

# Monthly Performance Report

September 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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P.O. Box 1600  
Richland, Washington 99352

**APPROVED**

*By Janis Aardal at 6:25 am, Oct 24, 2016*

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Release Approval

Date

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J. A. Ciucci  
President and Chief  
Executive Officer

# Monthly Performance Report

U.S. Department of Energy Contract,  
DE-AC06-08RL14788  
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September 2016  
CHPRC-2016-09, Revision 0

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## EXECUTIVE SUMMARY

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

- The Plutonium Finishing Plant (PFP) Closure Project retired steam turbines that supported PFP ventilation system, allowing crews to begin abating asbestos from the ventilation building. Crews also deactivated the public address system in the Plutonium Reclamation Facility (PRF), as part of that facility's electrical isolation effort and began removing the roof of PRF to begin lifting gloveboxes and a filter box from the upper floors of the facility.
- The Waste and Fuels Management Project (W&FMP) continued to make progress on completion of the B Plant K-3 Filter Upgrade Project. Core drilling was completed for the A Cell airlock; core drilling for the legacy contamination stabilization effort is about 68 percent complete. Actions to recover from past grouting contamination issues to enable resumption of grouting the old ventilation system filter pit began on September 26, 2016.
- Soil and Groundwater Remediation Project (S&GRP) workers are in the process of drilling seven monitoring wells on the Central Plateau. Two of the wells have been completed, three are in process and two have yet to start. Completed all remaining groundwater treatment and removal Key Performance Goals (KPGs) for Fiscal Year (FY) 2016. This included treating more than 2.2 billion gallons and removing more than 180 thousand pounds of contaminants. Concluded decommissioning of the remaining fifteen 200-DV-1 Operable Unit characterization boreholes.
- The K Basin Operations and Plateau Remediation (KBO&PR) Project successfully prepared and shipped more than nine pieces of sludge removal equipment from the Maintenance and Storage Facility (MASF) to 100K. K Basin and Annex teams are receiving sludge removal equipment and tools from MASF and began installing it into the K West Basin the first week of October.



**PFP crews started removing PRF roof.**

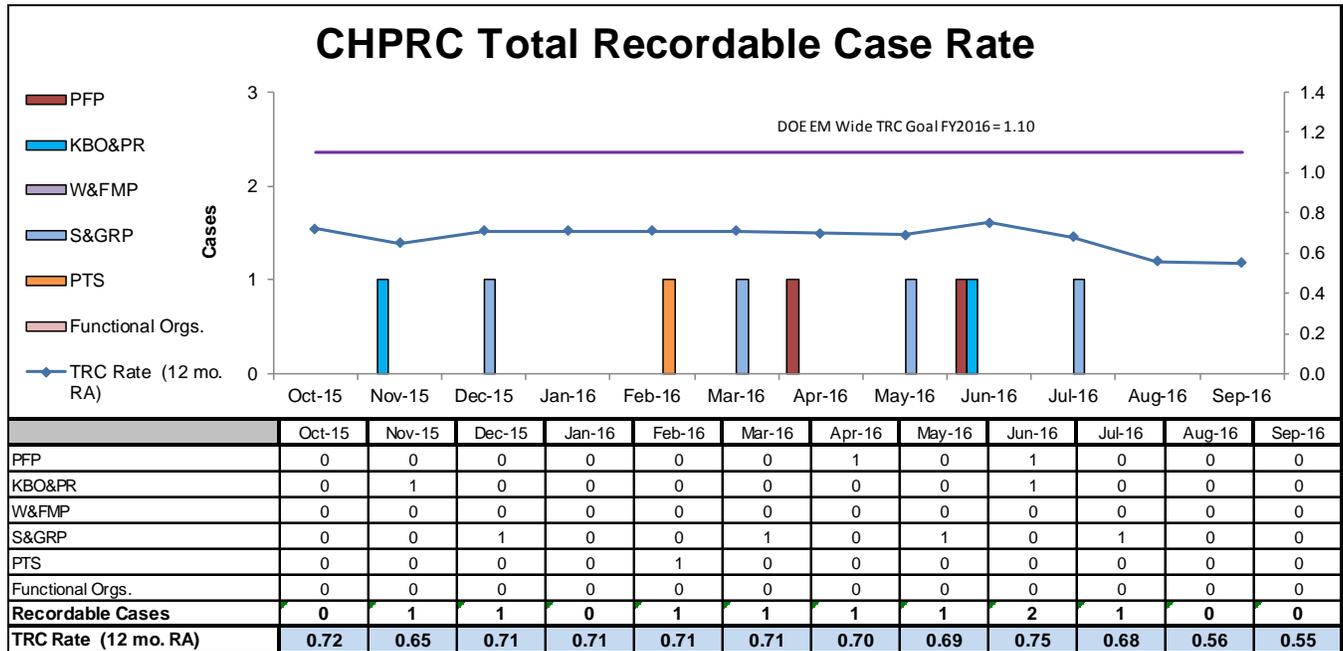


**Shipped more than nine pieces of sludge removal equipment from the MASF to 100K.**

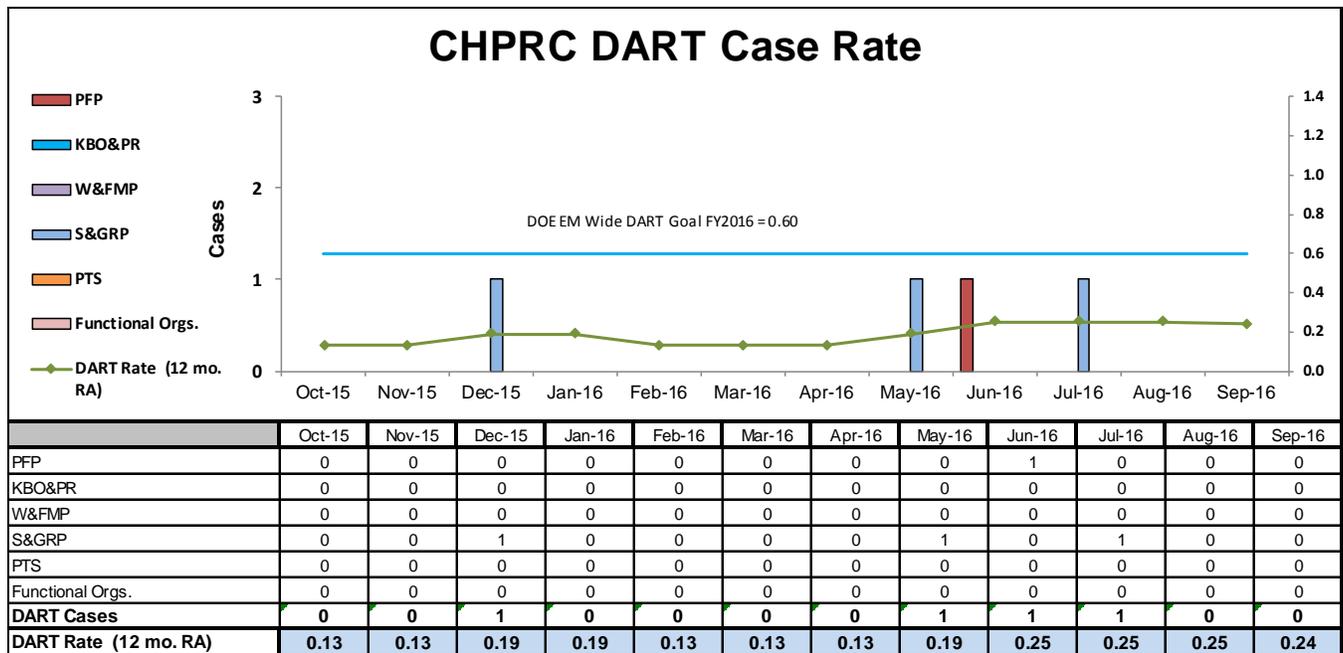
- The September 2016 President’s Zero Accident Council (PZAC) meeting was hosted by the Safety, Health, Security, and Quality organization. The three main ideas for the meeting were:
  - Fall hazards – Three main types of distractions: visual, manual, and cognitive.
  - School Zone Awareness – Know the speed limits and times when school zones are enforced.
  - VPP Recognition – Star of Excellence for the second year.
- o Four “*Thinking Target Zero*” (TTZ) bulletins were published in September to convey important occupational, safety, health, and environmental messages:
  - Our senses for safety.
  - DOE-HQ VPP “Star of Excellence” Award.
  - Flu prevention.
  - October is Fire Safety month.
- o September *Weekly Safety Tailgate* briefing packages communicated relevant topics and safety information to the workforce:
  - Four Lessons Learned: State of Washington Fatality Narrative - Foreman Falls from Stepladder; CH2M - information gathering disruptive to incident management; PNNL - Safety Tips for Material Loading and Working Around Trucks; and Oak Ridge, TN - pipefitter fell approximately five feet, fracturing both legs.
  - Weekly Ethics Moments.
  - Returning to work safely.
  - Reporting injuries.
  - Returning to work process for work-related illness/injury.
  - Recent slips and trips.
  - Work restrictions.
  - Hanford worksite flu clinics.
  - Working alone.
  - Avoiding deer and elk.
- o The September *Kudos Corner* recognized individuals and teams who made a significant contribution to safety at work, home or play:
  - Kudos to a CHPRC Hanford Atomic Metal Trades Council (HAMTC) Safety Representative who was elected to the Voluntary Protection Program Participants’ (VPP) Association National board of directors as a Director at Large.
  - Kudos to the K Basin Operation and Plateau Remediation (KBO&PR) team for achieving more than 1.5 million safe work hours.
  - Kudos to the Waste and Fuels Management Project (W&FMP) team for recently working more than two million hours without a lost time injury. Thank you for working safely.
  - Kudos to a Mission Support Alliance, LLC (MSA) janitor for making the difference in the life of another. He discovered an unconscious employee after normal working hours and took appropriate actions by calling for help and getting aid to the employee.

## TARGET ZERO PERFORMANCE

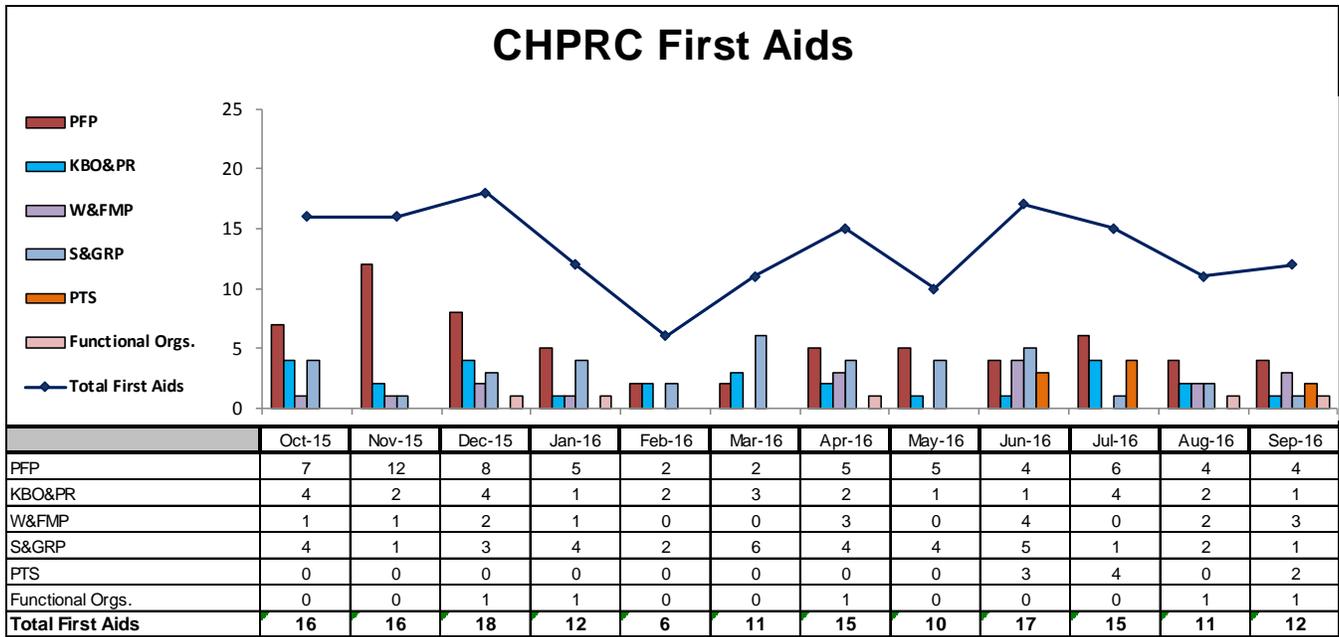
CHPRC continued focusing on integrating and implementing safety programs in all program and project areas.



Total Recordable Injury Case (TRC) Rate: The 12-month rolling average TRC rate of 0.55 is based on a total of nine Recordable injuries. There were no Recordable cases for September.



Days Away, Restricted or Transferred (DART) Workdays Case Rate: The 12-month rolling average DART rate of 0.24 is based upon a total of four Days Away cases. There were no DART cases in September.



First Aid Case Summary: CHPRC reported 12 first aid cases in September. The contributors were five abrasions/bruises/contusions, four sprains/strains/pains, one cut/lacerations/punctures, one foreign bodies/irritation in the eye and one miscellaneous (burns, rashes, repetitive motion, etc.) injury.

## KEY ACCOMPLISHMENTS

### Projects

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

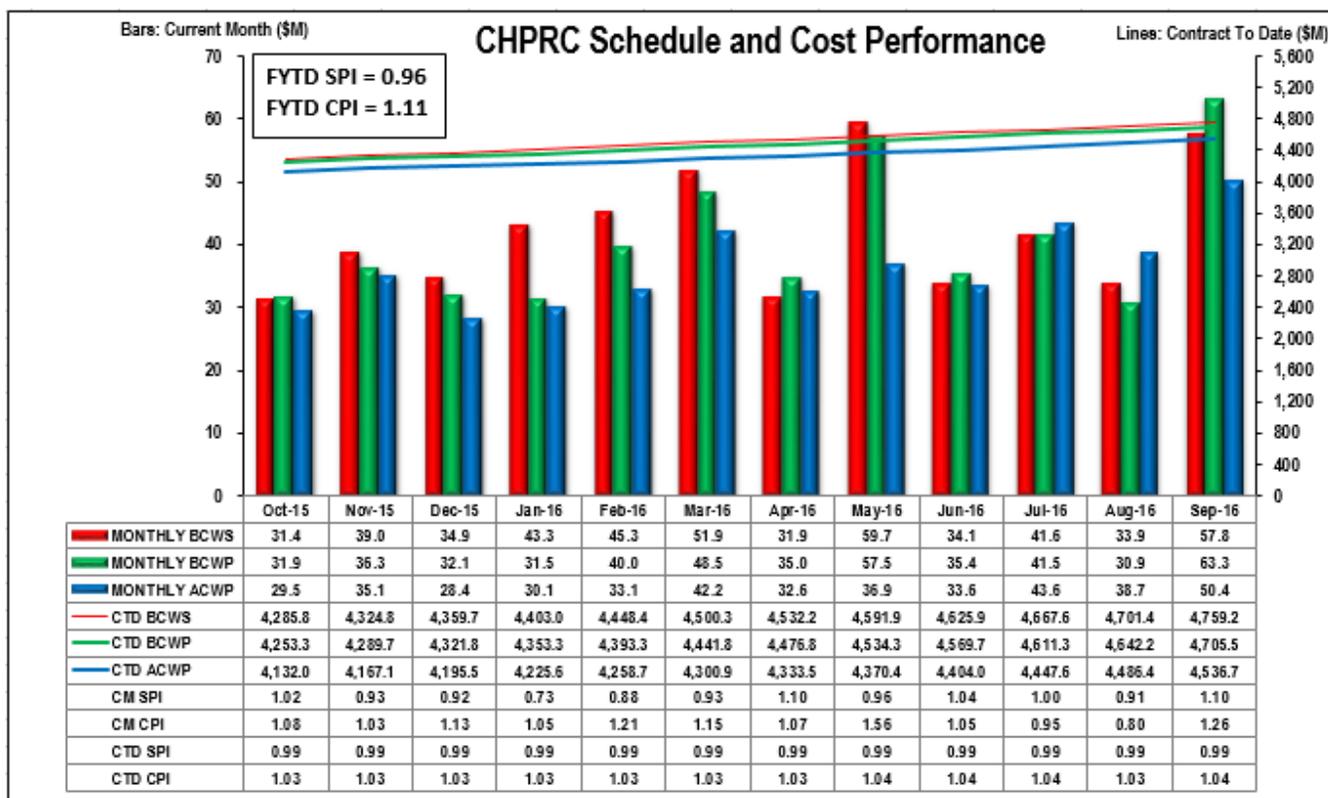
### Project Services and Support (PTS)

- 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	7.7	11.9	11.6	4.2	0.3	964.9	915.3	945.1	(49.6)	(29.8)	979.5	1,036.1	(56.6)
RL-0012 - SNF Stabilization & Disposition	8.8	9.1	7.7	0.3	1.4	622.7	623.7	597.6	1.0	26.1	737.1	710.4	26.6
RL-0013 - Solid Waste Stab & Disposition	12.8	14.5	11.6	1.7	2.9	1091.1	1093.1	1023.1	2.0	70.0	1,341.2	1,289.5	51.7
RL-0030 - Soil & Water Rem-Grndwtr/Vadose	12.8	12.9	13.0	0.2	(0.1)	1284.6	1272.8	1243.7	(11.8)	29.1	1,564.8	1,494.5	70.3
RL-0040 - Nuc Fac D&D - Remainder	2.8	3.1	2.2	0.4	1.0	425.5	422.0	390.1	(3.4)	31.9	472.3	444.3	28.1
RL-0041 - Nuc Fac D&D - RC Closure Project	12.7	11.5	4.1	(1.2)	7.4	348.3	356.5	319.1	8.1	37.4	519.8	467.0	52.8
RL-0042 - Nuc Fac D&D - FFTF Project	0.2	0.2	0.2	(0.0)	0.0	22.2	22.2	18.0	(0.0)	4.1	26.5	22.6	3.8
<b>Total</b>	<b>57.8</b>	<b>63.3</b>	<b>50.4</b>	<b>5.5</b>	<b>13.0</b>	<b>4,759.3</b>	<b>4,705.5</b>	<b>4,536.7</b>	<b>(53.8)</b>	<b>168.8</b>	<b>5,641.2</b>	<b>5,464.5</b>	<b>176.7</b>

(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, 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 \$176.7 million with \$72.4 million of Management Reserve (MR) for a total positive variance of \$249.1 million. For September, the project was 9.5 percent ahead of schedule and 20.5 percent under planned cost. Contract to Date (CTD), the project was 1.1 percent behind schedule and 3.6 percent under planned cost.

The current month positive schedule variance is primarily due to Project Breakdown Structure (PBS) RL-0011 correction to the discrete activities apportioned to the Deactivation and Decommissioning (D&D) demolition ready activities. When the RL-0011\_C2 capital asset project was implemented, discrete demolition activities should have been pointed to the RL-0011\_C2 project management accounts. In addition, historical budgeted cost of work scheduled (BCWS) associated with the PRF ready for demolition work scope is contributing to the positive variance. Also contributing to the variance is PBS RL-0013 loading and shipping at Central Waste Complex (CWC), processing at Perma-Fix Northwest, Inc. (PFNW), and return of the processed waste back to CWC during the current period. Acceleration of this work scope results in the BCWS in FY2017 and the budgeted cost of work performed (BCWP) is in the current period. The variance is partially offset due to PBS RL-0041 implementation of BCR-041C-16-025R0 - Revise G&A Rates on CAP Projects - RL-0041, which resulted in a reduction to BCWP.

The current month positive cost variance is due to PBS RL-0041 Environmental Restoration Disposal Facility (ERDF) passback pertaining to 100K Waste Site Remediation as well as efficiencies associated with shared resources in the areas of 100K Minimum Safe, 100K Project Support, 324 Minimum Safe and ERDF Operations. Also contributing to the variance is PBS RL-0013 primarily due to significant efficiencies in labor utilization (approximately 16+ full time equivalents (FTEs) below plan resulting in about \$594K reduction in direct labor costs). This is attributable to the continued implementation of planned efficiencies as a cost cutting measure. Efficiencies include resource sharing across multiple scopes of work in areas of engineering, training, emergency preparedness, corrective action management and environmental management.

## FUNDING ANALYSIS

### FY2016 Funds vs. Fiscal Year Spend Forecast

(\$M)

PBS	Project	FY2016		
		Total Funding	Total Cost	Variance
RL-0011	Nuclear Materials Stabilization and Disposition	111.9	102.3	9.5
RL-0012	Spent Nuclear Fuel Stabilization and Disposition	53.0	44.2	8.8
RL-0012	15-D-401 Sludge Retrieval Project	85.6	32.1	53.5
RL-0013	Waste and Fuels Management Project	110.8	100.2	10.5
RL-0030	Soil, Groundwater and Vadose Zone Remediation	129.9	120.9	9.0
RL-0040	Nuclear Facility D&D, Remainder of Hanford	28.6	21.2	7.4
RL-0041	Nuclear Facility D&D, River Corridor	82.4	30.2	52.2
RL-0042	Fast Flux Test Facility Closure	3.2	1.6	1.6
<b>Total</b>		<b>605.3</b>	<b>452.7</b>	<b>152.5</b>

#### Funds/Variance Analysis

FY2016 expected funding increased in September by \$69.6 million, which includes a \$70.6 million advance of FY2017 funding provided by Department of Energy, Richland Operations Office (RL) to increase carryover through FY2017 startup, and a \$1 million decrease to align with credit cost received for training on overtime. The FY2016 total cost was reduced by \$7.2 million due to year-end variance distributions of the overhead pools. The total FY2016 uncosted funding balance carrying forward into FY2017 is \$152.5 million.

## BASELINE CHANGE REQUESTS

In September 2016, CHPRC approved and implemented 37 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
BCR-000-16-006R0	<i>Implement PC&amp;PI Re-structuring into Baseline</i>	000s	This BCR incorporated organizational changes in the Prime Contract & Project Integration (PC&PI) organization and the changes in execution strategy for these scopes of work. This BCR does not change the PMB value.
BCR-012C-16-032R0	<i>Incorporate Final Annex Construction Contract Negotiated Value.</i>	RL-0012	This BCR incorporated the final negotiated value of the Annex construction subcontract and revises the PMB values accordingly with the balance being returned to MR. This BCR decreased the PMB value by \$1,496K.
BCR-012C-16-037R0	<i>RL-012 STSC Shipping Authorization Documentation MR Draw</i>	RL-0012	This BCR drew down MR for in-scope unplanned work associated in the shipping authorization documentation required for the shipment of Sludge Transport & Storage Containers (STSC) from KW Annex to T-Plant. This BCR increased the PMB value by \$375K.
BCR-013-16-030R0	<i>Incorporate CO #310, Solid Waste Operations Complex Hazards Mitigation Activities</i>	RL-0013	This BCR incorporated the scope associated with Change Order (CO) 310 to prepare and submit draft individual Document Safety Analysis (DSA) and Fire Hazard Analysis (FHA) to replace Solid Waste Operations Complex (SWOC) Master Documented Safety Analysis (MDSA), initiate CWC Drum Over Pack (50 drums) and initiate upgrade of CWC Lighting for remainder of facilities, as documented in Modification 527. This BCR increased the PMB value by \$815K.
BCR-013-16-031R0	<i>Defer Unfunded RL-013 scope from FY2017 to FY2018</i>	RL-0013	This BCR re-planned WBS 013.06.01.04.02 - Repackaging Program Support from FY2017 to FY2018. This BCR does not change the PMB value.
BCR-030-16-044R0	<i>Definitization of REA 030 1566 Finalize Micro-Purge/Low-Flow Sampling Evaluation</i>	RL-0030	This BCR incorporated the definitized scope and budget of Requests for Equitable Adjustment (REA) 030 1566, <i>Finalize Micro-Purge/Low-Flow Sampling Evaluation</i> . This BCR decreased the PMB value by \$36K.
BCR-030-16-045R0	<i>Align KR-4 FY2017 Well Drilling Campaign</i>	RL-0030	This BCR aligned the wells planned for the KR-4 FY2017 well drilling campaign into a single work package level Work Breakdown Structure (WBS) element. The alignment of this well drilling campaign is based on the scope and funding priorities developed in the FY2017 Annual PMB Update. This BCR does not change the PMB value.
BCR-030-16-047R0	<i>200-EA-1 Insufficient Waste Unit Scoping MR Draw</i>	RL-0030	This BCR drew down MR for in-scope unplanned work associated with insufficient scoping information in Waste Information Data System (WIDS). This BCR increased the PMB value by \$734K.
BCR-030-16-048R0	<i>Defer Unfunded 200-UP-1 Well Drilling scope from FY2017 to FY2018</i>	RL-0030	This BCR re-planned the start of the 200-UP-1 Well Drilling from FY2017 to later in FY2017 and into FY2018 based on funding priorities included in the FY2017 Annual PMB Update and to better align with future Milestone. This BCR does not change the PMB value.
BCR-040-16-011R0	<i>Incorporate CO #309, Develop and Submit to RL DQOs for Assessing Structural Integrity for PUREX Tunnels 1 and 2</i>	RL-0040	This BCR incorporated the scope associated with developing and submitting the RL Data Quality Objectives (DQO) for Assessing the Structural Integrity for PUREX Tunnels 1 and 2, as documented in Modification 526. This BCR increased the PMB value by \$100K.
BCR-040-16-012R0	<i>Incorporate CO #311, Emergency Response for Facility/Waste Site</i>	RL-0040	This BCR incorporated the scope associated with repair/replace Plutonium Uranium Extraction (PUREX) Plant stack sampling system, perform reduction and oxidation of 202S roof replacement, initiate

Change Request #	Title	PBS	Summary of Change
	<i>ESH&amp;Q or Remediation</i>		Reduction and oxidation (REDOX) Silo cleanout, initiate REDOX North Sample Gallery cleanout, initiate REDOX Canyon Entry, Initiate Canyon and Central Plateau risk reduction regulatory documents for REDOX, B-Plant, PUREX action memorandums and Canyon Removal action work plans, and Initiate REDOX Canyon Entry, as documented in Modification 528. This BCR increased the PMB value by \$3,250K.
BCR-040-16-013R0	<i>Defer Unfunded RL-040 scope from FY2017 to FY2018</i>	RL-0040	This BCR re-planned WBS 040.01.26.01.19 Central Plateau Steam Line Removal, WBS 040.02.31.01.02 U Canyon, and some activities in the WBS 040.03.01.01.18.01 Central Plateau Surveillance & Maintenance (S&M) Field Work account (B Plant Pre-Filter) from FY2017 to FY2018 based on FY2017 funding priorities. This BCR does not change the PMB value.
BCR-041C-16-024R0	<i>CO #307, Authorization for Additional Tonnage at 100-K Waste Sites</i>	RL-0041	This BCR incorporated scope associated with CO #307 with a Not to Exceed (NTE) of \$3 million additional tonnage for 100-K Waste Sites as authorized by the DOE Contracting Officer. This BCR increased the PMB value by \$3,000K.
BCR-041C-16-029R0	<i>Incorporate RCC Transferred scope for 618-10 Burial Grounds, 316-4 and 600-63 Waste Sites</i>	RL-0041	This BCR incorporated the CO #306 scope for 618-10 Burial Grounds and the 316-4 and 600-63 Waste Sites into the PMB. This BCR increased the PMB value by \$61,077K.
BCR-041C-16-030R0	<i>Incorporate RCC Transferred scope for 300-296 Waste Site</i>	RL-0041	This BCR incorporated the CO #304 scope for 300-296 Waste Site through September 2016. This BCR increased the PMB value by \$2,482K.
BCR-041-16-031R0	<i>Incorporate RCC Transferred scope for Remaining Closure Operations</i>	RL-0041	This BCR incorporated the CO #306 scope for the Remaining Closure Operations (RCO) for miscellaneous sites. This BCR increased the PMB value by \$3,521K.
BCR-041-16-032R0	<i>Incorporate RCC Transferred scope for ERDF Base Operations and 324 Min Safe</i>	RL-0041	This BCR established the CO #304 scope for ERDF Base Operations in PBS RL-0041 through FY2017 and the Minimum Safe Operation scope for 324 Building. This BCR increased the PMB value by \$45,739K.
BCR-041C-16-033R0	<i>Revised DOE Direction for Capital/Operations Split for River Closure Operations</i>	RL-0041	This BCR transferred the River Corridor Closure Contact (RCCC) scope previously coded as Capital Asset Project (CAP) to Operational Activities (OA) Scope. This BCR decreased the PMB value by \$32K.
BCR-041C-16-034R0	<i>Defer Unfunded RL-041 scope from FY2017 to FY2018</i>	RL-0041	This BCR re-planned FY2017 scope, 100K Group 2 Small Facilities Demolition – Part 2, 165KE Structure – Part 2, 1908K Structure – Part 2 and Interim Safe storage (ISS) Safe Storage Enclosure (SSE) Construction that is not being funded and defers it to FY2018 based on funding priorities included in the FY2017 Annual PMB Update. This BCR does not change the PMB value.
BCR-011C-16-013R0	<i>Revise G&amp;A rates on CAP Projects – PFP CAP 2</i>	RL-0011	This BCR revised the General and Administrative (G&A) rates on CAPs for PFP CAP 2. This BCR decreased the PMB value by \$854K.
BCR-012C-16-033R0	<i>Revise G&amp;A rates on CAP Projects – SRP CAP</i>	RL-0012	This BCR revised the G&A rates on CAPs for SRP CAP. This BCR decreased the PMB value by \$340K.
BCR-041C-16-025R0	<i>Revise G&amp;A rates on CAP Projects – RL-0041</i>	RL-0041	This BCR revised the G&A rates on CAPs for RL-0041. This BCR decreased the PMB value by \$3,304K.

