition of the 236-Z facility is currently forecast for November 2016, with 242-Z and 234-5Z following thereafter. As a result of delays in the ready for demolition activities, the C2 CD-4 has been delayed. However, the TPA milestone M-083-00A has been re-negotiated to a due date of 9/30/2017 and is expected to be achieved. This is partially offset by the completion of demolition of the 2729-Z, and 2727-Z facilities and removal of gloveboxes from the 236-Z Facility.

Cost Variance: The cumulative negative cost variance is associated with MSA subcontracted resources arriving to support PFP demolition that had a planned baseline start date of January 2016. Because the project is behind schedule in initiating demolition activities, 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 initiate 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 are lagging 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. Finally, 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. This is partially offset by recognized efficiencies associated with the demolition of the 2727-Z and 2729-Z facilities (small ancillary facilities) and less than assumed procurement of consumable materials as a result of the delay of demolition of the main PFP facilities. This is not expected to continue after demolition has been initiated.

Impact:

Schedule Impact: Work efforts in getting 234-5Z ready for Cold & Dark resulted in a gain of 16 calendar days since September to the critical path to achieving the CD-4 closeout. This is as a result of realigning the removal of the gloveboxes from 234-5Z in a more efficient manner than originally assumed. The baseline completion date is not considered recoverable. The TPA Milestone TPA-083-00A, complete PFP facility transition and selected disposition activities, has been re-negotiated to September 30, 2017 and is expected to be achieved.

Cost Impact: Stop Works, Safety Pauses, 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 are taking 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. Subcontracted MSA resources specializing in facility demolition continue to charge the project until ready for demo status is achieved. Mitigation actions are being reviewed and, when finalized, will be put in place to partially recover the cost impact.

The positive VAC is reflective of working one shift during demolition of 236-Z and 242-Z facilities rather than two as planned in the PMB. In addition, the duration for demolition of 234-5Z has been adjusted as it has been determined that due to the time of year demolition will occur, the number of days to demolish the facility will be less than originally planned. This reduces the amount of demolition and supervision labor resources needed, resulting in the reduction of EAC to BCWS values. The projected net EAC impact of \$1.6M since September is the result of an increased requirement to by PBS Fixative for demolition activities.

Corrective Action:

Cost: MSA subcontracted resources (e.g., Heavy Equipment Operators, Crane Operators, Mechanics, etc.) will be loaned out to other CHPRC and other Hanford contractors when the PFP project can support the needs of others and this offset unnecessary costs to the PFP Project. Action Mike Douglas due 10/30/2016

Schedule: The PFP project will evaluate and incorporate actions to safely and effectively recover schedule that has been lost due to delays in the ready for demolition activities associated with 234-5Z, 236-Z, 242-Z, and 291-Z in order to allow demolition of facilities in the PFP complex to begin earlier than currently forecast. The FES will be updated by end of October to reflect these recovery actions. Action Mike Douglas 10/30/2016

NOTE: Corrective actions associated with stop works/safety pauses, contamination events, and 236-Z Canyon Crane failure 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:

- Schedule Margin Analysis: In the EAC there is currently no remaining schedule margin in this capital asset account. Schedule margin was lost in February 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.
- IMS Data dictionary Changes: No change in the month of October
- Forecast Schedule with No Baseline: No change in the month of October
- UB Balance: No change in the month of October
- Negative ACWP: No change in the month of October
- EAC Analysis: Best Case = \$46,766; Most Likely = \$50,494; Worst Case = \$50,340
- Negative CV > VAC: No change in the month of October
- MR Transactions: No change in the month of October
- Freeze Period Changes: No change in the month of October
- Retroactive Changes: No change in the month of October
- EVT Changes: No change in the month of October

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

Appendix C
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
(KBO&PR)