Change Request #	Title	PBS	Summary of Change
BCR-PRC-16-051R0	<i>Revise G&amp;A rates on OA Projects</i>	RL-0011, RL-0012, RL-0013, RL-0030, RL-0042	This BCR revised the G&A rates on OA Projects. This BCR decreased the PMB value by \$2,264K.
BCR-011-16-017R0	<i>RL-011 Incorporation of PM-30 Schedule Health Modifications –OA</i>	RL-0011	This BCR incorporated Schedule Health Modifications to Operation Activities. This BCR does not change the PMB value.
BCR-011C-16-018R0	<i>RL-011 Incorporation of PM-30 Schedule Health Modifications –CAP 2</i>	RL-0011	This BCR incorporated Schedule Health Modifications to the PFP CAP 2 project. This BCR does not change the PMB value.
BCR-011C-16-019R0	<i>RL-011 Incorporation of PM-30 Schedule Health Modifications –CAP 1</i>	RL-0011	This BCR incorporated Schedule Health Modifications to the PFP CAP 1 project. This BCR does not change the PMB value.
BCR-012C-16-031R0	<i>Consolidate Design and Title III Support during STP Equipment Installation</i>	RL-0012	This BCR consolidated the scope and budget associated with the Design and Title III Support activities for construction equipment installation, WBS 12.17.01.07.01 (LI) Annex Equipment Install Design into WBS 012.17.01.09.01. This BCR does not change the PMB value.
BCR-012C-16-036R0	<i>Align Fee to the KW Basin Sludge Removal Project PEP</i>	RL-0012	This BCR moved FY2016 and FY2017 fee allocated to the PBS RL-0012 15-D-401, KW Basin Sludge Removal Project from Organizational/Official Point of Contact (OPC) to Technical Evaluation Committee (TEC) to align with the fee values of the Project Execution Plan (PEP). This BCR does not change the PMB value.
BCR-030-16-046R0	<i>RL-030 Schedule Health Update</i>	RL-0030	This BCR incorporated the Schedule Health update for PBS RL-0030. This BCR does not change the PMB value.
BCR-011C-16-014R0	<i>Move Balance of FY 2016 PBS RL-011 Management Reserve to FY 2017 – PFP CAP 1</i>	RL-0011	This BCR moved balance of FY2016 PFP CAP 1 MR to FY2017. This BCR does not change the PMB value.
BCR-011C-16-015R0	<i>Move Balance of FY 2016 PBS RL-011 Management Reserve to FY 2017 – PFP CAP 2</i>	RL-0011	This BCR moved balance of FY2016 PFP CAP 2 Management Reserve to FY2017. This BCR does not change the PMB value.
BCR-012C-16-034R0	<i>Move Balance of FY 2016 PBS RL-012 Management Reserve to FY 2017 – SRP CAP</i>	RL-0012	This BCR moved the balance of FY2016 PBS RL-0012 MR to FY2017 for SRP CAP. This BCR does not change the PMB value.
BCR-041C-16-026R0	<i>Move Balance of FY 2016 PBS RL-041 Management Reserve to FY 2017</i>	RL-0041	This BCR moved the balance of FY2016 PBS RL-0041 MR to FY2017. This BCR does not change the PMB value.
BCR-PRC-16-052R0	<i>Move Balance of FY 2016 Management Reserve to FY 2017 – OA</i>	RL-0011, RL-0012, RL-0013, RL-0030, RL-0042	This BCR moved the balance of FY2016 MR for Operations Activities to FY2017. This BCR does not change the PMB value.
BCRA-PRC-16-055R0	<i>HPIC Updates September 2016</i>	RL-0011, RL-0012, RL-0013,	This BCR documented Hanford Programs Integrated Control Module (HPIC) changes made in September 2016. These changes include new work packages and Control Account Manager (CAM) changes. This

Change Request #	Title	PBS	Summary of Change
		RL-0030, RL-0041, RL-0042, 000s	BCR does not change the PMB value.

The Allocated (Distributed) Budget increased by \$112,767K.

### Undistributed Budget Activity

BCR Number	Title	PBS	Fiscal Year	UB
BCR-041C-16-028R0	<i>PBS RL-0041 Undistributed Budget Adjustments September 2016</i>	RL-0041	2015 - 2018	\$ -7,896K
BCR-PRC-16-054R0	<i>Undistributed Budget Adjustments September 2016</i>	RL-0013, RL-0030, RL-0040	2015 - 2018	\$ -4,003K

The Undistributed Budget decreased by \$11,899K and Authorized Unpriced Work increased by \$107,953K due to Change Order 304, 305, and 306 during September.

### Management Reserve Activity

BCR Number	Title	PBS	Fiscal Year	MR
BCR-012C-16-032R0	<i>Incorporate final Annex Construction Contract Negotiated Value</i>	RL-0012	2015 - 2018	\$1,496K
BCR-012C-16-037R0	<i>RL-012 STSC Shipping Authorization Documentation MR Draw</i>	RL-0012	2015 - 2018	\$-375K
BCR-030-16-047R0	<i>200-EA-1 Insufficient Waste Unit Scoping MR Draw</i>	RL-0030	2015 - 2018	\$-734K
BCR-011C-16-013R0	<i>Revise G&amp;A rates on CAP Projects – PFP CAP 2</i>	RL-0011	2015 - 2018	\$854K
BCR-012C-16-033R0	<i>Revise G&amp;A rates on CAP Projects – SRP CAP</i>	RL-0012	2015 - 2018	\$340K
BCR-041C-16-025R0	<i>Revise G&amp;A rates on CAP Projects – RL-0041</i>	RL-0041	2015 - 2018	\$3,304K
BCR-PRC-16-051R0	<i>Revise G&amp;A rates on OA Projects</i>	RL-0011, RL-0012, RL-0013, RL-0030, RL-0042	2015 - 2018	\$2,264K
BCR-011C-16-014R0	<i>Move Balance of FY 2016 PBS RL-011 Management Reserve to FY 2017 – PFP CAP 1</i>	RL-0011	2015 - 2018	\$0
BCR-011C-16-015R0	<i>Move Balance of FY 2016 PBS RL-011 Management Reserve to FY 2017 – PFP CAP 2</i>	RL-0011	2015 - 2018	\$0
BCR-012C-16-034R0	<i>Move Balance of FY 2016 PBS RL-012 Management Reserve to FY 2017 – SRP CAP</i>	RL-0012	2015 - 2018	\$0
BCR-041C-16-026R0	<i>Move Balance of FY 2016 PBS RL-041 Management Reserve to FY 2017</i>	RL-0041	2015 - 2018	\$0

Overall, there was an increase in Management Reserve (MR) of \$7,149K during September.

### Fee Activity

BCR Number	Title	PBS	Fiscal Year	Fee
BCR-030-16-044R0	<i>Definitization of REA 030 1566 Finalize Micro-Purge/Low-Flow Sampling Evaluation</i>	RL-0030	2015 - 2018	\$3K
BCR-012C-16-036R0	<i>Align Fee to the KW Basin Sludge Removal Project PEP</i>	RL-0012	2015 - 2018	\$0K

Overall, there was an increase in Fee of \$3K during September.

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

### September 2016 Summary of Changes

	FY 2009-2013	FY2014	FY2015	FY2016	FY2017	FY2018	FYs 2014-2018	Contract Period Total	Total PMB
<b>August 2016 Estimate</b>									
PMB	3,391,477	391,653	471,323	494,150	429,835	361,875	2,148,836	5,540,313	5,540,313
MR	0	0	0	23,751	23,117	18,398	65,266	65,266	65,266
Fee	155,504	14,325	14,501	27,801	10,461	18,636	85,723	241,227	241,227
<b>Total</b>	<b>3,546,981</b>	<b>405,978</b>	<b>485,824</b>	<b>545,703</b>	<b>463,412</b>	<b>398,909</b>	<b>2,299,825</b>	<b>5,846,806</b>	<b>5,846,806</b>
<b>September 2016 Change</b>									
<b>PMB</b>									
<b>Change to PMB</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10,676</b>	<b>42,915</b>	<b>47,278</b>	<b>100,869</b>	<b>100,869</b>	<b>100,869</b>
<b>MR</b>									
<b>Change to MR</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-23,751</b>	<b>29,166</b>	<b>1,734</b>	<b>7,148</b>	<b>7,148</b>	<b>7,148</b>
<b>Fee</b>									
<b>Change to Fee</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>3</b>	<b>3</b>
<b>Total Change</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-13,073</b>	<b>72,081</b>	<b>49,012</b>	<b>108,021</b>	<b>108,021</b>	<b>108,021</b>
<b>September 2016 Estimate</b>									
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
<b>Total</b>	<b>3,546,981</b>	<b>405,978</b>	<b>485,824</b>	<b>532,630</b>	<b>535,493</b>	<b>447,920</b>	<b>2,407,846</b>	<b>5,954,827</b>	<b>5,954,827</b>

**Changes to/Utilization of Management Reserve in September 2016**

	FY2009-2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2014-2018	Total
<b>August 2016 MR Totals</b>								
RL-0011	0	0	0	3,044	3,374	0	6,419	6,419
RL-0012	0	0	0	10	8,025	4,712	12,747	12,747
RL-0013	0	0	0	8,071	1,716	2,668	12,456	12,456
RL-0030	0	0	0	6,669	6,076	3,222	15,967	15,967
RL-0040	0	0	0	1,815	941	682	3,438	3,438
RL-0041	0	0	0	4,096	2,800	7,000	13,896	13,896
RL-0042	0	0	0	47	184	113	344	344
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>23,751</b>	<b>23,116</b>	<b>18,398</b>	<b>65,266</b>	<b>65,266</b>
<b>September 2016 MR Changes/Utilization</b>								
RL-0011	0	0	0	-3,044	3,914	0	870	870
RL-0012	0	0	0	-10	1,867	-159	1,698	1,698
RL-0013	0	0	0	-8,071	9,230	-288	871	871
RL-0030	0	0	0	-6,669	6,883	28	242	242
RL-0040	0	0	0	-1,815	1,982	-17	150	150
RL-0041	0	0	0	-4,096	5,222	2,178	3,304	3,304
RL-0042	0	0	0	-47	69	-9	13	13
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-23,751</b>	<b>29,166</b>	<b>1,734</b>	<b>7,148</b>	<b>7,148</b>
<b>September 2016 MR Totals</b>								
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	16,209	16,209
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
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>52,282</b>	<b>20,132</b>	<b>72,414</b>	<b>72,414</b>

## SELF-PERFORMED WORK

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

Contract-to-Date Actual Awards & Mods				Projection to FY2018	
10/1/2008 - 9/30/2016				Planned Subcontracting:	\$2,564,285,972
Reporting Category				Contract-to-date awards:	\$2,427,841,298
				Bal remaining to award:	\$136,444,674
	\$ Value	%	Goal %	Goal award\$	Bal to Goal
SB	\$1,308,971,322	53.92%	49.3%	\$1,264,192,984	-\$44,778,338
SDB	\$225,497,043	9.29%	8.2%	\$210,271,450	-\$15,225,593
SWOB	\$255,531,125	10.53%	7.5%	\$192,321,448	-\$63,209,677
HUB	\$52,634,448	2.17%	2.2%	\$56,414,291	\$3,779,844
VOSB	\$179,469,629	7.39%	3.5%	\$89,750,009	-\$89,719,620
SDVO	\$102,117,262	4.21%	1.3%	\$33,335,718	-\$68,781,544
NAB	\$47,119,692	1.94%	N/A	PRC clause H.20 small business requirement ≥ 17% of CHPRC Contract Price performed by SB.	
Large	\$629,183,020	25.92%	N/A		
GOVT	\$2,576,154	0.11%	N/A		
GOVT CONT	\$482,866,522	19.89%	N/A		
EDUCATION	\$104,698	0.00%	N/A	CHPRC Contract Value:	\$5,732,255,464
NONPROFIT_	\$3,764,894	0.16%	N/A	17% rqmt:	\$974,483,429
FOREIGN	\$374,687	0.02%	N/A	SB actual:	\$1,308,971,322
Total	\$2,427,841,298	100.00%	N/A	Bal to rqmt	-\$334,487,893

### 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
<b>CONTRACT</b>			
J.12/C.2.2, C.2.3	<p>PBS-11, Plutonium Finishing Plant Closure Project</p> <p>PBS-13, Solid and Liquid Waste Treatment and Disposal</p>	<p>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.</p>	Ongoing
J.12/C.2.3.6	PBS-13, Transuranic Waste Certification	<p>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.</p>	No WIPP shipments are planned within the Contract period of performance.

# Section A

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



T. E. Bratvold  
Vice President for  
PFP Closure Project

September 2016  
CHPRC-2016-09, 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 are complete.

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

Significant accomplishments in September included:

- Demolished the 2727-Z building.
- Continued 236-Z PRF Canyon cleanup.
- Completed 236-Z PRF E-4 Exhaust isolations.
- Continued 236-Z PRF E-4 Exhaust Duct removal.
- Prepared 236-Z Miscellaneous Treatment (MT) Gloveboxes and Column Gloveboxes for overhead removal by crane.
- Performed 236-Z 6 floor roof and beam cuts for glovebox and filterbox removal by crane.
- Removed 236-Z 6 floor roof and removed Filter Box 50 via crane.
- Removed PRF glovebox 42 by crane.
- Completed grouting of 236-Z Pipe Trench and interior Below-Grade Crossover Exhaust Duct.
- Performed core hole drilling of 236-Z exterior Below-Grade Exhaust Duct Extension to 291-Z in preparation for grouting.
- Secured ventilation in the PRF Facility.
- Declared PRF Criticality Incredible.
- Terminated Safeguards for the PRF Canyon.
- Prepared 242-Z Sump Pit for grouting.
- Abated 155 feet of asbestos.
- Removed or dispositioned in place 278 feet of process vacuum piping.
- Shipped 8m<sup>3</sup> TRU/TRU-M Waste.
- Shipped 100m<sup>3</sup> LLW/MLLW.

### Key Metrics

<i>Key Performance Indicators</i>	<i>Current Month</i>	<i>Contract To Date</i>
<b>COMPLETE</b> Glovebox/ Hood Removed or Dispositioned in Place	2	232 gloveboxes/hoods
<b>COMPLETE</b> KPP Rooms/Areas Ready for Demo	-	60 rooms/areas
Asbestos/ACM Removed	155	26,381 feet
Process Vacuum Piping Dispositioned	278	5,225 feet
<b>COMPLETE</b> Process Transfer Line Dispositioned	-	1,525 feet
<b>COMPLETE</b> Pencil Tank Units Removed (Shipped)	-	196 pencil tank units
Buildings Ready for Demo	-	47 structures
Buildings Demolished or Removed	1	47 structures
Non-radioactive Waste Shipped	1m <sup>3</sup>	74 m <sup>3</sup>
TRU/TRU-M Shipped	8m <sup>3</sup>	2,224 m <sup>3</sup>
LLW/MLLW Shipped	100m <sup>3</sup>	7,407 m <sup>3</sup>

## 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	30%
			4. Issue report documenting thorough inspection of 291-Z	01/31/17	0%
16-EMS-PFP-OB1-T2	Minimize emissions resulting from demolition of 234-5Z, 236-Z, 242-Z, and 291-Z.	Develop an air dispersion model that will guide the D4 processes to keep radiological emissions as low as reasonably achievable below the regulatory limit of 10 mrem/year.	5. Issue air dispersion modeling report	12/31/15	100%

## TARGET ZERO PERFORMANCE

	Current Month	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	1	N/A
Total Recordable Injuries	0	1	N/A
First Aid Cases	4	64	<ul style="list-style-type: none"> <li>• 9/13/2016 - Employee states that about 4 months ago she started having problems with pain and numbness in left arm and hand. Now beginning to have similar symptoms in right arm and hand. Employee was taken to HPMC, examined and diagnosed as having chronic pain syndrome to both hands and wrists. HPMC recommended seeing private medical provider. Employee was released to return to work without restriction. (24113)</li> <li>• 9/13/2016 - Employee was walking toward opening between Jersey barriers, her left foot slipped under the metal plate and she struck her ankle just above the foot. She was taken to HPMC where she was examined and diagnosed as having a contusion to her left ankle/foot. X-ray taken was negative for fractures. Cold pack was administered and non-prescription strength medication given. Employee was released to return to work without restriction. (24114)</li> <li>• 9/15/2016 - Employee stated that he was setting up IH pumps when he accidentally bumped into a Jobox latch, causing a small cut on the right forearm. Initially the employee did not notice the cut and was made aware by another employee. At this time the employee told the FWS, who notified the shift office. Zone dressing was applied. (24127)</li> <li>• 9/21/2016 - Employee was working with additional team members installing a section of sleeving. Work was being performed standing on top of two adjacent duct structures. Employee inadvertently stepped into 8" gap falling through the gap to his right knee. The employee sustained a minor abrasion to his right knee. (24131)</li> </ul>
Near Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

### RL-0011 Accomplishments 234-5Z

- Duct Level:
  - o Abated 155 feet of asbestos.
  - o Removed or repositioned in place 278 feet of process vacuum piping.

**PFP Waste Operations**

- Shipped 8m<sup>3</sup> TRU/TRU-M waste.
- Shipped 100m<sup>3</sup> LLW/MLLW.
- Shipped 1m<sup>3</sup> Non-Rad waste.

**236-Z PRF**

- Continued 236-Z PRF Canyon clean-up.
- Completed 236-Z PRF E-4 Exhaust isolations.
- Continued 236-Z PRF E-4 Exhaust Duct removal.
- Prepared 236-Z MT Gloveboxes and Column Gloveboxes for overhead removal by crane.
- Performed 236-Z roof and beam cuts for glovebox removal by crane.
- Removed 236-Z 6 floor roof and Filter Box 50 by crane.
- Removed PRF glovebox 42 by crane.
- Completed grouting of 236-Z Pipe Trench and interior Below-Grade Crossover Exhaust Duct.
- Performed core hole drilling of 236-Z exterior Below-Grade Exhaust Duct Extension to 291-Z in preparation for grouting.
- Secured ventilation in the PRF Facility.
- Declared PRF Criticality Incredible.
- Terminated Safeguards for the PRF Canyon.

**242-Z**

- Prepared 242-Z Sump Pit for grouting.

**PFP Building Demolition**

- Demolished 2727-Z ancillary building.

**PTS Accomplishments**

- N/A

## MAJOR ISSUES

**Issue:**

Clipping a Live Wire (Inadvertently cutting an energized conductor while performing electrical isolations to four, five, and six floor of PRF).

**Corrective Action:**

- Take PRF electrically Cold and Dark per PRC-PRO-WKM-53080 *CHPRC Cold and Dark Process*.
- Revise Work Packages 2Z-15-01466, PFP Minor Electrical Work and 2Z- to ensure wires will be individually verified terminated prior to any cutting activity. (September 15, 2016 - Complete)
- Write a Lessons Learned to provide information of this event. (October 18, 2016)
- Field Work Supervisor (FWS) will hold a briefing with all PFP electricians to review the outcome of this event. (September 15, 2016 - Complete)

**Status:**

- Field work has been performed to install temporary power and electrically air gap PRF. This issue will no longer be carried on the monthly report.

## RISK MANAGEMENT STATUS

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

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

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

Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
<b>RL-0011/WBS-011.OA</b>										
<b>Explanation of major changes to the project monthly spotlight chart:</b> No major changes to the monthly spotlight chart in the month of <b>September</b> .										
<b>Realized Risks</b> (Risks that are currently impacting project cost/schedule)										
No realized risks identified for RL-0011 in the month of <b>September</b> .										
<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)										
<b>Lifecycle Risk Triggers</b> (Risk could be realized at any point of the project)										
PFP-092-02: Final Facility Characterization Identifies Unexpected Hold-up	Unexpected or late discovery of radiological (Pu) or chemical (Asbestos) holdup requiring added facility deactivation. <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$190K, 16 days	<span style="color: green; font-size: 1.5em;">●</span>	<span style="color: blue; font-size: 1.5em;">↑</span>	<b>Risk Trigger:</b> Will continue throughout project lifecycle until Demolition activities commence. <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr style="background-color: #e0e0e0;"> <th style="width: 70%;">Mitigation action(s)</th> <th style="width: 15%;">FC Date</th> <th style="width: 15%;">%</th> </tr> </thead> <tbody> <tr> <td>Complete 234-5Z Duct Level and backside inspections to identify piping with TSI dropping through to the first floor ceiling void.</td> <td style="text-align: center;">11/17/16</td> <td style="text-align: center;">95</td> </tr> </tbody> </table> <b>Mitigation Assessment:</b> Final compilation of the PRF radiological source term, no longer poses a risk for added facility deactivation effort. TSI inspections in void areas was not completed last month as resources supporting access were allocated to supporting PRF demolition readiness. Based on Engineering estimates, however, there is no expectation that additional TSI will be identified beyond that already known or suspected to prevail based on review of drawings. Access to existing known wall areas with TSI has been created as necessary to support ongoing abatement activity. Probabilities for triggering this risk from both a radiological and asbestos characterization perspective have reduced to medium and schedule impacts are considered recoverable. As such, this risk per PRC-MP-PC-40167, is no longer critical and is downgraded to Significant. It will no longer be reported on as a key project risk. The risk will remain open and will be tracked internally until it no longer poses a threat to the project. No alternative course of actions needed at this time.	Mitigation action(s)	FC Date	%	Complete 234-5Z Duct Level and backside inspections to identify piping with TSI dropping through to the first floor ceiling void.	11/17/16	95
Mitigation action(s)	FC Date	%								
Complete 234-5Z Duct Level and backside inspections to identify piping with TSI dropping through to the first floor ceiling void.	11/17/16	95								
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)										
No high threat valued risks identified in the month of <b>September</b> .										
<b>Unassigned Risks</b> (Pending ownership of identified risks/opportunities)										
No unassigned risks identified in the month of <b>September</b> .										

## 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	7.7	11.9	11.6	4.2	55.3%	0.3	2.2%

Numbers are rounded to the nearest \$0.1 million.

#### CM Schedule Variance: (+\$4.2M/+55.3%)

The current month positive schedule variance is primarily the result of progress on discrete D&D work scope (apportioned) and is associated with a correction to the discrete activities apportioned to the D&D demolition ready activities. When the RL-0011.C2 capital asset project was implemented, discrete demolition activities should have been pointed to the RL-0011.C2 project management accounts. This has been corrected with September performance. In addition, historical BCWS associated with the PRF ready for demolition work scope completing PRF canyon scope as well as decontamination, separating, and application of fixative to the gallery gloveboxes, and the initiation of grouting in the PRF tunnels and trenches is also contributing to this positive variance. This positive variance is partially offset by delayed work efforts associated with E3/E4 duct, asbestos, and 26 inch process vacuum removal activities in the 234-5Z duct level as a result of diverting resources to get the PRF facility ready for demolition.

#### CM Cost Variance: (+\$0.3M/+2.2%)

The current month positive cost variance is within threshold.

## Contract-to-Date

(\$M)

WBS 011/ RL-0011 Nuclear Matl Stab & Disp PFP	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Variance at Completion (VAC)
Total	964.9	915.3	945.1	(49.6)	-5.1%	(29.8)	-3.3%	979.5	1,036.1	(56.6)

Numbers are rounded to the nearest \$0.1 million

#### Cost-to-date (CTD) Schedule Variance (-\$49.6M/-5.1%)

The CTD schedule variance relates to re-sequencing of D&D discrete work to align with availability of D&D workers caused 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 RMA/RMC 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.

#### **CTD Cost Variance (-\$29.8M/-3.3%)**

The Cost Variance is within reporting thresholds.

#### **Variance at Completion (-\$56.6M/-5.8%)**

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	FY2016		
	Total Funding	Total Cost	Variance
Spending Forecast	111.9	102.3	9.5
Incremental Scope Pending Change Management	0	0	0
RL-0011 - Total	111.9	102.3	9.5

Numbers are rounded to the nearest \$0.1 million

#### **Funds/Variance Analysis**

FY2017 expected funding for PBS RL-0011 is at \$111.9 million. The Fiscal Year Spend Forecast (FYSF) for September decreased from \$106.3 to \$102.3 million as the result of reallocation of fee to another PBS to ensure funding through the period of Continuing Resolution.

### Critical Path Schedule

The PFP Critical Schedule Path is a resource driven float path, in which the critical path starts with removal of Hazmat materials on the first and second floors of 236-Z. Once this is complete, the team transitions to prepping and protecting 234-5Z gloveboxes for demolition. Next, the team performs focus decon throughout the facility, followed by chemical draining. Completion of Cold & Dark activities occurs following the chemical draining, 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/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 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		7/25/2017	During the month of September the PFP project lost 33 calendar days to the forecast completion date of the TPA Milestone for the PFP Project to reach Slab on Grade. This is as a result of resources being diverted from the critical path work scope to initiate demolition of the 236-Z (PRF). 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
<b>CONTRACT</b>			
J.12/C.2.2, C.2.3	<p>PBS-11, Plutonium Finishing Plant Closure Project</p> <p>PBS-13, Solid and Liquid Waste Treatment and Disposal</p>	<p>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.</p>	Ongoing
J.12/C.2.3.6	PBS-13, Transuranic Waste Certification	<p>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.</p>	No WIPP shipments are planned within the Contract period of performance.

# 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

September 2016  
CHPRC-2016-09, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

1. 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.
2. RL and CHPRC personnel agreed to Performance Measures (PMs) for FY2017 and these PMs have been transmitted to CHPRC on September 30, 2016, via Correspondence No. 1604537.
3. Completed PM-12-2-16: Receipt of Increments of Sludge Transport and Storage Container (STSC). Production Order (Vessels No. 2-13).
4. The 105K West Facility Document Safety Analysis (DSA) and Technical Safety Requirement (TSR) are in final editing with submittal expected in mid-October. The DSA/TSR must be submitted, approved, and implemented prior to K Basin Preoperational Acceptance Testing (KPAT) activities that transfer 105KW Basin water out into the 105KW Basin Annex. Comments from the Hanford Fire Marshal review of the KW FHA has been received and are being resolved. Delays in FHA approval could result in further delays in DSA/TSR submittal.
5. The structural, gas generation, containment and thermal chapters for the One-Time Request for Shipment (OTRS) are in management review. The tie down chapter and criticality chapters have been reviewed by the project and comments have been incorporated. The development of the OTRS is on schedule.
6. The effort to retrieve and containerize the sludge pile discovered during debris mapping continues. Retrieval concepts were identified, a specific option for the retrieval equipment was chosen, and the methodology for placing the sludge into an engineered container has been defined. The “dustpan” which will be used to collect the material was completed and is now at the 105KWest Basin Facility. The sludge screen/hopper is complete and has been delivered to 105KW. The sludge dump hopper is in fabrication at the MSA shops. The unit is 75 percent complete.
7. CHPRC submitted the FY2017 PMB Update to RL. This deliverable includes a revised estimate-to-complete for currently authorized work scope and a Rough Order of Magnitude (ROM) estimate for proposed scope which is not currently authorized. RL has reviewed the draft submittal and provided comments to CHPRC. CHPRC submitted the final deliverable and work authorization from RL in September.

## 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	0	14	
Near Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

### RL-0012 Accomplishments

#### **KW Basin Sludge Retrieval Capital Assesst Project**

- ECRTS Process Equipment Procurement:
  - o Procurement Set #2: General Service (GS) Retrieval and Transfer System Components: Task #15 – Replacement spare hoses (H-204, H-214, H-217, H-417, and H-419) were receipt inspected and delivered to MASF. All work is complete.
  - o Procurement Set #7: 105KW Annex, Stack Monitoring System – Factory acceptance testing of the stack sampler cabinet was successfully completed. As-built drawings with redline changes incorporated were released via Design Change Notice (DCN). The fabricator is preparing the final data package.
  - o Procurement Set #8: STSC Vessels – STSC 410-413 have officially been declared iron-free based upon Acquisition Verification Services (AVS) Quality Control (QC) inspections. These Sludge Transport and Storage Containers (STSCs) were delivered to the Hanford Site, receipt inspected by AVS, and delivered to HiLine for installation of instrumentation and appurtenances via procurement set #9. Significant progress has been made on the iron contamination causal evaluation. STSC 404-409 are at the ABW Technologies, Inc (ABW) Shop staged for iron testing, cleaning, & retesting. STSC 402-403 are going to be tested/ cleaned/ retested at the HiLine fabrication shop in Richland. Once lessons learned from cleaning STSC 410-413 have been incorporated into the cleaning process/procedures, ABW and HiLine will be authorized to continue. RL authorized CHPRC to resume fabrication on a limited work scope on STSC 414-424. Procurement Set #9: SS STSC Assemblies (Instrumentation & Appurtenances) – HiLine has now received STSC 410-413 and will begin installation of instrumentation and appurtenances in October.
  - o Procurement Set #11: Inert Gas and Auxiliary Ventilation System: Task #6 – Flow, pressure, and sensitive leak tests of hoses H-604, H-604-SPARE, and H-659-SPARE were completed. The final data packages were approved by CHPRC and the hoses were shipped to AVS for receipt inspection. Task #7 – Columbia Energy and Environmental Services (CEES) submitted a cost and schedule proposal to fabricate new transfer line service box (TLSB) spool pieces that will take the place of the troublesome 1½” diameter expansion joints. CHPRC approved the proposal and issued a Notice to Proceed to CEES.

- o Procurement Set #14: SS Control Panels: Task #11 - Condensate Level Junction Box ECRT-JB-502 was receipt inspected by AVS. Task #12 –The hoist chain stop block assemblies were delivered to MASF. All work is complete.
- MPAT Execution:
  - o The MASF testing team continued post-test instrument calibrations, equipment disassembly/removal/cleaning, QA inspection & packaging, and preparation of the MASF Preoperational Acceptance Test (MPAT) Report. As of September 2, 2016, 160 of 160 Test Deficiency Reports (TDRs) are closed. Five TDRs defer confirmation of deficiency resolution to the K Basin Preoperational Acceptance Test (KPAT) scope.

### **PTS Accomplishments**

- KW Annex Construction:
  - o Awarded contract to fabricate the radiological instrument stands and nitrogen awning.
  - o Placed Sand Filter in Sand Filter Shielding Assembly and continued activities (concrete wall scans and scaffolding) in support of completion of this equipment installation.
  - o Installed conduit supports on exterior of Annex for future conduit routing.
  - o Staged eight of the nine pieces of the Mezzanine Equipment (Decant Box and Lift Fixture, electrical panels, Panel 302/401/202, Overflow Recovery Pump, and Flocculant Skid)
  - o Completed shop fabrication of air spool modifications and tool shelf frame.
  - o Built mounting racks for the installation of the additional panels.
- In Basin Modifications Construction:
  - o Completed off-load and rough setting electrical panels into the Basin.
  - o Awarded/administered contract to fabricate the booster pump spreader bars.
  - o Completed setting and anchoring the XAGO Pump Skid and Flocculant Skids for East and Center Bay.
  - o Installed the remaining sections of the Booster Pump temporary rail system.
  - o Installed ion exchange module (IXM) Pipe, IXM Decant Filter Rack and connected supplied hoses for Decant.
  - o Completed concrete leveling placement at the NE Corner Doghouse.
  - o Completed Hanford Review Board (HRB) comment resolution and released the Booster Pump Installation Work Package.
  - o Completed testing radiological equipment (CAMs) prior to installation in the Basin.
- T Plant Modifications for Sludge Storage Project:
  - o Completed installation, megger testing, and continuity checks of the leak detection data wiring in Cell 14R and Ops gallery.
  - o Performed labelling of fireproofing installation on conduit penetrations for the leak detection electrical system installation.
  - o Transferred the truck stop and Nitrogen System manifold (BFE) into the tunnel.
  - o Completed WCN 04; CS-16-02365 for the Forced Measurement Device installation.
  - o Completed Water Addition System work scope.
  - o Completed National Electric Code (NEC) inspections and received a fully executed Electrical Installation Permit.

## MAJOR ISSUES

**Construction Issue:**

The T Plant Design Authority (DA) is requiring replacement of the existing ball valve with a needle valve, which will require a retest of the system and a revised Facility Modification Package (FMP). As a result, the Project anticipates a delay in safety significant material delivery for Nitrogen System components.

**Corrective Action:**

Order and expedite delivery of the “needle valve” and other system components to minimize construction installation delays.

**Status:**

T Plant engineering personnel are expediting material procurement and delivery. Design documentation is being updated and work packages are being revised, as appropriate

**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, & 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 & ABW personnel continue to investigate the source of iron contamination. A causal analysis is forecast to complete in late October.

## RISK MANAGEMENT STATUS

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



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

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

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

Increased Confidence  
 No Change  
 Decreased Confidence

	Unmitigated Risk Impacts	Assessment		Comments																																				
		Month	Trend																																					
<b>RL-0012/WBS-012</b>																																								
<b>Explanation of major changes to the project monthly stoplight chart:</b> No major changes to the monthly stoplight chart in the month of <b>September</b> .																																								
<b>Realized Risks</b> (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 Sludge Treatment Plant (STP) resulting in cost impacts and schedule delays.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$3,000K 120 days			<p><b>Risk Event:</b>  <b>Event 1:</b> 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.  <b>Event 2:</b> 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.  <b>Event 3:</b> 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; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Risk recovery action(s)</th> <th style="text-align: center;">Risk Date</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr> <td>Contract with National Association of Corrosion Engineers (NACE), as a corrosion expert for technical support</td> <td style="text-align: center;">07/22/16</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100</td> </tr> <tr> <td>Re-plan Field Execution Schedule (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;">10/27/16</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;">12/7/16</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;">12/8/16</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;">01/05/17</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;">10/31/16</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> <p><b>Recovery Action Assessment:</b>                      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.</p>	Risk recovery action(s)	Risk Date	FC Date	%	Contract with National Association of Corrosion Engineers (NACE), as a corrosion expert for technical support	07/22/16	Complete	100	Re-plan Field Execution Schedule (FES) activities to include a process of cleaning and delivery.	07/22/16	10/27/16	80	Procure replacement spool and install in TLSB	09/01/16	12/7/16	25	Deliver to 100K Area	09/01/16	12/8/16	0	Install in 105KW Annex	09/01/16	01/05/17	0	Procure replacement instrument spools	05/31/16	10/31/16	80	Test at MASF	05/31/16	12/12/16	0	Install in 105KW Basin	05/31/16	12/29/16	0
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Unmitigated Risk Impacts	Assessment		Comments																
	Month	Trend																	
<b>RL-0012/WBS-012</b>																			
<p>STP-111-B: Contractor/ Subcontractor Performance - ECRTS Annex/In-Basin Equipment 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><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Very Likely (&gt; 90%) <b>Worst Case Impacts:</b> \$792K, 96 days</p>	●	↔	<p><b>Risk Event:</b> The project continues to experience contractor delay due to inadequate general conditions staffing. Bi-weekly notes regarding these issues are being sent to the contractor via CHPRC Contracts Department. The issues in <b>September</b> have been associated with late or missing Project Controls required data. A qualified FWS backup was found by utilizing a high-risk BOA contractor for the resource. Additionally issues regarding safety pre-start paperwork has been found to have missing signatures and incorrect information, causing delays in field activities. 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><b>Recovery Action Assessment:</b> <b>No major changes in the month of September.</b> 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								
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<p>STP-123-B: Design Maturity - ECRTS Annex/In-Basin Equipment</p> <p>Finalization of design media for the ECRTS equipment installation will result in changes to both cost and schedule.</p> <p><b>Risk Handling Strategy:</b> Accept</p> <p><b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$912K, 64 days</p>	●	↑	<p><b>Risk Event:</b> The project realized additional cost and schedule impacts in <b>September</b> as a result of <b>missing design details for the grounding of the Nitrogen Awning (DCN-477)</b> and Release Shielding Calculations and KW Modified Annex ALARA Design Review Checklist (DCN-068). The project continues to evaluate the DCNs and the impacts to the project. A BCR requesting management reserve for in-scope unplanned work is projected to be <b>submitted in October 2016</b>.</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>Provide weather protection for Annex Nitrogen Bottle station (DCN-445)</td> <td>06/16/16</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Add Hose &amp; Valve installation at transfer box air system (Mitigation of long lead item impact by awarding procurement released to FFP under Release #2) (DCN-410)</td> <td>12/16/15</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Release Shielding Calculations and KW Modified Annex ALARA Design Review Checklist (068)</td> <td>12/16/12</td> <td>10/31/16</td> <td>90</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b> DCNs are identified and reviewed at the weekly engineering meeting to define a path forward for the pending changes. The majority of the DCNs identified to-date <b>were</b> cleared by September month end. Delays to DCN completion are due to the lack of scope definition for the initial recovery action and priorities and commitments Engineering and other support resources. 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. 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	%	Provide weather protection for Annex Nitrogen Bottle station (DCN-445)	06/16/16	Complete	100	Add Hose & Valve installation at transfer box air system (Mitigation of long lead item impact by awarding procurement released to FFP under Release #2) (DCN-410)	12/16/15	Complete	100	Release Shielding Calculations and KW Modified Annex ALARA Design Review Checklist (068)	12/16/12	10/31/16	90
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Unmitigated Risk Impacts	Assessment		Comments									
	Month	Trend										
<b>RL-0012/WBS-012</b>												
<p>STP-144: Baseline strategy agreed to by RL and CHPRC on Transportation Safety documentation requirements for moving STSCs from the 105K West Basin to T-Plant storage is changed.</p>	<p>Revision to the Transportation Safety strategy (Site Requirements, Processes and Procedures) regarding shipment of STP STSCs from the 100K area Equip to T-Plant for interim storage could delay RL approval to commence operations.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Very Likely (&gt;90%)  <b>Worst Case Impacts:</b> \$2 million, 256 days</p>		<p style="text-align: center;">↑</p> <p><b>Risk Event:</b> This risk has been realized. The new RL Transportation Safety Manager and the CHPRC Transportation Safety Manager have agreed to a Transportation Strategy that utilizes an OTRS.</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Risk recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Prepare and submit BCR for additional work scope</td> <td>7/31/16</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b> CHPRC has updated the project schedule and completed a cost estimate for this work scope to accommodate the new transportation strategy. A BCR was completed to address the additional scope. With the completion of the recovery actions, this risk will no longer be reported on in the month of October. This risk will continue to be tracked internally until it no longer poses a threat to the project.</p>	Risk recovery action(s)	Risk Date	FC Date	%	Prepare and submit BCR for additional work scope	7/31/16	Complete	100	
Risk recovery action(s)	Risk Date	FC Date	%									
Prepare and submit BCR for additional work scope	7/31/16	Complete	100									
<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)												
No critical risks identified in the month of <b>September</b> .												
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)												
<b>FY2018 Risk Triggers</b> (Risk could be realized in FY2018)												
<p>STP-018-O: STP Operational Upset or Spill - During 1st STSC</p>	<p>An operational upset or spill results in a work shutdown at K Basins, resulting in schedule delays.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Medium (26% to 74%)  <b>Worst Case Impacts:</b> \$1.3 million, 96 days</p>		<p style="text-align: center;">↔</p> <p><b>Risk Trigger:</b> 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" style="width: 100%;"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Conduct rigorous startup testing following system installation at the 105KW Basin and Annex.</td> <td>10/11/17</td> <td>0</td> </tr> <tr> <td>Conduct testing and training at MASF and develop procedures that use the information and knowledge gained during the activity for use at the KW Basin.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> No changes in the month of <b>September</b>. 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										
<p>STP-073-C: Processing Efficiency - Retrieval &amp; Shipping, During 1st STSC</p>	<p>The realized processing efficiency associated with sludge retrieval and shipping operations does not match baseline plan.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Low (10% to 25%)  <b>Worst Case Impacts:</b> \$0K, 8 days</p>		<p style="text-align: center;">↔</p> <p><b>Risk Trigger:</b> 1) Actual processing efficiency associated with sludge retrieval and shipping operations does not match baseline assumptions. This risk will commence in FY2018 beginning with operations campaign.</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> No changes in the month of <b>September</b>. 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										

Unmitigated Risk Impacts	Assessment		Comments															
	Month	Trend																
<b>RL-0012/WBS-012</b>																		
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.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$4.5 million, 90 days	 		<b>Risk Trigger:</b> 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> <b>Mitigation Assessment:</b> No major changes in the month of September. 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																
<b>Unassigned Risks (Pending ownership of identified threats/opportunities)</b>																		
CHPRC proposed five risks that are outside of CHPRC's ability to manage and, as such, should be re-assigned to RL (STP-011D, STP-018, STP-073, STP-073-A, and STP-073-B). The proposal was not accepted by RL, stating, "...the opportunities and threats appear to be under the control of CHPRC to manage." CHPRC submitted letter CHPRC-1602146 R1 on August 30, 2016, in response to RL's rejection letter.																		

## 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	8.8	9.1	7.7	0.3	3.0%	1.4	15.6%

Numbers are rounded to the nearest \$0.1 million

#### CM Schedule Performance (+\$0.3M/+3.0%)

The variance is within reporting thresholds.

#### CM Cost Performance (+\$1.4M/+15.6%)

The Project realized Company level passbacks of approximately \$500K, efficiencies have been achieved by centralizing Program Management responsibilities. Title III support required has been less than planned in the Annex & In-Basin facilities due to a one month delay in the receipt of equipment and lower than anticipated requirements for design changes (to date), resulting in work being performed with reduced staff. In addition, a portion of the cost variance is negative, which is due to an adjustment of BCWS to align budget with actual costs as of September 30, 2015, (BCR-012C-16-032). Overall, the project is reflecting a positive cost variance.

## 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	622.7	623.7	597.6	1.0	0.2%	26.1	4.2%	737.1	710.4	26.6

Numbers are rounded to the nearest \$0.1 million

### CTD Schedule Performance (+\$1.0M/+0.2%)

The variance is within reporting thresholds.

### CTD Cost Performance (+\$26.1M/+4.2%)

The variance is within reporting thresholds.

### Variance at Completion (+\$26.6M/+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	FY2016		Variance
	Total Funding	Total Cost	
Expense - Spending Forecast	53.0	44.2	8.8
Incremental Scope Pending Change Management	0.0	0.0	(0.0)
Expense - Subtotal	53.0	44.2	8.8
Line Item	85.6	32.1	53.5
Incremental Scope Pending Change Management	0.0	0.0	(0.0)
LI -Subtotal	85.6	32.1	53.5
<b>RL-0012 – Total</b>	<b>138.6</b>	<b>76.3</b>	<b>62.3</b>

Numbers are rounded to the nearest \$0.1 million.

### Funds/Variance Analysis

FY2016 projected funding for PBS RL-0012 is \$138.6 million. The Line Item funding for the Sludge Treatment Project (STP) Capital Asset Project (CAP) has been assigned for FY2016 and FY2017 work scope, thus causing a positive variance in FY2016.

### Critical Path Schedule

The critical path flows through disassembly, cleaning, & inspection of the Engineered Container Retrieval and Transfer System (ECRTS) production hardware test loop at MASF, transporting that hardware to 100-K, 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*, which 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		8/27/2018	The forecast date includes schedule margin from the project's risk analysis. Project schedule margin is 105 days. This is an improvement of 1 day in August. The forecast schedule was revised, based on knowledge learned from MPAT testing and the revised start of KPAT testing.
M-016-177	Complete installation of sludge transfer equipment in K West Reactor facilities	9/30/2017		7/13/2017	The forecast date does not include schedule margin.

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

None currently identified.

# 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

September 2016  
CHPRC-2016-09, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

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 completed installation, testing and acceptance of the K3N ventilation system at Waste Encapsulation and Storage Facility (WESF) Stabilization and Ventilation Project (W-130). W-130 continues with grouting of K3 filter pit and of K3 duct from truck port to filter pit and is 35 percent completed. W-130 also continues with core drilling two of five (16 feet long) cores in the canyon and is 80 percent completed. At Central Waste Complex (CWC) the roof repairs in the 2402-series buildings and 2403-WB are complete. T Plant Sludge Preparation has removed all North Load out Pit (NLOP) equipment; packaged and shipped to ERDF. M-091 Project Management plan was submitted to RL and Ecology satisfying TPA Milestone M-091-03.

## EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
16-EMS-WFMP-OB1-T1	Improve container labeling.	Reconcile data between SWITS and the Operating Record for 750 containers at CWC, and update container labeling for those containers (if needed).	9/30/16	100%
16-EMS-WFMP-OB1-T2	Improve consistency in RCRA inspections between WFM facilities.	Establish consistent format, language, approvals, and corrective action tracking standards for WFM RCRA inspections.	9/30/16	100%
16-EMS-WFMP-OB1-T3	Improve consistency in recordkeeping for RCRA inspections at CWC.	Evaluate and issue procedure for an automated RCRA Checklist and inspection system for CWC.	9/30/16	100%

## TARGET ZERO PERFORMANCE

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	0	N/A
Total Recordable Injuries	0	0	N/A
First Aid Cases	3	*17	<ul style="list-style-type: none"> <li>9/8/2016 – Employee tripped causing pain to left shoulder when trying to break their fall. (24111)</li> <li>9/13/2016 – Employee tripped and fell hitting their left side ribs and stomach; released to return to work with no restrictions. (24115)</li> <li>9/13/2016 – Employee was climbing staircase when they felt a pop in right knee causing strain; released to work on restricted duty. (24116)</li> </ul> *1 First Aid case, PTS in support of RL-0013.
Near Misses	0	1	N/A

## KEY ACCOMPLISHMENTS

### 13.01 Project Management

- o M-091 Project Management plan was submitted to RL and Ecology. (Milestone M-091-03).

### 13.02 Capsule Storage & Disposition

- o Surveillances/Preventative Maintenance:
  - 62 Preventive Maintenance work packages.

#### a. Capsule Extended Storage Project:

- o Performed/Completed:
  - The MSA/AVS and the Consent Package is completed.

#### b. WESF Stabilization and Ventilation Project (W-130):

- o Performed/Completed:
  - Recovery plan actions for K3 filter pit grouting issue. Water in chambers removed and “clean cap” constructed.
  - Removal of High-efficiency particle absorber (HEPA) heads interior G cell and installed inflatable plug in preparation for grouting of K3 duct.
  - Grouting of K3 filter pit and of K3 duct from truck port to filter pit. Grouting is 35 percent completed.
  - Core drilling in Corridor 130 for placement of grout dam in hot pipe trench at interface point to B plant.
  - Core drilling of first two cores in canyon to full depth to hot pipe trench. Core drilling is 80 percent completed.
  - Installation of insulation on new K3N ducting.
  - Installation of new lights on crane pad.
  - Tie-in of truck port ducting.
  - Construction Acceptance Testing (CAT) and Acceptance Testing Procedure (ATP).
  - Turnover of the new K3N Ventilation system to Operations.

### 13.03 Canister Storage Building (CSB)

- o Performed/Completed:
  - New Nuclear Chemical Operator (NCO) Video scope Training.
  - Removal of suspect asbestos fire safes for disposal from 272HV and MO-723.
  - Removal of old stair and ramp access to MO-254 and initiated installation of new accesses.
- o Surveillances/Preventative Maintenance:
  - 42 Preventative Maintenance packages.

### 13.06 Transuranic (TRU) Repackaging

- o Transuranic mixed (TRUM) waste completed and returned fiscal year to date – 487.1m3.
- o Shipments:
  - Four TRUM waste boxes in four shipments to PFNW from CWC.
- o Shipments Received:
  - 17 Standard Waste Boxes (SWBs) containing repackaged TRUM waste received back at CWC from Perma-Fix Northwest in two shipments.

### 13.07 WRAP

- o Performed/Completed:
  - Roof repairs to 2336W and 2404-WB.
  - Process area glovebox dry chemical system hoist and trolley inspection; 10 out of 12 completed.
- o Surveillances/Preventative Maintenance:
  - 167 Surveillances.
  - 31 Preventative Maintenance packages.

**13.08 T Plant**

- o Performed/Completed:
  - Removal of all north load out pit (NLOP) equipment, packaged and shipped to ERDF.
  - Construction support for water addition system/conduit wiring installation.
  - Removal of 8R Cover Blocks and installation of 8R Frame/Containment.
  - Re-lamping Craneway stairwells.
  - Installation of Secondary Containment in Cell 14R and replaced cover blocks.
- o Surveillances/Preventative Maintenance:
  - 728 Surveillances.
  - 58 Preventative Maintenance packages.

**13.09 CWC and Low Level Burial Grounds (LLBG)**

- o Performed/Completed:
  - Overpacked (75) 216-Z-9 55 gallon drums into 85 gallon drums in 2402-WB and one Watch List priority two drum.
  - OSA A large box cover replacement for the final two boxes on the CWC RCRA Open item list.
- o Surveillances/Preventative Maintenance:
  - 44 Preventative Maintenance packages.
  - 445 Surveillances.
- o Shipments Received:
  - Seven waste drums and one SWB from PFP to CWC in four shipments.
  - Twenty drums from Pacific Northwest National Laboratory (PNNL) to CWC in one shipment.

**13.12 Integrated Disposal Facility**

- o Completed monthly inspections.

**13.14 Solid Waste Base Operations**

- o Environmental Enhancement:
  - Automated Resource Conservation and Recovery Act of 1976 (RCRA) Inspection sheets CWC:
    - Vendor and MSA working IDMS interface with tablets and software for implementation in FY2017.
  - SWOC:
    - Revising procedures for implementation in FY2017.

**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/Preventative Maintenance:
  - 229 Surveillances.
- o Shipments Received:
  - Twelve waste boxes and four waste drums from PFNW to MWT.

**13.24 Management of Cesium and Strontium Capsules Project**

- o Performed/Completed:
  - Provided Consent Package for the Cask Storage System Design Fabrication Contract to RL.

## 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) and repackaging waste into WIPP certifiable containers at DOE-funded rate.

**Issue:**

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. Options to rectify the situation were evaluated. WDOH prefers an engineering evaluation by PNNL to justify use of flow rates less than 9,000 CFM, which the facility has predominately maintained since start up. This will also provide defensibility for past emission data. Engineering provided information to PNNL to support this evaluation.

**Status:**

RL provided direction to proceed with the 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. 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 WDOE was completed on September 21, 2016. CSB Engineering issued a 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.

**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 CSB 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 (PRC) determined that a positive Unreviewed Safety Question (USQ) exists. Occurrence report EM-RL-CPRC-CSB-2016-0001, *Positive Unreviewed Safety Question 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 5, 2016, when the PISA process was initiated, a CSB Timely Order was issued to prevent movement of MCO H-176 from Sample/Weld Pit seven.

On May 5, 2016, the FF PRC 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 seven).
- 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 facility safety analysis report (FSAR).

**Status:**

In response to the transmitted evaluation of safety of the situation (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 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'.

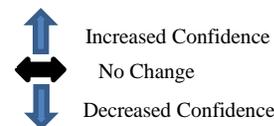
A final report (CHPRC-03056) confirming the same conclusion stated in CHPRC-03058 will be issued providing the detailed basis for the conclusions stated in CHPRC-03058.

The Cause Analysis associated with the ORPS report continues based on this conclusion and is currently on track for closure by October 13, 2016.

## RISK MANAGEMENT STATUS

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

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



Risk Title	Unmitigated Risk Impacts	Assessment		Comments																	
		Month	Trend																		
<b>RL-0013/WBS-013</b>																					
<b>Explanation of major changes to the project monthly spotlight chart:</b> No major changes to the monthly spotlight chart in the month of <b>September</b> .																					
<b>Realized Risks</b> (Risks that are currently impacting project cost/schedule)																					
WSD-125: Multi-Year Pause in Waste Processing Results in Unexpected Container Integrity Issues	A pause in waste processing results in an unexpected container degradation within SWOC (excluding TRU Retrieval activities) and require additional resources to respond. <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$5 million, 0 day			<b>Risk Event:</b> In November 2011, degraded containers were discovered in CWC. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Risk recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Perform daily/weekly waste container surveillances to identify container abnormalities.</td> <td rowspan="4" style="text-align: center;">11/01/11</td> <td style="text-align: center;">On-Going</td> <td style="text-align: center;">N/A</td> </tr> <tr> <td>Manage a "watch-list" of waste containers that have shown signs of degradation or are associated with degraded containers.</td> <td style="text-align: center;">On-Going</td> <td style="text-align: center;">N/A</td> </tr> <tr> <td>Overpack 75 degraded waste packages.</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100</td> </tr> <tr> <td>Process waste packages at a rate funded by RL.</td> <td style="text-align: center;">On-Going</td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table> <b>Recovery Action Assessment:</b> Project continued to perform container surveillances in the month of <b>September</b> to identify container and container cover abnormalities. Overpack of 75 drums were completed in FY2016. 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.	Risk recovery action(s)	Risk Date	FC Date	%	Perform daily/weekly waste container surveillances to identify container abnormalities.	11/01/11	On-Going	N/A	Manage a "watch-list" of waste containers that have shown signs of degradation or are associated with degraded containers.	On-Going	N/A	Overpack 75 degraded waste packages.	Complete	100	Process waste packages at a rate funded by RL.	On-Going	N/A
Risk recovery action(s)	Risk Date	FC Date	%																		
Perform daily/weekly waste container surveillances to identify container abnormalities.	11/01/11	On-Going	N/A																		
Manage a "watch-list" of waste containers that have shown signs of degradation or are associated with degraded containers.		On-Going	N/A																		
Overpack 75 degraded waste packages.		Complete	100																		
Process waste packages at a rate funded by RL.		On-Going	N/A																		
WSD-W130-17: Changes in the final design are needed after the design is issued	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.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$550K, 112 days			<b>Risk Event:</b> 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: <ol style="list-style-type: none"> <li>Changes in fire suppression system design are necessary to allow leak testing of the full system due to limitations in the existing skid design.</li> <li>K3N skid requires modifications to ensure proper operation at WESF.</li> <li>Hot cell penetration sealing requires more work than planned.</li> <li>Communication between hot pipe trench in WESF and B Plant causes grout to flow into B Plant during trench grouting.</li> </ol> <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>Place localized stiff grout mix in hot pipe trench at interface point to B Plant to block grout from flowing into B Plant during trench grouting.</td> <td rowspan="2" style="text-align: center;">02/01/16</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100</td> </tr> <tr> <td>Prioritize completion of hot cell penetration sealing required for core drilling between hot cell walls first to mitigate schedule impacts</td> <td style="text-align: center;">10/20/16</td> <td style="text-align: center;">99</td> </tr> </tbody> </table> <b>Recovery Action Assessment:</b> Work to isolate and seal all penetrations in the service and operations galleries is in progress. Penetrations that run through the hot cell walls and are required to be completed prior to core drilling vertically through hot cell walls have been prioritized to be completed first. A stiff grout mix placement at the interface location between WESF and B Plant in the hot pipe trench has been planned.	Risk recovery action(s)	Risk Date	FC Date	%	Place localized stiff grout mix in hot pipe trench at interface point to B Plant to block grout from flowing into B Plant during trench grouting.	02/01/16	Complete	100	Prioritize completion of hot cell penetration sealing required for core drilling between hot cell walls first to mitigate schedule impacts	10/20/16	99						
Risk recovery action(s)	Risk Date	FC Date	%																		
Place localized stiff grout mix in hot pipe trench at interface point to B Plant to block grout from flowing into B Plant during trench grouting.	02/01/16	Complete	100																		
Prioritize completion of hot cell penetration sealing required for core drilling between hot cell walls first to mitigate schedule impacts		10/20/16	99																		
<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)																					
<b>Lifecycle Risk Triggers</b> (Risk could be realized at any point of the project)																					

Risk Title	Unmitigated Risk Impacts	Assessment		Comments		
		Month	Trend			
<b>RL-0013/WBS-013</b>						
WSD-019: MLLW & TRU Treatment Impacts	Mixed low-level waste (MLLW) & TRU treatment capacity/capability does not meet Hanford needs or treatment does not occur as scheduled, resulting in cost impacts. <b>Risk Handling Strategy: Accept</b>  <b>Probability: Medium (26% to 74%)</b> <b>Worst Case Impacts: \$2.7 million, 0 day</b>	 	<b>Risk Trigger Metric:</b> Will continue throughout contract (September 30, 2018).			
			<b>Mitigation action(s)</b>		<b>FC Date</b>	<b>%</b>
			Establish multiple treatment contracts, or obtain additional capability, for the processing of MLLW and TRU with terms extending to the end of the current CHPRC contract with RL (i.e., September 30, 2018).		On-Going	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).		On-Going	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.		On-Going	N/A
		<b>Mitigation Assessment:</b> 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 are authorized in the 1st quarter of FY2017 with a total of ~110m3 which will maintain PFNW's viability through the end of this calendar year. Additionally, PFP is scheduled to begin shipments of their oversized TRU waste components to PFNW during the 1st quarter of FY2017. These shipments may 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.  <b>Current alternative course of action:</b> 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.				
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)						
<b>Lifecycle Risk Triggers</b> (Risk could be realized at any point of the project)						

Risk Title	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
<b>RL-0013/WBS-013</b>													
WSD-097: Major Equipment Failure - T-Plant	T Plant suffers a major equipment failure (crane, primary power supply, etc.), resulting in cost impacts, and schedule delays.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Low (10% to 25%) <b>Worst Case Impacts:</b> \$750K, 96 days	●	↔	<p><b>Risk Trigger Metric:</b> 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><b>Mitigation Assessment:</b> No changes in the month of <b>September</b>. The mitigation strategies have been put in place (i.e., aggressive S&amp;M activities), as a result, the risk strategy is to accept with no further mitigation actions. Work to repair/replace the Crane rail clip is complete. The crane is currently operational. 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											
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.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$1.5 million, 0 day	●	↔	<p><b>Risk Trigger Metric:</b> 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><b>Mitigation Assessment:</b> No changes in the month of <b>September</b>. The mitigation strategies have been put in place (i.e., S&amp;M activities), as a result, the risk strategy is to accept with no further mitigation actions. 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											
WSD-137: OPP: Planned Efficiencies	Funding profile for the contract period are achieved through efficiencies. <b>Risk Handling Strategy:</b> Exploit  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$32 million, 0 day	●	↔	<p><b>Risk Trigger:</b> 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>On-Going</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Opportunity Assessment:</b> No changes in the month of <b>September</b>. 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.	On-Going	N/A			
Opportunity action(s)	FC Date	%											
Plan work activities and procurements to be as efficient as possible with minimal resources.	On-Going	N/A											
<b>FY2017 Risk Triggers (Risk could be realized in FY2017)</b>													
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.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$650K, 144 days	●	↔	<p><b>Risk Trigger Metric:</b> 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>10/24/16</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>10/24/16</td> <td>0</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> No changes in the month of <b>September</b>. 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.</p>	Mitigation action(s)	FC Date	%	Compare actual grout fill volume with estimated value to determine if hot pipe trench has been filled.	10/24/16	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.	10/24/16	0
Mitigation action(s)	FC Date	%											
Compare actual grout fill volume with estimated value to determine if hot pipe trench has been filled.	10/24/16	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.	10/24/16	0											
<b>Unassigned Risks (Pending ownership of identified risks/opportunities)</b>													
No unassigned risks identified in the month of <b>September</b> .													

## 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	12.8	14.5	11.6	1.7	13.4%	2.9	20.2%

Numbers are rounded to the nearest \$0.1 million

#### CM Schedule Performance (+1.7M/+13.4%)

WBS 013.06.01.08 – RH/Large Box Repack has a positive schedule variance of (\$1.8 million) due to accelerated shipments for scope planned in FY2017.

#### CM Cost Performance (+2.9M/+20.2%)

Multiple areas have contributed to the positive current month cost variance including a FY2016 year-end variance distribution (\$0.7 million), WESF K3 Exhaust Ventilation (\$0.4 million), WRAP Min-Safe Operations (\$0.2 million), T-Plant Base Operations (\$0.6 million), Ecology Agreed Order (\$0.3 million), Solid Waste Ready to serve (\$0.2 million) and a credit to training costs (\$0.2 million).

## 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	1,091.1	1,093.1	1,023.1	2.0	0.2%	70.0	6.4%	1,341.2	1,290.0	51.7

Numbers are rounded to the nearest \$0.1 million

#### CTD Schedule Performance (+2.0M/+0.2%)

The schedule variance is within threshold.

#### CTD Cost Performance (+\$70.0M/+6.4%)

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

#### Variance at Completion (+\$51.7M/+3.9%)

The Variance at Completion is within threshold.

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

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

FY2016			
WBS 013/RL-0013 Waste and Fuels Management Project	Total Funding	Total Cost	Variance
Spending Forecast	110.8	100.2	10.5
Incremental Scope Pending Change Management	0.0	0.0	(0.0)
RL-0013 – Total	110.8	100.2	10.5

Numbers are rounded to the nearest \$0.1 million.

### Funds/Variance Analysis

The anticipation of starting FY2017 under a Continuing Resolution, RL provided advanced FY2017 funding to increase funding further into October to help with fiscal year startup. PBS RL-0013 received \$4.3 million of advanced funds. The spending forecast was only changed due to realized actuals in September because it was the final period of the fiscal year.

### Critical Path Schedule

WESF Ventilation & Stabilization Project, W-130, critical path shows a completion of Performance Measure, PM-13-5-16, on October 14, 2016. Project is working a 5 x 10 schedule with Saturday work evaluated weekly against available resources. Core drilling and grouting activities have been prioritized and work evolutions planned to maximize resource efficiency but the delay due to grout overflow has slipped the expected finish of PM-13-5-16 past September 30, 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
<b>CONTRACT</b>			
J.12/C.2.2, C.2.3	PBS-11, Plutonium Finishing Plant Closure Project  PBS-13, Solid and Liquid Waste Treatment and Disposal	Offsite Transportation of Radioactive Material: RL provides equipment and government drivers to transport 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.

# 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

September 2016  
CHPRC-2016-09, 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. In September, PTS continued to support well realignment activities in the 100-HR-3 and 100-KR-4 Operable Units and hook up of the 200-DV-1 perched water system. 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	29.5	389.1	5.0	70.3								
HX P&T	24.1	289.6	1.9	26.0								
KR-4 P&T	11.8	157.6	0.2	3.1								
KW P&T	0.0	107.2	0.0	5.5								
KX P&T	33.7	433.8	2.3	26.5								
200 West P&T	92.8	841.4	9.0	69.5	190	1897	9042	80422	.26x10 <sup>12</sup>	2.9x10 <sup>12</sup>	1.7	36.5
<b>Combined</b>	<b>191.9</b>	<b>2218.8</b>	<b>18.4</b>	<b>200.9</b>	<b>190</b>	<b>1897</b>	<b>9042</b>	<b>80422</b>	<b>.26x10<sup>12</sup></b>	<b>2.9x10<sup>12</sup></b>	<b>1.7</b>	<b>36.5</b>
<b>FY2016 KPG</b>	<b>--</b>	<b>2100</b>	<b>--</b>	<b>160</b>	<b>--</b>	<b>1700</b>	<b>--</b>	<b>80000</b>	<b>--</b>	<b>N/A</b>	<b>--</b>	<b>15</b>

Well Drilling by Area	FY2016 Planned	Current Month	FY2016 Cumulative
100-KR-4	3	1	3
100-HR-3	8	-	8
200-UP-1	7	-	2
200-UP-1 Chromium Plume	3	1	2
200-ZP-1 C9521	1	-	1
200-ZP-1 monitoring	2	-	2
M-24 Milestone 100-NR-2	6	-	6
M-24 Milestone C Farm	1	-	1
Vadose Zone	1	-	1
100-F I/U	8	-	8
<b>Total Wells</b>	<b>40</b>	<b>2</b>	<b>34</b>
<b>Site Wide Boreholes</b>	<b>25</b>	<b>-</b>	<b>25</b>

## EMS Objectives and Target Status

Objective	Target	Actions	Due Date	Status
16-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.	9/30/16	100%
16-EMS-SGWR-OB2 More effective promotion of EMS	T1 – Promote and increase S&GRP project personnel EMS awareness via various means throughout FY2016.	Present four EMS topics to S&GRP personnel, typically during the S&GRP Monday Tailgate, S&GRP Supervisors' Meeting, or S&GRP All-Hands Meeting.	9/30/16	100%
16-EMS-SGWR-OB3 Promote a more thorough understanding of the regulatory umbrella under which S&GRP conducts operations.	T1 – Promote and increase S&GRP project personnel environmental regulatory awareness via various means, targeting small group settings, throughout FY2016.	Facilitate four regulatory related discussions based on such topical areas as RCRA Permit, CERCLA Decision Documents, Waste Management, Air Permit, etc. These discussions would typically be targeted at smaller S&GRP group settings such as staff meetings, department meetings, PODs, etc.	9/30/16	100%
16-EMS-SGWR-OB4 Reduce the risk of noncompliance with environmental requirements.	T1 – Develop compliance matrices for S&GRP P&T facilities CERCLA RD/RAWPs.	Identify implementing mechanisms and gaps for environmental requirements (i.e., requirement matrices) for the following RD/RAWPs: DOE/RL-96-84, Revision 0 and 0-A, DOE/RL-2006-52, DOE/RL-2006-75, and DOE/RL-2008-78.	9/30/16	100%

## 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	3	*45	<ul style="list-style-type: none"> <li>• 9/23/2016 - NCO reported they had started to close the tailgate on the tarping platform and then decided not to close it. The tailgate impacted the NCO in the right shoulder. The NCO reported the incident to the supervisor and requested to visit HPMC. The supervisor took the NCO to the 200W HPMC Clinic. HPMC released the NCO with a sling, an ice pack, and with no work restrictions (24133).</li> <li>• 9/14/2016 - Employees began relocating existing fiber cable in order to eliminate excess cable. While walking backwards on sandy soil, continuing to relocate fiber cable, employee stepped on a smooth rock slightly covered by sand causing his foot to slip, twisting left knee. Employee felt a sharp pain in the knee which subsided almost immediately. Employee and coworker left work area and headed towards 200E to pick up additional parts for the project. On the drive there employee began to have minor pain in their left knee again. Immediately after arriving at electrical shop employee contacted OBV's safety and notification chain began. OBV's safety arrived at electrical shop and drove employee to site medical. Employee was released back to work by site medical provider with no restrictions. (24125) PTS</li> <li>• 9/20/2016 - Employee and foreman loaded two sections of C-Channel into back of their work pick-up. The C-Channel was placed with one end resting on the closed tailgate, leaving 12 inches extended past the top of the tailgate. Both employee and foreman returned to designated job assignments. After reaching into the tool box the employee noticed that he had walked through a spider's web. While walking around the rear of the vehicle while cleaning the spider web off his shirt, the employee struck his head on the C-Channel located in the back of the work truck. The impact caused a 1 inch laceration in on the center of the employee's forehead at the hairline. Employee immediately notified his foreman. CHPRC FWS was on site and was notified immediately. Employee's foreman drove him to the Site Medical Provider for evaluation (24129). PTS *8 FA cases, PTS in support of RL-0030.</li> </ul>
Near-Misses	0	2	N/A

## KEY ACCOMPLISHMENTS

### RL-0030 Accomplishments

#### River Corridor

##### 100-BC-5 Operable Unit

- Submitted the Draft A RI/FS and Proposed Plan to RL for review.