M. A. Wright
Vice President for
Project Technical
Services

October 2016
CHPRC-2016-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

1. CHPRC received Contract Modification No. 544 on September 30, 2016, which modified the CHPRC Contract to include fiscal year (FY) 2017 performance measures (PMs) in the Performance Evaluation and Measurement Plan. The following PMs were implemented into the RL-0012 Performance Measurement Baseline (PMB) in October:
 - PM-12-1-17: Receipt of increments of Sludge Transport and Storage Container (STSC) Assemblies production run #1 (Vessels 2-13).
 - PM-12-2-17: Complete installation of sludge transfer equipment (M-016-177) and initiate KW Basin/Annex pre-operational acceptance test K-Basin Preoperational Acceptance Test (KPAT).
 - PM-12-3-17: Implement approved integrated KW Basin Documented Safety Analysis (DSA)/Technical Safety Requirements (TSR).
 - PM-12-4-17: Complete T Plant facility modifications for sludge storage.
2. Based upon discussions between RL and CHPRC Senior Management, the STP Team has modified the field execution schedule (FES) to implement acceleration opportunities that could potentially facilitate the transfer of all sludge to T Plant in FY2018. In order to meet the accelerated schedule, support from CHPRC and RL is required for the following assumptions:
 - Significant paid overtime/weekend work will be required to reduce schedule duration.
 - Reduced approval time on safety documentation.
 - CD-4 approval will occur concurrently with sludge retrieval operations.
3. The DOE Safety Basis Review Team (SBRT) has started their review of the 105K West Facility Document Safety Analysis (DSA) and Technical Safety Requirement (TSR). The SBRT is working directly with the CHPRC Nuclear Safety staff to answer questions and resolve comments during the review period. The review is on schedule with an expected approval in February 2017. The DSA/TSR must be approved and implemented prior to KPAT activities that transfer 105KW Basin water into the 105KW Annex.

KEY ACCOMPLISHMENTS

RL-0012_C1_1 Accomplishments

KW Basin Sludge Retrieval Capital Assesst Project

- Engineered Container Retrieval and Transfer System (ECRTS) Process Equipment Procurement:
 - o Procurement Set #7: 105KW Annex, Stack Monitoring System – The final data package was formally approved and the production system hardware was delivered to Acquisition Verification Services (AVS).
 - o Procurement Set #8: STSC Vessels – Currently no additional progress has been made to clean additional STSCs as this work is on hold pending completion of the free iron contamination causal analysis. Pending evaluation of the causal analysis, RL authorized CHPRC to resume fabrication on a limited work scope on STSC 414-424, which are currently being fabricated at ABW. Significant progress continues to be made on the iron contamination causal evaluation.
 - o Procurement Set #9: SS STSC Assemblies (Instrumentation & Appurtenances) – HiLine received STSC 410-413 and will begin installation of instrumentation and appurtenances. HiLine completed their review of the Becht Engineering technical document deriving the seismic response spectra that will be utilized for seismic testing and submitted this document to CHPRC for review/approval.
 - o Warranty Work on Transfer System and Density-Flowmeter Instrument Spools – Khrono Company shipped the instrument assemblies from England to Massachusetts to the calibration lab

in California. The calibration lab immediately began calibration setups, and the current plan has these instruments arriving in Richland in early November.

- MPAT Execution:
 - o The MASF Testing Team continues to focus on restoration of the ECRTS Test Article Loop to facilitate recommencing operations staff training later this calendar year. Efforts continued to produce the MASF Preoperational Acceptance Test (MPAT) Final Test Report and prepare for the KPAT at the 105KW Basin/Annex early next calendar year.

PTS Accomplishments

- KW Annex Construction:
 - o Completed the installation of the 212 degree fusible links on the overhead (OH) door and conducted the OH door drop test.
 - o Rough Set 8 of 9 pieces of the ECRTS process mechanical and electrical equipment on the mezzanine.
- In Basin Modifications Construction:
 - o Completed Installation of both Transfer System Booster Pumps. One located in the Center Bay and the other in the East Bay.
 - o Completed restoration of permanent facility handrail around all opening modified for the installation of ECRTS process equipment, completed the installation of the toe boards and restoration of the facility handrail.
 - o Installed the Hydrolance Deployment Beam.
 - o Erected the majority of the scaffolding in the Basin to support the conduit and cable installation.

MAJOR ISSUES

Sludge Removal Project

Issue:

Based upon iron contamination discoveries in STSC 402, 403, and 410-413, ABW was instructed to conduct free iron testing of STSC 404-409.

Corrective Action:

ABW and CHPRC Technical Staff have developed procedures to aggressively remove iron contamination from STSCs and validate cleanliness via free iron testing of all 12 STSCs fabricated in FY2016 (first production run).

Status:

- o STSC 410-413 were cleaned, retested, and accepted by CHPRC.
- o STSC 404-409 have been shipped back to Arlington, WA, for testing, cleaning, and retesting, as appropriate. This work scope is on hold until CHPRC and ABW reach agreement on the change order submitted for testing, cleaning, and retesting STSC 410-413.
- o STSC 402-403 remain at HiLine (with instrumentation/appurtenances installed) and will be tested/cleaned/retested by HiLine personnel due to the difficulty/expense of returning these vessels to Arlington, WA, with instrumentation/appurtenance installed.
- o CHPRC is preparing a causal analysis, which is forecast to complete in November.

CORRECTIVE ACTION LOG

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

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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

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

Risk Title	Unmitigated Risk Impacts	Assessment		Comments								
		Month	Trend									
RL-0012/WBS-012 (CAP)												
Explanation of major changes to the project monthly stoplight chart:												
No major changes to the monthly stoplight chart in the month of October .												
Realized Risks (Risks that are currently impacting project cost/schedule)												
STP-123-B: Design Maturity - ECRTS Annex/In- Basin Equip.	Finalization of design media for the ECRTS equipment installation will result in changes to both cost and schedule. Risk Handling Strategy: Accept Probability: Medium (26% to 74%) Worst Case Impacts: \$912K, 64 days	●	↑	Risk Event: The project realized additional cost and schedule impacts in October as a result of missing design details for KW Modified Annex ALARA Design Review Checklist (DCN-068). The project has realized this risk. The project will design, procure, fabricate and install SRP Cask Leak Tester Panel at the Annex Facility utilizing a vacuum decay leak test as a change in method of performance. <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr style="background-color: #f2f2f2;"> <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>Release Shielding Calculations and KW Modified Annex ALARA Design Review Checklist (068)</td> <td style="text-align: center;">12/16/12</td> <td style="text-align: center;">12/31/16</td> <td style="text-align: center;">90</td> </tr> </tbody> </table> Recovery Action Assessment: During the weekly engineering meetings, the project identifies and reviews DCNs and defines a path forward for the pending changes. A Title III Engineering manager has been hired to coordinate the design changes with the construction group. A BCR requesting management reserve for Cask Leak Test work is projected to be submitted in November 2016 . The risk will continue to be monitored by the project. No additional mitigation actions have been identified at this time.	Risk recovery action(s)	Risk Date	FC Date	%	Release Shielding Calculations and KW Modified Annex ALARA Design Review Checklist (068)	12/16/12	12/31/16	90
Risk recovery action(s)	Risk Date	FC Date	%									
Release Shielding Calculations and KW Modified Annex ALARA Design Review Checklist (068)	12/16/12	12/31/16	90									