##### 100-HR-3 Operable Unit

- Completed all the FY2016 P&T Optimization performance measure work scope activities.
- Submitted the summary Technical Memorandum for the five aquifer pumping tests of the Ringold Upper Mud (RUM) unit to RL.
- Continued work on the Phase One tracer study evaluation of historical sulfate concentrations.
- Initiated preparation of responses to public comments on the 100-D/H Proposed Plan. Assisting RL, EPA and Ecology on development of the Record of Decision.

##### 100-KR-4 Operable Unit

- Completed all the FY2016 P&T Optimization performance measure work scope activities.
- Continued collection, analysis and review of sampling results for the KW Rebound Study.
- Resolved EPA comments on the interim action Remedial Design (RD)/Removal Action Work Plan (RAWP), operations and maintenance (O&M) plan, and Sampling and Analysis Plan (SAP). Initiated preparation of the Revision 0 documents.

##### 100-NR-2 Operable Unit

- Completed 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

- Submitted the draft Stage A Uranium Sequestration Performance Report to RL for review.
- Submitted the draft 300-FF-5 Operable Unit Remedy Implementation Sampling and Analysis Plan to RL for review.

#### Central Plateau

##### 200-UP-1 Operable Unit

- Two well drilling campaigns are currently underway. Resources supporting the first campaign (seven monitoring wells) were diverted to support the series of three SE chromium characterization wells. Two wells have been completed and one well is undergoing completion.
- Submitted a draft Tri-Party Agreement Change Form and presentation to RL that provides justification to extend Tri-Party Agreement Milestone M-016-193 by one year to September 30, 2018.

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

- Transmitted the Draft A Action Memorandum for 200-BP-5 Operable Unit Groundwater Extraction to RL for transmittal to Ecology for review.
- Issued the Revision 0 Aquifer Treatability Test Report for the 200-BP-5 Groundwater Operable Unit.

**200-SW-2 Operable Unit**

- Transmitted the approved Revision 1 200-SW-2 Radioactive Landfills Group Operable Unit RCRA Facility Investigation/Corrective Measures Study/Remedial Investigation/Feasibility Study Work Plan to RL.

**200-EA-1 Operable Unit**

- Reached agreement between RL and Ecology during the September 15, 2016, Project Management meeting (PMM) that no additional comments will be provided by Ecology on the 216-A-29 ditch, 216-A-36B crib, 216-B-3 trench, and 216-A-37-1 crib closure plans.
- Gained concurrence with Ecology on September 28, 2016, regarding the change packages for adding 200-EA-1 sites from the unassigned waste sites, moving select sites from 200-IS-1, and moving sites to the canyon operable units and 200-WA-1 (associated with U Plant and PFP areas).

**200-DV-1 Operable Unit**

- Completed Becker Hammer decommissioning at final 15 of 22 borehole locations on September 29, 2016.
- Completed the isotopic and geochemical analysis portion on the laboratory studies for the monitored natural attenuation analysis, continuing with the microbial and leaching tests.
- For perched water removal/hookup, the project team is on hold to complete the remaining portion of the hookup since it will require taking the 200-BP-5 extraction well off line. The construction acceptance test, initiated September 20, 2016, is 85 percent complete and will be finished in October 2016.
- Hydraulic Test three completed its 60 day recovery period on September 16, 2016.

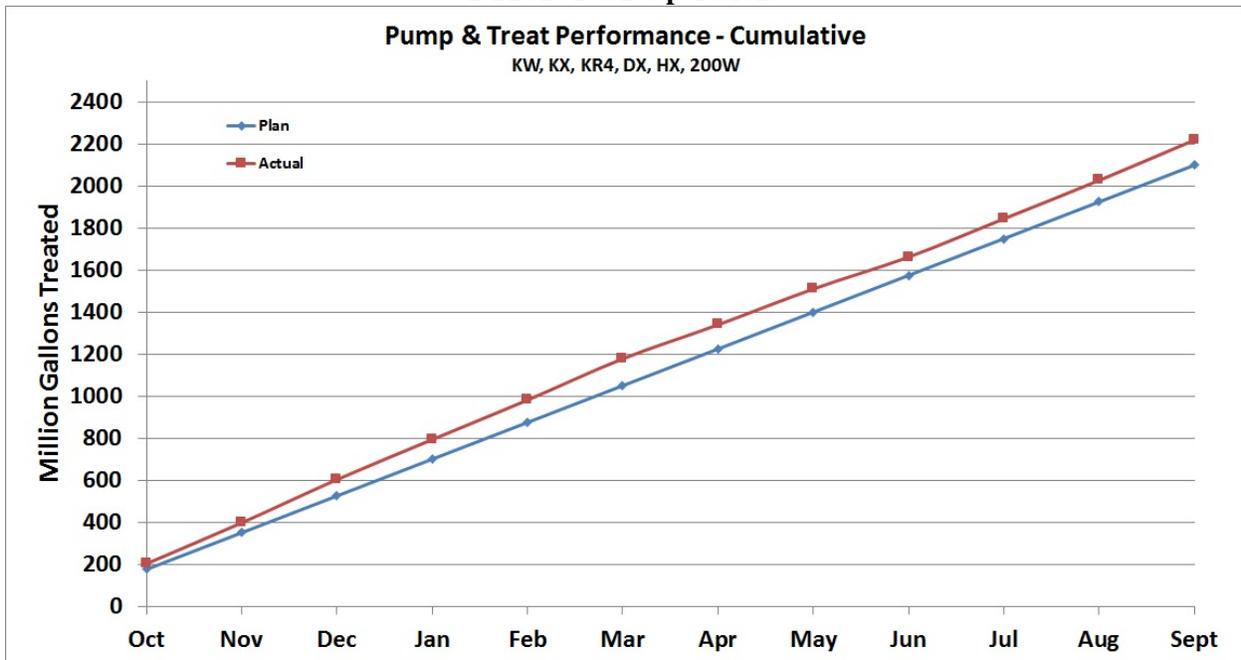
**Groundwater P&T Facilities****200 West P&T**

- Operated the 200 West P&T at an average of 2,148 gpm.
- Achieved the KPG for nitrate removal of 80,000 kgs on September 29, 2016.

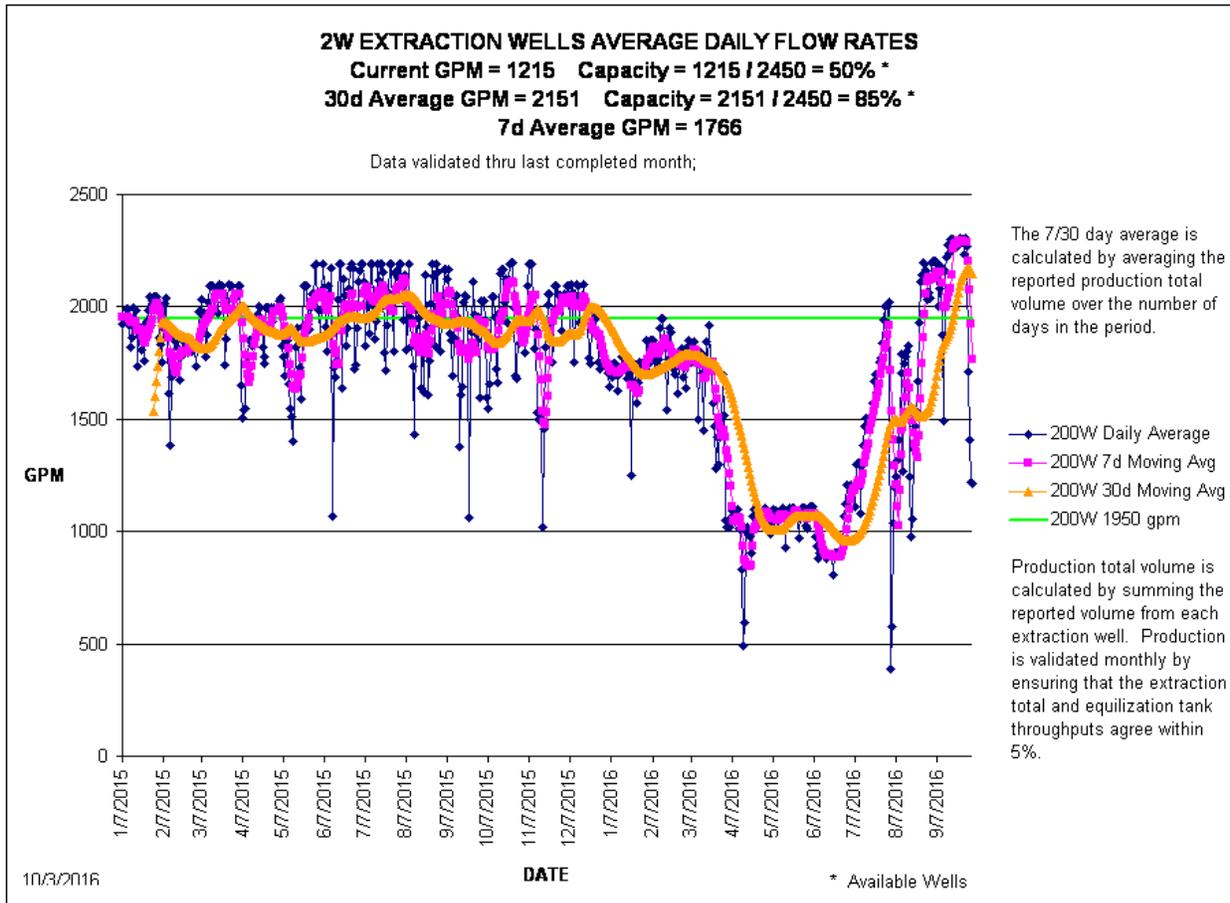
**100 Area P&Ts**

- Operated the DX P&T at 683 gpm, below the facility capacity of 775 gpm.
- Operated the KR-4 P&T at 273 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 780 gpm, below the facility capacity of 900 gpm.
- Operated the HX P&T at maximum extraction well capacity. Monthly average at 558 gpm.

**FY2016 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 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. A process improvement meeting using the Kaizen technique was performed in June 2016 with all three agencies. Several of the process improvements identified from these meetings will be deployed in future decision document development. Specific document status includes:

- 100-NR-2: Six new characterization/monitoring wells were installed in and around the reactor area. The results from these wells are planned to be incorporated into a supplement for the remedial investigation report. Developed an approach to incorporate the process improvements from the Kaizen meetings to help complete the feasibility study, which is planned to begin in the November/December timeframe.
- 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.
- 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.

**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 TPA Milestone M-016-193.

**Status:**

One of the two characterization wells has been completed and sampled in September. A walk down was performed on the existing six wells, pumps have been installed/checked, and access road improvements are underway. It is anticipated that these wells will be sampled in October. Incorporated up to four additional chromium characterization wells into the 200-UP-1 SAP, which will be provided to RL in early October. Submitted a draft Tri-Party Agreement Change Form and presentation to RL that provides justification to extend Tri-Party Agreement Milestone M-016-193 by one year to September 30, 2018.

**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:**

Issue was identified on September 29, 2016. Corrective actions have not been developed.

**Status:**

Met with MSA on September 29, 2016, to understand issue and ramifications. Follow-on meetings will be scheduled with RL to discuss path forward.

## RISK MANAGEMENT STATUS

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

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

-  Increased Confidence
-  No Change
-  Decreased Confidence

Risk Title	Unmitigated Risk Impacts	Assessment		Comments								
		Month	Trend									
<b>RL-0030/WBS-030</b>												
<b>Explanation of major changes to the project monthly spotlight chart:</b> No major changes to the risk spotlight chart in the month of <b>September</b> .												
<b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>												
SGW-200EA-01: Inadequate 200-EA-1 OU Waste Unit Scoping	Waste unit data and information are not adequately summarized in WIDS and are not sufficient to provide the scoping information necessary for CERCLA Work Plan development resulting in cost and schedule impacts. <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$1.1M, 80 days			<p><b>Risk Event:</b> The baseline scope of work assumed that the Waste Information Data System (WIDS) would be used as a source for CERCLA work plan development. During review of WIDS to support initial evaluations, it was identified that the WIDS information was insufficient and additional research would be necessary to adequately scope the waste units. The project has updated 30 waste units in their evaluation of the WIDS system, and therefore approximately 110 units remain. The project will implement a baseline change request (BCR) to utilize \$733.8K of management reserve (MR) to support updating the remaining 110 scoping units as this is in-scope unplanned work.</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Risk recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Implement BCR to utilize MR for in-scope unplanned work associated with insufficient scoping data in the WIDS and inadequate waste unit scoping.</td> <td>08/15/16</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p><b>Risk Assessment:</b> A BCR was implemented in September to recover from the realization of this risk. <b>This risk is now closed and will no longer be reported on.</b></p>	Risk recovery action(s)	Risk Date	FC Date	%	Implement BCR to utilize MR for in-scope unplanned work associated with insufficient scoping data in the WIDS and inadequate waste unit scoping.	08/15/16	Complete	100
Risk recovery action(s)	Risk Date	FC Date	%									
Implement BCR to utilize MR for in-scope unplanned work associated with insufficient scoping data in the WIDS and inadequate waste unit scoping.	08/15/16	Complete	100									
OPPORTUNITY: SGW-007A: Sampling Requirement Reduction	Reduction in field sampling (locations, frequency, or total number of samples collected) has the opportunity to reduce long-term groundwater monitoring cost. <b>Risk Handling Strategy:</b> Exploit  <b>Probability:</b> Very Likely (>90%)  <b>Worst Case Impacts:</b> \$1 million, 0 day			<p><b>Opportunity Event:</b> <i>The Optimization Plan to Revise the Groundwater Sampling Plan</i> is final and provides the roadmap to revise all groundwater SAPs over the next two years.</p> <table border="1" style="width: 100%;"> <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>75</td> </tr> </tbody> </table> <p><b>Opportunity Assessment:</b> All ten CERCLA groundwater monitoring SAPs have been revised and transmitted to RL and the regulators. Seven of the ten CERCLA SAPs are approved by RL and the Agencies, and are either implemented or in the process of being implemented. EPA's comments on the 100-KR-4 SAP were resolved and preparation of the final document is underway. 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. Six monitoring plans have been revised and implemented in FY2016, and the remaining six plans are in final comment incorporation. CHPRC is on schedule to complete all groundwater monitoring plans by the end of the calendar year. 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	75		
Opportunity action(s)	FC Date	%										
Obtain Agency approval of the revised SAPs.	10/30/16	75										
<b>Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)</b>												
No critical risks identified in the month of <b>September</b> .												
<b>High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)</b>												
No high risks identified in the month of <b>September</b> .												
<b>Unassigned Risks (Pending ownership of identified risks/opportunities)</b>												
No unassigned risks identified in the month of <b>September</b> .												

## 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	12.8	12.9	13.0	0.2	1.2%	-0.1	-0.5%

Numbers are rounded to the nearest \$0.1 million.

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

The current month schedule variance is within reporting thresholds.

#### CM Cost Performance (-\$0.1M/-0.5%)

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	1,284.6	1,272.8	1,243.7	-11.8	-0.9%	29.1	2.3%	1,564.8	1,494.5	70.3

Numbers are rounded to the nearest \$0.1 million.

#### CTD Schedule Performance (-\$11.8M/-0.9%)

The variance is within reporting thresholds.

#### CTD Cost Performance (+\$29.1M/+2.3%)

The variance is within reporting thresholds.

#### Variance at Completion (+\$70.3/+4.5%)

The variance is within reporting thresholds.

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

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

RL-0030 Soil and Groundwater Remediation	FY2016		Variance
	Total Funding	Total Cost	
Spending Forecast	129.9	120.9	9.0
Incremental Scope Pending Change Management	0.0	0.0	0.0
RL-0030 –Total	129.9	120.9	9.0

Numbers are rounded to the nearest \$0.1 million

### Funds/Variance Analysis

PBS RL-0030 FY2016 expected funding increased from \$127.5 to \$129.9 million in September. The change is due to an increase received from RL to provide FY2017 advanced funding to help the project through FY2017 startup and a decrease to align with the credit cost received for training on overtime. The fiscal-year spending forecast (FYSF) of \$129.9 million includes actions anticipated to meet 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 BCRs define CHPRC planning with respect to Tri-Party Agreement milestones. A Tentative Agreement for Tri-Party Agreement Milestone series M-015, M-016, M-037, M-085 and M-094 was signed on October 26, 2015, and the final approval package was signed on May 25, 2016. The following table is a one year look ahead of PBS RL-0030 Tri-Party Agreement enforceable milestones, non-enforceable target due dates and commitments.

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
<b>Milestones in Dispute</b>					
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 November 1, 2016 (Tri-Party Agreement Change Control Form M-15-13-02).
<b>Milestones on Schedule or at Risk</b>					
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-016-110-T03	<del>Contain the Strontium-90 GW plume at the 100-NR-2 OU</del>	<del>12/31/16</del>		<del>4/30/21</del>	Target date deleted on September 19, 2016 (Tri-Party Agreement Change Control Form M-16-16-06).
M-016-110-T04	<del>DOE shall implement remedial actions selected in all 100 Area Records of Decision for Groundwater Operable Units so that no contamination above drinking water standards or ambient water quality standards enters the Columbia River unless otherwise specified in a CERCLA decision</del>	<del>12/31/16</del>		<del>12/31/16</del>	Target date deleted on September 15, 2016 (Tri-Party Agreement Change Control Form M-16-16-07).
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		9/13/17	On schedule

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
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		9/30/18	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.

# 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)

September 2016  
CHPRC-2016-09, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

The project completed demolition of 2710S along with the Facility Status Change Request forms for 2710S, 2711S, and 2718S. The project completed removal of the East and West REDOX Pu bags. The project commenced mobilization for the REDOX roof repairs and started the annual REDOX surveillance.

## 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	6	N/A
Near Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

### RL-0040 Accomplishments

- Operations/Maintenance:
  - o Completed East and West REDOX Pu Bags.
  - o Completed demolition of 2710S
  - o Completed Facility Status Change Forms for 2710S, 2711S, and 2718S.
  - o Performed Stack Sampling at Plutonium Uranium Extraction Plant (PUREX).
  - o Completed the annual National Emissions Standards for Hazardous Air Pollutants (NESHAPS) stack sampler line tester calibration.
  - o Performed asbestos-containing material/presumed asbestos-containing material (ACM/PACM) pickup at Reduction-Oxidation (REDOX) north side.
- Continued Progress on Canyon Stabilization Documents:
  - o PUREX FHA was sent for MSA review
  - 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 October.
  - o Removal Action Work Plan (RAWP) for B ancillary (276BA, 222B, 2716B) was sent to regulators for review
  - o Internal CHPRC review for the RAWP for 242-B/BL and 276C was completed
  - o RAWP for PUREX ancillaries (203A and 211A tank farms) review continues at RL

- o EE/CA dispute with EPA continued; meetings were held to support resolving authority issues
- REDOX Roof:
  - o Commenced mobilization activities September 29, 2016.
  - o Continued planning in support of roof removal activities.
  - o Continued removal of ground interferences North of REDOX (Power poles, Waste containers, 120V power supply).

## 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							
<b>RL-0040/WBS-040</b>										
<b>Explanation of major changes to the project monthly stoplight chart:</b>										
No major changes to the monthly stoplight chart in the month of <b>September</b> .										
<b>Realized Risks</b> (Risks that are currently impacting project cost/schedule)										
No realized risks for the month of <b>September</b> .										
<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)										
No critical risks identified in the month of <b>September</b> .										
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)										
<b>Lifecycle Risk Triggers</b> (Risk could be realized at any point of the project)										
D4-064: Aging Building Systems/ Components	Problems with aging building systems/ components (e.g., roofing/structures, etc.) result in inoperability or requires unscheduled maintenance/ outages, resulting in cost impacts.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$2 million, 0 day			<b>Risk Trigger Metric:</b> 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).  <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Mitigation action(s)</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">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> <b>Mitigation Assessment:</b> No changes in the month of <b>September</b> . 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.	Mitigation action(s)	FC Date	%	None identified at this time.	N/A	N/A
Mitigation action(s)	FC Date	%								
None identified at this time.	N/A	N/A								
<b>Unassigned Risks</b> (Pending ownership of identified risks/opportunities)										
No unassigned risks identified in the month of <b>September</b> .										

## PROJECT BASELINE PERFORMANCE

### Current Month

(\$M)

WBS 040/ RL-0040 Nuclear Facility D&D	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	2.8	3.1	2.2	0.4	13.0%	1.0	31.2%

Numbers are rounded to the nearest \$0.1 million

**CM Schedule Performance: (+\$0.4M/+13.0%)**

The schedule variance is within reporting thresholds.

**CM Cost Performance: (+\$1.0M/+31.2%)**

The favorable cost variance for September is due to less resources being required to perform several Projects (i.e. PU Bag Removal, preparations for the REDOX Roof Replacement, REDOX North Sample Gallery Cleanout and Regulatory Documents).

## 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	425.5	422.0	390.1	(3.4)	-0.8%	31.9	7.6%	472.3	444.3	28.1

Numbers are rounded to the nearest \$0.1 million

**CTD Schedule Performance: (-\$3.4M/-0.8%)**

The schedule variance is within reporting thresholds.

**CTD Cost Performance: (+\$31.9M/+7.6%)**

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 (+\$28.1M/+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)

FY2016			
WBS 040/RL-0040 Nuclear Facility D&D	Total Funding	Total Cost	Variance
Spending Forecast	28.6	21.2	7.4
Incremental Scope Pending Change Management	0.0	0.0	0.0
RL-0040 – Total	28.6	21.2	7.4

Numbers are rounded to the nearest \$0.1 million.

### Funds/Variance Analysis

There total funding increased from 26.5 million to 28.6 million. The fiscal year spend forecast (FYSF) decreased by \$1.3 million from August to September.

### 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 BCRs define CHPRC planning with respect to Tri-Party Agreement milestones. The following table is a one year look ahead of commitments and Tri-Party Agreement enforceable milestones and non-enforceable target due dates.

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-016-250b	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.

# Section F

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



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

September 2016  
CHPRC-2016-09, 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

RCCC Transition from Washington Closure Hanford (WCH) to CHPRC completed on August 29, 2016, with no significant issues or delays. RCCC scope associated with CO305 and CO306 was implemented into the PMB. CHPRC and RL successfully completed the External Independent Review (EIR) with DOE-HQ on September 16, 2016. The EIR focused on actions/activities associated with PMB/CP submittals for RCCC scope. Definitization for associated scope is expected to be completed in December 2016. In addition, the project continued 100K waste site remediation, 165KE asbestos abatement, 300-296 design for the 324 Building structural modifications and Mockup Facility.

## 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	8	N/A
Near Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

### RL-0041 Accomplishments

- 165KE Asbestos Abatement:
  - Work continues on thermal system piping insulation removal above the main deck and Negative Pressure Enclosure (NPE) installation in the lower boiler room. NPE installation will complete the week of October 10, 2016.
  - Insulators and the FWS will re-deploy to PFP to perform higher priority work in December 2016. Project management will then demobilize and stop work for the remainder of FY2017.
- AB Waste Site Area remediation:
  - Excavation on 17 of 18 chemical waste sites completed, with 130,000 tons of contaminated soil and concrete disposed of at ERDF. Removal of the south settling basin wall (waste site 100-K-101) to three feet below grade level the week of October 10, 2016 will complete AB Waste Site Area excavation.
  - With the \$3 million RL authorized not to exceed/ not to proceed (NTE/NTP) work will continue until October 31, 2016. An additional \$2 million NTE has been requested by CHPRC to continue work without interruption while we await contract direction in response for the change proposal to CO 307.

- 105-K West Fuel Storage Basin Deactivation
  - o A draft long-range plan (LRP) for the deactivation and demolition of K West Fuel Storage Basin has been prepared. The LRP, which includes a relative order of magnitude cost estimate and critical path schedule, is undergoing internal CHPRC review (TPA-M-16-178 and TPA-M-16-181).
  - o Dose to curie modeling of below-water debris in the center bay of K West Basin is temporarily on-hold until sludge transfer equipment installation completed and high dose material transferred from center bay to SCS-CON-210.
  - o The formal calculation for east bay below-water debris activity is in the CHPRC approval process.
  
- Remaining Closure Operations (RCO)
  - o Field Execution Schedule (FES) has been developed. Two of three contracts needed for contouring and re-vegetating waste sites 600-385, 100-N-83, and 300-288:2 have been issued.
  - o The RCRA closure project prepared a draft FES for RL review. The team is incorporating RL comments into the FES and begun drafting closure plans.
  
- 618-10 Burial Ground:
  - o 49 of 80 VPU LLW Retrievals Complete.
  - o 37 of 80 VPU Fixatives applied.
  - o Continued preparations and mockups for 14 Steel VPU Retrievals.
  - o 116 Additional drums retrieved and characterized; 1,902 CTD.
  - o 31 additional drums processed; 1,711 CTD.
  - o Finalized pre-note documentation for upcoming drum shipments to PFNW for processing.
  - o Continued preparations and mockups for 14 Steel VPU Retrievals.
  - o Finalizing “Due Diligence” Radiation Surveys.
  
- 316-4 Waste Site:
  - o Initiated planning and design preparations for 316-4 remediation.
  - o Excavation scheduled to begin late November 2016.
  
- 324 Building Min Safe:
  - o Closed all RCCC Transition Post Starts (84).
  - o Conducted hot side tour of 324 Building for 300-296 project and EIR team.
  - o 11 PMs completed.
  - o Annual 2 inch backflow preventer retesting.
  - o Monthly Supply/Exhaust fan lubrication.
  - o Removed and transported Zone I Exhaust Fan Assembly (EP-975) from fan housing to WESF for shaft/bearing replacement.
  - o Completed ConOps assessment interviews and document reviews.
  - o Installation of miscellaneous Radiation Signs.
  - o Annual Alpha/Beta Stack Monitor Calibration.
  - o 90 Day Stack Radiation Monitor Function Test.
  
- 300-296 Soil Remediation Project:
  - o Supported tours, meetings, and focused functional discussions for the DOE-HQ External Independent Review.
  - o Conducted media tour of 324 Building (Weapons Complex Monitor and Tri-City Herald).
  - o Conducted kickoff meetings and initiated design activities to support the project schedule.

- o Completed the hiring process for notices of contraction and radiological control technicians required for Airlock and Cell Cleanout activities.
  - o Completed underground scanning to support the following: North Access design, Construction Trailer Placement for 324 Building, and Project Trailer placement for the Mockup Facility.
  - o Completed City of Richland permit application for infrastructure upgrades at the Mock-Up facility.
  - o Progressed planning for component testing, including initial procurements of materials for the floor saw frame.
  - o Extended the Mockup Facility access agreement and prepared for meetings with RL to finalize the lease agreement.
- ERDF:
    - o 37 of 81 RCCC Transition Post Start items completed.
    - o Received 4,799 tons from CHPRC projects and 49 tons from other Hanford contractors.
    - o Received 11,394 tons from CHPRC projects.

### **PTS Accomplishments**

- 300-296 Soil Remediation Project:
  - o Continued planning efforts and building walk downs for interference removal and cell sealing.
  - o Completed infrastructure design for the Mockup facility.
  - o City of Richland permit application submitted.
  - o Progressing infrastructure design at 300-296 site.
  - o SOW under development for contractor to perform Mockup infrastructure and Mobile Office upgrades.
  - o Progressing infrastructure design at 324 Mockup facility site and at the 324 Building.
  - o Building Work Release coordination meeting held with PTS/Facilities/Project to start to develop roles and responsibilities for package approvals and release. A Project Charter has been initiated.

## **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							
<b>RL-0041/WBS-041</b>										
<b>Explanation of major changes to the project monthly spotlight chart:</b>										
In the month of September, significant changes to the risk posture for RL-0041 were identified due to the incorporation of RCCC work scope into CHPRC PMB. All risks associated with the RCCC have been identified/documentated in the CHPRC risk register. Key risks will be monitored on a monthly basis as they have the potential to jeopardize project performance.										
<b>Realized Risks</b> (Risks that are currently impacting project cost/schedule)										
No realized risks for the month of <b>September</b> .										
<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)										
No critical risks identified in the month of <b>September</b> .										
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)										
<b>Lifecycle Risk Triggers</b> (Risk could be realized at any point of the project)										
KBC-002: Subcontract Change Orders/Claims	Subcontracts for D4, soil remediation, and other field support services require revision based on discovery of changed conditions or completion requirements resulting in cost impacts and schedule delays.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Low (10% to 25%) <b>Worst Case Impacts:</b> \$592K, 30 days	<span style="color: green;">●</span>		<p><b>Risk Trigger Metric:</b> Field condition changes, including but not limited to, the amount of waste containers provided for soil remediation on a daily basis. Additional field changes include the need to excavate a greater amount of soil than planned to complete remediation.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Mitigation action(s)</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td style="text-align: center;">N/A</td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> 100K AB Waste Site Area Remediation: CHPRC submitted a change proposal in response to CO #307 for continued soil remediation in FY2016 and FY2017. The \$3 million NTE issued with CO #307 will fund excavation until the end of October. Therefore, CHPRC has requested a \$2 million addition to the NTE. With the incorporation of the change proposal, this risk has been evaluated and no longer qualifies as a key project risk. It will no longer be reported on in the month of October; however, it will continue to be tracked and monitored by the project until it no longer poses a threat.</p> <p>165 KE Power House Asbestos Remediation: Due to competing priorities at RL-0011 and RL-0040, craft personnel have not been sufficient to maintain an adequate production rates. <b>This month's plan</b> is to send insulators and the Field Work Supervisor (FWS) to PFP in <b>December</b>, at which time project management will demobilize and stop work on 165 KE asbestos removal.</p>	Mitigation action(s)	FC Date	%	None identified at this time.	N/A	N/A
Mitigation action(s)	FC Date	%								
None identified at this time.	N/A	N/A								
<b>Unassigned Risks</b> (Pending ownership of identified risks/opportunities)										
No unassigned risks identified in the month of <b>September</b> .										