Risk Title	Unmitigated Risk Impacts	Assessment		Comments																																
		Month	Trend																																	
RL-0012/WBS-012 (CAP)																																				
<p>STP-072: Delayed STSC/ECRTS Procurement & Delivery</p>	<p>Material delivery and fabrication issues at ECRTS vendor facilities delay the delivery of the components to the Sludge Treatment Plant (STP) resulting in cost impacts and schedule delays.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Medium (26% to 74%)</p> <p>Worst Case Impacts: \$3,000K 120 days</p>	●	↑	<p>Risk Event:</p> <p>Event 1: This risk has been realized. Rust was discovered in STSCs. As a result, additional testing and cleaning is required to quantify and correct this condition.</p> <p>Event 2: Due to leak test failures encountered on the TLSB expansion joints, engineering processed a design change to revise the design to replace the expansion joint with a pipe spool. The late change and downstream procurement effort has pushed related installation activities onto project critical path.</p> <p>Event 3: Due to failure of two instrument spool mass flow meters during MPAT, replacement instrument spools had to be procured from Khrono Company in England. Due to slips in the delivery to the Hanford Site, testing at MASF and installation in the 105KW Basin have been delayed and are now on critical path.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Risk recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Re-plan Field Execution Schedule (FES) activities to include a process of cleaning and delivery.</td> <td>07/22/16</td> <td>11/30/16</td> <td>80</td> </tr> <tr> <td>Procure replacement spool and install in TLSB</td> <td>09/01/16</td> <td>11/9/16</td> <td>25</td> </tr> <tr> <td>Deliver to 100K Area</td> <td>09/01/16</td> <td>11/9/16</td> <td>0</td> </tr> <tr> <td>Install in 105KW Annex</td> <td>09/01/16</td> <td>11/30/16</td> <td>0</td> </tr> <tr> <td>Procure replacement instrument spools</td> <td>05/31/16</td> <td>11/3/16</td> <td>80</td> </tr> <tr> <td>Test at MASF</td> <td>05/31/16</td> <td>12/12/16</td> <td>0</td> </tr> <tr> <td>Install in 105KW Basin</td> <td>05/31/16</td> <td>12/29/16</td> <td>0</td> </tr> </tbody> </table> <p>Recovery Action Assessment:</p> <p>Contracting with NACE Certified SME to provide technical support in establishing acceptance criteria and monitoring progress to achieve receipt acceptance criteria. Testing has demonstrated that the use of Nitric Acid and pickling jell does appear to provide improved results leading to iron-free vessels. STSCs 410-413 were successfully cleaned and shipped to the Hanford Site. ABW is on hold for further cleaning until a Change Order for STSCs 410-413 is settled with CHPRC, explaining the slip in completion date. The causal analysis report and change order are forecast to complete by 11/30/16.</p>	Risk recovery action(s)	Risk Date	FC Date	%	Re-plan Field Execution Schedule (FES) activities to include a process of cleaning and delivery.	07/22/16	11/30/16	80	Procure replacement spool and install in TLSB	09/01/16	11/9/16	25	Deliver to 100K Area	09/01/16	11/9/16	0	Install in 105KW Annex	09/01/16	11/30/16	0	Procure replacement instrument spools	05/31/16	11/3/16	80	Test at MASF	05/31/16	12/12/16	0	Install in 105KW Basin	05/31/16	12/29/16	0
Risk recovery action(s)	Risk Date	FC Date	%																																	
Re-plan Field Execution Schedule (FES) activities to include a process of cleaning and delivery.	07/22/16	11/30/16	80																																	
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Procure replacement instrument spools	05/31/16	11/3/16	80																																	
Test at MASF	05/31/16	12/12/16	0																																	
Install in 105KW Basin	05/31/16	12/29/16	0																																	
<p>STP-111-B: Contractor/ Subcontractor Performance - ECRTS Annex/In-Basin Equip. Installation</p>	<p>The General Conditions Contractor and their supporting subcontractors have historically performed poorly and will be challenged on this project by compliance with project and contract flow down requirements (e.g., quality, nuclear standards, site safety requirements, subcontract management to ensure contract requirements are met, NRTL compliance, suspect counterfeit, Buy-American contract clause, Project Controls requirements, development of Construction Acceptance Testing [CAT], timely processing of submittals compliance with all the subcontract flow down requirements) as well as deployment and maintenance of key staff that are essential to safe, cost effective and on-time project delivery.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Very Likely (> 90%)</p> <p>Worst Case Impacts: \$792K, 96 days</p>	●	↔	<p>Risk Event:</p> <p>The contractor has responded to CH requests, hired an additional Field Work Supervisor and Project Engineer, and rearranged their Org Chart to increase efficiency of managing the project. This has helped the contractor turn in change order proposals on time and significantly decrease the amount of delinquent change order proposals as well as increase efficiency of work being done on equipment install. Material procurements continue to affect field execution.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Risk recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Contractor delays due to inadequate staffing/mobilization. Will work with contractor to stabilize work resource planning.</td> <td>5/17/16</td> <td>Ongoing</td> <td>NA</td> </tr> </tbody> </table> <p>Recovery Action Assessment:</p> <p>This is a reoccurring risk relating to the performance of the General Contractor and their supporting subcontractors. The CHPRC project team continues to work with their subcontractors to ensure the contractors are thoroughly aware of their project responsibilities and have the opportunity to complete their project scope successfully. Mitigation actions are in place that are expected to reduce the probability of the risk occurrence and reduce the potential cost and schedule impact, and the risk will continue to be monitored. No additional mitigation actions have been identified at this time.</p>	Risk recovery action(s)	Risk Date	FC Date	%	Contractor delays due to inadequate staffing/mobilization. Will work with contractor to stabilize work resource planning.	5/17/16	Ongoing	NA																								
Risk recovery action(s)	Risk Date	FC Date	%																																	
Contractor delays due to inadequate staffing/mobilization. Will work with contractor to stabilize work resource planning.	5/17/16	Ongoing	NA																																	

Risk Title	Unmitigated Risk Impacts	Assessment		Comments															
		Month	Trend																
RL-0012/WBS-012 (CAP)																			
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) & ECRS Startup	The ECRS 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 as a result 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 ECRS equipment does not operate as expected. 2) Unexpected attrition of critical testing personnel. <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Develop and refine procedures based upon feedback from testing and operations personnel.</td> <td>3/15/17</td> <td>25</td> </tr> <tr> <td>Develop streamline strategy (work packages and procedures) to perform in-basin/annex integrated testing and troubleshooting.</td> <td>3/15/17</td> <td>10</td> </tr> <tr> <td>Utilize Overtime to offset schedule impacts.</td> <td>As Needed</td> <td>N/A</td> </tr> <tr> <td>Closely monitor employee satisfaction and consider employee incentive to retain key test personnel.</td> <td>As Needed</td> <td>N/A</td> </tr> </tbody> </table> Mitigation Assessment: No major changes in the month of October . Forecasted mitigation dates are consistent with overall STP critical path schedule.	Mitigation action(s)	FC Date	%	Develop and refine procedures based upon feedback from testing and operations personnel.	3/15/17	25	Develop streamline strategy (work packages and procedures) to perform in-basin/annex integrated testing and troubleshooting.	3/15/17	10	Utilize Overtime to offset schedule impacts.	As Needed	N/A	Closely monitor employee satisfaction and consider employee incentive to retain key test personnel.	As Needed	N/A
Mitigation action(s)	FC Date	%																	
Develop and refine procedures based upon feedback from testing and operations personnel.	3/15/17	25																	
Develop streamline strategy (work packages and procedures) to perform in-basin/annex integrated testing and troubleshooting.	3/15/17	10																	
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 flows through disassembly, cleaning, and inspection of the ECRS production hardware test loop at MASF, transporting that hardware to 100-K, installation of process equipment in the 105K West Basin and Annex, KPAT of the installed process equipment, readiness activities, and finally, containerized sludge retrieval operations. Completing retrieval operations, including the filling of STSCs with sludge and transferring them to T Plant, to complete Tri-Party Agreement Milestone M-016-176, *Complete Sludge Removal from 105-KW Fuels Storage Basin*, is outside the current contract period in FY2019.

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	8/24/2018	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

None currently identified.

RL-0012_C1_1

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 2016
CHPRC-2016-10, 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 15_D_401 KW Basin Sludge Removal Project			a. FROM (YYYYMMDD) 2016 / 10 / 01	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE			b. TO (YYYYMMDD) 2016 / 10 / 23	
		c. TYPE CPAF		d. SHARE RATIO			c. EVMS ACCEPTANCE NO <input type="checkbox"/> X YES (YYYYMMDD) 2019 / 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 304,922	g. CONTRACT CEILING 303,823	h. ESTIMATED CONTRACT CEILING 301,972	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 285,594						c. SIGNATURE		d. DATE SIGNED (YYYYMMDD)	
b. WORST CASE 294,022									
c. MOST LIKELY 296,972		295,873		-1,099					