## 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	12.7	11.5	4.1	(1.2)	-9.6%	7.4	64.5%

Numbers are rounded to the nearest \$0.1 million

#### CM Schedule Performance (-\$1.2M/-9.6%)

Implementation BCR-041C-16-025R0 – Revise general and administrative (G&A) Rates on CAP Projects - RL-0041, reduced the FY2017 and FY2018 G&A rates, resulting in a lower out-year budget. 100K AB Area Waste Site Remediation activities planned in FY2017/FY2018, but completed ahead of schedule in FY2016 realized a corresponding reduction to budget cost of work performed (BCWP) in the month September, resulting in a negative impact to the current month schedule variance. In addition, delays in acceptance of drum waste shipments from 618-10 Burial Ground to PFNW for offsite processing contributed to the variance.

#### CM Cost Performance (+\$7.4M/+64.5%)

The favorable cost variance is primarily due to the ERDF passback pertaining to 100K Waste Site Remediation. Efficiencies associated with shared resources in the areas of 100K Minimum Safe, 100K Project Support, 324 Minimum Safe, ERDF Operations also contributed to the positive schedule variance. Implementation of BCR-041C-16-030R0, *Incorporate RCC Transferred Scope for 300-296 Waste Site and BCR-041C-16-024R0, CO #307, Authorization for Additional Tonnage at 100-K Waste Sites*, added budget in the month of September, however, work has been in progress (as authorized by CO 305 and CO 307) in July/August. Therefore, a significant amount of BCWP was earned in the current month, for which actuals were realized in previous months, resulting in a positive cost variance.

## 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	348.3	356.5	319.1	8.1	2.3%	37.4	10.5%	519.8	467.0	52.8

Numbers are rounded to the nearest \$0.1 million

#### CTD Schedule Performance (+\$8.1M/+2.3%)

The schedule variance is within reporting thresholds.

#### CTD Cost Performance (+\$37.4M/+10.5%)

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 (+\$52.9M/+10.2%)**

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	FY2016		
	Total Funding	Total Cost	Variance
Spending Forecast	82.4	30.2	52.2
Incremental Scope Pending Change Management	0	0.0	0.0
RL-0041 - Total	82.4	30.2	52.2

Numbers are rounded to the nearest \$0.1 million.

**Funds/Variance Analysis:**

FY2016 expected funding increased in September by \$42.5 million, which relates to \$42.5 million advance of FY2017 funding for RCCC transition scope. The increase in funding provided by RL increases carryover through FY2017 startup. The spend forecast decreased by \$3.8 million, primarily due to receipt of the ERDF passback associated with 100K waste site remediation disposal costs.

**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.

# Section G

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



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

September 2016  
CHPRC-2016-09, 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

- 400 Area Diesel Fire Pump Monthly Battery Inspection and Test.
- 481 Weekly Fire Pump P-28 Ops Check.
- 481/601 Monthly Ground Fault Circuit Interrupter (GFCI) Testing.
- 400 Area Monthly Egress Light Test.
- 400 Area One Month Extinguisher Inspection.
- 481/601 P-467 and P-468 Pump and Electrical Motor Service.
- 481/601 One Year P-27 Fire Pump and Motor Service.
- 400 Area Weekly Exterior Inspection of Water Tank (FIRE).
- 400 Area Monthly Exterior Inspection of Water Tank (FIRE).
- 400 Area One Year Automated External Defibrillator (AED) Inspection/Testing.
- 400 Area One Month Valve and Gauge Inspection.
- Ultrasonic and Internal Inspection of 4-inch pipe.

### PTS Accomplishments

- None identified at this time.

## 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	
<b>RL-0042/WBS-042</b>				
<b>Explanation of major changes to the project monthly spotlight chart:</b>				
No major changes to the risk profile for the month of <b>September</b> .				
<b>Realized Risks</b> (Risks that are currently impacting project cost/schedule)				
No realized risks for the month of <b>September</b> .				
<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)				
No critical risks identified in the month of <b>September</b> .				
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)				
No high threat value risks identified in the month of <b>September</b> .				
<b>Unassigned Risks</b> (Pending ownership of identified risks/opportunities)				
No unassigned risks identified in the month of <b>September</b> .				

## PROJECT BASELINE PERFORMANCE

Current Month

(\$M)

RL-0042 FFTF Closure	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	0.2	0.2	0.2	(0.0)	-2.5%	0.0	12.2%

Numbers are rounded to the nearest \$0.1M

**CM Schedule Performance: (-\$0.0M/-2.5%)**

The schedule variance is within reporting thresholds.

**CM Cost Performance: (+\$0.0M/+12.2%)**

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	22.2	22.2	18.0	(0.0)	-0.0%	4.1	18.6%	26.5	22.6	3.8

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 (+\$4.1M/+18.6%)

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

### Variance at Completion (+\$3.8M/+14.4%)

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	FY2016		
	Total Funding	Total Cost	Variance
Spending Forecast	3.2	1.6	1.6
Incremental Scope Pending Change Management	0.0	0.0	0.0
RL-0042 – Total	3.2	1.6	1.6

Numbers are rounded to the nearest \$0.1 million

### Funds Analysis

Projected Funding remains unchanged from last month. The FYSF had decreased 0.2 million from August to September.

### 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.

# 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



September 2016  
CHPRC-2016-09, 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

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>			<b>4. REPORT PERIOD</b>		
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME Plateau Remediation Contract			a. FROM (YYYYMMDD) 2016 / 08 / 22		
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE			b. TO (YYYYMMDD) 2016 / 09 / 30		
		c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE NO X YES (YYYYMMDD) 2009 / 09 / 18					

<b>5. CONTRACT DATA</b>									
a. QUANTITY 1	b. NEGOTIATED COST 5,581,041	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 132,599	d. TARGET PROFIT/FEE 241,230	e. TARGET PRICE 5,822,271	f. ESTIMATED PRICE 5,778,115	g. CONTRACT CEILING 5,822,271	h. ESTIMATED CONTRACT CEILING 5,778,115	i. DATE OF OTB/OTS (YYYYMMDD)	

<b>6. ESTIMATED COST AT COMPLETION</b>				<b>7. AUTHORIZED CONTRACTOR REPRESENTATIVE</b>						
		MANAGEMENT ESTIMATE AT COMPLETION (1)	CONTRACT BUDGET BASE (2)	VARIANCE (3)	a. NAME (Last, First, Middle Initial) Dickerson, Kala K			b. TITLE Prime Contract Compliance Manager		
a. BEST CASE		5,464,471			c. SIGNATURE			d. DATE SIGNED (YYYYMMDD)		
b. WORST CASE		5,549,490								
c. MOST LIKELY		5,536,884	5,713,640	176,756						

<b>8. PERFORMANCE DATA</b>	<b>CAPN.PBS</b>										<b>REPROGRAMMING ADJUSTMENTS</b>			<b>AT COMPLETION</b>										
ITEM (1)	BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (9)	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)								
	WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)														
RL-0011 Nuclear Mat Stab & Disp PFP	7,670	11,911	11,646	4,241	265	964,930	915,291	945,137	-49,639	-29,845	0	0	0	979,501	1,036,098	-56,597								
RL-0012 SNF Stabilization & Disp	8,821	9,083	7,668	262	1,416	622,691	623,710	597,608	1,019	26,102	0	0	0	736,930	710,285	26,645								
RL-0013 Solid Waste Stab & Disp	12,786	14,504	11,580	1,718	2,924	1,091,096	1,093,091	1,023,099	1,995	69,992	0	0	0	1,341,140	1,289,471	51,669								
RL-0030 Soil & Water Rem-Grndwtr/Vadose	12,778	12,930	12,999	152	-69	1,284,599	1,272,769	1,243,693	-11,831	29,075	0	0	0	1,563,732	1,493,429	70,303								
RL-0040 Nuc Fac D&D - Remainder Hanfrd	2,786	3,150	2,166	363	983	425,461	422,013	390,069	-3,448	31,944	0	0	0	472,334	444,254	28,080								
RL-0041 Nuc Fac D&D - RC Closure Proj	12,734	11,514	4,092	-1,220	7,422	348,334	356,483	319,066	8,149	37,417	0	0	0	518,375	465,582	52,793								
RL-0042 Nuc Fac D&D - FFTF Proj	237	231	202	-6	28	22,166	22,165	18,046	-1	4,119	0	0	0	26,455	22,636	3,819								
b. COST OF MONEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
c. GENERAL AND ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
d. UNDISTRIBUTED BUDGET																								
e. SUBTOTAL	57,811	63,322	50,354	5,511	12,969	4,759,278	4,705,522	4,536,718	-53,756	168,804	0	0	0	5,641,182	5,464,471	176,711								
f. MANAGEMENT RESERVE																								
g. TOTAL	57,811	63,322	50,354	5,511	12,969	4,759,278	4,705,522	4,536,718	-53,756	168,804	0	0	0	5,713,595										
<b>9. RECONCILIATION TO CONTRACT BUDGET BASELINE</b>																								
a. VARIANCE ADJUSTMENT															0									
b. TOTAL CONTRACT VARIANCE															-53,756		168,804		5,713,595		5,464,471		249,125	

\* 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

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>			<b>4. REPORT PERIOD</b>		
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME Plateau Remediation Contract			a. FROM (YYYYMMDD) 2016 / 08 / 22		
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE			b. TO (YYYYMMDD) 2016 / 09 / 30		
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	777	785	771	8	14	64,365	64,485	59,910	120	4,575	0	0	82,331	80,381	1,950			
340 - Environmental Prog & Regl Mgt	777	785	771	8	14	64,365	64,485	59,910	120	4,575	0	0	82,331	80,381	1,950			
35 - Business Services	0	0	53	0	-53	472,524	472,524	448,542	0	23,982	0	0	472,524	448,542	23,982			
36K - Support to PRC Finance	0	0	53	0	-53	472,524	472,524	448,542	0	23,982	0	0	472,524	448,542	23,982			
36 - Prime Contract & Proj Integr	333	333	164	0	169	5,104	5,104	2,626	0	2,479	0	0	8,414	6,155	2,260			
365 - Perf Assess & Risk Mgmt	333	333	164	0	169	5,104	5,104	2,626	0	2,479	0	0	8,414	6,155	2,260			
3B - PFP Closure Project	7,595	11,836	11,619	4,241	217	877,671	828,032	865,767	-49,639	-37,735	0	0	892,242	956,452	-64,209			
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	13	0	-13	134	134	129	0	5	0	0	134	133	1			
3B3 - Project Management/Subcontracts	627	9,098	5,490	8,471	3,608	384,874	380,167	405,709	-4,707	-25,542	0	0	385,523	425,500	-39,977			
3B4 - Engrg Nuc Saf Plng&Wrk Control	5,525	1,497	2,727	-4,028	-1,230	106,739	64,405	72,501	-42,334	-8,097	0	0	119,575	115,935	3,640			
3B7 - Environmental & Waste	1,369	1,197	1,258	-173	-61	72,583	71,056	59,710	-1,527	11,346	0	0	73,507	77,575	-4,068			
3B8 - Project Mgmt D&D	34	34	2,147	0	-2,113	222,699	222,699	211,096	0	11,602	0	0	222,743	220,209	2,534			
3B8 - PFP D4 Deputy Project Mgmt	39	10	-16	-29	26	85,823	84,751	111,294	-1,072	-26,543	0	0	85,939	111,771	-25,832			
3C - Waste & Fuels Management Project	16,692	18,383	14,468	1,691	3,915	989,735	991,670	919,709	1,934	71,961	0	0	1,282,069	1,227,564	54,505			
3C0 - Waste & Fuels Management Proj	5,788	5,873	4,687	49	1,150	25,291	22,874	23,169	-2,417	-295	0	0	53,076	53,256	-180			
3CE - Fuels Facilities	2,673	2,609	2,344	-64	265	99,443	99,071	100,327	-372	-1,256	0	0	145,309	150,125	-4,816			
3CF - Waste Dispositon	4,540	4,370	3,384	-170	986	412,812	412,518	384,283	-294	28,235	0	0	490,308	453,347	36,960			
3CG - W&FMP Projects & Strategic Programs	255	440	259	185	182	66,551	66,190	58,604	-361	7,586	0	0	134,899	157,647	-22,748			
3CH - Maintenance & Waste Integration	367	2,155	2,132	1,788	23	166,792	173,671	154,857	6,879	18,814	0	0	185,101	175,506	9,595			
3CK - W&FMP Business Services	3,069	2,972	1,663	-97	1,309	218,847	217,345	198,468	-1,501	18,877	0	0	273,376	237,683	35,693			
3D - Soil & Groundwater Remediation	11,918	12,663	12,158	145	-95	1,120,627	1,108,677	1,077,967	-11,951	30,709	0	0	1,380,616	1,306,087	74,528			
3D0 - Soil & Groundwater Remediation	1,657	1,657	1,115	0	542	105,479	105,479	98,650	0	6,830	0	0	139,490	121,612	17,878			
3D2 - GW Remediation Support	2,135	2,928	2,640	793	288	218,777	218,887	203,491	109	15,396	0	0	284,861	268,981	15,880			
3D4 - GW Operations	4,671	4,566	3,680	-105	886	237,484	237,434	215,766	-51	21,667	0	0	316,879	276,947	39,933			
3D8 - GW Analysis and Reporting	3,456	2,912	4,723	-543	-1,810	558,886	546,877	560,060	-12,009	-13,183	0	0	639,385	638,547	837			
3G - K Basin Oper & Plateau Remediation Project	20,496	19,923	11,121	-573	8,802	1,229,250	1,235,030	1,162,197	5,779	72,832	0	0	1,520,271	1,436,576	83,695			
32X - Support to KBOPR	209	130	238	-79	-108	8,635	8,449	8,504	-186	-55	0	0	13,712	12,389	1,323			
38Z - Support to STP	2,231	3,612	2,626	1,381	986	115,524	117,351	109,111	1,827	8,240	0	0	144,415	142,104	2,311			
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	2,018	2,073	1,087	55	986	5,616	5,384	5,407	-233	-24	0	0	13,483	13,096	387			
3G1 - STP / 100K	2,933	2,029	2,222	-904	-193	180,167	179,924	172,094	-244	7,829	0	0	196,638	188,242	8,396			
3G2 - CPS&M / D4	6,448	5,902	-408	-546	6,310	605,495	610,832	565,128	5,337	45,703	0	0	720,096	664,396	55,700			
3G3 - Project Office	893	893	538	0	355	107,400	107,400	101,179	0	6,221	0	0	125,145	114,164	10,980			
3G4 - ESHQ&R	44	17	0	-27	17	34,318	34,318	27,342	0	6,976	0	0	36,453	29,057	7,396			
3G5 - Environmental Compliance	0	0	0	0	0	0	0	0	0	0	0	0	1,480	1,435	45			
3G8 - 100 K Operations	2,492	2,384	2,106	-107	279	155,291	154,912	152,502	-378	2,410	0	0	201,710	199,723	1,986			
3G9 - 618-10 Remediation	3,228	2,884	2,713	-344	170	3,228	2,884	2,713	-344	170	0	0	53,562	53,753	-191			
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													2,715	2,715	0			
e. SUBTOTAL (Performance Measurement Baseline)	57,811	63,322	50,354	5,511	12,969	4,759,278	4,705,522	4,536,718	-53,756	168,804	0	0	5,641,182	5,464,471	176,711			
f. MANAGEMENT RESERVE													72,413					
g. TOTAL	57,811	63,322	50,354	5,511	12,969	4,759,278	4,705,522	4,536,718	-53,756	168,804	0	0	5,713,595					

\* CHPRC has implemented the River Corridor Closure Contract (RCC) 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: 2016/08/22 b. TO: 2016/09/30							
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 \$132,599		e. CONTRACT BUDGET BASE (C + D) \$5,713,640		f. TOTAL ALLOCATED BUDGET \$5,713,595		g. DIFFERENCE (E - F) \$45			
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																		
BUDGETED COST FOR WORK SCHEDULED (NON - CUMULATIVE)																		
SIX MONTH FORECAST																		
ITEM (1)																		
BCWS CUM TO DATE (2)																		
BCWS FOR REPORT PERIOD (3)																		
+1 Oct-16 (4)																		
+2 Nov-16 (5)																		
+3 Dec-16 (6)																		
+4 Jan-17 (7)																		
+5 Feb-17 (8)																		
+6 Mar-17 (9)																		
FY09-13 (10)																		
FY14 (11)																		
FY15 (12)																		
FY16 (13)																		
FY17 (14)																		
FY18 (15)																		
UNDISTRIB BUDGET (16)																		
TOTAL BUDGET (17)																		
a. PM BASELINE (BEGIN OF PERIOD)																		
b. BASELINE CHANGES AUTH DURING REPORT PERIOD																		
BCR-011C-16-013R0 - Revise G&A Rates on CAP Projects - PFP CAP 2																		
BCR-012C-16-032R0 - Incorporate Final Annex Construction Contract Negotiated Value																		
BCR-012C-16-033R0 - Revise G&A Rates on CAP Projects - SRP CAP																		
BCR-012C-16-037R0 - STSC Shipping Authorization MR Draw																		
BCR-013-16-030R0 CO #310 - SWOC Hazards Mitigation Activities																		
BCR-013-16-031R0 - Defer Unfunded RL-0013 scope from FY2017 into FY2018																		
BCR-030-16-044R0 - CO# 303, Definitize Micro-Purge Low-Flow Sampling Evaluation																		
BCR-030-16-045R0 - Align KR-4 FY2017 Well Drilling Campaign																		
BCR-030-16-047R0 - 200-EA-1 Insufficient Waste Unit Scoping MR Draw																		
BCR-030-16-048R0 - Defer Unfunded 200-UP-1 Well Drilling scope from FY2017 to FY2018																		
BCR-040-16-011R0 - Incorporate CO #309, Develop and Submit to RL DQOs for Assessing Structural Integrity for PUREX Tunnels 1 and 2																		
BCR-040-16-012R0 - Incorporate CO #311, Emergency Response for FacilityWaste Site ESH&Q or Remediation																		
BCR-040-16-013R0 - Defer Unfunded RL-0040 scope from FY2017 to FY2018																		
BCR-041-16-031R0 - Incorporate RCC Transitioned Scope Remaining Closure Operations																		
BCR-041-16-032R0 - Incorporate RCC Transferred Scope for ERDF Base Operations and 324 Min Safe																		
BCR-041C-16-024R0 - Authorization for Additional Tonnage at 100-K Waste Sites																		
BCR-041C-16-025R0 - Revise G&A Rates on CAP Projects - RL-0041																		
BCR-041C-16-029R0 - Incorporate RCC Transferred Scope for 618-10, 316-4 and 600-63 Waste Sites																		
BCR-041C-16-030R0 - Incorporate RCC Transferred Scope for 300-296 Waste Site																		
BCR-041C-16-033R0 - Revised DOE Direction for Capital-Operations Split for River Closure																		
BCR-041C-16-034R0 - Defer Unfunded RL-0041 Scope from FY2017 to FY2018																		
BCR-PRC-16-051R0 - Revise G&A Rates on OA Projects																		
BCR-041C-16-028R0 - PBS RL-0041 Undistributed Budget Adjustments September 2016																		
BCR-PRC-16-054R0 - Undistributed Budget Adjustments September 2016																		
c. PM BASELINE (END OF PERIOD)																		
7. MANAGEMENT RESERVE																		
8. TOTAL																		
			4,701,467	47,136	22,828	32,510	41,836	30,459	34,413	39,749	3,391,477	391,653	471,323	494,150	415,295	361,803	14,613	5,540,313
BCR-011C-16-013R0 - Revise G&A Rates on CAP Projects - PFP CAP 2																		
BCR-012C-16-032R0 - Incorporate Final Annex Construction Contract Negotiated Value																		
BCR-012C-16-033R0 - Revise G&A Rates on CAP Projects - SRP CAP																		
BCR-012C-16-037R0 - STSC Shipping Authorization MR Draw																		
BCR-013-16-030R0 CO #310 - SWOC Hazards Mitigation Activities																		
BCR-013-16-031R0 - Defer Unfunded RL-0013 scope from FY2017 into FY2018																		
BCR-030-16-044R0 - CO# 303, Definitize Micro-Purge Low-Flow Sampling Evaluation																		
BCR-030-16-045R0 - Align KR-4 FY2017 Well Drilling Campaign																		
BCR-030-16-047R0 - 200-EA-1 Insufficient Waste Unit Scoping MR Draw																		
BCR-030-16-048R0 - Defer Unfunded 200-UP-1 Well Drilling scope from FY2017 to FY2018																		
BCR-040-16-011R0 - Incorporate CO #309, Develop and Submit to RL DQOs for Assessing Structural Integrity for PUREX Tunnels 1 and 2																		
BCR-040-16-012R0 - Incorporate CO #311, Emergency Response for FacilityWaste Site ESH&Q or Remediation																		
BCR-040-16-013R0 - Defer Unfunded RL-0040 scope from FY2017 to FY2018																		
BCR-041-16-031R0 - Incorporate RCC Transitioned Scope Remaining Closure Operations																		
BCR-041-16-032R0 - Incorporate RCC Transferred Scope for ERDF Base Operations and 324 Min Safe																		
BCR-041C-16-024R0 - Authorization for Additional Tonnage at 100-K Waste Sites																		
BCR-041C-16-025R0 - Revise G&A Rates on CAP Projects - RL-0041																		
BCR-041C-16-029R0 - Incorporate RCC Transferred Scope for 618-10, 316-4 and 600-63 Waste Sites																		
BCR-041C-16-030R0 - Incorporate RCC Transferred Scope for 300-296 Waste Site																		
BCR-041C-16-033R0 - Revised DOE Direction for Capital-Operations Split for River Closure																		
BCR-041C-16-034R0 - Defer Unfunded RL-0041 Scope from FY2017 to FY2018																		
BCR-PRC-16-051R0 - Revise G&A Rates on OA Projects																		
BCR-041C-16-028R0 - PBS RL-0041 Undistributed Budget Adjustments September 2016																		
BCR-PRC-16-054R0 - Undistributed Budget Adjustments September 2016																		
			4,759,278	57,811	27,597	38,745	47,879	35,194	39,502	45,325	3,391,477	391,653	471,323	504,826	472,750	406,439	2,715	5,641,182
7. MANAGEMENT RESERVE																		
8. TOTAL																		

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

CLASSIFICATION (When Filled In)

**CONTRACT PERFORMANCE REPORT  
FORMAT 4 - STAFFING**

Dollars: FTE

FORM APPROVED

OMB No. 0704-0188

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME Plateau Remediation Contract		a. FROM (YYYYMMDD) 2016 / 08 / 22	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD)	
		c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18	
						2016 / 09 / 30	

5. PERFORMANCE DATA														
WBS.Resp Org Group  ORGANIZATIONAL CATEGORY (1)	ACTUAL CURRENT PERIOD (2)	ACTUAL END OF CURRENT PERIOD (Cumulative) (3)	FORECAST (Non-Cumulative)									AT COMPLETION (15)		
			SIX MONTH FORECAST BY MONTH (Enter names of months)						ENTER SPECIFIED PERIODS					
			+1 OCT 2016 (4)	+2 NOV 2016 (5)	+3 DEC 2016 (6)	+4 JAN 2016 (7)	+5 FEB 2016 (8)	+6 MAR 2016 (9)	REM FY17 (10)	FY18 (11)	FY19-LC (12)			
300 - Office of the President	9	654	6	6	6	6	6	6	6	6	36	63	0	789
303 - Internal Audit	4	421	5	5	5	5	5	5	5	5	30	60	0	541
304 - General Counsel	5	390	5	6	6	6	6	6	6	6	35	60	0	521
31 - Communications	9	915	8	9	9	9	9	9	9	9	54	108	0	1131
32 - Safety Health Security & Quality	59	6531	61	66	66	65	65	65	65	65	389	785	0	8094
34 - Env Program & Strategic Plng	44	4332	45	49	49	49	49	49	49	49	284	602	0	5507
35 - Business Services	64	6931	69	75	75	75	75	75	75	75	448	772	0	8595
36 - Prime Contract & Proj Integr	59	4283	68	74	74	74	74	74	74	74	427	701	0	5852
38 - Project Technical Services	34	5196	35	39	39	39	39	39	39	39	231	426	0	6083
3B - PFP Closure Project	368	45409	351	379	379	363	356	302	783	58	0	0	0	48380
3C - Waste & Fuels Management Project	433	45889	363	396	390	397	408	413	2417	4162	692	0	0	55527
3D - Soil & Groundwater Remediation	305	32683	293	288	272	263	272	272	1706	3440	787	0	0	40278
3G - K Basin Oper & Plateau Remediation Pro	313	43368	478	457	434	413	402	398	2237	3761	325	0	0	52271
<b>g. TOTAL DIRECT</b>	<b>1705</b>	<b>197002</b>	<b>1786</b>	<b>1849</b>	<b>1805</b>	<b>1765</b>	<b>1767</b>	<b>1715</b>	<b>9078</b>	<b>14999</b>	<b>1804</b>	<b>0</b>	<b>0</b>	<b>233570</b>

\* 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.

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

CLASSIFICATION (When Filled In)									
CONTRACT PERFORMANCE REPORT FORMAT 5 - EXPLANATIONS AND PROBLEM ANALYSES							FORM APPROVED OMB No. 0704-0188		
<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>			<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>		
<b>a. NAME</b> CH2M HILL Plateau Remediation Company		<b>a. NAME</b> Plateau Remediation Contract			<b>a. NAME</b> Plateau Remediation Contract		<b>a. FROM (YYYY/MM/DD)</b>  2016/08/22		
<b>b. LOCATION (Address and ZIP Code)</b>  Richland, WA 99354		<b>b. NUMBER</b> DE-AC06-08RL14788		<b>b. PHASE</b> Base		<b>b. TO (YYYY/MM/DD)</b>  2016/09/30			
		<b>c. TYPE</b> CPAF	<b>d. SHARE RATIO</b>		<b>c. EVMS ACCEPTANCE</b> 2009/09/18 NO YES X				
	<b>BCWS</b>	<b>BCWP</b>	<b>ACWP</b>	<b>SV in \$</b>	<b>SV in %</b>	<b>CV in \$</b>	<b>CV %</b>	<b>SPI</b>	<b>CPI</b>
Current:	57,811	63,322	50,354	5,511	9.5%	12,969	20.5%	1.10	1.26
Cumulative:	4,759,278	4,705,522	4,536,718	(53,756)	-1.1%	168,804	3.6%	0.99	1.04
	<b>BAC</b>	<b>EAC</b>	<b>VAC in \$</b>	<b>VAC in %</b>	<b>TCPI</b>				
At Complete:	5,641,182	5,464,471	176,711	3.1%	1.01				
<b>Explanation of Variance/Description of Problem:</b>									
<p><b>Current Period Schedule Variance:</b> The current month positive schedule variance is primarily due to Project Breakdown Structure (PBS) RL-0011 correction to the discrete activities apportioned to the Deactivation and Decommissioning (D&amp;D) demolition ready activities. When the RL-0011_C2 capital asset project was implemented, discrete demolition activities should have been pointed to the RL-0011_C2 project management accounts. In addition, historical Budgeted cost of work scheduled (BCWS) associated with the PRF ready for demolition work scope is contributing to the positive variance. Also contributing to the variance is PBS RL-0013 loading and shipping at Central Waste Complex (CWC), processing at Perma-Fix Northwest, Inc (PFNW), and return of the processed waste back to CWC during the current period. Acceleration of this work scope results in the BCWS in FY2017 and the Budgeted cost of work performed (BCWP) is in the current period. The variance is partially offset due to PBS RL-0041 implementation of BCR-041C-16-025R0 - Revise G&amp;A Rates on CAP Projects - RL-0041, which resulted in a reduction of BCWP.</p> <p><b>Current Period Cost Variance:</b> The current month positive cost variance is due to PBS RL-0041 Environmental Restoration Disposal Facility (ERDF) passback pertaining to 100K Waste Site Remediation as well as efficiencies associated with shared resources in the areas of 100K Minimum Safe, 100K Project Support, 324 Minimum Safe and ERDF Operations. Also contributing to the variance is PBS RL-0013 primarily due to significant efficiencies in labor utilization (approximately 16+ full time equivalents (FTEs) below plan resulting in ~\$594K reduction in direct labor costs). This is attributable to the continued implementation of planned efficiencies as a cost cutting measure. Efficiencies include resource sharing across multiple scopes of work in areas of engineering, training, emergency preparedness, corrective action management and environmental management.</p> <p><b>Cumulative Schedule Variance:</b> The variance is within reporting thresholds.</p> <p><b>Cumulative Cost Variance:</b> The variance is within reporting thresholds.</p>									
<b>Impact:</b>									
<p><b>Current Period Schedule:</b> The lifecycle EAC has been updated. No significant impact overall.</p> <p><b>Current Period Cost:</b> No significant impact overall, the lifecycle EAC has been updated.</p> <p><b>Cumulative Schedule:</b> N/A</p> <p><b>Cumulative Cost:</b> N/A</p>									
<b>Corrective Action:</b>									
<p><b>Current Period Schedule:</b> No Corrective actions, the EAC has been adjusted accordingly.</p> <p><b>Current Period Cost:</b> EAC has been adjusted accordingly.</p> <p><b>Cumulative Schedule:</b> N/A</p> <p><b>Cumulative Cost:</b> N/A</p>									
<b>Monthly Summary (to include technical causes of VARs, Impacts, and Corrective Action(s):</b>									
<p>CHPRC continues to track completion of contract scope within budget and is currently projecting a Variance at Completion of \$176.7 million with \$72.4 million of Management Reserve (MR) for a total positive variance of \$249.1 million. For September, the project was 9.5 percent ahead of schedule and 20.5 percent under planned cost. Contract to Date (CTD), the project was 1.1 percent behind schedule and 3.6 percent under planned cost.</p> <p>There were two significant BCRs in the period that impacted the PMB; BCR-041C-16-029R0 – <i>Incorporate RCC Transferred scope for 618-10 Burial Grounds, 316-4 and 600-63 Waste Sites</i>, BCR-041-16-032R0 – <i>Incorporate RCC Transferred scope for ERDF Base Operations and 324 Min Safe</i>.</p>									
<b>Contractually Required Cost, Schedule, EAC variance, Management Reserve Use</b>									
<p>Variance in Performance BAC and EAC: The variance at complete (VAC) between the BAC and EAC this month is a +\$176.7 million, +3.1% and is within reporting thresholds.</p>									

**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		\$132,599
Approved Adjustments to Contract Price (not reflected in B.4-1 Table)			
	Total Negotiated Cost Changes		-
	<b>Grand Total Adjustments</b>		<b>\$132,599</b>

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

Undistributed Budget Activity				
BCR Number	Title	PBS	Fiscal Year	UB
BCR-041C-16-028R0	<i>PBS RL-0041 Undistributed Budget Adjustments September 2016</i>	RL-0041	2015 - 2018	\$ -7,896K
BCR-PRC-16-054R0	<i>Undistributed Budget Adjustments September 2016</i>	RL-0013 RL-0030 RL-0040	2015 - 2018	\$ -4,003K

The Undistributed Budget decreased by \$11,899K and Authorized Unpriced Work increased by \$107,953K due to CO 304, 305, and 306 during September.

**Management Reserve Activity**

BCR Number	Title	PBS	Fiscal Year	MR
BCR-012C-16-032R0	<i>Incorporate final Annex Construction Contract Negotiated Value</i>	RL-0012	2015 - 2018	\$1,496K
BCR-012C-16-037R0	<i>RL-012 STSC Shipping Authorization Documentation MR Draw</i>	RL-0012	2015 - 2018	\$-375K
BCR-030-16-047R0	<i>200-EA-1 Insufficient Waste Unit Scoping MR Draw</i>	RL-0030	2015 - 2018	\$-734K
BCR-011C-16-013R0	<i>Revise G&amp;A rates on CAP Projects – PFP CAP 2</i>	RL-0011	2015 - 2018	\$854K
BCR-012C-16-033R0	<i>Revise G&amp;A rates on CAP Projects – SRP CAP</i>	RL-0012	2015 - 2018	\$340K
BCR-041C-16-025R0	<i>Revise G&amp;A rates on CAP Projects – RL-0041</i>	RL-0041	2015 - 2018	\$3,304K
BCR-PRC-16-051R0	<i>Revise G&amp;A rates on OA Projects</i>	RL-0011 RL-0012 RL-0013 RL-0030 RL-0042	2015 - 2018	\$2,264K
BCR-011C-16-014R0	<i>Move Balance of FY 2016 PBS RL-011 Management Reserve to FY 2017 – PFP CAP 1</i>	RL-0011	2015 - 2018	\$0
BCR-011C-16-015R0	<i>Move Balance of FY 2016 PBS RL-011 Management Reserve to FY 2017 – PFP CAP 2</i>	RL-0011	2015 - 2018	\$0
BCR-012C-16-034R0	<i>Move Balance of FY 2016 PBS RL-012 Management Reserve to FY 2017 – SRP CAP</i>	RL-0012	2015 - 2018	\$0
BCR-041C-16-026R0	<i>Move Balance of FY 2016 PBS RL-041 Management Reserve to FY 2017</i>	RL-0041	2015 - 2018	\$0

Overall, there was an increase in Management Reserve (MR) of \$7,149K during September.

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

**Fee Activity**

<b>BCR Number</b>	<b>Title</b>	<b>PBS</b>	<b>Fiscal Year</b>	<b>Fee</b>
BCR-030-16-044R0	<i>Definitization of REA 030 1566 Finalize Micro-Purge/Low-Flow Sampling Evaluation</i>	RL-0030	2015 - 2018	\$3K
BCR-012C-16-036R0	<i>Align Fee to the KW Basin Sludge Removal Project PEP</i>	RL-0012	2015 - 2018	\$0K

Overall, there was an increase in Fee of \$3K during September.

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

<b>Prepared by:</b> Project Control Staff	<b>Date:</b> 10/18/2016	<b>Approved by:</b>	<b>Date:</b>
----------------------------------------------	----------------------------	---------------------	--------------

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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

September 2016  
CHPRC-2016-09, 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  
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## 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
16-EMS-ADMIN-OB1-T1	Reduce energy intensity.	Increase facility occupancy rates to greater than 82 percent by compressing occupancy and vacating underutilized facilities. Vacated/unoccupied facilities declared unusable and designated inactive placed in Care Taker system.	9/30/16	100%
16-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.	10/9/16	100%
16-EMS-ADMIN-OB3-T1	Energy and natural resource conservation.	Establish electronic signature system for contracts using Adobe Acrobat.	9/30/16	100%
16-EMS-PTS-OB1-T1	Reduce the potential generation and release of toxic, hazardous, and non-regulated chemical materials to the environment, evaluate for compliance with universal waste and other recycling requirements, and identify opportunities for waste reduction.	Monitor and evaluate spill prevention program and existing techniques to reduce and/or eliminate spills to the environment by surveillances, on-going training.	9/30/16	100%
16-EMS-PTS-OB2-T1	Increase chemical management oversight of subcontractors and PTS operations.	Increase chemical management oversight of subcontracts, evaluate chemical procurement methods, identify expired chemicals, track, and properly dispose of expired chemicals. Perform quarterly assessment on chemical inventory locations.	9/30/16	100%

## TARGET ZERO PERFORMANCE

	Current Month	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	0	N/A
Total Recordable Injuries	0	1	N/A
First Aid Cases	1	5	<ul style="list-style-type: none"> <li>9/29/2016 – Worker was rear ended by another vehicle that had been rear ended by an MSA vehicle - (24136)</li> </ul>
Near-Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

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

- There was one first aid injury during the month of September in the functional groups.
  - o Occupational Safety and Industrial Hygiene (OS&IH) accomplishments:
    - Beryllium assessments have been completed on 1,437 CHPRC facilities. All fiscal year (FY) 2016 scheduled beryllium assessments were completed.
    - Provided support for Hoisting & Rigging Committee’s proposed changes to the Site Wide manual regarding Designated Leader training/qualification.
    - Provided technical support to Project Technical Services (PTS) regarding welding hazard controls and Reduction-Oxidation (REDOX) roof asbestos work plan.
    - Provided technical support to Waste and Fuels Management Project (WFMP) regarding heat stress control implementation (clothing adjustment factors).
    - Provided technical review of Plutonium Finishing Plant (PFP) Industrial Hygiene Exposure Assessments for Plutonium Reclamation Facility (PRF) demolition.
    - Provided Chemical Management/Hazard Communication support to PFP and PTS regarding chemical product purchases.
    - Collaborated with Electrical Safety Technical Authority to develop a strategy for the procurement of arc flash rated anti-contamination personal protective equipment (PPE) ensembles.
    - Implementation of the Respiratory Protection Electronic Tracking (RPET) program was completed for all CHPRC Projects (excluding transitioned River Corridor Closure Contract (RCCC) Projects).
  - o Radiological Control accomplishments:
    - Conducted quarterly RadCon Leadership meeting.
    - Completed original scope of due diligence radiological surveys at 618-10 and initiated analysis of survey data.
    - Continued support for RCCC transition activities; including software quality assurance (QA), training, and work management activities.
    - Supported PFP Readiness Assessment mockups for PRF demolition activities.
  - o Nuclear Operations Support & Compliance accomplishments:

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- Correspondence received from RL:
  - OPAW Report, Operation Awareness Report, “2016 Annual Update of the 224-T Safety Basis,” (CP-14641) Annual Update: No Changes, dated September 16, 2016.
  - OPAW Report, Operational Awareness Report, 2016 Annual Update of the CSB Safety Basis (No Changes), dated September 16, 2016.
  - Letter, 16-NSD-0071\_RL, dated September 30, 2016, *Transmittal of the Annual Update to the “Solid Waste Operations Complex Master Documented Safety Analysis,” HNF-14741, Revision 11, “Technical Safety Requirements for the Solid Waste Operations Complex,” HNF-15280, Revision 11, “T Plant Fire Hazards Analysis,” HNF-59192, Revision 0, and “Solid Waste Operations Complex Fire Hazards Analysis,” HNF-21239, Revision 6.*
- Other:
  - SHS&Q-2016-WSA-16445, *Work Site Assessment for Packaging Custodian’s Inspection, Surveillance, and Maintenance.*
  - SHS&Q-2016- WSA-17375, *Work Site Assessment for TS Organization oversight of Work Document # CS-16-00287/K, Isolation and Removal of North Loadout Pit Sludge Treatment Equipment.*
  - CHPRC-02860, *Methodology for Demonstrating Compliance with Hanford Site TSD FUEL SPA FGE Requirements for Uranium.*
  - CHPRC-NS-16-006, *Reclassification of 105KW Basin from Limited Control to Exempt*
  - SHS&Q-2016-MA-16533, *Criticality Safety Management Assessment Plutonium Finishing Plant.*
- o Contractor Assurance Regulatory Reporting (CARR) accomplishments:
  - 195 Condition Reports (CRs) were screened:
    - Two significant issue identified.
    - Three adverse issues identified.
    - 98 Track until Fixed (TUF) issues identified.
    - 27 Trend Only (TO) items identified.
    - 61 Opportunity for Improvement (OFI) items identified.
    - Four Screened Out.
  - 163 CRs administratively closed.
  - 276 CRs actions administratively closed.
  - Provided full time support to PFP Issues Management and Occurrence Reporting activities.
  - Supported PFP Readiness activities in the area of Performance Improvement.
  - Completed Apparent Cause Evaluation and submitted final Occurrence Reporting and Processing System (ORPS) report for EM-RL--CPRC-PFP-2016-0010, *Electrical Spark While Deactivating Electrical Panel.*
  - Provided support and coordination for the Bi-Monthly conference call with the Defense Nuclear Facilities Safety Board (DNFSB) to discuss the PFP demolition planning/readiness status, support for the Monthly Sludge Treatment Project (STP) Status conference call and support for the Bi-Monthly DNFSB Site Representative Meeting.
  - Provided support for the upcoming DNFSB review of aging electrical infrastructure at Hanford.
  - 39 documents were provided in response to DNFSB requests for information.
  - Provided support to the DNFSB Hanford Site representatives.
  - Published the August 2016 Contractor Assurance System Summary Report.

- Two external Lessons Learned were submitted to OPEXShare in September 2016: 2016-RL-HNF-0015, *Information Gathering Was Disruptive To Incident Management* (external) and 2016-RL-HNF-0016, *Misapplication of Lock and Tag Exception puts Worker at Risk* (external).
- One event was reported into the Noncompliance Tracking System: NTS-RL-CPRC-PFP-2016-0002, *Refrigerant Sprayed On Worker When Air Conditioner Refrigeration Line Was Cut*.
- o Performance Oversight, Assessment, and Quality Assurance accomplishments:
  - Developed strategy for responding to the DOE Letter of Direction for annual submittal of Integrated Safety Management System (ISMS) Declaration and FY2017 performance objectives, measures, and commitments (POMC).
  - Finalized ISMS Management Assessment plan and commenced assessment activities.
  - Supported upgrade of fasteners from QL-2 to QL-1 for 324 Ventilation system.
  - Worked with Soil and Groundwater Remediation Project (S&GRP) Engineering to develop a strategy for procurements of stainless steel spool pieces.
  - Completed Environmental Management (EM) Corporate QA Metrics Management Assessment; evaluating the effectiveness of the CHPRC Quality Assurance Program (QAP) and verifying Key Attributes described in HNF-22632 for Quality Assurance are being met.
  - Completed SHSQ-2014-NSPEB-13327, Independent Assessment Nuclear Safety and Performance Evaluation Board (NSPEB) Review of Corrective Actions Taken for SHSQ-2014-NSPEB-13323 (STP/D&RS and CPSM).
  - Completed SHS&Q-2016-WSA-17834, assessment on the “FY2017 Required Assessments” that are being scheduled in Integrated Evaluation Plan (IEP).
  - Completed Home Office assist visit for a Corporate Review of the CHPRC assessment program.
  - Completed in-field activities and final report for the Administrative Control Level for Extremities Exceeded Effectiveness Review at PFP.
  - Developed Lines-of-Inquiry for the EM-40 Safety Alert “Respiratory Protection Equipment Survey Issues” surveillance.
- o Fire Protection accomplishments:
  - The fire alarm replacement project is progressing. A survey of fire alarm panels has identified a total of 62 panels that need to be replaced. The cost of the project is nearing \$14 million based upon initial estimates.
  - A recruiting trip to Oklahoma State University was successful and six candidates are being evaluated.
  - Deactivation analyses were completed for PRF and the A Cell Airlock at Waste Encapsulation and Storage Facility (WESF).
  - Support was provided to conduct a code evaluation for the REDOX Roof project.
  - The following Technical Safety Requirement (TSR) activities were completed:
    - Solid Waste Operations Complex (SWOC):
      - o 2X-16-04575/S, LLBG 1 Year Fire Surveillance Assessment
      - o 2X-16-04571/S, LLBG 3 Month Combustible Surveillance
      - o W1-16-04589/S, Quarterly WRAP Combustible Fire Surveillance
    - 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 one areas – performed by facility support operators (FSO) (2).
- Facility Hazards Analysis (FHA):
  - T Plant FHA is in revision to resolve comments by RL.
  - 105KW Complex FHA was reviewed by HFMO and comments are being addressed.
  - PUREX FHA is under review by the Hanford Fire Marshal.
  - WESF FHA was published, but a minor revision is being completed to resolve some typographical errors.
  - REDOX is going through a minor revision to correct a couple of errors.
  - U Plant FHA is being developed.
  - Building 402 FHA is being developed.
  - Building 324 FHA needs to be rewritten for the 300-296 Project, a team has begun working on the FHA.
  - The 618-10 FHA needs to be modified based on the Due Diligence Report.
  - Facility Fire Protection Assessments (FFPA) are complete with one exception, the last building FFPA will be completed in October.
- 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:** Comment resolution is complete for Revision 3 and is being routed for signatures.
  - o **Action:** Beryllium facility assessments and characterization on schedule. Beryllium facility assessments have been completed on 1,437 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:** Continue interface with project personnel, supporting Employee Zero Accident Council (EZAC) and project safety meetings for continued focus on injury prevention.
  - o **Issue:** PFP Support.
  - o **Status:** Supporting PFP with dedicated Occupational Safety and Industrial Hygiene (OS&IH) personnel and RadCon personnel, from the SHS&Q Central group for oversight of high risk work activities.
  - o **Action:** Supporting PFP demolition readiness preparations and responses to Readiness Assessment Team observation.
  - o **Issue:** Fire Protection program concerns.
  - o **Status:** Program continues to improve. New Mission Support Alliance, LLC (MSA) Hanford Fire Department (HFD) Marshal has improved the working relationship with CHPRC Fire Protection personnel and is addressing long standing issues.
  - 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. Negotiations with Ecology are scheduled to begin on October 19, 2016, including a tour of T Plant.

- o There were two Ecology inspections of CHPRC managed areas and facilities: a compliance inspection of the 400 Area waste management unit and a non-financial records review of PUREX/PUREX tunnels and B Plant.
- o Developed initial requirements matrix for the Hanford Site land disposal restrictions (LDR) summary report to support discussion with RL related to disposition of Ecology comments from review of the draft 2014 report. The Tri-Parties agreed to waive publication of the 2016 LDR summary report while continuing resolution of comments on the 2014 report.
- 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 Part A, groundwater monitoring, contingency planning and closure standards.

### **Environmental Management System (EMS)**

- **Objectives and Target Status**

- o Completed 94 percent of all CHPRC Targets and Objectives in FY2016. Targets and Objectives for FY2017 are being developed.

### **Environmental Compliance & Quality Assurance (ECQA)**

- **Assessment Program**

- o An external assessment of CHPRC compliance with Air Operating Permit requirements was completed on August 11, 2016. The assessment team was comprised of a Senior Air Quality Specialist and a Senior Regulatory Specialist from CH2M Corporate offices in Phoenix, AZ and Oakland, CA, respectively. The assessment team identified one finding and one observation. The assessment report was issued on September 20, 2016.
- o An external effectiveness review of CHPRC corrective actions associated with the FY2015 Clean Sweep audit was completed on July 21, 2016. The assessment team was comprised of two senior Health, Safety, Environmental and Quality professionals from CH2M corporate offices in Seattle, WA and Denver, CO. The assessment report, issued on September 19, 2016, identified ten findings and seven opportunities for improvement.
- o A surveillance of CHPRC laydown areas was held 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. A surveillance report is due on October 31, 2016.

### **Business Services**

- **Acquisition Planning:**

- o Completed the establishment of FY2017 DOE-EM complex-wide strategic sourcing savings goals. Based on an expected DOE-EM complex-wide actionable spend of \$965 million, the DOE-EM prime contractor's combined strategic sourcing savings goal for FY2017 is \$38.6 million. CHPRC's individual goal will be \$4.2 million.
- o Supported Cost/Price in the evaluation of corporate rates. Obtained resumes of key individuals to assist in determining qualifications and experience.
- o Drafted scope of work (SOW) associated with 618-10 material management support and the transition of project work responsibilities.
- o Developed a project cost estimate, an SOW, and non-competitive justification for waste site design services associated with the 100-K-103 waste site.
- o Held a conference call with the vendor that supplies a specific type of fixative for the 618-10 project. Received pricing information and ensured the vendor was properly registered in the CHPRC system.
- o Met with representatives at WESF to discuss the upcoming plan for removal, disposal, and replacement of MO029.

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- o Met with MSA Central Badge Office to discuss RCCC transitioned subcontractors and establish a path forward on the WAI/Stoller subcontractor badges.
- o Discussed the on-going need for readiness assessment support at PFP. Drafted technical justification documents to support the required contract extensions.
- o Met with CHPRC Central Plateau Surveillance & Maintenance to discuss on-going and upcoming contract needs. Developed different procurement strategies based on location and type of work.
- **Facilities & Property Management (F&PM):**
  - o FY2016 Physical Property Inventory review continues with field work target completion date of September 30, 2016. Final inventory review reports and Balanced Score Card will be submitted by October 31, 2016. F&PM has completed locating 84.96 percent of 3,317 items through September 2016.
  - o 2420 Stevens move planning continues. Floor layouts and move forms complete. Initial draft integrated schedule developed. Major move activity expected to start in November.
  - o Efforts to remove and replace MO029 at WESF have restarted. 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) has begun initial planning stages.
  - o A single wide office trailer is being planned for addition in the 400 area in support of potable water operations.
- **Finance:**
  - o Completed Department of Revenue audit of FY2012-2015. The Department of Revenue will issue 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 September month end completed with no suspensions.
  - o Submitted the FY2015 Incurred Cost Report audit report.
  - o Completed all actions that resulted from the Time and Attendance Internal Audit (16-05).
  - o Submitted all FY2017 Forward Pricing Rates for provisional approval.
  - o Completed fiscal year-end processing.
  - o Submitted responses for the Internal Audit for Overtime and Pay (16-04).
- **Human Resources:**
  - o Conducted a mass new employee orientation on Monday, August 29, 2016, to accommodate 151 people transitioning from the RCCC to CHPRC. Efforts were made in advance to have all employees in the CHPRC Hanford Resources Information System (HRIS) systems and released to their worksites by 10:00 am.
  - o Organized and supported a special orientation meeting for managers at the Environmental Restoration Disposal Facility who had transitioned from the RCCC. Representatives from support organizations introduced themselves and answered emerging issues, questions, and concerns that the managers had experienced since the contract transition.
  - o Conducted targeted recruiting at Oklahoma State University career fair, in search of Fire Protection Engineers. Potential candidates were identified during the career fair and followed up with interviews. It was a successful trip resulting in identifying a diverse candidate pool.
  - o Locally, Human Resources (HR) and three managers attended the Washington State University Tri-Cities career fair. The focus was on filling open co-op positions in Project Controls, Planning and Scheduling, and Estimating.
  - o CHPRC has been working with Columbia Basin College (CBC) as they develop a certification program for First Line Supervisors. The curriculum is complete and CBC is ready to start with classes that would meet the needs of our workforce.

- o 26 Washington Closure Hanford LLC (WCH0 employees on Short/Long term disability or Plant Injury were transitioned to become CHPRC employees due to the closing of the WCH contract.
- o Conducted position evaluations on over 70 positions (including Executive Secretaries, Administrative Specialists, and Operations Specialists) to ensure that they met Fair Labor Standards Act (FLSA) requirements for Exempt/Non-exempt status. As a result of the evaluation 41 positions have been reclassified to better fit the role being performed and to be consistent throughout the company. Four positions that were part of the evaluation are pending further review and are planned to be completed in the next month.
- **Labor Relations (LR):**
  - o Completed transition activities for the remainder of Hanford Atomic Metal Trades Council (HAMTC) represented employees transferring with the 618-10 and ERDF work scope from WCH to CHPRC on August 29, 2016.
  - o LR attended RLs second Annual Labor Relations Training and Information Session in DC bringing together representatives from the RL, the Contractors and the Union officials to discuss common subjects and foster relationships.
  - o LR attended Prevailing Wage training to stay current on Service Contract Act and Davis Bacon wage laws/requirements.
  - 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. Parties continuing to discuss and exchange settlement proposals with the intent to try and resolve issue without proceeding to arbitration.
  - 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 Preparing for arbitration scheduled October 11, 2016. Union is claiming mis-assignment of work in regards to respirator maintenance.
- **Procurement:**
  - o Transitioned approximately 151 staff augmentation and building trades subcontractors on August 29, 2016, as part of the RCCC scope transition.
  - o Awarded/amended 260 contracts with a total value of \$23.68 million. Additionally, awarded 218 new material Purchase Orders (PO) valued at \$597,002 to support ongoing project objectives.
  - o At the end of the first 96 months of the CHPRC project, procurement volume has been significant; \$2.427 billion in contract activity has been recorded with approximately 53.92 percent, or \$1.30 billion, in awards to small businesses. This includes 7,463 contract releases, 21,443 POs, and 255,231 P-Card transactions.
  - o Contract 55746, Release 2 was awarded to Ojeda-HiLine, on August 22, 2016. This is a firm fixed price contract for "Annex Exhaust System Modification." This award is valued at \$55,260.41.
  - o Contract 55746, Release 3 was awarded to Ojeda-HiLine, on August 30, 2016. This is a firm fixed price contract for "STP Critical Fabrications." This award is valued at \$112,253.80.
  - o Contract 58447-02 was awarded to Tacoma Pump & Drilling on August 25, 2016. This is a firm fixed price contract for "The Installation of Three Dual-Purpose Wells, Plus Two Optional Monitoring Wells in the 200-UP-1 Operable Unit, FY2016." This award is valued at \$845,405.00.
  - o Contract 54177, Release 60 was awarded to Intera Incorporated on September 7, 2016. This is a time and material release for Technical Integration Support for FY2017. This award is valued at \$940,000.00.

- o Contract 53689, Release 28 was awarded to Terragraphics Environmental Engineering, Inc. on September 10, 2016. This is a time and material release for Data Verification Technical Support for S&GRP Projects. This award is valued at \$437,572.80 (Base \$219,991.80 & Option Year \$217,581.00).
- o Contract 54177, Release 61 was awarded to Intera Incorporated on September 22, 2016. This is a time and material release for Hanford Site Composite Analysis Update Support for FY2017. This is a time and material release. The award value is \$2,216,529.00.
- o Contract 54177, Release 62 was awarded to Intera Incorporated on September 29, 2016. This is a time and material release for CHPRC Groundwater Expertise for FY2017. The award value is \$165,003.00.
- o Contract 61209 was awarded to Interim Tech Solutions, Inc. on September 22, 2016. This is a labor hour contract for mechanical engineer support. The award values is \$195,000.
- o Contract 37351, Release 170 was awarded to Tradewind Services, LLC on September 14, 2016. This is a labor hour contract for a quality assurance engineer. The award values is \$205,000.
- o Contract 37351, Release 172 was awarded to Tradewind Services LLC on September 20, 2016. This is a labor hour contract for a mechanical engineer. The award value is \$240,000.
- o Contract 56253, Release 15 was awarded to I-3 Global on September 21, 2016. This is a labor hour contract for a mechanical engineer. The award value is \$165,000.
- o Contract 53689, Release 29 was awarded to Terragraphics on September 23, 2016. This is a time and material release for 300-FF-5 OU Technical Support. The award value is \$151,001.

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

- **RCCC Transition:**

- o Supported the successful transition of the balance of RCCC scope to CHPRC on August 29, 2016. A major contributor to this achievement was the leadership for information management (IM) related transition activities provided by the Integrated Services Information Management organization. The weekend of August 26, 27, and 28, 2016, IM related transition activities led by our Information Management organization and involving numerous members of the MSA, successfully completed the transition of the network, telephones and user desktop conversions for former WCH personnel who transitioned to CHPRC on August 29, 2016. This major undertaking, which was months in planning, required members of the CHPRC/MSA team to work long hours in the months leading up to and transition weekend to replace about 200 desktop work stations, moving the users from the Bechtel Local Area Network (BLAN) to Hanford Local Area Network (HLAN), and changing out numerous pieces of privately owned network equipment to new equipment consistent with HLAN standards so they were ready for use by our newest CHPRC team members on August 29. The team was also responsible for conversion of about 30 pieces of software and about 15 Excel spreadsheets formerly used by WCH to manage their work that were not previously used by CHPRC. This included software critical for continuation of the scope transitioned to CHPRC, such as Automated Radiological Access Control System (ARACS) (radiation zone entry control) and Waste Management Information System (WMIS) (ERDF operations). On August 29, the CHPRC/MSA information management transition team was in the field helping users with login and other computer assistance and collecting questions and concerns so they could make them right.

- **Prime Contract Compliance (PCC):**

- o In September, PCC received and processed 13 contract modifications (531-542, 544) from RL.
- o The Correspondence Review Team received and determined the distribution for 86 incoming letters/documents. The PCC Manager reviewed 46 outgoing correspondence packages.
- o Received contract modification 544 that updated Section J, Attachment J.4, Performance Evaluation and Measurement Plan for FY2017.

- o Issued CHPRC-1604176, *Notification of Differing Site Condition and Impacts to 200-UP-1 Operable Unit Southeast Chromium Plume Investigation.*
- o Issued CHPRC-1604094, *Request for RL Contracting Officer Direction to Prepare Groundwater Engineering Reports and Implement Final Status of Groundwater Monitoring Plan Requirements per Department of Ecology's Requests.*

### Integrated Services

#### • Estimating & Program Support

- o Supported the DOE-HQ EIR of PBS RL-0041 CAP scope the week of September 12, 2016, by providing a briefing on our estimating process and supporting the Project by providing responses to EIR Team questions.
- o Completed PC&PI-2016-MA-16746 - Estimating System and Process Evaluation. This MA validated that the CHPRC Estimating System remains in compliance with Federal Acquisition Regulation (FAR), Department of Energy Acquisition Regulation (DEAR) and contract terms and conditions used as a basis for DOE's certification of that system. There were no Findings and eight Opportunities for Improvement (OFI) identified by the assessment. The OFIs, which were focused on improving the documentation of cost proposals and estimating procedures, were entered into the Condition Reporting and Resolution System (CRRS) to facilitate their tracking to completion.
- o Four CPs/REAs were submitted to RL in September 2016:
  - CP 041 307 1621 - *100-K Additional Tons FY2016 and FY2017*, submitted on September 19, 2016.
  - CP 040 309 1623 - *Data Quality Objectives for Assessing the Structural Integrity for the PUREX Tunnels 1 and 2*, submitted on September 13, 2016.
  - CP 013 310 1624 - *Solid Waste Operations Complex Hazards Mitigation Activities*, submitted on September 15, 2016.
  - CP 040 311 1625 - *Emergency Response for Facility/Waste Site ESH&Q or Remediation*, submitted on September 15, 2016.
- o 29 CPs/REAs have been submitted on or ahead of schedule FY2016 to-date with one CP/REA submitted late.
- o Initiated development of two CPs/REAs:
  - CP 030 312 1627 - *Bio-Mobilization and Bio-Intrusion Evaluation Sampling and Analysis Plan.*
  - CP 013 CRD 1626 - *(CRD) 474.2 Change 3, Nuclear Material Control and Accountability.*
- o Continued development of one CP/REA:
  - CP 013 PRC 1620 - *WESF Storage Basin Analysis and Quarterly Report.*
- o Supported development of RCCC life-cycle performance measurement baseline (PMB) and associated baseline change requests (BCRs).
- o Supported development of the RL-0041 input to the FY2017 PMB ETC updates/long-range planning for submittal to RL.
- 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 Miscellaneous Estimating Support:
  - Supported RL's request for additional information on Change Orders:
  - CP 030 294 1570 - *100-KR-4 RI FS Decisional Rewrite.*
  - CP 030 299 1578 - *200 West P&T System Membrane Bioreactor Cassette Additions.*
  - CP 040 306 1593 - *Initiate Transition of RCC Scope Activities into the Plateau Remediation Contract (PRC) - 324 Complex.*

- CP 040 306 1594 - *Initiate Transition of RCC Scope Activities into the Plateau Remediation Contract (PRC) - 300-296 Design Review and Gap Analysis.*
- CP 040 306 1613 - *Minor Capital Funded Projects RCCC Transition Add-Ons.*
- CP 040 306 1615 - *Surveillance & Maintenance Sites RCCC Transition Add-Ons.*
- CP 040 306 1616 - *300-296 Waste Site Design Change, Initiate Procurements, Initiate Testing, and Initiate Removal of Debris.*
- CP 041 307 1621 - *100-K Additional Tons FY2016 and FY2017.*
- **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, has been prepared.
    - Facilitated collaborative resource/cost effort with MSA Fleet to disposition a retired water truck to ERDF.
    - Received WRPS/Tank Operations Contract (TOC) approval to retain CHPRC priority samples in archive at the 222-S facility for FY2017.
    - Facilitated transmittal of the Hanford Site Building Water Supply Analysis as requested by MSA Water Utilities.
    - Facilitated effort between CHPRC Environmental and MSA inspection organizations to follow Ecology and RL guidance for RCRA inspections, specifically addressing the need for printed names before signatures on inspection reports. Process changes are ongoing.
  - o 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. Annual Forecast of Services:
    - Analyzing/verifying MSA usage based service forecast data between the in process FY2017 PMB/ETC submittal and the preliminary FY2017 MSA usage based forecast data provided to MSA in June. Final FY2017 MSA usage based forecast data due to MSA in October.
    - Closed with MSA Radiological Site Services on a forecast approach for the incoming RCCC dosimetry and equipment calibration services so that FY2017 rates could be developed and issued.
    - Facilitated emerging request and delivery of additional boilermaker and electrician resources for the PFP project.
  - 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.
    - Published Memorandum of Agreement for the performance and payment of services between Battelle Memorial Institute, Operator of PNNL and CHPRC.
    - Finalized TOC-ICD-PRC-00034, Interface Control Document between WRPS and CHPRC for Lock and Tag Authority for specific Breakers at Canister Storage Building.
    - Working with MSA and WRPS to draft a new AIA (PRC-AIA-OHCs-04011, Revision 0) between CHPRC, MSA, and WRPS for Incurred Cost Audits of Shared Subcontractors.
    - Published new MOA with WCH at the request of the WCH RCCC close out team.