8. PERFORMANCE DATA																			
CAPN.PBS Control Account.PARS 2 WBS (2)		CURRENT PERIOD				CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION					
ITEM (1)	BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (9)	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)			
	WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)									
RL-0012 SNF Stabilization & Disp																			
RL_0012_C1_1.16 Sludge Treat	0	0	0	0	0	156,861	156,861	156,786	0	75	0	0	0	156,861	156,786	75			
RL_0012_C1_1.17 D-401 KW Ba	2,369	2,589	2,998	220	-409	86,244	86,192	79,245	-52	6,947	0	0	0	130,413	128,808	1,605			
b. COST OF MONEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
c. GENERAL AND ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
d. UNDISTRIBUTED BUDGET														0	0	0			
e. SUBTOTAL	2,369	2,589	2,998	220	-409	243,105	243,053	236,031	-52	7,023	0	0	0	287,274	285,594	1,681			
f. MANAGEMENT RESERVE														8,429					
g. TOTAL	2,369	2,589	2,998	220	-409	243,105	243,053	236,031	-52	7,023	0	0	0	295,703					
9. RECONCILIATION TO CONTRACT BUDGET BASELINE																			
a. VARIANCE ADJUSTMENT																			
b. TOTAL CONTRACT VARIANCE																			
										-52		7,023		295,703		285,594		10,109	

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) 2016 / 10 / 01	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2016 / 10 / 23	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (YYYYMMDD) 2019 / 09 / 18			

WBS.Resp Org Group	CURRENT PERIOD						CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL	VARIANCE		BUDGETED COST		ACTUAL	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)	
	WORK SCHEDULED (2)	WORK PERFORMED (3)	COST WORK PERFORMED (4)	SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	COST WORK PERFORMED (9)	SCHEDULE (10)	COST (11)							
3G - K Basin Oper & Plateau Remediation Project	2,369	2,589	2,998	220	-409	243,105	243,053	236,031	-52	7,023	0	0	0	287,274	285,594	1,681	
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)	2,369	2,589	2,998	220	-409	243,105	243,053	236,031	-52	7,023	0	0	0	287,274	285,594	1,681	
f. MANAGEMENT RESERVE														8,429			
g. TOTAL	2,369	2,589	2,998	220	-409	243,105	243,053	236,031	-52	7,023	0	0	0	295,703			

CLASSIFICATION (When Filled In)

CLASSIFICATION (When Filled In)

CONTRACT PERFORMANCE REPORT FORMAT 4 - STAFFING											FORM APPROVED OMB No. 0704-0188			
1. CONTRACTOR			2. CONTRACT				3. PROGRAM				4. REPORT PERIOD			
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) 2016 / 10 / 01			
b. LOCATION (Address and ZIP Code) Richland, WA			b. NUMBER RL14788		b. PHASE				b. TO (YYYYMMDD) 2016 / 10 / 23					
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE		<input type="checkbox"/> NO <input checked="" type="checkbox"/> YES (YYYYMMDD)		2019 / 09 / 18						
5. PERFORMANCE DATA														
WBS.Resp Org Group ORGANIZATIONAL CATEGORY (1)	ACTUAL CURRENT PERIOD (2)	ACTUAL END OF CURRENT PERIOD (Cumulative) (3)	FORECAST (Non-Cumulative)								ENTER SPECIFIED PERIODS			AT COMPLETION (15)
			SIX MONTH FORECAST BY MONTH (Enter names of months)											
			+1 NOV 2016 (4)	+2 DEC 2016 (5)	+3 JAN 2016 (6)	+4 FEB 2016 (7)	+5 MAR 2016 (8)	+6 REMAIN FY17 (9)	FY18 (10)	FY19-LC (11)	ATCOMPLETE (12)			
3G - K Basin Oper & Plateau Remediation Pro	76	6350	93	87	88	77	79	495	506	0	0	0	7774	
g. TOTAL DIRECT	76	6350	93	87	88	77	79	495	506	0	0	0	7774	

CLASSIFICATION (When Filled In)