- Published revisions to three AIAs, in support of the RCCC scope transition (removing WCH from the agreements): HNF-58413, Revision 1, HNF-58406, Revision 2, and HNF-51041.
- Published ICD TOC-ICD-59228, Revision 0, between WRPS/ETF and CHPRC/Modutank.
- Finalized Interface Control Document (ICD) with MSA for Electrical utilities; it is routing for signature.
- o J.3 Table Maintenance:
  - Received formal correspondence from MSA regarding the transmittal of the joint J.3 table updates associated with RCCC transition and other miscellaneous changes.
- o J.13 and J.14 Tables Maintenance
  - Continue tracking new assignments related to the RCCC transition to PRC will be captured in the next J.13/J.14 table review and other contract related actions
- o Internal Operations:
  - Continue working toward completion of the remaining 11 CRRS actions resulting from the Interface Management work site assessment of SOWs for services provided to CHPRC by MSA. 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 Representative (BTRs)/POCs in this effort, SOWs were redlined with recommended changes and sent out with a communique from Interface Management.
  - Working several documents revisions/cancellations related to the RCCC scope transfer to PRC. Involved parties include City of Richland, PNNL, and MSA.
- **Information Management:**
  - o Processed 21,414 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 September, Project Integration facilitated and supported the processing of 37 BCRs.
- o Following the DOE-HQ Office of Project Management Oversight & Assessments (PM-30) release of the EVMSIH (2.0), CHPRC has been requested by PM-30 to support a PM-30/Energy Facility Contractors Group (ECOG) in a joint session/track presentation at the upcoming Integrated Project Management Workshop (IPMW) held in Bethesda, MD, October 31-November 2, 2016, where CHPRC will co-lead the discussion on "EVMS Self Governance". CHPRC will also represent and attend the EFCOG Project Controls Subgroup (PCSG) meeting immediately following the IPMW/PM-30/EFCOG joint sessions. In addition to supporting PM-30 and EFCOG, CHPRC is developing an implementation strategy with respect to the current system description, procedures, and guides.
- o Supported the DOE-HQ External Independent Review (EIR) of PBS RL-0041 Capital Asset Project scope during the week of September 12, 2016.
- o Submitted the FY2017 PMB Update/Long Range Plan to RL for approval on September 8, 2016.

### Program Integration

- **000 Project EVM Support:**
  - o Prepared and submitted BCR-000-16-006R0 – Implement PC&PI Re-structure into Baseline. This Baseline Change Request incorporates the re-organization of the project controls organization into three divisions, with a separate Prime Contract Compliance group.
  - o Updated FY2017 Estimate To Complete (ETC) for RCCC transition effects.

- **Risk Management and Reporting:**
  - Completed PC&PI-2016-MOP-18023, Field Execution Schedule practices for RL-0011, and RL-0012. Factual accuracy review by the project is scheduled to complete mid-October.
  - Provided support for the DOE-HQ EIR of PBS RL-0041 Capital Asset Project scope.
  - Presented Risk Management process overview to the 300-296 project to ensure proactive approach to Risk Management.
  - 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.
  - Completed quarterly risk evaluations to support FY2017 ETC risk analysis.
  - Issued the CHPRC August Monthly Performance Report to RL.
  - Issued the CHPRC August Monthly Highlights to the Nuclear Business Group.
  
- **Strategic Management:**
  - Progress continues to be made towards completion of the Productivity Corrective Actions. Completed 23 of 24 actions (status at 96 percent).
  - Delivered the Long Range Planning information as part of the Annual PMB submittal provided to RL on September 8, 2017.
  - 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.
  - Integrated 2017 PMs and TPA Milestone dates to support revision of the Integrated Priority List.
  - Held monthly Productivity Tracking Log meeting with the projects. Discussed company level metrics and Projects briefed their metrics of productivity delays and efficiencies.
  - Held productivity tracking workshops with projects to ensure data consistency and define new causal codes to allow for metric tracking.
  - Productivity tracking process was presented to the RL Project Control Officers (PCO) and support personnel; PCOs have been invited to productivity tracking monthly meetings.
  - Revised 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.
  - 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.
  - Provided information associated with an October 1959 burial of two PUREX H-4 concentrator tube bundles currently being investigated by SGRP.
  - 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**
  - Supported W-130 heating, ventilation, and air conditioning (HVAC) Operability Acceptance Test procedures.
  - Reviewed the REDOX Roof design.
  - Supported electronic engineering package process.
  - Performed chemical compatibility engineering evaluation grouting for WEST cells.

- o Completed Engineered Container Retrieval and Transfer System (ECRTS) Configuration Management Work Site Assessment.
- o Supported Site wide programs electrical safety forum.
- o Review and approval of submittals for ECRTS equipment installation.
- **Training and Procedures**
  - o 000 Support:
    - Completed Vision training for new training staff.
    - Completed management assessments on Control of Work Processes and Training Program Management and Administration.
    - Briefed Facility Managers' Forum on the Procedure Periodic Review process.
    - Participated in Multi Prime Contractor Learning Management Kaizen.
    - Supported demolition readiness assessment training and procedures activities.
  - o RL-0012 Support:
    - Prepared video, hands-on materials, and exams and conducted 4th quarter continuing training at 100K.
    - Researched NCO training on decontamination.
    - Completed first draft Engineered Container Retrieval and Transfer System (ECRTS) General Information computer-based training.
  - o RL-0013 Support:
    - Completed internal audit follow up actions at Solid Waste Operations Complex (SWOC).
  - o RL-0030 Support:
    - Developed Well Water Treatment briefing.
    - Completed procedure changes in support of ECR-16-000803, 200WP&T Sodium Thiosulfate MBR CIP De-Chlorination Chemical Modification Impact Review.
  - o RL-0040 Support:
    - Participated in surveillance walk downs to become more familiar with facilities at CPS&M.
  - o RL-0041 Support:
    - Briefed Facility Managers' Forum on the RCCC Procedures Transition.
    - Presented Continuing Training to River Corridor Nuclear Chemical Operators (NCO).
- **Operations Program**
  - o ConOps/Work Control/Conduct of Work
    - 000 Support:
      - Performed work site assessment for Conduct of Operations Program (Operator Aids and Timely Orders), all projects
      - Completed work site assessments (WSA) for work management, procedure compliance.
      - Extended calibration contract with ENW and added RCCC equipment to scope.
      - Continued work on General Industrial Hazards Analysis (GHA)/Craft Specific Hazards Analysis (CHA) revision/alignment.
      - Attended Facility Managers Forum to discuss potential changes to job control system (JCS) to support Facilities Information Management System (FIMS) reporting.
      - Supported site wide lockout/tagout (LOTO) kaizen follow up meeting.
    - RL-0011 Support:
      - Supported causal analysis for hazardous energy – Cut Freon line.
      - Supported causal analysis for hazardous energy – Cut live wire.
      - Prepared list of active measuring & testing equipment (M&TE) for PFP.
      - Supported Cold and Dark briefings at PFP.
    - RL-0012 Support:
      - Supported causal analysis for hazardous energy – Asbestos bulk sampling at 2710-S.

- RL-0041 Support:
  - Meeting with B324 facility to establish path forward for upcoming post transition planning.
- o Emergency Preparedness (EP)
  - 000 Support:
    - Submitted CHPRC Emergency Readiness Assurance Plan input to MSA.
    - Completed joint CHPRC/MSA closure review of EP Program assessments findings.
    - Commenced developing programmatic path to Green from Executive Safety Review Board (ESRB) feedback.
    - Evaluating Letters of Instructions (LOIs) from CH2M headquarters to review for proposed addition to Self-Assessment.
    - Sent an EP Coordinator to attend advanced ICS-300 training in Seattle.
  - RL-0011:
    - Modified ZCR-001 CAM Alarm procedure.
    - Reviewed PFP Readiness Assessment (RA) report.
    - Conducted Limited Scope coached and Limited Scope Event Scene Evaluated Drills.
    - Approved FY2017 Annual Drill Plan.
  - RL-0012 Support:
    - Approved FY2017 Annual Drill Plans.
    - Provided Course #600230, Recognizing and Classifying Emergencies, to 100K and 618-10 Building Emergency Directors and Incident Command Post Communicators.
    - Conducted 100K Full-Up Evaluated Drill.
  - RL-0013 Support
    - Approved FY2017 Annual Drill Plans.
    - Working Bldg 324 Transition documentation
    - Conducted Canister Storage Building (CSB) Independent Evaluation Full up EP drill.
    - Finalized WSA on CHPRC Continuity of Operations (COOP) for FY2016.
    - Finalized COOP Drill report.
    - Participated in a meeting for RL/ORP/MSA/CHPRC Continuity Readiness Assurance Report (CRAR) Attachment for ERAP. Identified information to provide for CHPRC to compete Combined CRAR for Hanford Site.
  - RL-0030 Support
    - Approved FY2017 Annual Drill Plan.
    - Conducted Operational Drill at S&GRP Sampling Group.
  - RL-0040 Support
    - Approved FY2017 Annual Drill Plan.
    - Updated the 216WS Facility Response Plan (FRP) to include the 100N waste sites.
  - RL-0041 Support
    - Initiated transition implementation review of EP procedures.

### Communications

- o Communications supported RL in the development of news articles that ran in local media:
  - An article was published in the Tri-City Herald, discussing CHPRC's involvement in the Union Gospel Mission. CHPRC donated \$20,000.
- o Communications supported RL in the development of social media posts featuring:
  - At the request of DOE-EM, CHPRC produced the first of a series of "A Day in the Life" videos. This first video featured Ray Lemmons, a radiological control technician that works at the K Basin. The video was also featured on CHPRC's social media pages.

- Before and after aerial photos of PFP were featured to illustrate the buildings demolished between 2010 and 2016.
- Produced a social media post on the recent demolition of an old pump and treat in N Area.
- o Communications supported the S&GRP with comment summary document development from the 100-D/H Proposed Plan comment period ending September 16. RL received 94 comments from the public and six from stakeholder groups. CHPRC drafted the response document provided to RL and Washington State Department of Ecology (Ecology) in late September.
- o Communications assisted RL in hosting a site tour for Chris Schneimiller, Weapons Complex Monitor editor. The tour was intended to give Chris an overview of the site. Stops included the 324 Building, PFP, ERDF, 200 West P&T and 100K Area. Annette Cary, Tri-City Herald writer, also attended the tour of the 324 Building.

## 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	0.6	0.6	0.6	(0.0)	0.3%	0.0	4.0%
Internal Audit	0.1	0.1	0.0	0.0	0.0%	0.1	43.0%
General Counsel	0.2	0.2	0.1	0.0	0.0%	0.0	24.6%
Communications	0.1	0.1	0.1	0.0	0.0%	(0.0)	-12.6%
Safety, Health, Security and Quality	1.7	1.7	1.2	(0.0)	-0.1%	0.5	28.6%
Environmental Program and Strategic Planning	0.6	0.6	0.4	0.0	0.0%	0.2	26.2%
Business Services	2.4	2.4	3.2	0.0	0.0%	(0.8)	-31.9%
Prime Contract and Project Integration	2.4	2.4	1.9	0.0	0.0%	0.5	22.4%
Project Technical Services	0.8	0.8	0.9	(0.0)	-0.2%	(0.1)	-7.0%
<b>Indirect WBS 000 Total</b>	<b>9.0</b>	<b>9.0</b>	<b>8.5</b>	<b>(0.0)</b>	<b>-0.0%</b>	<b>0.4</b>	<b>5.1%</b>

Numbers are rounded to the nearest \$0.1 million.

### Indirect WBS 000

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

The variance is within reporting thresholds.

#### CM Cost Performance: (+\$0.4M/+5.1%)

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	5.7	5.7	5.5	(0.0)	-0.0%	0.2	2.9%	5.7
Internal Audit	1.1	1.1	1.1	0.0	0.0%	0.1	6.0%	1.1
General Counsel	1.5	1.5	1.8	0.0	0.0%	(0.3)	-19.0%	1.5
Communications	1.0	1.0	1.1	0.0	0.0%	(0.1)	-9.5%	1.0
Safety, Health, Security and Quality	15.0	15.0	12.3	(0.0)	-0.1%	2.7	18.2%	15.0
Environmental Program and Strategic Planning	5.0	5.0	4.3	0.0	0.0%	0.7	14.0%	5.0
Business Services	21.3	21.3	20.0	0.0	0.0%	1.6	7.5%	21.3
Prime Contract and Project Integration	21.1	21.1	18.6	0.0	0.0%	2.5	11.8%	21.1
Project Technical Services	7.1	7.1	6.6	0.0	0.1%	0.5	6.4%	7.1
<b>Indirect WBS 000 Total</b>	<b>78.8</b>	<b>78.8</b>	<b>71.0</b>	<b>(0.0)</b>	<b>-0.0%</b>	<b>7.8</b>	<b>9.9%</b>	<b>78.8</b>

Numbers are rounded to the nearest \$0.1 million.

### Indirect WBS 000

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

The variance is within reporting thresholds.

#### FYTD Cost Performance: (+\$7.8M/+9.9%)

The favorable cost variance is primarily due driven in procurement by the following: WBS 000.17.03.02.02 HCOS Hardware +\$154K, due to desktop computing refresh purchases made using P-card (materials) rather than subcontract (procurement) as originally planned. WBS 000.17.03.02.05 IRM Internet/Intranet +\$415K, due to on-demand service realizing less requests. WBS 000.17.03.02.08 IRM Systems O&M +\$435K, due to on-demand service realizing less requests. Partially offset due to a significant number of labor hours that have been charged to WBS elements outside the Legal Department.



## RISK MANAGEMENT STATUS

<p><b>Unassigned Risk</b></p> <p><b>Risk Passed</b></p> <p><b>New Risk</b></p> <p><b>Change</b></p>	<p> Opportunity currently realized, or mitigation efforts are currently working toward, or after risk trigger with no foreseeable impacts.</p> <p> Mitigation efforts are currently working toward risk trigger with the possibility of actions not in place prior to risk occurrence. Recovery actions may be needed.</p> <p> Risk currently realized, or risk mitigation efforts are past risk trigger date with foreseeable impacts. Recovery actions needed.</p>	<p> Increased Confidence</p> <p> No Change</p> <p> Decreased Confidence</p>
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Risk Title	Unmitigated Risk Impacts	Assessment		Comments																	
		Month	Trend																		
<b>Executive Level Risks</b>																					
<b>Explanation of major changes to the project monthly spotlight chart:</b> No major changes to the risk profile for the month of <b>September</b> .																					
<b>Realized Risks</b> (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.  <b>Risk Handling Strategy:</b> Avoid  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$5 million, 40 days			<b>Risk Event:</b> CHPRC continues to experience higher than anticipated attrition for FY2016.  <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="width: 70%;">Risk recovery action(s)</th> <th style="width: 10%;">Risk Date</th> <th style="width: 10%;">FC Date</th> <th style="width: 10%;">%</th> </tr> </thead> <tbody> <tr> <td>Develop/implement CHPRC People Legacy Program.</td> <td rowspan="4" style="text-align: center;">FY2015</td> <td style="text-align: center;">On Going</td> <td style="text-align: center;">N/A</td> </tr> <tr> <td>Target recruiting for key project resources</td> <td style="text-align: center;">On Going</td> <td style="text-align: center;">N/A</td> </tr> <tr> <td>Continue PFP resource transition plan</td> <td style="text-align: center;">On Going</td> <td style="text-align: center;">N/A</td> </tr> <tr> <td>River Corridor Closure recruitment</td> <td style="text-align: center;">On Going</td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table> <b>Recovery Action Assessment:</b> 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																		
<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)																					
No critical risks identified in the month of <b>September</b> .																					
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)																					
No high threat value risks identified in the month of <b>September</b> .																					
<b>Unassigned Risks</b> (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



September 2016  
CHPRC-2016-09, 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**

**September 2016  
CHPRC-2016-09, 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 December 22, 2016. 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
<b>COMPLETE</b> KPP Rooms/Areas Ready for Demo	-	-	60	60 rooms/areas

## KEY ACCOMPLISHMENTS

### RL-0011\_C1 Accomplishments

- Work remaining on this capital asset project is removal of the gloveboxes from the 234-5Z facility. All work associated with glovebox process equipment removal has been completed. Final preparations to support the physical removal of the remaining gloveboxes will be completed by December 22, 2016. 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							
<b>RL-0011/WBS-011.05.01.01.06 (CAP.1)</b>										
<b>Explanation of major changes to the project monthly spotlight chart:</b> No major changes to the monthly spotlight chart in the month of <b>September</b> .										
<b>Realized Risks</b> (Risks that are currently impacting project cost/schedule)										
No realized risks identified for RL-0011/WBS-011.05.01.01.06 (CAP.1) in the month of <b>September</b> .										
<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)										
<b>FY2017 Risk Triggers</b> (Risk could be realized in FY2017)										
PFP-DEMO-21: Glove Box/Equipment Removal/Demolition Material Handling Event	A material handling event (e.g., dropped piece of process equipment) occurs during the PFP demolition resulting in cost impacts and schedule delays. <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Low (10% to 25%) <b>Worst Case Impacts:</b> \$150K, 30 days	<span style="color: green; font-size: 20px;">●</span>	<span style="color: black; font-size: 20px;">↔</span>	<b>Risk Trigger:</b> During pre-demolition/demolition activities in <b>FY2017</b> .  <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 5px;"> <thead> <tr style="background-color: #e0e0e0;"> <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> <b>Mitigation Assessment:</b> <b>Mitigation Assessment:</b> No change in the month of <b>September</b> . 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								
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)										
No high threat value risks identified for RL-0011/WBS-011.05.01.01.06 (CAP.1) in the month of <b>September</b> .										
<b>Unassigned Risks</b> (Pending ownership of identified risks/opportunities)										
No unassigned risks identified for RL-0011/WBS-011.05.01.01.06 (CAP.1) in the month of <b>September</b> .										

## CRITICAL PATH SCHEDULE

The PFP Critical Schedule Path is a resource driven float path, in which the critical path starts with removal of Hazmat materials on the first and second floors of 236-Z. Once this is complete, the team transitions to prepping and protecting 234-5Z gloveboxes for demolition. Next, the team performs focus decon throughout the facility, followed by chemical draining. Completion of Cold & Dark activities occurs following the chemical draining, 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/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.

## 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	10/5/17	Progress continued to work towards 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 December 22, 2016. 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 29 day loss for the month of September as impacts are still being recognized as a result of diverting all resources on critical path to finish the ready for demolition activities in PRF. 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.

# 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



September 2016  
CHPRC-2016-09, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

CONTRACT PERFORMANCE REPORT FORMAT 1 - WORK BREAKDOWN STRUCTURE													FORM APPROVED OMB No. 0704-0188				
<b>1. CONTRACTOR</b>			<b>2. CONTRACT</b>			<b>3. PROGRAM</b>			<b>4. REPORT PERIOD</b>			DOLLARS IN Thousands of \$					
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 / 08 / 22								
b. LOCATION (Address and ZIP Code) Richland, WA			b. NUMBER RL14788			b. PHASE			b. TO (YYYYMMDD) 2016 / 09 / 30								
			c. TYPE CPAF			d. SHARE RATIO			c. EVMS ACCEPTANCE NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18								
<b>5. CONTRACT DATA</b>																	
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 344,614	g. CONTRACT CEILING 327,423	h. ESTIMATED CONTRACT CEILING 344,614		i. DATE OF OTB/OTS (YYYYMMDD)					
<b>6. ESTIMATED COST AT COMPLETION</b>																	
			MANAGEMENT ESTIMATE AT COMPLETION (1)		CONTRACT BUDGET BASE (2)		VARIANCE (3)		7. AUTHORIZED CONTRACTOR REPRESENTATIVE								
a. BEST CASE			332,344						a. NAME (Last, First, Middle Initial) Dickerson, Kala K			b. TITLE Prime Contract Compliance Manager					
b. WORST CASE			335,250						c. SIGNATURE			d. DATE SIGNED (YYYYMMDD)					
c. MOST LIKELY			334,737		317,545		-17,192										
<b>8. PERFORMANCE DATA</b>																	
CAPN.PBS Control Account.PARS 2 WBS (2)		CURRENT PERIOD				CUMULATIVE TO DATE				REPROGRAMMING ADJUSTMENTS			AT COMPLETION				
		BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (9)		VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)
ITEM (1)	WORK SCHEDULED (2)	WORK PERFORMED (3)			SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)						
RL-0011 Nuclear Mat Stab & Disp PFP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RL_0011_C1.02 Maintain Safe & Compliant PFP	39	10	-16	-29	25	235,398	234,524	259,080	-874	-24,555	0	0	0	235,514	259,556	-24,042	
RL_0011_C1.06 Project Management & Support	0	0	0	0	0	11,990	11,990	12,477	0	-487	0	0	0	11,990	12,477	-487	
RL_0011_C1.90 Usage Based Services Distributions -PBS RL-11	0	0	0	0	0	7,221	7,221	7,731	0	-510	0	0	0	7,221	7,731	-510	
RL_0011_C1.98 Ramp-up and transition	0	0	0	0	0	19,399	19,399	19,253	0	147	0	0	0	19,399	19,253	147	
RL_0011_C1.99 PBS RL-11 UBS, G-n-A, Direct Distrib	0	0	0	0	0	41,028	41,028	33,328	0	7,700	0	0	0	41,028	33,328	7,700	
b. COST OF MONEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
c. GENERAL AND ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
d. UNDISTRIBUTED BUDGET																	
e. SUBTOTAL	39	10	-16	-29	25	315,036	314,162	331,867	-874	-17,705	0	0	0	315,152	332,344	-17,192	
f. MANAGEMENT RESERVE														2,393			
g. TOTAL	39	10	-16	-29	25	315,036	314,162	331,867	-874	-17,705	0	0	0	317,545			
<b>9. RECONCILIATION TO CONTRACT BUDGET BASELINE</b>																	
a. VARIANCE ADJUSTMENT																	
b. TOTAL CONTRACT VARIANCE													-874	-17,705	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

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME MPB - RL_0011_C1 - PFP D&D (ARRA/Base)		a. FROM (YYYYMMDD) 2016 / 08 / 22	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2016 / 09 / 30	
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)								
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	39	10	-16	-29	25	254,609	253,735	279,287	-874	-25,552	0	0	0	254,725	279,763	-25,038		
b. COST OF MONEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
c. GENERAL AND ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
d. UNDISTRIBUTED BUDGET																		
e. SUBTOTAL (Performance Measurement Baseline)	39	10	-16	-29	25	315,036	314,162	331,867	-874	-17,705	0	0	0	315,152	332,344	-17,192		
f. MANAGEMENT RESERVE														2,393				
g. TOTAL	39	10	-16	-29	25	315,036	314,162	331,867	-874	-17,705	0	0	0	317,545				

CLASSIFICATION (When Filled In)



CLASSIFICATION (When Filled In)

**CONTRACT PERFORMANCE REPORT  
FORMAT 4 - STAFFING**

Dollars in: FTE

FORM APPROVED  
OMB No. 0704-0188

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME MPB - RL_0011_C1 - PFP D&D (ARRA/Base)		a. FROM (YYYYMMDD) 2016 / 08 / 22	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2016 / 09 / 30	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18			

5. PERFORMANCE DATA															
WBS.Resp Org Group  ORGANIZATIONAL CATEGORY (1)	ACTUAL CURRENT PERIOD (2)	ACTUAL END OF CURRENT PERIOD (Cumulative) (3)	FORECAST (Non-Cumulative)												AT COMPLETION (15)
			SIX MONTH FORECAST BY MONTH (Enter names of months)						ENTER SPECIFIED PERIODS						
			+1 OCT 2016 (4)	+2 NOV 2016 (5)	+3 DEC 2016 (6)	+4 JAN 2016 (7)	+5 FEB 2016 (8)	+6 REMAIN FY17 (9)	FY18 (10)	FY19-LC (11)	ATCOMPLETE (12)	(13)	(14)		
35 - Business Services	0	17	0	0	0	0	0	0	0	0	0	0	0	0	17
3B - PFP Closure Project	0	15403	9	11	12	1	0	8	0	0	0	0	0	0	15445
<b>g. TOTAL DIRECT</b>	0	15420	9	11	12	1	0	8	0	0	0	0	0	0	15462

CLASSIFICATION (When Filled In)

**CLASSIFICATION (When Filled In)**

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

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

<b>1. CONTRACTOR</b>	<b>2. CONTRACT</b>	<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>
a. NAME CH2M HILL Plateau Remediation Company	a. NAME Plateau Remediation Contract	a. NAME MPB - RL_0011_C1 - PFP D&D (ARRA/Base)		a. FROM (YYYYMMDD)  2016/08/22
b. LOCATION (Address and ZIP Code) Richland, WA	b. NUMBER RL14788	b. PHASE		b. TO (YYYYMMDD)  2016/09/30
	c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE No X Yes (YYYYMMDD) 2009 / 09 / 18	

**Direct Projects**

5. Evaluation	Budget	Earned	Actuals	SV in \$	SV in %	CV in \$	CV in %	SPI	CPI
Current:	39	10	-16	-29	-75%	25	260%	0.25	-
Cumulative:	315,036	314,162	331,867	-874	0%	-17,705	-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%	-	2.08			

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

**Current Period:**  
Schedule Variance: The current month negative schedule variance is associated with delays in removing the 145-1 glovebox as a result of resources being diverted to support ready for demolition activities in PRF, and early preparation for removal of the HC-6 pencil tanks from the 234-5Z labs. The removal of the HC-6 pencil tanks was originally planned to be executed in the fiscal month of September and occurred in the fiscal month of August.

Cost Variance: The current month positive cost variance is associated with recognized efficiencies while prepping the Room 172 Tent for removal from 234-5Z backside rooms.

**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 October 5, 2017, a loss of 29 calendar days since August, 2016. This is as a result of the continuation of diverting resources to getting the PRF facility ready for demolition. 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 25, 2017. Efficiencies were identified in 236-Z (PRF) that allowed work to be performed on filter boxes in parallel with the gallery gloveboxes allowing acceleration of the start of 236-Z demolition. This is turn accelerates when additional field team resources can be 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 continue progress at the rate that has been experienced in the past several months. 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 ~\$17.7M and 5.6%, and CPI of .95 reflect impacts of the safety pauses, stop works, contamination events, and increased complexity of the HA-9A/HC-9B size reduction efforts. 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 decrease of \$165K in the month of September is not significant.

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 September.
- Forecast Schedule with No Baseline: None in the month of September.
- UB Balance: None in the month of September.
- Negative ACWP: None in the month of September.
- EAC Analysis: Best Case = \$332,344; Most Likely = \$334,737; Worst Case = \$335,250
- 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: Move Balance of FY 2016 PBS RL-011 Management Reserve to FY 2017 - PFP CAP 1, resulting in no change to the overall MR.
- Freeze Period Changes: None in the month of September.
- Retroactive Changes: None in the month of September.
- EVT Changes: None in the month of September.

**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

September 2016  
CHPRC-2016-09, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

Progress continued to work towards 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 late 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	-	1	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	-	1	15	3
Turnover Facility to Long Term Surveillance & Maintenance	-	-	-	-

## KEY ACCOMPLISHMENTS

### RL-0011\_C2 Accomplishments

- Demolition of 2727-Z building was completed in the month of September.

### 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													
<b>RL-0011/WBS-011.05.C3 (CAP.2)</b>																
<b>Explanation of major changes to the project monthly spotlight chart:</b> No major changes to the monthly spotlight chart in the month of <b>September</b> .																
<b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>																
No realized risks identified for RL-0011/WBS-011.05.C3 (CAP.2) in the month of <b>September</b> .																
<b>Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)</b>																
<b>FY2017 Risk Triggers (Risk could be realized in FY2017)</b>																
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 PFP demolition resulting in cost impacts and schedule delays. <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Low (10% to 25%) <b>Worst Case Impacts:</b> \$150K, 30 days			<b>Risk Trigger:</b> During pre-demolition/demolition activities in <b>FY2017</b> .  <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Mitigation action(s)</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td style="text-align: center;">N/A</td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table> <b>Mitigation Assessment:</b> No changes in the month of <b>September</b> . 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 cross-cutting process support systems (i.e. ventilation) result in cost impacts, and schedule delays. <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$1.5 million, 60 days			<b>Risk Trigger:</b> During pre-demolition/demolition activities in <b>FY2017</b> . Dates tracked in the FES.  <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Mitigation action(s)</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr> <td>Identify and pre-rig equipment with lifting slings.</td> <td style="text-align: center;">6/01/17</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> <b>Mitigation Assessment:</b> No changes in the month of <b>September</b> . At this time no alternative course of actions needed.	Mitigation action(s)	FC Date	%	Identify and pre-rig equipment with lifting slings.	6/01/17	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.	6/01/17	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														
<b>High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)</b>																
<b>FY2017 Risk Triggers (Risk could be realized in FY2017)</b>																
PFP-DEMO-05: Inclement Weather	Inclement weather, including moderate winds, low or high temperatures and thunderstorms will impact the demolition of PFP. <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$0K, 32 days  *Cost increase will result in cost per day impacts from crews, and hotel load.			<b>Risk Trigger:</b> During pre-demolition/demolition activities in <b>FY2017</b> . Dates tracked in the FES.  <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Mitigation action(s)</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td style="text-align: center;">N/A</td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table> <b>Mitigation Assessment:</b> No changes in the month of <b>September</b> . 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.	Mitigation action(s)	FC Date	%	None identified at this time.	N/A	N/A						
Mitigation action(s)	FC Date	%														
None identified at this time.	N/A	N/A														
<b>Unassigned Risks (Pending ownership of identified risks/opportunities)</b>																
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.																

Risk Title Risk Owner	Unmitigated Risk Impacts	Assessment		Comments
		Month	Trend	
<b>RL-0011/WBS-011.05.C3 (CAP.2)</b>				
PFP-DEMO-18: Level of Readiness Effort	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><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 with removal of Hazmat materials on the first and second floors of 236-Z. Once this is complete, the team transitions to prepping and protecting 234-5Z gloveboxes for demolition. Next, the team performs focused decontamination throughout the facility, followed by chemical draining. Completion of Cold & Dark activities occurs following the chem draining, 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/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.

### 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	12/14/2017	Progress continued to work towards 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.

# 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



September 2016  
CHPRC-2016-09, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

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

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

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME RL_0011_C2 PFP Demolition Capital Asset Project		a. FROM (YYYYMMDD) 2016 / 08 / 22	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2016 / 09 / 30	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO X YES (YYYYMMDD) 2009 / 09 / 18			

<b>5. CONTRACT DATA</b>								
a. QUANTITY 1	b. NEGOTIATED COST 51,683	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 0	d. TARGET PROFIT/FEE 5,000	e. TARGET PRICE 56,683	f. ESTIMATED PRICE 53,739	g. CONTRACT CEILING 56,683	h. ESTIMATED CONTRACT CEILING 53,739	i. DATE OF OTB/OTS (YYYYMMDD)

<b>6. ESTIMATED COST AT COMPLETION</b>				<b>7. AUTHORIZED CONTRACTOR REPRESENTATIVE</b>			
	MANAGEMENT ESTIMATE AT COMPLETION (1)	CONTRACT BUDGET BASE (2)	VARIANCE (3)	a. NAME (Last, First, Middle Initial) Dickerson, Kala K	b. TITLE Prime Contract Manager		
a. BEST CASE	45,165			c. SIGNATURE			d. DATE SIGNED (YYYYMMDD)
b. WORST CASE	54,137						
c. MOST LIKELY	48,739	51,683	2,945				

<b>8. PERFORMANCE DATA</b>																	
CAPN.PBS Control Account.PARS 2 WBS (2)  ITEM (1)	CURRENT PERIOD						CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (9)	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)	
	WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)							
RL-0011 Nuclear Mat Stab & Disp																	
RL_0011_C2.05 Disposition PFP	5,525	802	1,374	-4,723	-572	35,273	9,577	11,012	-25,696	-1,435	0	0	0	48,109	45,165	2,945	
b. COST OF MONEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
c. GENERAL AND ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
d. UNDISTRIBUTED BUDGET																	
e. SUBTOTAL	5,525	802	1,374	-4,723	-572	35,273	9,577	11,012	-25,696	-1,435	0	0	0	48,109	45,165	2,945	
f. MANAGEMENT RESERVE														3,574			
g. TOTAL	5,525	802	1,374	-4,723	-572	35,273	9,577	11,012	-25,696	-1,435	0	0	0	51,683			

<b>9. RECONCILIATION TO CONTRACT BUDGET BASELINE</b>																
a. VARIANCE ADJUSTMENT																
b. TOTAL CONTRACT VARIANCE																
														51,683	45,165	6,519

CLASSIFICATION (When Filled In)

CLASSIFICATION (When Filled In)

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

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

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME RL 0011 C2 PFP Demolition Capital Asset Project		a. FROM (YYYYMMDD) 2016 / 08 / 22	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2016 / 09 / 30	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> X YES <input checked="" type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18			

WBS.Resp Org Group  ITEM (1)	CURRENT PERIOD					CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL COST WORK	VARIANCE		BUDGETED COST		ACTUAL COST WORK	VARIANCE		COST VARIANCE	SCHEDULE VARIANCE	BUDGET	BUDGETED	ESTIMATED	VARIANCE
	WORK SCHEDULED (2)	WORK PERFORMED (3)	(4)	SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	(9)	SCHEDULE (10)	COST (11)	(12a)	(12b)	(13)	(14)	(15)	(16)
3B - PFP Closure Project	5,525	802	1,374	-4,723	-572	35,273	9,577	11,012	-25,696	-1,435	0	0	0	48,109	45,165	2,945
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)	5,525	802	1,374	-4,723	-572	35,273	9,577	11,012	-25,696	-1,435	0	0	0	48,109	45,165	2,945
f. MANAGEMENT RESERVE														3,574		
g. TOTAL	5,525	802	1,374	-4,723	-572	35,273	9,577	11,012	-25,696	-1,435	0	0	0	51,683		

CLASSIFICATION (When Filled In)



CLASSIFICATION (When Filled In)

**CONTRACT PERFORMANCE REPORT  
FORMAT 4 - STAFFING**

Dollars in: FTE

FORM APPROVED

OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 5.0 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Executive Services Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ORGANIZATION. SUBMIT COMPLETED FORMS IN ACCORDANCE WITH CONTRACTUAL REQUIREMENTS.

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME RL 0011 C2 PFP Demolition Capital Asset Project		a. FROM (YYYYMMDD)	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		2016 / 08 / 22	
		c. TYPE CPAF		d. SHARE RATIO		b. TO (YYYYMMDD)	
				c. EVMS ACCEPTANCE <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18		2016 / 09 / 30	

5. PERFORMANCE DATA			FORECAST (Non-Cumulative)											AT COMPLETION
WBS.Resp Org Group  ORGANIZATIONAL CATEGORY (1)	ACTUAL CURRENT PERIOD (2)	ACTUAL END OF CURRENT PERIOD (Cumulative) (3)	SIX MONTH FORECAST BY MONTH (Enter names of months)						ENTER SPECIFIED PERIODS					
			+1 OCT 2016 (4)	+2 NOV 2016 (5)	+3 DEC 2016 (6)	+4 JAN 2016 (7)	+5 FEB 2016 (8)	+6 MAR 2016 (9)	REMAIN FY17 (10)	FY18 (11)	FY19-LC (12)	ATCOMPLETE (13)	(14)	
3B - PFP Closure Project	45	88	41	51	68	59	65	84	554	16	0	0	0	1026
<b>g. TOTAL DIRECT</b>	<b>45</b>	<b>88</b>	<b>41</b>	<b>51</b>	<b>68</b>	<b>59</b>	<b>65</b>	<b>84</b>	<b>554</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1026</b>

CLASSIFICATION (When Filled In)

**CLASSIFICATION (When Filled In)**

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

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

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>	
<b>a. NAME</b> CH2M HILL Plateau Remediation Company		<b>a. NAME</b> Plateau Remediation Contract		<b>a. NAME</b> RL_0011_C2 PFP Demolition Capital Asset Project		<b>a. FROM (YYYYMMDD)</b> 2016/08/22	
<b>b. LOCATION (Address and ZIP Code)</b> Richland, WA		<b>b. NUMBER</b> RL14788		<b>b. PHASE</b>		<b>b. TO (YYYYMMDD)</b> 2016/09/30	
<b>c. TYPE</b> CPAF		<b>d. SHARE RATIO</b>		<b>c. EVMS ACCEPTANCE</b>			
				No	X	Yes	(YYYYMMDD) 2009 / 09 / 18

<b>Direct Projects</b>										
<b>5. Evaluation</b>	<b>Budget</b>	<b>Earned</b>	<b>Actuals</b>	<b>SV in \$</b>	<b>SV in %</b>	<b>CV in \$</b>	<b>CV in %</b>	<b>SPI</b>	<b>CPI</b>	
Current:	5,525.0	802.2	1,373.8	-4,722.7	-85.5%	-571.6	-71.2%		0.15	0.58
Cumulative:	35,272.5	9,576.7	11,011.7	-25,695.9	-72.8%	-1,435.0	-15.0%	0.27		0.87
	<b>BAC</b>	<b>EAC</b>	<b>VAC in \$</b>	<b>VAC in %</b>	<b>TCPI to BAC</b>	<b>TCPI to EAC</b>				
At Complete:	48,109.2	45,164.6	2,944.6	6.1%	1.04	1.13				

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

**Current Period:**  
 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. This is partially offset by completing demolition of a small ancillary facility (2727-Z). Demolition of 236-Z is targeted to begin early November 2016 while demolition of 234-5Z is targeted to begin in late 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 December 14, 2017, a loss of 33 calendar days since August. 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.

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 the demolition of the 2727-Z facility (small ancillary facility) and by less than assumed procurement of consumable materials as a result of the start of demolition of the main PFP facilities which is not expected to continue after demolition has been initiated.

**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 demolition of the ancillary buildings in the fall of 2016. 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.

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 RCWP. This is partially offset by the demolition of the 2727-Z and 2729-Z facilities (small ancillary facilities) and by less than assumed procurement impact.

**Schedule Impact:** Work efforts in getting 234-5Z ready for Cold & Dark resulted in a loss of 28 calendar days since August to the critical path to achieving the CD-4 closeout. The loss of schedule is a result of diverting resources to complete ready for demolition activities associated with the PRF Facility. 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 (\$2.0M) since August is the result of eliminating the PQ shift on 236-Z and 242-Z demolition, which is partially offset by an increase in the subcontracted MSA resources as a result of the delay in the initiating of 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 EVMS/SH:

- Schedule Margin Analysis: 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 September
- Forecast Schedule with No Baseline: No change in the month of September
- UB Balance: No change in the month of September
- Negative ACWP: No change in the month of September
- EAC Analysis: Best Case = \$45,165; Most Likely = \$48,739; Worst Case = \$54,137
- Negative CV > VAC: No change in the month of September
- MR Transactions: In the month of September two BCR's were implemented impacting the MR profile: 1.) Move Balance of FY2016 PBS RL-011 Management Reserve to FY 2017 - PFP CAP 2, resulting in no change to the MR profile. 2.) Revise G&A Rates on CAP Projects - PFP CAP 2, resulting in \$853.8K increase to the MR profile.
- Freeze Period Changes: No change in the month of September
- Retroactive Changes: No change in the month of September
- EVT Changes: No change in the month of September

**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**

**September 2016**  
**CHPRC-2016-09, Rev. 0**  
**Contract DE-AC06-08RL14788**  
**Deliverable C.3.1.3.1 - 1**

## PROJECT SUMMARY

- RL and CHPRC personnel agreed to PMs for FY2017 and these PMs were transmitted to CHPRC on September 30, 2016, via Correspondence No. 1604537.
- Completed PM-12-2-16: Receipt of Increments of STSC. Production Order (Vessels No. 2-13).
- The 105K West Facility DSA and TSR are in final editing with submittal expected in mid-October. The DSA/TSR must be submitted, approved, and implemented prior to KPAT activities that transfer 105KW Basin water out into the 105KW Basin Annex. Comments from the Hanford Fire Marshal review of the KW FHA have been received and are being resolved. Delays in FHA approval could result in further delays in DSA/TSR submittal.

## KEY ACCOMPLISHMENTS

### RL-0012\_C1\_1 Accomplishments

#### KW Basin Sludge Retrieval Capital Assest Project

- ECRTS Process Equipment Procurement:
  - Procurement Set #2: General Service (GS) Retrieval and Transfer System Components: Task #15 –Replacement spare hoses (H-204, H-214, H-217, H-417, and H-419) were receipt inspected and delivered to MASF. All work is complete.
  - Procurement Set #7: 105KW Annex, Stack Monitoring System – Factory acceptance testing of the stack sampler cabinet was successfully completed. As-built drawings with redline changes incorporated were released via DCN. The fabricator is preparing the final data package.
  - Procurement Set #8: STSC Vessels – STSC 410-413 have officially been declared iron-free based upon AVS QC inspections. These STSCs were delivered to the Hanford Site, receipt inspected by AVS, and delivered to HiLine for installation of instrumentation and appurtenances via procurement set #9. Significant progress has been made on the iron contamination causal evaluation. STSC 404-409 are at the ABW Shop staged for iron testing, cleaning, & retesting. STSC 402-403 are going to be tested/cleaned/retested at the HiLine fabrication shop in Richland. Once lessons learned from cleaning STSC 410-413 have been incorporated into the cleaning process/procedures, ABW and HiLine will be authorized to continue. DOE RL authorized CHPRC to resume fabrication on a limited work scope on STSC 414-424.
  - Procurement Set #9: SS STSC Assemblies (Instrumentation & Appurtenances) – HiLine has now received STSC 410-413 and will begin installation of instrumentation and appurtenances in October.
  - Procurement Set #11: Inert Gas and Auxiliary Ventilation System: Task #6 – Flow, pressure, and sensitive leak tests of hoses H-604, H-604-SPARE, and H-659-SPARE were completed. The final data packages were approved by CHPRC and the hoses were shipped to AVS for receipt inspection. Task #7 – CEES submitted a cost and schedule proposal to fabricate new TLSB spool pieces that will take the place of the troublesome 1½” diameter expansion joints. CHPRC approved the proposal and issued a Notice to Proceed to CEES.
  - Procurement Set #14: SS Control Panels: Task #11 - Condensate Level Junction Box ECRT-JB-502 was receipt inspected by AVS. Task #12 –The hoist chain stop block assemblies were delivered to MASF. All work is complete.
- MPAT Execution:
  - The MASF testing team continued post-test instrument calibrations; equipment disassembly/removal/cleaning, QA inspection & packaging, and preparation of the MPAT Test Report. As of September 2, 2016, 160 of 160 TDRs are closed. Five TDRs defer confirmation of deficiency resolution to the KPAT test scope.

**PTS Accomplishments**

- KW Annex Construction:
  - Awarded contract to fabricate the radiological instrument stands and nitrogen awning.
  - Placed Sand Filter in Sand Filter Shielding Assembly and continued activities (concrete wall scans and scaffolding) in support of completion of this equipment installation.
  - Installed conduit supports on exterior of Annex for future conduit routing.
  - Staged eight of nine pieces of the Mezzanine Equipment (Decant Box and Lift Fixture, electrical panels, Panel 302/401/202, Overfill Recovery Pump, and Floc Skid).
  - Completed shop fabrication of air spool modifications and tool shelf frame.
  - Built mounting racks for the installation of the additional panels.
- In Basin Modifications Construction:
  - Completed off-load and rough setting electrical panels into the Basin.
  - Awarded/administered contract to fabricate the booster pump spreader bars.
  - Completed setting and anchoring the XAGO Pump Skid and Flocculant Skids for East and Center Bay.
  - Installed the remaining sections of the Booster Pump temporary rail system.
  - Installed IXM Pipe, IXM Decant Filter Rack and connected supplied hoses for Decant.
  - Completed concrete leveling placement at the NE Corner Doghouse.
  - Completed HRB comment resolution and released the Booster Pump Installation Work Package.
  - Completed testing radiological equipment CAMs prior to installation in the Basin.

**MAJOR ISSUES****Construction Issue:**

The TLSB Pipe Spool delivery to 100KW construction continues to slip due to re-fabrication and resolution of test deficiencies.

**Corrective Action:**

Construction will continue to coordinate with ECRTS to find opportunities for schedule improvement.

**Status:**

Construction is tracking this issue closely and currently looking for opportunities to improve the schedule slip.

**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 twelve STSCs fabricated in FY2016 (first production run).

**Status:**

- STSC 410-413 were cleaned, retested, and accepted by CHPRC.
- STSC 404-409 have been shipped back to Arlington, WA for testing, cleaning, and retesting, as appropriate. This workscope 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 and ABW Technologies, Inc. personnel continue to investigate the source of iron contamination. A causal analysis is forecast to complete in late October.

**Issue:**

During MPAT, two production mass-flow instrument spools failed and had to be returned to the manufacturer for repair/replacement. While Engineering successfully implemented a “work-around” to complete MPAT, the production instrument spools must be installed and operational prior to KPAT.

**Corrective Action:**

Obtain replacement mass-flow instrument spools from Khrono Inc. and install in the 105K West Basin. Delays in obtaining these components from Khrono Inc. manufacturing in England have pushed splashing these components onto STP critical path. CHPRC Procurement and STP Project personnel completed a conference call with a representative from Khrono and received verbal commitment to have the components shipped to the US by October 18. This allows for calibration and delivery to the Hanford Site by October 27.

**Status:**

- Ship components from England on October 14.
- Components arrive in Massachusetts on October 18.
- Ship components from Massachusetts on October 20.
- Components arrive at Calibration Lab in California on October 21.
- Components are calibrated, shipped, and arrive in Richland by October 28.

## CORRECTIVE ACTION LOG

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

## RISK MANAGEMENT STATUS

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

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

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

Risk Title	Unmitigated Risk Impacts	Assessment		Comments																
		Month	Trend																	
<b>RL-0012/WBS-012 (CAP)</b>																				
<b>Explanation of major changes to the project monthly stoplight chart:</b>																				
No major changes to the monthly stoplight chart in the month of <b>September</b> .																				
<b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>																				
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.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$912K, 64 days	<span style="color: red; font-size: 24px;">●</span>	<span style="color: blue; font-size: 24px;">↑</span>	<b>Risk Event:</b> The project realized additional cost and schedule impacts in <b>September</b> as a result of <b>missing design details for the grounding of the Nitrogen Awning (DCN-477) and Release Shielding Calculations and KW Modified Annex ALARA Design Review Checklist (DCN-068)</b> . The project continues to evaluate the DCNs and the impacts to the project. A BCR requesting management reserve for in-scope unplanned work is projected to be <b>submitted in October 2016</b> .  <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="width: 70%;">Risk recovery action(s)</th> <th style="width: 10%;">Risk Date</th> <th style="width: 10%;">FC Date</th> <th style="width: 10%;">%</th> </tr> </thead> <tbody> <tr> <td>Provide weather protection for Annex Nitrogen Bottle station (DCN-445)</td> <td>06/16/16</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Add Hose &amp; Valve installation at transfer box air system (Mitigation of long lead item impact by awarding procurement released to FFP under Release #2) (DCN-410)</td> <td>12/16/15</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Release Shielding Calculations and KW Modified Annex ALARA Design Review Checklist (068)</td> <td>12/16/12</td> <td>10/31/16</td> <td>90</td> </tr> </tbody> </table> <b>Recovery Action Assessment:</b> DCNs are identified and reviewed at the weekly engineering meeting to define a path forward for the pending changes. The majority of the DCNs identified to-date <b>were</b> cleared by September month end. Delays to DCN completion are due to the lack of scope definition for the initial recovery action and priorities and commitments Engineering and other support resources. 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. 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	%	Provide weather protection for Annex Nitrogen Bottle station (DCN-445)	06/16/16	Complete	100	Add Hose & Valve installation at transfer box air system (Mitigation of long lead item impact by awarding procurement released to FFP under Release #2) (DCN-410)	12/16/15	Complete	100	Release Shielding Calculations and KW Modified Annex ALARA Design Review Checklist (068)	12/16/12	10/31/16	90
Risk recovery action(s)	Risk Date	FC Date	%																	
Provide weather protection for Annex Nitrogen Bottle station (DCN-445)	06/16/16	Complete	100																	
Add Hose & Valve installation at transfer box air system (Mitigation of long lead item impact by awarding procurement released to FFP under Release #2) (DCN-410)	12/16/15	Complete	100																	
Release Shielding Calculations and KW Modified Annex ALARA Design Review Checklist (068)	12/16/12	10/31/16	90																	

Risk Title	Unmitigated Risk Impacts	Assessment		Comments																																				
		Month	Trend																																					
<b>RL-0012/WBS-012 (CAP)</b>																																								
STP-072: Delayed STSC/ECRTS Procurement & Delivery	Material delivery and fabrication issues at ECRTS vendor facilities delay the delivery of the components to the Sludge Treatment Plant (STP) resulting in cost impacts and schedule delays.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$3,000K 120 days			<b>Risk Event:</b> 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"> <thead> <tr> <th>Risk recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Contract with National Association of Corrosion Engineers (NACE), as a corrosion expert for technical support</td> <td>07/22/16</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Re-plan Field Execution Schedule (FES) activities to include a process of cleaning and delivery.</td> <td>07/22/16</td> <td>10/27/16</td> <td>80</td> </tr> <tr> <td>Procure replacement spool and install in TLSB</td> <td>09/01/16</td> <td>12/7/16</td> <td>25</td> </tr> <tr> <td>Deliver to 100K Area</td> <td>09/01/16</td> <td>12/8/16</td> <td>0</td> </tr> <tr> <td>Install in 105KW Annex</td> <td>09/01/16</td> <td>01/05/17</td> <td>0</td> </tr> <tr> <td>Procure replacement instrument spools</td> <td>05/31/16</td> <td>10/31/16</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>	Risk recovery action(s)	Risk Date	FC Date	%	Contract with National Association of Corrosion Engineers (NACE), as a corrosion expert for technical support	07/22/16	Complete	100	Re-plan Field Execution Schedule (FES) activities to include a process of cleaning and delivery.	07/22/16	10/27/16	80	Procure replacement spool and install in TLSB	09/01/16	12/7/16	25	Deliver to 100K Area	09/01/16	12/8/16	0	Install in 105KW Annex	09/01/16	01/05/17	0	Procure replacement instrument spools	05/31/16	10/31/16	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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				Procure replacement instrument spools	05/31/16	10/31/16	80																																	
				Test at MASF	05/31/16	12/12/16	0																																	
Install in 105KW Basin	05/31/16	12/29/16	0																																					
<b>Recovery Action Assessment:</b> 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.																																								

Risk Title	Unmitigated Risk Impacts	Assessment		Comments								
		Month	Trend									
<b>RL-0012/WBS-012 (CAP)</b>												
STP-111-B: Contractor/Subcontractor Performance - ECRTS Annex/In-Basin Equip. Installation	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.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Very Likely (> 90%) <b>Worst Case Impacts:</b> \$792K, 96 days	●	↔	<p><b>Risk Event:</b> The project continues to experience contractor delay due to inadequate general conditions staffing. Bi-weekly notes regarding these issues are being sent to the contractor via CHPRC Contracts Department. The issues in <b>September</b> have been associated with late or missing Project Controls required data. A qualified FWS backup was found by utilizing a high risk BOA contractor for the resource. Additionally issues regarding safety pre-start paperwork has been found to have missing signatures and incorrect information, causing delays in field activities. 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><b>Recovery Action Assessment:</b> <b>No major changes in the month of September.</b> 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									
STP-144: Baseline strategy agreed to by RL and CHPRC on Transportation Safety documentation requirements for moving STSCs from the 105K West Basin to T-Plant storage is changed.	Revision to the Transportation Safety strategy (Site Requirements, Processes and Procedures) regarding shipment of STP STSCs from the 100K area Equip to T-Plant for interim storage could delay RL approval to commence operations. <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Very Likely (>90%) <b>Worst Case Impacts:</b> \$2 million, 256 days	●	↑	<p><b>Risk Event:</b> This risk has been realized. The new RL Transportation Safety Manager and the CHPRC Transportation Safety Manager have agreed to a Transportation Strategy that utilizes an OTRS.</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>Prepare and submit BCR for additional work scope</td> <td>7/31/16</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b> CHPRC has updated the project schedule and completed a cost estimate for this work scope to accommodate the new transportation strategy. A BCR was completed to address the additional scope. With the completion of the recovery actions, this risk will no longer be reported on in the month of October. This risk will continue to be tracked internally until it no longer poses a threat to the project.</p>	Risk recovery action(s)	Risk Date	FC Date	%	Prepare and submit BCR for additional work scope	7/31/16	Complete	100
Risk recovery action(s)	Risk Date	FC Date	%									
Prepare and submit BCR for additional work scope	7/31/16	Complete	100									
<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)												
No critical risks identified in the month of <b>September</b> .												
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)												
<b>FY2017 Risk Triggers</b> (Risk could be realized in FY2017)												

Risk Title	Unmitigated Risk Impacts	Assessment		Comments															
		Month	Trend																
<b>RL-0012/WBS-012 (CAP)</b>																			
STP-103: K Basin Pre-Operational Acceptance Testing (KPAT) & ECRTS Startup	The ECRTS equipment does not operate as expected requiring increased engineering, startup, operations, and construction Firm Fixed Price contractor support; as well as equipment replacement, procurement, and retesting. Realization of this risk would also require additional training, procedure revision, and design modifications as a result of construction testing and/or Lines of Inquiry for Readiness Review resulting in cost impacts and schedule delays.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$4.5 million, 90 days			<b>Risk Trigger:</b> 1) The ECRTS 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> <b>Mitigation Assessment:</b> No major changes in the month of September. 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																	
<b>Unassigned Risks</b> (Pending ownership of identified threats/opportunities)																			
No unassigned risks identified in the month of <b>September</b> .																			

### CRITICAL PATH SCHEDULE

The critical path flows through disassembly, cleaning, & inspection of the ECRTS 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* which 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	8/27/2018	The forecast date includes schedule margin from the Project's risk analysis. Project schedule margin is 105 days. This is an improvement of one day in August. The forecast schedule was revised, based on knowledge learned from MPAT testing and the revised start of KPAT testing.

\*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.

# 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



September 2016  
CHPRC-2016-09, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

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

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

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME 15_D_401 KW Basin Sludge Removal Project		a. FROM (YYYYMMDD) 2016 / 08 / 22	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2016 / 09 / 30	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> X YES <input type="checkbox"/> (YYYYMMDD) 2019 / 09 / 18			

<b>5. CONTRACT DATA</b>								
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 302,730	g. CONTRACT CEILING 303,653	h. ESTIMATED CONTRACT CEILING 302,730	i. DATE OF OTB/OTS (YYYYMMDD)

<b>6. ESTIMATED COST AT COMPLETION</b>				<b>7. AUTHORIZED CONTRACTOR REPRESENTATIVE</b>			
	MANAGEMENT ESTIMATE AT COMPLETION (1)	CONTRACT BUDGET BASE (2)	VARIANCE (3)	a. NAME (Last, First, Middle Initial) Dickerson, Kala K	b. TITLE Prime Contract Compliance Manager		
a. BEST CASE	285,598			c. SIGNATURE			d. DATE SIGNED (YYYYMMDD)
b. WORST CASE	299,677						
c. MOST LIKELY	294,780	295,873	1,093				

<b>8. PERFORMANCE DATA</b>																	
CAPN.PBS Control Account.PARS 2 WBS (2)  ITEM (1)	CURRENT PERIOD						CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (9)	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)	
	WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)							
RL-0012 SNF Stabilization & Disp																	
RL_0012_C1_1.16 Sludge Treatm	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 Bas	4,610	4,278	3,919	-332	359	83,876	83,603	76,247	-272	7,356	0	0	0	129,659	128,812	847	
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	4,610	4,278	3,919	-332	359	240,737	240,464	233,032	-272	7,432	0	0	0	286,520	285,598	923	
f. MANAGEMENT RESERVE														9,183			
g. TOTAL	4,610	4,278	3,919	-332	359	240,737	240,464	233,032	-272	7,432	0	0	0	295,703			
<b>9. RECONCILIATION TO CONTRACT BUDGET BASELINE</b>																	
a. VARIANCE ADJUSTMENT																	
b. TOTAL CONTRACT VARIANCE									-272	7,432				295,703	285,598	10,105	

CLASSIFICATION (When Filled In)

CLASSIFICATION (When Filled In)

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

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

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME 15 D 401 KW Basin Sludge Removal Project		a. FROM (YYYYMMDD) 2016 / 08 / 22	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2016 / 09 / 30	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> X YES <input checked="" type="checkbox"/> (YYYYMMDD) 2019 / 09 / 18			

WBS.Resp Org Group  ITEM (1)	CURRENT PERIOD					CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL COST WORK PERFORMED	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED	VARIANCE		COST VARIANCE	SCHEDULE VARIANCE	BUDGET	BUDGETED	ESTIMATED	VARIANCE
	WORK SCHEDULED (2)	WORK PERFORMED (3)	(4)	SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	(9)	SCHEDULE (10)	COST (11)	(12a)	(12b)	(13)	(14)	(15)	(16)
3G - K Basin Oper & Plateau Remediation Project	4,610	4,278	3,919	-332	359	240,737	240,464	233,032	-272	7,432	0	0	0	286,520	285,598	923
<b>b. COST OF MONEY</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>c. GENERAL AND ADMINISTRATIVE</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>d. UNDISTRIBUTED BUDGET</b>														0	0	0
<b>e. SUBTOTAL (Performance Measurement Baseline)</b>	4,610	4,278	3,919	-332	359	240,737	240,464	233,032	-272	7,432	0	0	0	286,520	285,598	923
<b>f. MANAGEMENT RESERVE</b>														9,183		
<b>g. TOTAL</b>	4,610	4,278	3,919	-332	359	240,737	240,464	233,032	-272	7,432	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																				
												Dollars in: FTE																				
<b>1. CONTRACTOR</b>			<b>2. CONTRACT</b>				<b>3. PROGRAM</b>				<b>4. REPORT PERIOD</b>																					
a. NAME CH2M HILL Plateau Remediation Company			a. NAME Plateau Remediation Contract				a. NAME 15_D_401 KW Basin Sludge Removal Project				a. FROM (YYYYMMDD) 2016 / 08 / 22																					
b. LOCATION (Address and ZIP Code) Richland, WA			b. NUMBER RL14788				b. PHASE				b. TO (YYYYMMDD) 2016 / 09 / 30																					
			c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES (YYYYMMDD) 2019 / 09 / 18																									
<b>5. PERFORMANCE DATA</b>																																
WBS.Resp Org Group			FORECAST (Non-Cumulative)																													
ORGANIZATIONAL CATEGORY (1)			ACTUAL CURRENT PERIOD (2)			ACTUAL END OF CURRENT PERIOD (Cumulative) (3)			SIX MONTH FORECAST BY MONTH (Enter names of months)						ENTER SPECIFIED PERIODS				AT COMPLETION (15)													
									+1 OCT 2016 (4)		+2 NOV 2016 (5)		+3 DEC 2016 (6)		+4 JAN 2016 (7)		+5 FEB 2016 (8)				+6 MAR 2016 (9)		REMAIN FY17 (10)		FY18 (11)		FY19-LC (12)		ATCOMPLETE (13)		(14)	
3G - K Basin Oper & Plateau Remediation Proj			75			6273			89		93		86		83		78		84		513		492		0		0		0		7790	
<b>g. TOTAL DIRECT</b>			75			6273			89		93		86		83		78		84		513		492		0		0		7790			

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 012- RL-12 SNF Stabilization and Disposition				a. FROM (YYYYMMDD)  2016/08/22	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE				b. TO (YYYYMMDD)  2016/09/30	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE No                    X                    Yes                    (YYYYMMDD)    2009 / 09 / 18					
<b>5. Evaluation</b>									
<b>Direct Projects</b>									
	Budget	Earned	Actuals	SV in \$	SV in %	CV in \$	CV in %	SPI	CPI
Current:	4,609.8	4,278.1	3,919.1	-331.7	-7.2%	359.0	8.4%	0.93	1.09
Cumulative:	240,736.6	240,464.1	233,032.5	-272.5	-0.1%	7,431.7	3.1%	1.00	1.03
	BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:	286,520.3	285,597.6	922.7	0.3%	0.86	0.88			
<b>Explanation of Variance/Description of Problem:</b>									
Current Period: Schedule Variance: Within Threshold									
Cost Variance: Within Threshold									
Cumulative To Date: Schedule Variance: Within Threshold Cost Variance: Within Threshold									
<b>Impact:</b> Schedule Impact: None identified at this time – project is within threshold.									
The project continues to pursue acceleration of the first sludge container from the current plan of May 12, 2018 (non-risk adjusted date). The project is on schedule to meet TPA milestones M-016-177 "Complete 105-KW Sludge Transfer Equipment Installation" by 9/30/2017 and M-016-175 "Begin Sludge Removal from 105-KW Fuel Storage Basin" by 9/30/2018.									
Cost Impact: None identified at this time.									
The current ETC reflects the expected overall costs and further ETC adjustments will be considered as final equipment is moved to K-Basin. Production equipment continues to be disassembled, packaged and shipped to K-Basin for initiation of installation activities. Currently, the EAC is projecting \$285.6M overall for the project, against a life-cycle budget of \$286.5M.									
<b>Corrective Action:</b> Schedule: No corrective actions identified in the month of September.									
Cost: End of the year pass backs resulted in a \$300 credit in this account. The project is in the process of verifying all CACNs for 12.16 are closed, after year-end credits finalized. An evaluation will be performed to assure all final contract costs and adjustments are reflected in the accounts, prior to closing. (Action CAMS. October 31, 2016).									
<b>Monthly Summary (to include technical causes of VARs, Impacts) and Corrective Action(s):</b>									
1. Schedule Margin Analysis: Project schedule margin is 105 days. The forecast schedule was revised, based on knowledge learned from MPAT testing and the revised start of KPAT testing (to begin in stages, as discussed above). There were no baseline changes in September which affected the schedule margin. Project continues to evaluate schedule for efficiencies.									
2. IMS Data dictionary Changes: None in the month of September.									
3. Forecast Schedule with No Baseline: None in the month of September.									
4. UB Balance: N/A									
5. Negative ACWP: None in the month of September.									
6. EAC Analysis: Best Case = \$285,598; Most likely = \$294,780; Worst Case = \$299,677.									
7. Negative CV > VAC: N/A									
8. MR Transactions: BCR-012C-16-032R0 moved \$1.5M into MR, as a result of a decrease in the negotiated subcontract value; BCR-012C-16-033R0 moved \$0.3M into MR as a result of a change in FY2017 & FY2018 G&A rates; BCR-012C-16-034R0 moved \$1.5M from FY2016 MR to FY2017 MR, resulting in a net zero change to MR; BCR-012C-16-037 utilized \$0.4M of MR due to the realization of risk STP-144, Change to Baseline Transportation Safety Strategy.									
9. Freeze Period Changes: In the month of September BCR-012C-16-037R0, RL-012 STSC Shipping Authorization Documentation MR Draw, implements changes during the CHPRC EVMS freeze period (current accounting month plus one). Per CHPRC-00003, Project Control System Description (PCSD), section 4.3, Baseline Change Management, changes during the freeze period are allowed to address emerging risk items that are unplanned, in-scope work that has not been initiated that warrant a drawdown of MR, such as the change in the shipping authorization documentation requirements implemented by this BCR.									
10. Retroactive Changes: None in the month of September.									
11. EVT Changes: None in the month of September.									
<b>Prepared by:</b>			<b>Date: 10/13/16</b>			<b>Approved by:</b>			<b>Date:</b>